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REPORT ON VITAL STATISTICS

P. P. BHATNAGAR

of the Indian Administrative Service
Superintendent of Census Operations, Uttar Pradesh

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NOTE

The author considers it his duty to state that the statements made and conclusions drawn in the *report on 'Vital Statistics'* are author's own and do not necessarily reflect or represent the views or policies of the Government.

PREFACE

The Report on Vital Statistics as a part of Census publications is being published in this State for the first time. It is based on data collected from various sources and is a modest attempt to piece together valuable information relating to vital statistics. Indian vital statistics suffer from grave deficiencies, with the result that they fail to meet the needs of demographers, public health workers and medical men. Still they serve some useful purpose, even though it be only to focus attention on the extent and nature of the deficiencies. The 1961 Census has very clearly demonstrated that the growth of population has undergone accelerations, in a large measure due to the sharp decline in the death rate. This downward trend in mortality is continuing, and should be expected to continue in the future also. In such a situation, registered statistics have an added significance, particularly for chalking out health programmes, family planning programmes and population prognosis. Every precaution has been taken to ensure accuracy, still some errors factual or otherwise, are bound to creep in. They are much regretted.

Collection of data for this Report commenced prior to Enumeration. It took considerable time and labour to copy out the data from manuscript records, so kindly made available by the Director of Medical and Health Services, Uttar Pradesh. The task of eliciting information was particularly difficult, as numerous records were not available owing to the damage caused by the unprecedented floods of October, 1960. In spite of the best co-operation extended by everyone concerned, the data for certain years could not be had from any source. In this connexion, the help given by Dr. Murthy, Assistant Director Epidemiology Branch is especially acknowledged.

As the analysis of vital statistics with reference to its future trends would have remained incomplete without taking note of positive measures undertaken in this regard, particularly those of family planning, *a Note on the Physiology of Conception and Birth Control Measures* has been added at the end.

I am grateful to the authorities of the maternity hospitals of Kanpur, Lucknow, Agra, Varanasi, Allahabad, Meerut, Bareilly, Gorakhpur, Dehra Dun and Faizabad for supplying data relating to hospital maternities which have been used in Chapter II.

A large number of books and publications have been consulted in the writing of this Report, which have been acknowledged at proper places. I owe a debt of gratitude to the authors of these books and publications.

Collection of information and preliminary work in connexion with this Report was entrusted to Shri Fateh Bahadur Nigam, Statistician of my office, and the preparation of Tables to Shri Shyam Narain Bhatnagar, Statistical Assistant. I am thankful to them for the pains they took in this behalf.

Above all, I am extremely grateful to Shri A. Mitra, Registrar General, for his guidance and encouragement and to the Vital Statistics Section of his Office for detailed suggestions in regard to chapter headings and topics to be dealt with in each, which have greatly enriched the Report.

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Uttar Pradesh.

Dated Lucknow :
The 23rd November, 1964.

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INTRODUCTION

1. History of Vital Registration

Growth of population is effected by four factors—births, deaths, immigration and emigration which are taking place every day, but it is only births and deaths which are included in *vital statistics*. The recording of births and deaths is, therefore, essential. Registration has a long history. Its need was recognized as early as 1250 B. C. in Egypt, when in the reign of King Rameses II an elaborate registration system was set up. Different countries began registration of vital events in different periods and for variety of reasons. Realizing the importance, churches started keeping records of baptisms, marriages and deaths of their members in some countries from beginning of the 15th century. This system was later on extended to cover the entire community and not to church members only, and then it became a civil rather than a purely clerical responsibility. However, in some countries, such as Sweden and Finland, the clergy continued to perform the functions of registration. Credit goes to these countries for maintaining a continuous series of vital statistics indices since 1749 A. D.

2. France, Spain, England and Ireland also maintained records of ecclesiastical registration. Various other countries of Europe from the 17th century began to adopt laws making registration of still births, births, deaths and marriages compulsory. This continued in 18th and 19th centuries. The middle of the 19th century is a landmark in this respect when a number of countries of America, Oceania and Asia started to introduce compulsory registration of vital events. Realizing the need and importance of registration, countries of Africa followed suit in the present century.

3. Mere collection of vital events is of no use, unless the information is processed. The first use of these data was made by an English clergy, John Graunt. A close study led him to demonstrate four important facts which vital statistics disclosed, namely, (1) that a certain regularity exists in the occurrence of these phenomena, (2) that there is always an excess of male births over female births, but in the population alive at any moment, the number of the two sexes is approximately equal, (3) that the mortality rate is relatively high in the earliest years of life, and (4) that the death rate is lower in rural areas than in cities.

4. The publication of the above results encouraged many other workers such as Huygens in Holland and Halley in England to carry out further investigations in the same field. Much credit goes to Dr. William Farr who contributed greatly to the early development of vital statistics. He started a series of mortality statistics, analysed them and published their results. Willcox in 1833 estimated that births and deaths were being registered for about one-tenth of the world's population, but in 1933, a century later, the registration laws covered about one-half of the world's population, gradually increasing to 60 per cent in 1955.

5. India had a complex and a quasi-religious system of registering births, marriages and deaths in rural communities, although their accuracy or the use to which they were put is not known. The registration of vital events in the days of Hindu and Muslim rulers of India was, however, not obligatory. They were, however, noted by the temple priests and the *Kazis* . Matters began to improve from the middle of the nineteenth century. Registration of births and deaths in the modern connotation of the term was introduced in 1844 in Madras, in 1848 in Bombay, in 1870 in Bengal and in the next decade 1870-1880 in most other places. The Imperial Act VI of 1866 on this subject did not uniformly apply to the whole country. The provinces had their own legislation on the subject. In 1886 birth and death registration was first introduced on a voluntary basis, but made compulsory only for Municipalities. The U. P. Municipalities Act of 1916 was a decisive step in this part of the country for civil registration in the urban areas. Owing to lack of facilities registration was not made obligatory for rural areas. Formerly the reporting of births and deaths was done by the village *chaukidar* and a record thereof was maintained at the police station, which the *chaukidar* used to visit periodically. But now the duty of recording has been transferred to village Panchayats. Under the Panchayat Raj Act, 1947 it is compulsory for heads of families to report births and deaths occurring within the jurisdiction of Panchayats.

2. Scope, Meaning and Uses of Vital Statistics

6. In recent years *vital statistics* has come to mean 'facts systematically collected and compiled in numerical form relating to or derived from the records of vital events, viz., live-births, deaths, foetal deaths, marriage, divorce, separation, adoption, legitimation, recognition, annulment or legal separation,[1] In fact it includes all data derived from legally registrable events except population or morbidity data.

1. *Principles for a Vital Statistics System—Recommendations for the Improvement and Standardisation of Vital Statistics.*

7. Vital Statistics have a variety of uses. They indicate trends of births and deaths occurring among the community, the nature and incidence of diseases from which the community suffers, the seasonality of various diseases and the extent of preventive measures required to be taken against them. This information is also needed for matters pertaining to the age at which the various diseases generally occur, equal distribution between both the sexes, and areas most subject to them. It enables the State to formulate its health policies. Experienced public health administrators have described vital statistics as the 'eyes and ears of the public health worker for without them he would be blind and deaf to his responsibilities'. It provides knowledge about the relationship existing among the various factors responsible for incidence of diseases. In 1937 the Inter-Governmental Conference on Rural Hygiene held in Java passed the following resolution :—

> 'As ultimately the preventive and curative work must be organised on a basis of accurate knowledge of the diseases and disabilities in an area, the importance of collecting accurate vital statistics cannot be over-emphasised'.

8. The need of accurate and up-to-date statistical data on births, deaths, and incidence of individual diseases are necessary not only for such specialised fields as combating malaria, tuberculosis, cancer, heart disease, general epidemiology, but also for the study of problems like nutrition, maternal and child health, mental health and environmental sanitation.

9. In advanced countries where proper records are kept, vital statistics records are utilised

(i) to establish date of birth,
(ii) to establish place of birth,
(iii) to establish family relationship,
(iv) to establish fact of death,
(v) to establish cause of death, and
(vi) for purposes of marriage and divorce.

10. Availability of the diagnostic material can be useful for health examination and continuous check up of a community, and herein lies the value of the records of births, deaths, and foetal deaths, to which the vital registration organization makes its real contribution. We need vital and health statistics to diagnose the ills of the community.

11. An important use of birth registration is that it helps the health workers to get in touch with the mother and new-born child, so as to offer domiciliary service and health protection such as immunization and home-nursing. Birth records have also been used to investigate failures in various kinds of programmes, *e.g.*, birth control, family planning, etc.

12. Deaths by various causes are studied to find out what is being done and required to be done by health agencies to bring them under control. Special significance is attached to deaths occurring among infants, because mortality among them is recognized as providing a sensitive index of the general sanitary level of the community. Similarly, maternal deaths are analysed to assess the circumstances leading to them. For example, maternal deaths when studied in relation to the type of attendance (physician, trained or untrained midwife) at birth or without attendance reveal that maternal lives can be saved through skilled care of the expectant mother during child-birth. Their analysis by the place of occurrence of birth—hospital or home—the social and economic status of parents, the age of mother and birth order is extremely useful in planning maternal and child care.

13. Adequate morbidity figures are generally unobtainable from many parts of the world. In their absence the public health worker has to rely mostly on mortality figures for planning health programmes and evaluating results. Indeed, the solution of most public health problems, whether of environmental sanitation, communicable disease control or nutrition, has been revealed through the analysis of vital statistics. These data on critical analysis reveal the peculiar features of each disease or injury, its tendency to occur in certain seasons or years, and its differential effect on age, sex, occupational and economic groups.

14. In recent years instead of merely measuring the loss of life by the number of deaths, the age at death is taken into account to assess the loss in terms of 'years of productive life'. A person dying in the prime of life is a greater loss to community than a dozen dying in old age. A list of priorities for health action can be drawn up keeping in view the amout of economic loss resulting from particular causes of death or injury.

15. Besides the above uses of vital statistics, a number of government agencies use them to formulate their social and economic plans with an eye on population change, age and sex distribution. They are utilized in connexion with housing, educational, and social security programmes. Commercial firms not only base the production of commodities on vital statistics records, but also anticipate future requirements. Life insurance premia are varied in accordance with changes occurring from time to time in the expectation of life.

16. Definitions of the terms used in the discussion of vital events are necessary for correct understanding. They are given below :—

(1) *Live Birth* is the complete expulsion or extraction from the mother of a product of conception, irrespective of the duration of pregnancy, which after such separation breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.

(2) *Death* is the permanent disappearance of all evidence of life at any time after a live birth has taken place. It, therefore, excludes foetal death, which occurs prior to the complete expulsion of or extraction from its mother of a product of conception, irrespective of the duration of pregnancy.

(3) *Maternal death* is death caused to a woman by delivery or complications of pregnancy.

(4) *Foetal death*[2] is death occurring prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, the death is indicated by the fact that after such separation the foetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. This definition was recommended by the WHO Expert Committee on Health Statistics and adopted by the Third World Health Assembly.

(5) *Still birth* means late foetal death i.e., a foetal death occurring after twenty-eight completed weeks of gestation or over.

(6) *Neo-natal death* is death occurring to a child under 28 days of age.

(7) *Infant death* is death occurring to a child under one year of age.

3. Registration and Collection of Vital Statistics

17. It is by no means an easy task to set up a system that may ensure accurate and timely collection of information relating to each vital event occurring in the country, town and village for every individual. Herculean efforts are required to be made to achieve the avowed object.

18. Rules and regulations for reporting and registering vital events differ from one country to another. The general practice prevalent amongst advanced countries is that registration takes place at the village level. In many countries a single registration office covers up a large group of 50 to 100 villages, and the reporting agent in each village is provided with a notebook in which details of births and deaths are recorded datewise. At periodic intervals, a week or a fortnight, the reporting agents are required to carry the information to the registration office, where permanent registers are maintained. In the registration of vital events, accuracy rather than speed should be most important, but in the case of epidemics and outbreaks of infectious diseases the primary consideration must be speed.

19. No uniform procedure has been adopted for collecting vital statistics all over India. Generally the village *chaukidar*, watchman, or headman is required to report births and deaths, etc., to some local authority such as the police, which maintains regular registers. This type of registration system has severe shortcomings. The *chaukidar* is often an illiterate, ill-paid and overburdened official. Since the system of collecting information about births and deaths in rural areas proved defective, the responsibility for the registration of these vital events was entrusted to the village Panchayats from 1951 under the U. P. Panchayat Raj Act, 1947. Under this Act the reporting of births and deaths is obligatory on the part of the head of the family. Unfortunately the hope of its framers has not been realised, and gaps in registration are now far more than before.

20. In urban areas the reporting of every birth and death within three days of the occurrence is the primary responsibility of the head of families, keepers of hotels, *dharamshalas*, etc. To avoid omissions sweepers, midwives and *dais* have instructions to report every occurrence that comes to their knowledge. All the five Nagar Mahapalikas (Corporations) in KAVAL cities and some bigger Municipal Boards employ *Moharrirs* at burning ghats and burial grounds for recording deaths. Registration in urban areas is fairly accurate.

4. Compilation of data

21. The system of compilation differs in urban and rural areas as explained below :—

Urban Areas

(i) Municipalities—Births and deaths recorded at the Municipal Registration Offices are reported each month to the Municipal Medical Officer of Health, if one exists, or to the Executive Officer or the Secretary.

(ii) Cantonments—In Cantonments these data are reported to the Executive Officer. Monthly summaries of all births and deaths in Cantonments are then forwarded by him to the District Medical Officer of Health.

(iii) Notified Areas and Town Areas—They submit their monthly statements to the District Medical Officer of Health.

2 *Foetal, Infant and Early Childhood Mortality Vol. I* (U. N. 1954), page 4.

Rural Areas

In rural areas the primary unit or circle of registration is now the Gaon Sabha and a register of births and deaths is maintained. Compilation sheets of births and deaths are maintained by the Panchayat Secretary. On his monthly visit to each Gaon Sabha he is required to copy out the figures in his compilation sheet from village registers. The figures are then consolidated at the Block level and then submitted to the District Medical Officer of Health.

22. Three types of returns are prescribed for submission to the State Director of Medical and Health Services :—

(1) Weekly Returns—They relate to births and deaths in Municipal towns having population 30,000 and over

(2) Monthly Returns—Of both rural and urban areas

(3) Annual Returns—Of both rural and urban areas

The Weekly Return is submitted direct by the Municipal Medical Officers of Health to the State Director who compiles the figures received from various Municipalities and submits the same to Dy. Registrar General (Vital Statistics) for publication. As the District Medical Officers of Health are required to submit returns for the entire district to the State Director of Medical and Health Services by the 21st. of every month, the Monthly Return is submitted by local bodies and the Assistant Development Officer (Planning) to him. A copy of the Monthly Return is required to be sent to the Director of Economic Intelligence and Statistics, the Dy. Registrar General (Vital Statistics), and the Director General of Health Services so as to reach them by the 15th of the next month. But in many cases the dates are not strictly adhered to. The Annual Return is required to be submitted by the District Medical Officers of Health to the State Director of Medical and Health Services by the 15th February of the succeeding year, but all the returns are not received by this date, which results in undue delay in the publication of the Annual Report. According to schedule the Annual Report has to be submitted to the Deputy Registrar-General (Vital Statistics) and to the Public Health Department of the State Government by the State Director by the June of the succeeding year, but there is often a great time-lag. A study of the time-lag reveals that the Annual Returns received by the State Director on checking are generally found to suffer from many deficiencies leading to unnecessary correspondence with the District Medical Officers of Health. The need and importance of timely publication of statistical data cannot be disputed, and it is desirable that bottle-necks, wherever they exist, must be removed.

23. The new system of collection of vital statistics through the agency of Panchayats has not improved matters. On the other hand there has been considerable deterioration. There is a thinking that the registration work might be handed back to the village *chaukidar* who might be paid some remuneration or given suitable incentive for the work. The scrutiny and compilation of data also needs attention. It is not only essential that the data are received in time, but also that the entire registration area has been completely covered. Uptil now there is no fool-proof method in the State Medical and Health Directorate to know the completeness or otherwise of weekly or monthly returns and the number of Development Blocks or villages missing in a particular district. This seriously affects the reliability of the data. There is a proposal to establish a Central Compilation Bureau at Lucknow to receive the basic reports directly from collecting agencies to avoid mistakes creeping in at intermediate levels. Some States have already set up their Central Compilation Offices. Madras was the first, and West Bengal, Punjab and Andhra Pradesh have followed suit. The state of affairs in regard to the collection and compilation of vital statistics is far from satisfactory. This important work needs especially trained staff, both in technique and administration.

5. Limitations and Reliability of Registered Data

24. Indian vital statistics have long been known for inaccuracy. The deficient data fail to meet the needs of demographers and public health and medical workers. If only a little more attention were paid to the collection and compilation of data, much useful vital information could be obtained. The remark of Prof. Clark that people often speak about population growth in India as if they were dealing with ascertained facts, but in truth, our knowledge is very uncertain and our conclusions should, therefore, be tentative is quite true and points to the great amount of inaccuracy in our vital data. The inaccuracy lies not merely in under-registration, but also in reporting of the causes of deaths.

25. Another limitation of vital statistics is the weak type of registration system obtaining in rural areas where most of the births and deaths take place. The villagers themselves, not realising the importance of such data, do not bother to report vital occurrences. The urban data too are not free from defects, but errors are not so palpable. Indifference and apathy on the part of the people, coupled with inefficient and insufficient organization, result in gross under-registration.

26. Statistics of births (live and still) and deaths quite often lack in details, such as sex, religion, age, time of occurrence, names of parents, and cause of death. One of the great defects in birth registration is that the name

of the child is not given. The under-registration of births leads to another difficult and rather embarrassing problem, that of deciding the age of an individual at any time or at death. The Public Health Commissioner to the Government of India, in his Annual Report for 1924, observes :

> 'The persistent high mortality of infants may be ascribed in part to defective registration, not only of births but of infant deaths, through the inclusion of still births, since a distinction between the two is not always made by the illiterate *chaukidar* and police *moharrir* and partly to the tendency of the more illiterate of the population to underestimate the age of the deceased infants.'

It, therefore, follows that quite often the number of infant deaths is inflated on account of incorrect recording of age. A comparative study of death registers and vaccination registers maintained in urban areas would confirm this view.

27. The successful working of social legislation in India as elsewhere, depends on the availability of accurate vital statistics. Registration of marriages is not compulsory or uniform all over India. An overwhelming number of Indian marriages and religious ceremonies are not registered. Only a small fraction are civil marriages in which registration is compulsory. Accurate vital statistics are needed not only for formulating public health programmes, but also for proving legitimacy of birth, succession, inheritance, etc. Statistics about age of marriage, fertility, health and ailments, deaths and their causes are necessary to formulate an effective health policy.

28. Almost every Commission or Committee that has inquired into some aspects of Indian economy has lamented the absence of accurate vital registration. At the third All-India Sanitary Conference held at Lucknow in 1914 the delegate representing the Government of India pleaded for more accurate vital registration as follows :

> 'In India the only certain thing we know about statistics at present is that they are highly inaccurate. They are more inaccurate in some areas than in others. We donot know the extent of their inaccuracy. We can only guess'.

The Royal Commission on Industries in India, 1916-18, the Indian Economic Enquiry Committee, 1925, the Royal Commission on Agriculture in India, 1928, the Age of Consent Committee, 1929, and the Royal Commission on Labour, 1929 have all made recommendations in favour of correct and accurate vital statistics. The Royal Commission on Labour in India 1929 examined the value of Indian vital statistics. They observed that medical certification of death even in large cities were hardly available because few sick persons saw a doctor. Deaths were registered under one or other of only six or seven heads, three of these being smallpox, cholera and plague so that by far the largest number was entered under 'all other causes.' They recommend that still births should be excluded from both birth and death registers and that they should be separately recorded. The Famine Enquiry Commission, Government of India, Report on Bengal, 1945 passed strictures on the value and validity of Indian vital and health statistics. They reported that all public health statistics in India were inaccurate. Mortality figures indicated trends in the death rate, but could rarely be accepted as absolute. Even in normal times, deaths were not fully recorded and the number of births registered might be 20 or 25 per cent below the number of births that had actually occurred. The Population Data Committee in their Report of 1945 went into the question of the organisation of the Census and Vital Registration, and commented on the nature of available Indian Vital Statistics thus :

> 'There is knowledge about them. It is well known that the birth rates and death rates run much higher than in countries of the West. And that infantile and maternal mortality rates are very much higher. But there is a great difference between declaring that piece of undoubted knowledge and stating the actual rates themselves. There is then no real contradiction between the fact that the birth and death rates in India run consistently higher and the inability to say with confidence that they are precisely this and not that particular figure. Policies and departures in policy should, however, always refer to accurately recorded facts and now that population questions in India are receiving so much attention the time has come (is in fact long overdue) for the actual organisation of the information itself to receive attention.'

The Committee recommended that the Government of India should take positive steps to bring about ultimately complete, regular and accurate vital statistics in India. The records should invariably show in the case of births, the age of the mother and the number of births and for all births and deaths should invariably show the community and means of livelihood of the parents of the child or of the deceased person. Besides, an officer should be appointed at the Centre definitely charged with the co-ordination of all information on population growth, covering not only the Census but also Vital Statistics and allied matters.

29. The Health Survey and Development Committee under the Chairmanship of Sir Joseph Bhore appointed by the Government of India in 1943 surveyed the country's health and allied problems. The Committee examined the nature and methods of registration of vital statistics and their defects. They observed, 'the term vital statistics can, in its wider sense, include information relating to a wide range of human activities, but it is usually applied to a narrower field covering births, deaths, marriages and the incidence of disease in the community. In India registration of marriage does not take place among the two communities, the Hindus and Mohammadans who together form over 90 per cent of the total population. .....We shall confine ourselves to statistics of births, deaths and morbidity. As regards the last, no country can claim reasonably accurate statistics for the population as a whole, except in the case of certain diseases which are made notifiable by law. In India the available statistics in respect of births, deaths and notifiable diseases are all defective. Such defects are associated partly with the registration of these vital events and partly with their compilation'. Defects in registration according to the Committee were mainly (i) omission to register appreciable number of births, deaths and cases of notifiable diseases, and (ii) incorrectness of the recorded cause of death. They held that reasonable degree of accuracy in the registered cause of death could be attained only by certification by a medical man who has had the opportunity of examining the patient before his death, and that the large omissions in the registration of births and deaths and errors in compilation applied also to notifiable diseases, except in the case of small-pox, cholera and plague, symptoms of which are clear to everybody.

30. Following the recommendations of the Bhore Committee, the Government of India decided to take steps for developing and improving the systematic collection of statistics bearing upon the size and growth of population. To that end a single organization under the Registrar General was established at New Delhi to deal with population statistics including vital statistics. Central legislation to regulate vital registration in the country is believed to be in the offing.

31. Medical Certification of cause of death in the international form has been recently introduced in 12 large hospitals of this State since August, 1962, covering the five KAVAL cities, in order to effect improvement in mortality statistics. The names of the Hospitals in which this scheme has been enforced are :

(i) Sarojini Naidu Hospital, Agra
(ii) Lady Lyall Hospital, Agra
(iii) Lajpat Rai Hospital, Kanpur
(iv) Employee's State Insurance Hospital, Kanpur
(v) Alice Horseman Memorial Hospital, Kanpur
(vi) Medical College Hospitals, Kanpur
(vii) Balrampur Hospital, Lucknow
(viii) Dufferin Hospital, Lucknow
(ix) Gandhi Memorial & Associated Hospitals, Lucknow
(x) Dufferin Hospital, Allahabad
(xi) Lovett Hospital, Ramnagar (Varanasi)
(xii) Ishwari Memorial Hospital, Varanasi

6. Good and Bad Areas of Registration in India

32. Vital Statistics play an important role in assessing the health of a nation. In India registration of births and deaths is not perfect. Registration of these events is non-existent in some parts of the country and incomplete in varying degrees in many.

33. Shri S. P. Jain, the Census Actuary of 1951 Census and now Dy. Registrar General (Vital Statistics) divided the States and Union Territories of India into four zones after the last Census according to the degree of completeness and efficiency of registration as under :

(1) Areas from which birth-death registration data were available for all the three decades 1921-30 to 1941-50 and where omissions were not large, and the registration could be regarded as reasonably satisfactory. These areas comprised Madras, Coorg, Bombay, Madhya Pradesh, Punjab, Ajmer-Merwara and Delhi excluding 'merged areas'.

(2) Areas for which birth-death registration were available for all the three decades 1921-30 to 1941-50 but registration could not be regarded as satisfactory. They were Uttar Pradesh, Bihar, Orissa, West Bengal, Assam (Plains) and Mysore, excluding 'merged areas' within these States.

(3) Areas from which births and deaths data were available only for 1941-50, but registration could not be regarded as reasonably satisfactory. They were Hyderabad, Travancore-Cochin and Himachal Pradesh.

(4) Areas from which no data were available at all. Such areas were Assam (Hills), Manipur, Tripura, Saurashtra, Kutch, Madhya Bharat, Bhopal, Vindhya Pradesh, Rajasthan, PEPSU, Bilaspur, Jammu & Kashmir and 'merged areas' in other States.

34. There was a slight extension in registration areas during 1951-60. Jammu & Kashmir and the towns of Rajasthan were included. But still some areas in Orissa, Rajasthan and West Bengal remained without any arrangement for registration.

The accuracy of registration has gone down all over during the decade, and has declined even in areas where

it used to be high. Madras and Punjab have not fared so badly, but Bihar, Uttar Pradesh and West Bengal are now the worst registration areas. Up to 1940 the registered data of Uttar Pradesh were fairly accurate and reliable, after which conditions worsened. During 1941-50 the registered birth rate was 24·8 as against the computed rate of 38·6 per thousand. In the next decade the gap further widened, the registered birth rate declining to 15·9 and the computed rate rising to 41·5 per thousand. It is a paradox that a system of registration which was quite efficient in some States and not too deficient in others should have in these years of development have deteriorated so much that it has become of little use.[3]

3 *State Growth Rates and their Components by Shri S. P. Jain.*

CHAPTER I

VITAL STATISTICS (REGISTERED)

1. Growth Rates

This Chapter deals with such registered vital data as could be made available by the office of the Director of Medical & Health Services, U. P. Complete data for 1951 and from 1956 to 1960 were obtained from there but very few for the years 1952-55. These could not be available as they had been washed away in the unprecedented floods of October, 1960. This hiatus has seriously affected the analysis of registered data. Some data were also obtained from the *Health Statistics in India.*

2. Births and deaths are among the most important events of the human life. There is a close relationship between these vital events and the pattern of life. Besides births and deaths, the incidence of diseases by age and sex and disabilities resulting therefrom need to be correctly and faithfully recorded, as they are required for planning health services. Government have made laws that births and deaths should be reported with necessary details as and when they occur. If reporting is complete and basic records are correctly maintained, the changes in numbers recorded by the Census every ten years should tally with the sum total of births and deaths during the same period, leaving a small margin for net balance of migration. The existence of compulsory registration laws does not mean that the vital events specified therein are completely registered. Nor does it indicate the ability to produce adequate statistics on births, deaths and marriages. Registration of births and deaths is defective to such an extent that almost no reliance can be placed on the registered data.

3. As observed by Coale and Hoover, 'High birth rates result from social beliefs and customs that necessarily grow up if a high death-rate community is to continue in existence.'[1] High birth rates and high death rates which are specialities of an agrarian low-income society are effected by economic changes and alterations in the mode of living . In an urban society children are more of a burden than in a rural setting. In India, however, the differential fertility between city and rural areas is slight or even non-existent. Urbanization alone will not be sufficient to bring about reduction in the birth rate. Nor is it by any means certain that small changes in the economic pattern or a slight rise in per capita income will reduce fertility.

4. In Uttar Pradesh growth rate as derived from registered birth and death rates tallied more or less with the mean decennial growth rate obtained from Census data up to 1941, but it fell appreciably behind in 1941-50 and far too short of it in 1951-60, as the following Table will show :

Table 1·1: Registered and Census (Gross and Mean Decennial) Growth Rates for Uttar Pradesh

Decade	Natural Increase Rate (Regd.) Per Cent	Growth Rate (Census) Per Cent	Mean Decennial Growth Rate (Census) Per Cent
1901–10	2·2	(—) 1·0	(—) 1·0
1911–20	2·1	(—) 3·1	(—) 3·1
1921–30	8·4	6·7	6·4
1931–40	12·3	13·6	12·7
1941–50	8·3	11·8	11·2
1951–60	6·7	16·7	15·4

The above Table indicates that at present there is gross under-registration of both births and deaths, but more so of births than of deaths and also that the extent of under-registration is growing.

5. Before 1921, population growth in all parts of the country, including Uttar Pradesh, was erratic. It was only after 1921 that it assumed a definite trend. The decrease of population during 1901–10 is attributed to famine, malaria, and the plague. The next decade 1911-20 witnessed the severe influenza epidemic, and consequently the population declined in most parts of the country. Mr. Edye in his Census Report of 1921 attributed the variation in population "to disease, relatively to which all other influences are insignificant to some extent to plague, cholera and malaria but overwhelmingly to the influenza epidemic". The registered data, however, show a slight increase in the population during these two decades. This is due to under-registration of deaths which had occurred in large numbers in that period. There was noticeable improvement in the next decade, and then a period of unprecedented growth commenced. Mr. Turner observed, "the outstanding feature of the decade 1921–30 has been its freedom from epidemics in a serious form and the rela-

1 *Population Growth and Economic Development in Low-Income Countries* by Coale and Hoover, page 10.

tively high general standard of public health". During the decade 1931–40 growth rate experienced acceleration. On the whole, the decade was healthy, and the State was relatively free from serious epidemics. The incidence of cholera, plague and small-pox had fallen, and anti-malaria schemes had been put in force. The decade 1941-50, though free from famine conditions and severe epidemics, was a troubled period. It saw the ravage of the Second World War, scarcity, short supplies, political unrest, attainment of Independence, and communal disturbances. The first half of the decade was not healthy, but the conditions improved in the latter half. The result of all these was to slow down the growth of population to some extent. The next decade 1951-60 saw settled times. Incidence of disease was further brought under control. The birth rate increased, and the decennial growth reached an all time high mean rate of 15·4, not surpassed in any previous decennium. The registered data, on the other hand, have shown a continuous sharp fall in growth rate obviously on account of gross under-registration of births.

2. Births and Deaths correlated to Growth of Population

6. There is an obvious relationship between births, deaths and the growth of population. The following Table gives the registered birth and death rates in Uttar Pradesh for each decade since 1901 (computed rates from Census data given within brackets). Registered birth and death rates from 1901 to 1950 have been taken from the U. P. Census Report, 1951 pp. 73 and 83 and from 1951 to 1960 from the data obtained from the Director of Medical and Health Services. The computed birth rates for the period from 1901 to 1940 have been taken from page 74 of the U. P. Census Report. Those of the period from 1941 to 1960 are based on the calculations of Shri S. P. Jain.

Table 1.2 : Birth and Death Rates (Regd.) in Uttar Pradesh (1901-60)

Decade	Decennial Birth Rate	Decennial Death Rate	Decennial Natural Increase Rate
1901–10	41·7	39·5	2·2
	(41·7)	(42·7)	(—1·0)
1911–20	42·9	40·8	2·1
	(44·0)	(47·1)	(— 3·1)
1921–30	34·0	25·6	8·4
	(39·9)	(33·5)	(6·4)
1931–40	34·2	21·9	12·3
	(38·8)	(26·1)	(12·7)
1941–50	24·8	16·5	8·3
	(38·6)	(27·2)	(11·4)
1951–60	15·9	9·2	6·7
	(41·5)	(24·9)	(16·6)

The above Table reveals that between 1901–20 both birth and death rates were high, the latter being higher. The margin of error was small. The quality of registration deteriorated after 1921 mainly due to the reduction of a large number of village *chaukidars* in 1922. Taking the birth rate as 40 approximately, the death rate during 1921-30 was about 34. The quality of registration improved to some extent during the next decade. The birth rate for 1931-40 is believed to have been 39, hence the death rate should be near-about 26. A very sudden drop in the death rate occurred during 1921–30 and a further drop of considerable magnitude in 1931-40. The excess of births over deaths in 1921-30 and 1931-40 resulted in a large growth of population. The registered data erroneously show that the birth rate commenced to fall steeply from 1941 onwards, and both the birth rate and the death rate have come down almost to the level of materially advanced countries of the West! The birth rate continued to be the same during 1941-50; the death rate showed a slight rise increasing to 27. During 1951-60 the birth rate manifested an upward trend, but the death rate has came down to 25 resulting in a natural growth.

7. The variation in population was nominal during 1901-20, appreciable in 1921-30, high in 1931-40, registering a slight recession in 1941-50 and a steep rise in 1951-60. The birth rate has not shown very great fluctuation except for a significant fall in 1921-30, probably as an after-effect of the influenza epidemic which changed the age composition of the population. Variation in the death rate has so far been the principal determining factor in the population growth. The loss of population till 1921 was due to famines and epidemics. The decline in death rate since then has been due to better distribution of foodgrains in times of scarcity and the progress made in medicine and public health in combating disease and scourges like the plague, cholera and small-pox. Infants who were victims of respiratory diseases could now be forturnately saved with new drugs. The widening gulf between the birth rate and death rate is mainly responsible for the phenomenal rise in the State growth rate between 1931 and 60.

3. Registration of Births and Deaths

8. Before the integration of the princely states the registration area in Uttar Pradesh covered the whole of the State excluding the former States of Tehri Garhwal, Rampur and Banaras and small enclaves comprising 5·6 per cent of the total area of this State and 2·4 per cent of the total population in 1941. The registration area has since been extended to these territories also and at present it comprises the whole of the Uttar Pradesh. But previous data are available for the former registration area only. Since, however, the parts which were not under

registration or for which vital statistics are not available covered a small area, and were in all respects similar to the neighbouring districts of this State, it can be safely assumed that the birth and death rates of the registration area are representative of the entire State for the earlier period also.

Though vital statistics for different periods are not quantitatively comparable on account of the vagaries of registration, the data of the same period can be made to yield some qualitative results.

4. The Birth Rate

Birth Rates by Sex

9. The distribution of births by sex and year and their rates for Uttar Pradesh during various decades from 1921 are given in the Appendix. There has always been a greater number of births of males than of females, as is the case everywhere else, as the following Table will show:

Table 1.3: Birth (Registered) by Sex in Uttar Pradesh (1921-30 to 1951-60)

Decade	Number of Births		
	Persons	Males	Females
1921–30	15,921,016	8,411,956	7,509,060
1931–40	17,667,306	9,372,753	8,294,553
1941–50	14,479,317	7,792,842	6,686,475
1951–60	10,919,788	5,965,681	4,954,107

10. The Appendix further shows that during 1951-60 the maximum birth rate was in 1951, which continued to show a downward trend till 1957, whereafter there was slight rise. In fact, this downward trend does not represent the true state of affairs. It is the result of further deterioration in the registration of births, particularly in the rural areas, as would appear from the difference of the actual mean decennial growth rate of population and the growth rate thrown up by registered data.

11. Examining the birth rate for each year separately from 1951-60, it would again appear that the male birth rate is every time higher than the female birth rate, which fits in with the universal law. The following Table gives the birth rates (registered) of each sex from 1951–60:

Table 1.4: Birth Rate (Registered) by Sex in Uttar Pradesh (1951 to 1960)

Year	Male	Female
1951	10·77	8·96
1952	9·50	7·92
1953	9·46	7·82
1954	9·09	7·58
1955	8·35	7·06
1956	8·43	6·99
1957	8·14	6·68
1958	8·67	7·16
1959	8·30	6·90
1960	9·08	7·53

Thus the gap between male and female birth rates is about 1·5 per thousand. Multiplying this by 2·6, which is the ratio between the number of births estimated from Life and ajusted Age Tables and registered births, the gap between male and female births is of the order of 3·9 per thousand.

Birth Rates by Natural Divisions

12. Uttar Pradesh can be divided into 5 natural divisions. Names of districts in each natural division are given as under:—

Himalayan: Uttar Kashi, Chamoli, Pithoragarh, Tehri Garhwal, Garhwal, Almora, Naini Tal and Dehra Dun.

West Plain: Bijnor, Moradabad, Budaun, Rampur, Bareilly, Pilibhit, Shahjahanpur, Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Aligarh, Mathura, Agra, Etah, Mainpuri, Farrukhabad, Etawah and Kheri.

Central Plain: Kanpur, Fatehpur, Allahabad, Sitapur, Hardoi, Unnao, Lucknow, Rae Bareli, Bara Banki, Faizabad, Sultanpur and Pratapgarh.

East Plain: Bahraich, Gonda, Basti, Gorakhpur, Deoria, Azamgarh, Jaunpur, Ballia, Ghazipur and Varanasi.

Hills and Plateau: Jhansi, Jalaun, Hamirpur, Banda and Mirzapur.

13. The mean decennial birth rates for the State and the natural divisions for the decades 1901-10 to 1951-60 are given in the following Table:—

Table 1.5: Mean Decennial Birth Rates (Registered) in Uttar Pradesh and Natural Divisions (1901-10 to 1951-60)

Decade	Uttar Pradesh	Himalayan	West Plain	Central Plain	East Plain	Hills and Plateau
1901-10	41·7	37·1	44·3	41·4	38·6	42·7
1911-20	42·9	35·9	45·1	43·2	40·1	45·5
1921-30	34·0	34·7	38·9	30·8	30·0	36·2
1931-40	34·2	36·5	39·3	30 0	30·4	38·3
1941-50	24·8	29·3	29·5	20·2	21·8	27·6
1951-60	15·9	23·9	19·6	13·4	12·6	16·7

14. The above Table shows that generally the birth rate is in this descending order: West Plain, Vindhyan Hills and Plateau, Himalayan Hills, Central Plain and East Plain. Contrary to the general belief, the eastern districts have a lower birth rate which might be due either to lower fertility prevailing there or greater extent of under-registration in that area or both.

Birth Rates—Rural and Urban

15. Decennial birth rates for 1921-30 and onwards are given below with rural and urban breakdown :

Table 1.6 : Mean Decennial Birth Rates (Registered) for Rural and Urban Areas (1921-30 to 1951–60)

Decade		Birth Rate (Registered)	Decade		Birth Rate (Registered)
1921–30	T	34·0	1941-50	T	24·8
	R	33·4		R	23·5
	U	41·9		U	32·9
1931–40	T	34·2	1951–60	T	15·9
	R	34·0		R	13·7
	U	35·6		U	30·7

It may be mentioned at the outset that areas treated as urban in the Annual Reports of the Director of Medical and Health Services, are not identical with areas recognized as urban at the Census, there being some differences. This requires to be borne in mind while studying the data.

16. The above Table shows that the rural birth rate is consistently lower than the urban birth rate, which goes against the accepted notion. The reason for higher birth rates in urban areas is chiefly due to a more efficient system of registration. As urban data are more reliable, inter-decade analysis of urban birth rates can be hazarded. The mean decennial birth rate in urban population has been showing a continuously downward trend. It dropped by 6·3 per thousand during 1931-40, by 2·7 during 1941-50 and further 2·2 during 1951-60. The total drop during 30 years has been 11·2 per thousand. Despite all this fall, the birth rate is still high. It is nearly double the rates obtaining in the countries of North, West and Central Europe and in the United States and Canada.

Birth Rate in Cities (Population 100,000 and above)

17. As has been indicated earlier, the recorded birth rate in urban areas is generally higher than in the rural areas, because of a more satisfactory system of registration. In cities generally the registration machinery is even more efficient and there are no large omissions. The birth rate is further augmented as many women of neighbouring areas come to cities for confinement on account of better medical facilities available. Birth rates for the 17 cities of Uttar Pradesh are given in the following Table :—

Table 1.7 : Mean Decennial Birth Rates (Registered) for Cities of U. P. (1921-30 to 1951-60)

Cities in order of Population	1951–60	1941–50	1931–40	1921–30
1. Kanpur	26·3	27·0	35·2	32·7
2. Lucknow	30·0	34·3	40·4	38·7
3. Varanasi	40·3	39·5	49·3	48·7
4. Agra	46·9	48·7	51·3	48·9
5. Allahabad	26·2	29·0	37·3	38·0
6. Bareilly	18·3	34·2	40·0	31·5
7. Meerut	29·4	32·0	29·1	22·3
8. Saharanpur	35·4	35·8	43·0	47·5
9. Aligarh	20·2	24·4	36·9	43·7
10. Gorakhpur	25·9	25·6	33·1	35·8
11. Moradabad	33·4	40·6	46·3	47·9
12. Jhansi	33·6	42·3	40·5	36·3
13. Rampur	6·1	N·A.	N.A.	N.A.
14. Dehra Dun	22·9	24·0	32·2	23·2
15. Mathura	39·6	39·0	45·3	43·8
16. Shahjahanpur	32·0	30·7	32·5	40·1
17. Mirzapur-cum-Vindhyachal	31·1	34·2	42·5	44·5

N.A.=Not Available

18. The above Table shows that the birth rate of cities generally showed a very slight increase in 1931-40 from 1921-30, and since then it is steadily coming down. Cities which have manifested an increase during 1951-60 as compared with the previous decade are Varanasi, Gorakhpur, Mathura and Shahjahanpur. While the data are more trustworthy than for rural area, too much reliance should not be placed when making comparisons from decade to decade. Among the cities considering all the 4 decades together, Agra has the highest birth rate followed by Varanasi, and Dehra Dun the lowest, followed by Meerut. For Rampur, figures for the previous decades are not available, and that for 1951-60 is too low.

5. Mortality

General Considerations

19. The study of mortality is of extreme service for determining the factors which contribute to the well-being of the society. In the words of William Farr, 'There is a definite task before us to determine from observation the source of health and the direct causes of death in the two sexes at different ages and under different conditions. The exact determination of evils is the first step towards their remedies'. Unfortunately, the registration of deaths and their causes suffers from grave defects. Mortality statistics can serve a useful purpose only when the total number of deaths is classified by causes and also by age, sex, occupation and community. The correctness of causes of death is obviously dependent upon medical diagnosis. The

basis of mortality statistics should be residence, but they are usually compiled according to the place of death. On account of hospital facilities provided by cities and towns, quite many births and deaths occur therein, which would otherwise have taken place in villages where the persons concerned usually reside. Owing to the operation of this factor, mortality statistics of small areas get vitiated and fail to serve as a true index of health conditions of those areas. Age reporting is defective to such an extent that the precise estimate of death rates by ages becomes very difficult. The greatest difficulty is encountered in estimating the death rate among infants and children.

20. The level of mortality varies from one demographic group to another. Mortality indices partly depend on biological factors, such as sex, age and physical health of individuals and partly on social and environmental factors, such as locality, occupation, social and economic position, and marital status. These two kinds of factors are operating all the time. Mortality among males, as a rule, is higher than among females throughout the entire span of life, such being the law of nature for which no universally accepted reason exists. Perhaps it is due to the difference in the constitutional structure of the two sexes—the male suffering from deficiency of one chromosome which might make him more vulnerable to illness and death. But in India the female death rate is high, particularly in the reproductive period. The result is that in large parts of the country males outnumber females in every age-group, except the very highest. Age also plays an important part in deaths. Mortality is invariably higher in the youngest age-groups and age-groups of 50 years and above than in the middle age-groups. This is a universal pattern, which holds true irrespective of all other considerations.

Social and Environmental Factors

21. The level of education, sanitation and general living, social consciousness, and the availability of preventive and curative measures against diseases all play a very important role in the health of a nation. The position with regard to India has been given in the Report of the Health Survey and Development Committee, 1946, as follows:

> 'The maintenance of the public health requires the fulfilment of certain fundamental conditions, which include the provision of an environment conducive to healthful living, adequate nutrition, the availability of health protection to all members of the community, irrespective of their ability to pay for it, and the active co-operation of the people in the maintenance of their own health. The large amount of preventible suffering and mortality in the country is mainly the result of an inadequacy of provision in respect of these fundamental factors. Environmental sanitation is at a low level in most parts of the country, malnutrition and under nutrition reduce the vitality and power of resistance of an appreciable section of the population, and the existing health services are altogether inadequate to meet the needs of the people, while lack of general education and health education add materially to the difficulty of overcoming the indifference and apathy with which the people tolerate the insanitary conditions around them and the large amount of sickness that prevails'.

22. Climate has a profound effect on the general health of the community. A cool and fairly dry climate is good for health, while hot and moist climate is deterimental. Many diseases of tropical countries do not exist in cold climates. Malaria, for instance, requires a moderately high temperature for effective multiplication of mosquitoes which are carriers of infection. The seasons too have their influence on public health. Quite a number of diseases are seasonal in character, appearing in certain seasons. The cold season in the country is particularly healthy.

23. Except for better preventive and curative devices existing in them, cities are less healthy than villages where the air, water and food are fresh and clean. The air of the cities is polluted by the large number of people constantly breathing therein and by contamination with smoke and industrial gases. Close living and overcrowding lead to rapid spread of infection. Housing condition have a direct effect on the health of inmates. Ill-constructed and congested houses are not conducive to health and increase the incidence of infectious diseases. The larger the number of persons per room, the greater the chances of infection spreading. Apart from these, the city life has certain other dangers as well to health. The nature of work, more often than not, is indoor and sedentary, devoid of physical exercise. There is continuous din and bustle and constant hurry. Life moves so fast that its strain gets beyond endurance, resulting in high blood pressure and diseases of the nervous system and the heart. Moreover, owing to the continuous stream of fast vehicles on the road and fastworking machinery there is an added danger to life and limb. From all these considerations the cities are more deadly than villages.

24. Occupation too has an effect on a person's health. Some occupations are more hazardous than others and claim a higher mortality. Sedentary occupations, such as officework apparently carries the least hazard, but in the long run are ruinous to health.

25. Marital status too has its own effect on health and mortality. Unfortunately, reliable data of mortality by marital status are not available in this country. But this subject has been studied by some western authors such as Benjamin[2], Hauser and Duncan[3], and others. They have observed that in married males mortality is lighter than in single and widowed persons at all ages, and in married females at younger ages. In older women it is much the same for all marital conditions. The differentials are usually larger for men than for women. They arise from differences in the habits and living conditions of the married and unmarried. However, married women are subject to certain diseases to a greater extent, such as cancer of the uterus and the breast, apart from the risks in childbearing. Where maternal mortality is high, the death rate of young married women is higher than that of single woman. These observations it must be added, apply to happily married couples. An unhappy marriage leads to morbidity and shortening of life through tension, but perhaps unhappy marriages are for fewer than happy, or at least placid marriages.

26. Economic status and standard of living have a direct influence on mortality. People with good sources of income can afford to live in better houses, eat better food, and obtain better medical care than those who are not so fortunately placed. On the whole they and their families live a healthier life, and the visits of death are less frequent. Infant mortality is visibly lowered and the child survival index goes up. 'Differences in the survival rate between one income group and the other are considerable. The figures clearly bring home the heavy toll of life that poverty and filth claim among the children in lower income classes and how the survival rate increases with the rise in income which brings relatively improved amenities of sanitation and health'.[4]

Death Rates by Natural Divisions and Rural/Urban

27. The mean decennial death rates for the State and the natural divisions are given in the following Table since 1901 :

Table 1.8 : Mean Decennial Death Rates (Registered) in Uttar Pradesh and Natural Divisions (1901-60)

Decade	Uttar Pradesh	Himalayan	West Plain	Central Plain	East Plain	Hills and Plateau
1901-10	39·5	29·3	42·8	41·3	35·0	37·5
1911-20	40·8	34·5	44·5	42·2	35·5	41·4
1921-30	25·6	27·5	28·9	30·7	22·3	28·1
1931-40	21·9	24·6	25·1	19·6	19·3	23·9
1941-50	16·5	19·3	18·7	13·8	15·3	19·2
1951-60	9·2	13·3	10·9	8·5	7·6	18·9

It will be seen that the death rate of the State registered a rise till 1920, after which it declined very rapidly. In reality the decline was not so rapid as indicated. The steep fall is due to a certain amount of under-registration. If necessary corrections are applied the computed death rates for the decade 1921-30 would be 33·5 and for successive decades 26·1, 27·4 and 26·1 respectively. The greatest improvement took place during 1921-30 followed by the next decade 1931-40.

28. The Table shows that the death rate differs widely from one natural division to the other. On the whole, the West Plain manifests the highest death rate. Other natural divisions in the descending order are the Hills and Plateau, the Central Plain, the Himalayan Hills, and the East Plain. Contrary to the general belief the eastern districts appear to have a lower death rate which may be a fact or may be due to greater extent of under-registration in those areas. Comparison of birth and death rates in natural divisions shows that those with a high birth rate have a high death rate, and those with a low birth rate have low death rate.

29. Decennial death rates from 1921-30 onwards are given in the following Table for total, rural and urban :

Table 1·9 Mean Decennial Death Rates (Registered), for Rural and Urban Areas (1921-60)

Decade		Death Rate (Registered)	Decade		Death Rate (Registered)
1921–30	T	25·6	1941–50	T	16·5
	R	24·8		R	15·6
	U	35·9		U	22·5
1931–40	T	21·9	1951–60	T	9·2
	R	21·5		R	8·5
	U	24·8		U	13·9

Comparing the rural and urban death rates for the same decade, it becomes apparent that the urban death rate is higher than the rural. To some extent this is correct, but partly it is also due to better recording of vital statistics in urban areas. However, the extent of under-registration of deaths in towns appears to be some what greater than that of births. The registered urban birth rate for the decade 1951-60 is 30·7 while the registered death rate is only 13·9.

30. Nevertheless, the reduction of deaths has been going on at a faster rate in the urban areas than in the rural, owing to the advancements made in medical science

2 B. Benjamin, *Elements of Vital Statistics*.

3 Hauser and Duncan, *The Study of Population*.

4 D. N. Majumdar, *Social Contours of an Industrial City*.

and improvement in sanitation. The urban population receives better medical aid, as more medical facilities exist in cities and towns. The struggle against death and disease has borne better fruit in towns than in villages.

Death Rate in Cities (Population 100,000 and above)

31. The death rates for the cities of the State are given in the following Table :

Table 1.10: Mean Decennial Death Rates (Registered) for Cities of U.P. (1921-1960)

Cities in order of Population	1951-60	1941-50	1931-40	1921-30
1. Kanpur	19·7	23·2	29·9	40·0
2. Lucknow	13·0	22·2	28·6	38·3
3. Agra	12·8	28·5	32·6	34·9
4. Varanasi	22·9	42·4	47·6	53·1
5. Allahabad	9·3	19·5	24·1	28·6
6. Meerut	6·6	15·2	15·8	15·6
7. Bareilly	6·5	22·2	23·6	21·4
8. Moradabad	15·6	23·9	29·2	37·2
9. Saharanpur	12·6	26·2	36·1	43·1
10. Dehra Dun	4·3	13·6	22·8	20·6
11. Aligarh	8·4	15·0	21·8	35·7
12. Rampur	3·0	N. A.	N. A.	N. A.
13. Gorakhpur	9·7	18·6	25·6	27·4
14. Jhansi	12·2	29·4	28·3	27·8
15. Mathura	12·3	24·4	32·0	38·4
16. Shahjahanpur	12·5	21·2	20·4	29·8
17. Mirzapur-cum-Vindhyachal	12·8	20·8	24·5	26·6

N. A.=Not Available

The above Table reveals that the death rate in cities as well has been falling steadily and the steepest decline has occurred between 1951-60. The death rate of cities is undoubtedly higher than that of villages, but in respect of epidemic control they are more fortunate. It takes much less time to stem the tide of an epidemic in a city by concerted municipal and public health efforts than in the rural area. Among the 17 cities, Varanasi has the highest death rate for which special reasons exist. Hindus from far and near prefer to pass their last days at Varanasi wishing to die there, because according to a religious belief people dying in that holy city attain salvation. Saharanpur, Kanpur and Agra are next in descending order. Saharanpur has a humid Tarai climate and Kanpur and Agra are large congested cities. The lowest death rate has been reported from Meerut and the next lowest from Dehra Dun. As regards Rampur the figures for earlier decades are not available, and those for 1951-60 do not appear to be too reliable.

32. There seems to be a definite connexion between high birth and high death rates and low birth and low death rates. Agra and Varanasi both have high birth and high death rates and Dehra Dun and Meerut both have low birth and low death rates.

Deaths by Causes

33. In certain advanced countries the medical practitioner who attends to a person in his illness is required in the case of death to give a certificate stating the cause of death. Such a certificate is of great utility in the statistical classification of causes of mortality.

34. The plague, cholera, small-pox and malaria used to take a heavy toll in the past wiping out large populations. Improvement in sanitation, destruction of carriers, and the introduction of preventive measures such as vaccination and inoculation have brought these diseases under control. The largest number of deaths is ascribed to fevers, a general term including typhoid, malaria, influenza and all diseases in which the body temperature rises above the normal. Apart from the plague, cholera and small-pox, the diseases next in importance to fevers are respiratory diseases, the chief ones being pneumonia and pulmonary tuberculosis. Then come water-borne diseases, such as dysentery and diarrhoea. Deaths from other causes include deaths from injuries, snake-bites, etc. The following Table gives the percentage of deaths from major causes of six decades. Registration for the plague, cholera and small-pox can be deemed to have reached a fair standard of accuracy, but for fever it is most faulty. Among fevers the heaviest mortality is from malaria.

Table 1.11 : Percentage Distribution of Deaths from Major Causes (1901-60)

Decade	Per cent Deaths due to			
	Fever	Plague	Cholera	Small-pox
1901–10	71·7	7·0	3·4	0·7
1911–20	73·9	5·9	3·1	0·3
1921–30	75·4	3·6	3·5	0·5
1931–40	77·1	1·9	2·0	0·9
1941–50	77·5	1·6	3·8	1·2
1951–60	66·6	N	1·1	2·7

N=Negligible

The plague which used to be a mass killer in the past has been almost totally eradicated. During the decade 1951-60 the total number of deaths from this disease has been 17,506 of which 16,768 have been reported from rural and 738 from urban areas. The years 1959 and 1960 were completely free from deaths due to the plague. In 1958 too the number was only 4, though in the opening years of the decade it was considerable. However, the incidence of small-pox has increased from 1·2 per cent to 2·7 per cent during the decade.

35. The following Table gives the actual number of deaths from the plague, cholera and small-pox :—

Table 1·12 : Number of Deaths from Plague, Cholera and Small-pox (1901-1960)

Decade	Total Deaths	No. of Deaths from Plague	Cholera	Small-pox
1901-10	18,747,113	1,305,474	634,537	140,801
1911-20	18,819,255	1,112,380	582,819	56,775
1921-30	11,993,248	429,136	420,891	60,247
1931-40	11,333,226	211,413	222,669	105,353
1941-50	9,668,671	156,521	363,194	112,820
1951-60	6,318,738	17,506	71 647	168,900

36. After 1920 the plague seems to have lost its former virulence. Anti-rat campaign by trapping, baiting and cyano-gassing, anti-flea measures with D. D. T. and anti-plague inoculation effectively reduced the incidence of this disease.

37. Progress in the control of cholera has been relatively slow, the disease flaring up again and again in an epidemic form but during 1951-60 there has been considerable improvement. Sterlization of drinking water, prohibition of exposed food for sale, and anti-cholera inoculations are resorted to whenever this disease raises its head. Rigorous enforcement of anti-cholera measures in important *melas* has made them safer to attend, and they are no longer held in dread.

38. Small-pox has, however, been persisting. Its eradication is now being done with the help of the World Health Organization. The Government of India appointed an Expert Committee in 1958, as a result of which pilot projects were started. In Uttar Pradesh the project is located at Sultanpur. Inaugurating the Anti-Small-pox Week in September, 1963, the late Prime Minister, Pt. Jawahar Lal Nehru observed, "The countries that had systematic campaigns had now completely eradicated small-pox, but in our country, in spite of vaccination having been in vogue for more than one hundred years, small-pox epidemics have been recurring with periodic cyclicity every five to seven years claiming a heavy toll of life". Small-pox, besides taking a heavy toll of life, also causes blindness and disfigurement in many. It has been completely eradicated in many advanced countries of the world, where people adhered to a rigid system of vaccination. In this country due to superstitious beliefs, people are not enthusiastic about vaccination. India and Pakistan are the biggest reservoirs of small-pox in the world. Due to its easy communicability it is a source of danger to us as well as to those countries which conquered it long ago.

39. The highest mortality in Uttar Pradesh is from fevers. Of this malaria takes the largest toll. It not only causes a large number of deaths, but also saps the vitality of the people. It is now yielding to the world-wide campaign against it, which is saving two million lives every year. The recent decline in Uttar Pradesh is due to the large-scale measures taken in this regard. As a result of special precautions taken by the malaria control units large tracts of the Tarai have now become habitable. Malaria incidence is greater in those areas where there is damp climate, water-logging, and bad sanitation. Water-logging breeds mosquitoes the anopheles species of which acts as the carrier of the disease. Mosquito breeding can be controlled by prevention of water-logging, pouring of mineral oil on the surface of pools, and the use of insecticides. Considerable success has already been achieved in this direction.

40. Of the remaining causes of death, tuberculosis is the greatest threat. Many of the deaths occurring from pulmonary tuberculosis are confused with deaths from respiratory diseases. With increasing industrialization and congestion in urban areas, incidence of this disease and consequent deaths therefrom have gone up. Poor state of health, unsatisfactory living conditions, and absence of proper nutrition increase susceptibility to tuberculosis. Kanpur, the industrial metropolis of this State, has the largest incidence of tuberculosis. Work on the cause and prevention of this disease is being carried on at several clinics aided by the Uttar Pradesh Tuberculosis Association. In order to reduce its incidence a large-scale campaign for B. C. G. vaccination as an anti-tubercular measure has been undertaken. The impact of mass vaccination will be visible after 1966, when the vaccinated persons will belong to the age-group 15–30 years, the period at which tuberculosis causes the highest mortality.

41. Diarrhoea and dysentery, epidemic dropsy, deficiency diseases and many others are responsible for quite a large number of deaths. For the control of beriberi and epidemic dropsy which are more prevalent in the rice-eating eastern districts of the State, *argemone mexicana* used for the adulteration of mustard oil has been declared as poisonous and action is taken under the Uttar Pradesh Prevention of Adulteration Act.

42. Cancer, though it does not claim a large number of lives, is now growing into a formidable enemy. Since it is difficult to diagnose the disease in its initial stage, cure at a late stage becomes difficult. It is hoped that researches into the causes and cure of cancer will bear fruit, and this fell disease will cease to be a great menace which it happens to be at present.

43. Maternal mortality should be a rare occurrence, beacuse in course of nature child-birth need not cause the death of the mother at all. Pre-natal and post-natal maternal care and qualified medical attendance at the time of birth will certainly lead to fewer maternal deaths. In all under-developed countries including India incidence from maternal deaths is sufficiently high. During 1921-30 maternity and child welfare work was introduced in this State on an organized basis. The prohibition on child marriage has also helped in the decline of maternal mortality.

44. The following Table gives the maternal death rate for the 17 cities of this State for the years 1951, 1955 and 1960 :

Table 1.13 : Maternal Death Rates (Registered) for Cities of U. P. (1951, 1955 and 1960).

		Maternal Deaths per 1,000		
	City	1951	1955	1960
1	Kanpur	11·8	10·8	11·8
2	Lucknow	1·4	1·5	0·2
3	Varanasi	4·7	0·7	0·5
4	Agra	1·8	0·1	N.A.
5	Allahabad	2·5	3·2	1·4
6	Bareilly	1·8	3·1	5·7
7	Meerut	2·6	N.A.	6·2
8	Saharanpur	1·8	2·1	0·7
9	Aligarh	4·4	4·7	4·2
10	Gorakhpur	2·2	N.A.	1·8
11	Moradabad	4·1	2·8	2·3
12	Jhansi	N.A.	N.A.	N.A.
13	Rampur	5·7	4·0	1·1
14	Dehra Dun	3·8	2·1	0·3
15	Mathura	1·7	1·7	5·1
16	Shahjahanpur	3·8	1·5	1·6
17	Mirzapur-cum-Vindhyachal	1·9	N.A.-	2·1

N. A.—Not Available

Kanpur has the highest mortality rate followed by Aligarh, However, exact comparability on account of different standards of registration is difficult.

Mortality by Age and Sex

45. Mortality is highest in infancy and early childhood for both sexes, then the risk of death appreciably lessens. It again increases after a certain age. In every country more boys are born than girls, but the balance is soon restored by nature which kills off more males than females at each successive stage, though, as said earlier, the death rate here among females in certain age-groups is so high that the balancing effect of nature does not become operative except at a considerably advanced age.

46. It is proposed to take up two decades for the study of the age and sex pattern of mortality. The first decade is 1921-30 and the other, 1951-60. The figures of deaths have been taken from the Annual Reports and the mean decennial population of the respective age-groups has been worked out from the Tables of the 1921, 1931, 1951 and 1961 Censuses. The ratio of deaths to the mean decennial population in a particular age-group gives a rough indication of the death rate in that age-group. The age and sex pattern of mortality for 1921-30 is given in the following Table :—

Table 1.14 : Age & Sex Pattern of Death in U. P. (1921-30)

Age in Completed Years	Male Deaths	Female Deaths	Percentage of Deaths to Mean Population	
			Males	Females
0 (Infants under one year)	1,542,394	1,292,589	206·1	177.3
1—4	1,205,272	1,094,083	47·7	42·4
5—9	344,709	300,166	10·2	10·0
10—14	231,333	195,859	7·7	8·2
15—19	188,810	188,749	8·5	10·1
20—29	467,960	501,804	10·7	12·3
30—39	496,737	458,250	13·7	13·9
40—49	521,096	395,048	19·9	16·9
50—59	581,235	424,414	36·9	29·6
60 +	854,439	749,302	77·3	65·5
Total	6,393,985	5,599,283	25·4	24·5

The undermentioned conclusions follow from the above Table :—

(1) Mortality continuously declined till the age of 15 in both sexes after which it showed a tendency to rise with advancing age. After 50 years of age the rate rose steeply for both sexes.

(2) The male death rate was higher than the female death rate at all ages, with the exception noted in the next subpara.

(3) The death rate of females exceeded that of males in the ages 10-39, the greatest difference being in the age-groups 15-29. Thus women in the reproductive age-groups are more exposed to the risk of death. The factors responsible are the loss of vitality from repeated child-bearing and indoor household duties in overcrowded and ill-ventilated houses.

47. Similar data for 1951-60 are given in the following Table :—

Table 1.15 : Age and Sex Pattern of Death in U. P. (1951-60)

Age in Completed Years	Male Deaths	Female Deaths	Percentage of Deaths to Mean Population	
			Males	Females
0 (Infants under one year)	650,483	525,888	50·3	41·5
1—4	619,861	515,573	15·5	13·7
5—9	253,459	206,822	5·6	4·9
10—14	179,555	149,095	4·5	4·1
15—19	168,046	149,149	4·7	4·7
20—29	223,147	216,268	3·8	4·1
30—39	255,366	218,369	5·4	5·2
40—49	305,200	231,476	8·6	7·5
50—59	348,090	257,715	14·5	12·5
60 +	480,623	364,553	25·9	19·5
Total	3,483,830	2,834,908	9·7	8·7

The above Table gives a far smaller number of deaths for the decade than for the decade considered previously, but that is not the chief point, because to a very large extent the difference is due to under-registration. The same tendencies as exhibited by the decade 1921-30 are more or less in evidence in this decade, but the age-groups are substantially different, as will appear from the following.

(1) Mortality has shown a continuous decline till the age of 15 in both sexes as before.

(2) There has been a rise in the mortality rate in the age-group 15-19.

(3) Mortality has again declined in the next age-group 20-29. In fact, the age-group 20-29 has the lowest mortality rate in both sexes.

(4) From the age of 30 the mortality rate progressively increases with advancing age. After 50 years of age the rate rises steeply for both sexes.

(5) The male death rate is higher than the female death rate at all ages, with the exception noted in the next subpara.

(6) The death rate of females exceeds that of males only in the age-group 20-29, but the gap is now much smaller.

48. The comparison of the two sets of figures shows that apart from the general decrease in the death rate, the mean age of the population and the expectation of life have made a substantial improvement during the last 30 years and that females are no longer subject to the same high rate of mortality during their reproductive years as used to be the case in the past, on account of the general improvement in health and better attention paid at the time of confinement.

6. Infant Mortality

General Causes

49. For demographic and statistical purposes, all children under one year of age are considered infants, hence *infant mortality* refers to deaths of children of less than one year. Infant death rate may be defined as the number of infant deaths that occur per thousand live births in any population in one calendar year. Thus, infant mortality ignores both foetal deaths or still births and takes into account only live births and infant deaths.

50. The largest number of children die in their first year. Even in infants the risk of death decreases as time passes. About 50 per cent of infant deaths occur in the first month and 30 per cent between the second and the sixth months. Thus four-fifths of deaths occur during the first half-year and one-fifth during the second half. It further shows that the infant faces the greatest risk in the first few weeks of his life. Deaths in early infancy are to a great extent due to such causes as birth injuries, congenital malformation etc., while in later years to infection and parasitic diseases.

51. The importance of infant mortality cannot be overemphasized. The infant death rate is perhaps the most sensitive index of health conditions as the first year continues to remain as the most vulnerable period of life even in advanced countries. A high infant death rate shows poor and insanitary environment. A precise study of infant mortality requires adequate information regarding the physical condition of the mother, her age, the order of birth, interval between successive birth, age of the infant at the time of death, medical aid rendered, and various social and economic factors. While data on the above items may be considered as almost the barest minimum, information on many is not available. Data oncauses of death in infancy and early childhood as well as on causes of foetal deaths are extremely deficient on account of poor diagnosis or inadequate reporting of the correct cause. Diagnosis of infant diseases is particularly difficult. In the words of Dr. F. J. W. Miller the difficulty of diagnosing diseases in infancy is so great that sometimes no opinion can be given even by experienced physicians. In these circumstances it becomes difficult to investigate the causes of infant mortality scientifically.

52. Many causes of infant mortality can be traced directly to the mother. The general health of the mother comes first. It is well known that a woman in a poor

state of health cannot give birth to healthy offspring. The age of the mother and the order of birth also play a great part. Infant death rates are higher when the mother is either too young or old enough to be on the verge of menopause. The chance of the survival of the first baby is too remote if the mother is very young Repeated pregnancies without proper spacing lessen the chances of survival. Birth order also assumes significance after a few births. 'Too many births to the same mother lessen the chances of survival for the children born last. The lowest mortality rates usually occur among second children. Although the risk of death does not increase substantially until the fifth birth, it then rises sharply, so that tenth or late children have only half as much a chance of survival as do second children.'[5]

53. Deaths of new-born infants are often the result of causes which come into operation long before the birth, sometimes as far back as the time when existence was in the shape of merely a fertilized ovum. As a consequence, the child is born with certain handicaps which render it unfit to carry on the struggle of existence. Premature birth also renders a child prone to sickness and death. It is caused by the poor health of the mother, weakness of the uterus, injury, shock, and formation of excessive fluid. Death of the mother as a result of confinement or from any other cause in the early life of the infants also puts him under a disadvantage in his fight for life.

54. Besides the above certain cultural and social factors are also responsible for infant mortality. The condition of the lying-in-room where the expectant mother is usually kept is mostly far from hygienic. It is often dark and dingy, ill-ventilated and devoid of fresh air. Frequently it is near to the privy. Under these conditions the mother and the infant are exposed to any and every kind of infection. The other important cause of high infant mortality is the time-honoured custom to call in an unqualified *dai* ignorant of the nature of her work and of the elementary rules of hygiene. These factors create circumstances which cause not only a large number of infant deaths, but also a large number of maternal deaths.

55. Faulty feeding and malnutrition due to ignorance, carelessness or lack of means also are important contributory factors. Other deaths can be traced to ailments, such as fever, convulsions, diptheria, respiratory diseases, bowel complaints, and to serious infectious diseases appearing in an epidemic form.

56. Other factors remaining the same, poverty is an important cause for the high incidence of infant mortality. Income plays an important part in determining where a family should live in reasonably clean locality or in a disreputable slum. The poorer sections can also ill-afford proper nutrition and medical aid in the event of sickness. Titmus has established from official data in England that infant mortality rates gradually increase as one goes down in income. In the family planning enquiry conducted by D. N. Majumdar's team at Kanpur 1,525 married women, mostly of lower income groups were interviewed. It was established that the economic level has a profound effect on mortality and survival of children as the following Table would illustrate :—

Table 1·16: Loss and Survival Index in Relation to Income Level

Income	Percentage of Loss	Percentage of Survival
Below Rs. 50	44·5	55·5
Rs. 51-100	39·9	60·1
Rs. 101-200	30·2	69·8
Over Rs. 200	24·9	75·1

Infant Death Rates

57. The computed infant death rate is 186 per thousand for Uttar Pradesh which is the highest in India. The registered infant death rate of Uttar Pradesh has ranged between 85 and 129 during 1948-60 as the following Table will show :—

Table 1.17: Infant Death Rates in U. P.

Year	Rates	Year	Rates
1948	109	1955	99
1949	95	1956	105
1950	104	1957	97
1951	129	1958	103
1952	129	1959	85
1953	122	1960	92
1954	110		

This Table shows that the registered infant rate which was 129 in 1951 came down to 92 by 1960. Though infant mortality has shown some improvement over the years,

5 U N. 1954, *Foetal, Infant and Early Childhood Mortality*

yet to quite a large extent the fall is due to progressive under-registration. The infant death rate has fluctuated a good deal, the years 1951 and 1952 being the worst years.

58. Analysing the infant death rate by rural/urban it will be evident that the rate is higher in urban areas than in the rural. Partly, it is because of better registration and, partly, because of unhealthy surroundings and overcrowding found in urban areas.

Table 1·18: Infant Death Rates by Rural and Urban in U. P. (1948-60)

Year	Infant Death Rates		Year	Infant Death Rates	
	Rural	Urban		Rural	Urban
1948	93·0	169·0	1954	105·0	128·0
1949	80·0	158·0	1955	94·0	111·0
1950	92·0	151·0	1956	102·5	112·5
1951	129·0	130·0	1957	95·9	100·8
1952	125·0	144·0	1958	99·5	113·3
1953	118·0	134·0	1959	83·0	91·2
			1960	90·8	94·6

59. An analysis of the infant death rates for cities shows that a wide divergence exists among them. The following Table gives the infant death rates for the years 1956 to 1960 for the 17 cities of the State :—

Table 1.19: Infant Death Rates for Cities of U. P. (1956-60)

Cities (Corporation/ Municipalities)	Infant Death Rates				
	1956	1957	1958	1959	1960
1. Kanpur	215·6	223·9	190·6	142·6	165·0
2. Lucknow	95·8	96·5	141·2	101·8	88·0
3. Varanasi	160·8	124 8	127·4	115 6	112·0
4. Agra	92·9	52·8	85·2	81·4	60·0
5. Allahabad	92·5	84·0	73·0	64·7	73·0
6. Bareilly	103·8	75·7	95·7	78·1	82·0
7. Meerut	54·7	48·1	56·0	44·9	44·0
8. Saharanpur	120·5	115·6	124·8	108·1	100·0
9. Aligarh	101·7	89·1	149·8	75·8	101·0
10. Gorakhpur	90·9	68·0	82·8	70·1	61·0
11. Moradabad	116·4	149·6	96·0	118·7	94·0
12. Jhansi	114·1	126·2	112·5	90·8	108·0
13. Rampur	34·8	46·5	23·7	37·5	18·0
14. Dehra Dun	62·3	77·9	67·4	45·6	56·0
15. Mathura	83·9	62·1	77·3	59·9	76·0
16. Shahjahanpur	114·2	77·1	102·8	92·0	100·0
17. Mirzapur-cum-Vindhyachal	142·0	98·8	108·4	105·7	93·0

60. The low infant death rates of certain cities might be due to under-registration. Kanpur has the highest infant death rate due to overcrowding and the pollution of air by smoke. A large number of families of mill labourers dwell in congested localities and occupy sub-standard houses beyond the reach of the sun and fresh air.

CHAPTER II

HOSPITAL MATERNITIES

1. Nature & Scope of Study

India has a high birth rate. This is to a very large extent due to marriages taking place at a comparatively younger age and being almost universal and to the conjugal habits of the people. For the study of important characteristics of the fertility pattern and the family-building habits of the people, data were collected from the hospitals of Kanpur, Lucknow, Agra, Varanasi, Allahabad, Meerut, Bareilly, Gorakhpur, Dehra Dun and Faizabad on especially prepared cards. The scheme was to investigate 5,000 cases, but only 2,515 filled-up cards (excluding those of still births and multiple births) were received. The results presented are consequently based on a limited number of cases; for certain characteristics only a few cards, sometimes even a single card, supply the basis. This circumstance imposes severe restrictions on the study undertaken in this chapter.

2. The advantage of maternity services even in large cities accrues only to a small fraction of population. First, hospital maternity is not yet popular, secondly, even for those who would like to go to hospitals there are not enough beds. Generally maternity cases coming to the hospitals are of selected type. The earlier orders of births have a weightage, particularly the first. Among Hindus the trading classes are more hospital-minded than others, and among Muslims, craftsmen and unskilled workers. Thus hospital maternity data do not yield an objective picture of the fertility pattern of even the urban population. These limitations are required to be kept in view while interpreting them.

3. Maternity cards elicited information about (a) the sex of the child, (b) birth order, (c) age of the mother at each child-birth, (d) number of children alive and dead, and (e) religion, occupation, and income. Since the population from which these cases come is not known, the data do not furnish material for working out birth rates.

4. A study of birth statistics for the period 1946-48 by order of births had been under taken by Shri S. P. Jain, now Deputy Registrar General Vital Statistics, in 1950 and data relating to 684,925 births for the period 1946-48 were collected from 30 municipal towns of India including the first ten towns of Uttar Pradesh namely, Kanpur, Lucknow, Agra, Varanasi, Allahabad, Meerut, Bareilly, Moradabad, Saharanpur and Aligarh. The percentages of births in each births order as they appeared in that investigation and those obtained from hospital maternity data in 1961 are comparted in the following Table :

Table 2·1 : Percentages of Births in each Birth Order in Hospital Maternities and 30 Municipal Towns

Birth Order	Hospital Maternities 1961 Per cent	30 Municipal Towns 1946-48[1] Per cent
1st	27·7	21·0
2nd	18·9	19·6
3rd	14·8	16·7
4th	12·7	13·1
5th	10·4	9·4
6th	6·1	6·9
7th	4·0	4·8
8th	2·6	3·3
Higher Orders	2·8	5·2
All Births	100·0	100·0

The two sets of percentages differ. The proportion of first births in the data obtained from hospital maternities is much higher and of the births of the 9th and higher orders much lower than in the statistics collected from 30 municipal towns 15 years earlier.

5. The age at first maternity is not the same for all countries. From the birth statistics collected in the aforesaid investigation and those published for the U. S. A., Australia, and England & Wales for 1946 it appeared that the average for India was 21·9 years, for U. S. A. 24·4, for Australia 25·8, and for England & Wales 26·7. The average maternity age for 'all birth orders' also differed. For India and the U. S. A. it was 27·2 years, for Australia 28·4, and for England & Wales 29·5[2]. From these data two conclusions can be drawn: (1) child-bearing in the materially advanced countries of the West commences at a comparatively later age and (2) there are more births of higher orders in India, which raise the average age of 'all birth orders' bringing it at par with the average for the U. S. A.

1 S. P. Jain, *A Study in Birth Order Statistics of India.*

2 *Ibid.*

2. Average Maternity Ages for various Types of Mothers

6. The most important factor affecting fertility is the span of child-bearing age. The data collected through maternity cards reveal that the upper limit is 47 years and the lower 12 years. These are only the maximum and the minimum of maternity ages. What is more important is the average age of maternity for various characteristics for each order of birth. An analysable trait is the degree of fertility from which point of view mothers can be classed into four categories —those who have produced (1) 10 or more children—the most fertile, (2) 7-9 children—again very fertile, (3) 4-6 children, and (4) 1-3 children. The third and fourth categories comprise mothers of all types, as the limit of fertility has not been reached in their case and some of them may eventually may have a large number of children. It would be convenient to choose some birth orders, say the 1st, 4th, 7th and 10th and to work out averages for these orders of births for the four categories of mothers as in the following Table:

Table 2.2: Average Maternity Ages (years) at selected Birth Orders for various Categories of Mothers

Birth Order	All Mothers	Mothers having Children			
		10 +	7–9	4–6	1–3
1st	19·4	17·2	18·0	18·5	20·0
4th	25·8	22·5	24·6	26·3	..
7th	30·9	27·8	31·4	..	..
10th	34·2	34·2	..	..	..

The average age for each birth order is the lowest in mothers of the confined fertility, and it progressively increases as we proceed to those who have given fewer births. The average maternity age of women coming for their first confinement is 20·4 years. They represent those who have entered the field of maternity most recently and exhibit a welcome trend towards later age at the first child-birth.

3. Average Maternity Ages by Communities

7. Data collected through maternity cards were analysed for such characteristics as community, occupation and income and average maternity ages worked out for each order of birth. Only current births were taken into account. Table 2.3 gives the average maternity age for each birth order by communities, which can be regarded as the age at which maternity of a given order of birth is concentrated. The corresponding number of cards in each case is given within brackets.

Table 2.3: Average Maternity Ages for each Birth Order by Communities

Birth Order	Average Maternity Age (years) for				
	All Communities	Hindus	Muslims	Christians	Others
1st	20·4 (697)	20·4 (615)	20·1 (71)	20·0 (2)	23·1 (9)
2nd	22·5 (476)	22·6 (417)	22·3 (53)	20·7 (3)	24·7 (3)
3rd	25·4 (371)	25·2 (332)	25·9 (32)	26·0 (2)	24·6 (5)
4th	27·1 (321)	27·1 (286)	27·0 (29)	25·7 (3)	27·3 (3)
5th	29·0 (261)	29·1 (232)	28·0 (24)	24·0 (1)	25·3 (4)
6th	30·4 (154)	30·5 (142)	30·4 (10)	.. ..	26·0 (2)
7th	31·9 (100)	32·1 (88)	30·1 (10)	.. ..	31·0 (2)
8th	34·2 (65)	34·2 (59)	34·0 (5)	38·0 (1)	.. ..
Higher Orders ..	35·5 (70)	35·4 (64)	36·7 (4)	.. ..	33·5 (2)
All Orders ..	25·1 (2,515)	25·2 (2,235)	24·5 (238)	24·5 (12)	25·6 (30)

8. The difference between the average age at first maternity and the average age for 'all birth orders' is 4·7 years in the general case, and the percentage of births of the 4th and higher orders is 38·6. The average age of Hindu mothers at first maternity is 20·4 years, of Muslim 20·1, and of Christian 20·0. The slightly later age among Hindus at the birth of the first child is probably due to (1) the *gauna* taking place sometime after the marriage in certain sections of the Hindu society and (2) the existence of a greater proportion of higher income groups among hospital-confined Hindu mothers. The average age should normally go up with the order of birth, but there are certain deviations as would be apparent from the Table. They have been caused by (1) the sample not being representative, (2) the study being confined to current births alone, and (3) the availability of only a small number of cases for certain birth orders.

Hindus

9. Hindu mothers whose cases came up for study belong to all income groups, the largest number to the income-group Rs. 75-150. The average age at first maternity from hospital data is higher in Hindus than in Muslims and Christians for almost every birth order up to the 8th. The differences between the ages at

successive births do not appear to follow any definite pattern. They wax and wane in an erratic manner. The difference is greatest between the 2nd and 3rd birth orders and smallest between the 5th and the 6th. Being numerically the largest community the averages of maternity ages for Hindu mothers for the various birth orders correspond most closely with the averages for all communities taken together. The difference between the average age for the 1st maternity and for 'all births' is 4·8 years. The percentage of births of the 4th and higher orders is 39·0 which is slightly greater than the percentage of 38·6 in the general case. This may perhaps be due to the greater preference shown by the Hindu community for hospital maternity in births of higher orders.

Muslims

10. Muslim mothers whose cases have been studied mostly belong to the lowest income group, i.e. to families having monthly income below Rs. 75. The age at first maternity is earlier in Muslims than in the general case and the difference between the averages for the first birth order and 'all birth orders' is also smaller, i.e. 4.4 years. The interval between the average ages at the 2nd and 3rd birth orders is very considerable—3·6 years and that between the 4th and 5th orders only one year. The number of cards after the 5th birth order is, however, too small to yield any reliable result. In the cases which came up for study the percentage of births of the 4th and higher orders is 34·5 which is less than in the case of Hindus. Perhaps there is less preference among Muslims for hospital confinement where births of higher orders are concerned.

Christians and Others

11. Only 12 cases of Christians were reported. Half of them belonged to the income group of below Rs. 75 and half to the income group Rs. 75-150. The age at first maternity according to hospital data is the lowest in Christians as compared to Hindus and Muslims. The average age for the second order of birth is only 0.7 years more than for the first. This is on account of a very small number of cases of Christians coming to the hospital for confinement during the period of study, those coming for their second confinement happening to be those who started their maternity career earlier. The number of cases in respect of Christians is so small that no valid conclusions can be drawn. The cases of 'Others' were 30. Of them 9 belonged to the Sikh religion and the religion of 21 was by mistake not recorded. No discussion regarding them is possible.

4. Average Maternity Ages by Occupation

12. Occupation of the husband plays some part in the family-building pattern. Table 2.4 gives data on average maternity ages according to occupations. The number of cards in each case has been given within brackets.

Table 2·4: Average Maternity Ages at each Birth Order by Occupation of Husband

Birth Order	Average Maternity Age (years)								
	All Occupations	I Professional and Technical	II Administrative, Executive and Managerial	III Clerical	IV Sales	V Farmers	VI Craftsmen, Production Process Workers	VII Unskilled Workers	VIII Others
1st ..	20·4 (697)	20·4 (74)	21·7 (23)	20·6 (133)	20·4 (132)	21·7 (63)	19·5 (108)	7·2 (36)	20·3 (128)
2nd ..	22·5 (476)	23·3 (57)	24·4 (17)	22·0 (112)	22·4 (94)	23·7 (35)	22·0 (75)	23·5 (17)	22·1 (69)
3rd ..	25·4 (371)	24·7 (45)	27·3 (12)	25·6 (76)	24·9 (101)	26·7 (20)	25·1 (61)	25·7 (17)	26·6 (39)
4th ..	27·1 (321)	27·0 (25)	28·2 (9)	26·8 (53)	26·5 (77)	28·1 (27)	27·1 (71)	26·8 (20)	27·5 (39)
5th ..	29·0 (261)	30·1 (24)	27·2 (6)	28·7 (52)	28·5 (68)	28·7 (19)	29·5 (47)	28·8 (13)	29·1 (32)
6th ..	30·4 (154)	30·4 (12)	31·0 (5)	30·8 (25)	30·3 (49)	30·1 (12)	30·6 (32)	32·0 (4)	29·9 (15)
7th ..	31·9 (100)	30·4 (14)	31·8 (5)	31·3 (10)	32·1 (31)	33·7 (8)	32·4 (12)	31·0 (4)	32·2 (16)
8th ..	34·2 (65)	35·8 (6)	35·5 (2)	31·8 (5)	34·4 (13)	30·7 (7)	35·1 (14)	34·0 (7)	35·2 (11)
Higher Orders	35·5 (70)	41·0 (2)	37·0 (3)	34·0 (9)	35·2 (22)	35·3 (11)	35·7 (13)	33·0 (1)	35·8 (9)
All Orders .	25·1 (2,515)	24·8 (259)	26·3 (82)	24·4 (475)	25·5 (587)	26·1 (202)	25·2 (433)	25·2 (119)	24·7 (358)

The above Table reveals that the lowest age (19·5 years) for first maternity falls in Occupational Group VI—Craftsmen and Production Process Workers and the highest (21·7 years) in Occupational Groups II and V. The lowest age for 'all birth orders' is in Occupational Group III—Clerical, and the highest (26·3) in Occupational Group II—Administrative, Executive and Managerial.

Occupational Group I—Professional, Technical and Related Workers

13. The average age for the 1st birth order is the same as for 'all occupations', but that for 'all birth orders' is 24·8 years which is earlier. This group does not represent professions of any particular class, but a motley crowd. Most of the mothers belong to families of income group Rs. 75-150. The difference between the age for 1st maternity and for 'all birth orders' is 4·4 years which is less than in the general case. The percentage of births of the 4th and higher orders is the smallest among all groups. These two things suggest some conscious effort at family planning.

Occupational Group II—Administrative, Executive and Managerial Workers, etc.

14. This is the smallest of all occupational groups the majority of families belonging to the middle class having a monthly income of Rs. 150-300. The average age at the first child-birth is 21·7 years which is highest. Marriages in families of this occupational group are usually late. The difference between the averages for the 1st birth order and 'all birth orders' is 4·6 years, and the proportion of births of the 4th and higher orders is 36·6, both of which are only slightly lower than in the general case. Thus though marriages are late there is no indication of appreciably lower fertility. Only the average maternity ages for certain birth orders, especially the earlier ones, are higher than the rest which raises the average for 'all birth orders' to 26·3 years—the highest among all groups.

Occupational Group III—Clerical and Related Workers

15. Most of the mothers belong to families having a monthly income of Rs. 75-150. This group has almost the same average age for the 1st birth 'as all occupations' taken together. The difference between the first birth order and the average for 'all birth orders' is only 3·8 years which is the smallest and the proportion of births of 4th and higher orders the second smallest. For the highest birth orders the ages are comparatively younger. There appears to be some conscious effort at family planning in this group also.

Occupational Group IV—Sales Workers

16. This group has the largest representation in hospital maternities, and about half of the families of this group have a monthly income of Rs. 75-150. The real income of this occupational group may be actually higher. The average age at first maternity is the same as for 'all occupations', but the average for 'all birth orders' is slightly different being 5·1 years, appreciably greater than in the general case. The proportion of births of the 4th and higher orders is 44·3 per cent , the highest among all groups, which shows that mothers belonging to this group have the greatest fertility. Alternatively, confinements of higher orders in the hospital may be more popular in the business community.

Occupational Group V—Farmers

17. This group is made of well-to-do hospital-minded farmers. The largest proportion of mothers belong to families with a monthly income of Rs. 75-150. The age at first maternity is as high as in the case of the second group, which suggests late marriage. The average age for 'all birth orders' is the second highest. The difference is 4·4 years which is smaller than in the general case. The percentage of births of the 4th and higher orders is 41·6 which is greater. Though marriages are late in this group, child-bearing is quick and the number of births large. There seem reason to believe that the total fertility in the cultivating class is high.

Occupational Group VI—Craftsmen and Production Process Workers

18. As stated earlier the youngest age for first maternity falls in this group. More than half of the families belong to the lowest income group and have an income of less than Rs. 75/-per month. Marriages in this occupational group take place much earlier than in others. The difference between the average age at the first birth and at 'all births' is 5·7 years, the greatest among all groups, and the percentage of births of the 4th and higher orders 43·6, both greater than found in the general case. This proves that productivity in this group not only starts earlier, but more children are born, the degree of fertility being the second highest. However , unlike the previous group intervals between successive births are not too short.

Occupational Group VII—Unskilled Workers of all Kinds (Domestic Servants, etc.)

19. This is the poorest occupational group, most of the families earning less than Rs. 75 in a month. The average age at first maternity in this group is slightly lower than in the general case and the average age for

'all birth orders' slightly higher. The difference is 5·0 years. The percentage of births of the 4th and higher orders is 41·2. Both figures are higher than the corresponding figures in the general case. Women in this occupational group have a greater fertility than the average.

Occupational Group VIII—Others

20. This comprises heterogeneous elements which cannot be assigned to a particular group. The average for the first order of birth is more or less the same as in the general case, but lower for 'all birth orders'. The proportion of births of the 4th and higher orders is also smaller. As this group does not represent any occupation in particular, detailed analysis is not attempted.

5. Average Maternity Ages by Income

21. Income plays an important part in the number of children born as well as the average age of the mother for all orders of birth. In the lowest income groups marriages take place earlier and births of higher orders more frequent. In higher income groups marriages usually take place later and consequently the age at first maternity advances. The reasons are socio-economic. For higher income groups with monthly incomes of Rs. 600 and above the number of available cards is so small that no valid conclusion can be drawn. These facts will be apparent from the data given in Table 2·5. The number of cards in each case is given within brackets.

Table 2.5 : Average Maternity Ages at each Birth Order by Income

Birth Order	All Incomes	Average Maternity Age (years)				
		Below Rs. 75	75—150	150—300	300—600	600—1,000
		A	B	C	D	E
1st	20·4 (697)	20·1 (301)	20·4 (303)	21·6 (83)	21·1 (10)	.. ..
2nd	22·5 (476)	22·2 (196)	22·7 (190)	22·2 (78)	26·2 (11)	26·0 (1)
3rd	25·4 (371)	24·8 (149)	25·7 (165)	25·8 (48)	25·1 (9)	.. ..
4th	27·1 (321)	26·8 (143)	27·4 (135)	26·9 (35)	26·5 (6)	28·5 (2)
5th	29·0 (261)	29·5 (114)	29·1 (114)	29·1 (27)	27·0 (5)	23·0 (1)
6th	30·4 (154)	30·1 (57)	30·5 (77)	30·9 (19)	.. ..	33·0 (1)
7th	31·9 (100)	31·8 (42)	32·0 (41)	32·1 (16)	32·0 (1)	.. ..
8th	34·2 (65)	35·2 (34)	33·7 (23)	31·4 (8)	.. ..	.. ..
Higher Orders	35·5 (70)	35·6 (33)	35·4 (32)	32·7 (3)	38·5 (2)	.. ..
All Orders	25·1 (2,515)	24·9 (1,069)	25·3 (1,080)	25·1 (317)	25·6 (44)	27·8 (5)

Five income groups have been shown in the above Table. Income group F, i.e., Rs. 1,000 per month and above was not represented in the cards received. The percentage of births of the 4th and higher orders for the income group A of Rs. 75 per month or less is 39·6, for the Rs. 75-150 income group B 39·1, for the Rs. 150-300 income group C 34·1, and for the Rs. 300-600 income group D 31·8. For the income group Rs. 600-1,000 no cards of the 1st birth order are available, hence the percentage cannot be given. The difference between the average ages for the 1st birth order and all birth orders for the group A is 4·8 years, for B 4.9 years, for C 3·5 years and for D 4·5 years. As the percentage of higher births progressively falls this difference should also gradually decline, if the spacing remains constant. The figures given here show that birth intervals have appreciably increased from the income group A to B, but exhibit a sudden shortening when we proceed from group B to C. Perhaps this is largely due to the under-reporting of incomes. If half of the cards are transferred from group B to group C and a few from group C to D the figures would be smoothed and the only striking jump

in birth intervals would be from group A to group B. The decline in the percentage of higher birth orders from the group A to group D would be more gradual. However, an attempt will be made to analyse the data as they are presented in the Table.

Income Groups A and B—Income below Rs. 150

22. These groups cover 85 per cent of the cases studied. The occupational group most largely represented is of sales workers. The average age for the first maternity is considerably lower than in the next two groups of higher incomes. Maternal activity starts earlier. The percentage of births of the 4th and higher orders is greater than in the general case. Spacing between successive births in the income group B is better than in the income group A for earlier birth orders. The low average for the first maternity is due to early marriages. It is only 20·1 years in the income group A. In the other group the average is slightly better.

Income Group C—Income Rs. 150-300

23. This group covers about 13 per cent of the cases under study. The two occupational groups most largely represented are clerical workers and sales workers. It has a higher average for the first maternity than the groups considered earlier, which points towards late marriages. The percentage of births of the 4th and higher orders is much lower than in the general which indicates exercise of some check on unlimited family expansion. Spacing between successive births is much smaller than in the groups considered above. It may partly be due to the reasons explained in paragraph 21 and partly due to early fertility terminal after a few births following each other in quick succession.

Income Group D—Income Rs. 300-600

24. Only 2 per cent cases belong to this group. The two occupational groups most largely represented are sales workers and professional and technical workers. The average age for the first maternity is slightly lower than in the previous income group, which may mean that the age of marriage is a little earlier. Or this may have been caused by wrong reporting of incomes. The percentage of births of the 4th and higher orders is still smaller, i.e. 31·8. There is an obvious consciousness for having a small family. Intervals between consecutive births are smaller in this income group also than in the general case.

Income Groups E and F—Income Rs. 600 *& above*

25. The number of cards received were only five, three of which belonged to families engaged in administrative, executive and managerial work, the fourth to a family in professional and technical work and the fifth to an agricultural family. The data being scanty are not capable of any detailed interpretation. There was no case of the first or third maternity. However, there was one of second maternity, two of the fourth, and one each of the fifth and the sixth. Except in one instance, all show higher ages for 'all birth orders' than in the case of all incomes considered together.

6. Children born previously for various Maternal Age Periods

26. The following Table gives the distribution of new maternities among families of different attained sizes. The average number of previous children born plus the new child is not necessarily identical with the average number of children amongst married women of these ages.

Table 2.6 : Average Number of Previous Children in Maternal Age-Groups

Age-Group	Previous Children born	Difference
Below 17	0·08	..
18—22	0·60	0·52
23—27	2·15	1·55
28—32	3·83	1·68
33—37	5·34	1·51
38—42	6·20	0·86
43—47	7·00	0·80
48 & Above	N. A.	N. A.

The previous births in the age-group below 17 years can be neglected. No data are available for age-group 48 and above. The difference rises steadily with age and then declines in a similar manner. The greatest difference is between the age-group 23-27 and 28-32. The largest number of children are acquired in the age-group 23-27. Thereafter the number begins to decrease. The power to produce children in young women goes on waxing till a certain age after which it commences to wane. The peak of maternity force has its seat not far off from the year 27. The reproductive activity slows down considerably after 37 years of age. Cases of maternity after this age occur only in the very fertile section of women.

CHAPTER III

FERTILITY—MEASURES AND TRENDS

1. General

"Data on fertility, that is the frequency of births in a population, form an almost indispensable basis for studying the prospects of population growth in a country, the probable development of its age structure, the possible effects on population growth of economic and social changes, public health measures and other factors. Knowledge of the fertility of different groups of the population, such as religious or ethnic groups, makes it possible to assess likely changes in the composition of the population. The study of the fertility of different groups also throws light on the conditions which influence fertility. Information on fertility is important in many different scientific fields (sociology, anthropology, genetics, etc.)"[1].

2. Growth of population is the result of gains from births (natality) and losses from deaths (mortality) and migration. In fact, natality measures the rate at which the population is added by births and is ordinarily assessed by the number of births to the size of the population or a section thereof. Birth rate depends on the age-sex distribution of the population. General fertility rate is defined as the number of births occurring to 1,000 women in the reproductive age-group 15-44. It does not take into account the effect of the proportion of women in reproductive age-group. What is more important is the number of married women of child-bearing ages in a given population which determines its potential fertility, though to some extent this is dependent upon intention and willingness. Nuptial fertility rate is defined as the number of births per 1,000 ever-married women in the reproductive age-group 15-44. It takes into account both marriage and capacity for child-bearing. Only married women need be considered, as in this country the percentage of births occurring outside wedlock is negligible.

3. Many factors influence the fertility of married women. The chief factors are (1) age at marriage, (2) duration of marriage, (3) attained age—this, in fact, is the sum of the foregoing, (4) order of birth, and (5) period elapsed since the previous birth. Other factors are incidence of foetal loss, marital habits, sexual taboos, breast-feeding, etc. Indirect factors are religion, education, and social and economic status.

4. As India has adopted an official policy of family limitation, it becomes necessary to study factors which can bring about decline in fertility. Only isolated data on fertility were available so far. Surveys undertaken lately have gone a long way to fill up the gap and have resulted in the collection of a fair amount of statistical information. Fertility enquiries, however, suffer from severe limitations such as unsatisfactory approach on the part of the field worker and the hesitation and reluctance on the part of respondents in furnishing information of a rather intimate nature. However, they can form the basis of qualitative appreciation, though for a quantitative judgement they may not be very reliable.

5. In India marriage is an institution bordering on universality and unlike western countries the proportion of girls and women who get married is overwhelmingly large. In Uttar Pradesh the percentage of married women in the reproductive age-group of 15-44 is 91·4 and of widowed, divorced, etc., 4·5. The percentage of women in the married state is the highest in the age-group 20-34 when the reproductive power is also at the peak. This results in a high birth rate as fertility for all practical purposes is unregulated. Circumstantial curbs on fertility, such as prolonged stay of the wife with her parents, enforced absence of the husband for long periods away from home in connexion with work, illness, accidental injury, etc., do not imply 'birth control'. Birth control means modification of fertility by intentional employment of methods for avoiding unwanted births to restrict the family size or to ensure adequate spacing. Uncontrolled fertility may be defined as fertility not restricted by birth control.

2. The Fertility Survey of Ever-Married Women, 1961-62

6. A Sample Fertility Survey of Ever-Married Women was carried out throughout India in 1961-62 by the Registrar General, which included all women in the married state as well as those who had been in this state at any time of their life, and their fertility differentials by various characteristics were studied. The object of this survey was to collect information on the fertility pattern of Indian women. In the fertility surveys conducted earlier only still-married women were taken

1 *Fertility Data in Population Censuses*—United Nations— Population Studies No. 6, page 3.

into consideration, and the study of fertility differentials was confined only to the wife of the head of the household.

7. The data for the present survey were collected by canvassing all households in randomly selected blocks covering between one and two per cent of the total population. The sample blocks were the same as selected for the Post-Enumeration Check carried out in March, 1961. Information was collected on the number of inmates along with details about their age, sex and marital status. In the case of ever-married women, i.e., women who had married at any time of their life, further information was collected about the age at marriage, duration of married life, children born during the whole lifetime and during the past 12 months. Duration was counted from effective marriage, i.e., the time when husband and wife commenced to live together. The age of the mother at successive birth was computed from the ages of children. In the case of children still alive their present ages were considered and in that of dead children from their ages at death and the period gone by since. Two schedules, viz., (1) the Household Schedule and (2) the Fertility Slip were designed for this purpose. The Household Schedule had three Sections. Section 1 was intended to obtain particulars of all persons (including visitors) in the household as regards relationship to the head of household, sex, age and marital status. Section 2 elicited information about married widows or divorced women, and Section 3 about the number of workers above 10 years of age and their employment activity during the past 15 days. The Fertility Slip was designed for every woman married at any time and had 14 questions to collect information on religion, education, marital status, age at marriage, present age, duration of married life, years of widowhood or divorce in the case of widows and divorcees, particulars of births and details of children born alive, husband's occupation, industry and education.

8. Before attempting an analysis of the various Tables, the various concepts need to be explained :

(i) *Nuptial Age-Specific Fertility Rate*—Annual number of live births to 1,000 ever-married women in the specified age-group.

(ii) *Parity*—The total number of live children born to a woman during her entire reproductive span, e.g., a woman of parity 4 is one who ceased child-bearing after 4 children were born. Only women past the child-bearing age, i.e., aged 45 years are considered for parity.

(iii) *Parity progression ratio for birth of Order 'n'* —The percentage of women who having borne *n* children already get the next child, e.g., parity progression ratio of 80 for the 3rd birth means that out of 100 women who have already 3 children, only 80 get the fourth child.

9. Fertility Slips were sorted out by rural and urban, and further subdivided into four groups as follows :

A—Women married only once and still in the married state ;

B—Women married only once, but now widowed or divorced;

C—Women married more than once, but in married state now ; and

D—Women married more than once, but now widowed or divorced.

10. The Survey took in its stride 102,944 ever-married women. Out of them 88,102 belonged to the A Group, 12,988 to the B Group, 1,638 to the C Group and 216 to the D Group. Their numbers by marital status and rural/urban are given in the following Table :

Table 3·1 : Ever-Married Women in Rural and Urban Areas by Marital Status

Groups	No. of Women		Percentage	
	Rural	Urban	Rural	Urban
All Groups	74,715	28,229	100·0	100·0
A	63,222	24,880	84·6	88·1
B	9,881	3,107	13·2	11·0
C	1,421	217	1·9	0·8
D	191	25	0·3	0·1

It will appear from the above that the percentage of ever-married women in the married state (A+C) is 86·5 in the rural area and 88·9 in the urban and of those widowed or divorced 13·5 in the rural and 11·1 in the urban. It has been observed that in a few cases of A-type women the data relating to number of children born in the marriage duration 1-4 seem to be defective.

11. The percentage distribution of the ever-married women in the various age-groups of the reproductive period is given below :—

Table 3.2 : Percentage Distribution of Ever-Married Women by Attained Ages (all women)

Attained Age	Per cent	
	Rural	Urban
12 & below	1·7	0·4
13—17	5·3	3·9
18—22	14·9	15·7
23—27	13·5	15·3
28—32	15·8	17·3
33—37	9·5	10·4
38—42	11·1	11·4
43—47	6·9	6·7
48+	21·3	18·9

About 45 per cent of ever-married women are aged between 18 and 32. The very small number in the age-group 33-37 may be due to misreporting of ages.

12. The following Table gives the percentage of women by the number of times married:—

Table 3.3: Percentage of Ever-Married Women in each Age-Group by the Number of Times Married

Age Group	Rural			Urban		
	Once	Twice	Thrice or more	Once	Twice	Thrice or more
All Ages	97·8	1·9	0·3	99·2	0·7	0·1
13—17	99·6	0·4	0·0	99·7	0·3	..
18—22	99·1	0·8	0·1	99·7	0·3	0·0
23—27	98·6	1·2	0·2	99·6	0·3	0·1
28—32	97·7	2·0	0·3	99·0	0·8	0·2
33—37	97·0	2·6	0·4	98·8	0·9	0·3
38—42	96·7	2·9	0·4	99·0	0·8	0·2
43—47	96·8	2·7	0·5	98·2	1·5	0·3
48 +	97·3	2·4	0·3	98·8	1·0	0·2

The percentage of women married more than once is very low both in rural and urban areas as widow remarriage is not yet a prevalent custom. As between rural and urban the proportion is lower in urban areas. As would be naturally expected, the proportion gradually rises with age, but after the age of 40 years begins to fall.

Children by Attained Ages of Mothers

13. Difficulties arise in interpreting data relating to children born to women married more than once, as there is always an interval, often quite long, between successive marriages or children born to women in the married state who are now widowed or divorced. It will, therefore, be more convenient to consider only women married once and still in the married state, in other words to confine discussion only to A-type women. Current fertility can be measured by the crude birth rate or age-specific fertility rates. Life-time fertility is measured by the average number of children born to a woman in the whole reproductive span. Considering married women of all ages still in the married state the average number of children born to them is given in the following Table : —

Table 3.4: Average No. of Children by Attained Ages of Mothers (A—Type Women)

Age-Group	Rural		Urban	
	No. of Children	Difference	No. of Children	Difference
Below 13	0·0	..	0·0	..
13—17	0·1	0·1	0·2	0·2
18—22	0·9	0·8	1·1	0 9
23—27	2·1	1·2	2·4	1·3
28—32	3·0	0·9	3·4	1·0
33—37	3·8	0·8	4·2	0·8
38—42	4·1	0·3	4·5	0·3
43—47	4·3	0·2	4·6	0·1
48 and Over	4·2	X	4·3	X
All Ages	2·8	..	3·1	..

The difference at first rises steeply and then progressively falls. The greatest difference is found between the age-groups 18-22 and 23-27. The highest productive power is concentrated around the year 25.

Nuptial Age-Specific Fertility Rates

14. The same thing can be studied in a different form by considering the number of children born in a year to 1,000 married women in specific age-groups as in the following Table :—

Table 3.5: Age-Specific Nuptial Fertility Rates (A—Type Women)

	Age-Group			
	13–17	18–22	23-27	28-32
Rural	66·9	216·1	247·4	213·1
Urban	100·6	237·4	243·8	198·3

	Age-Group			
	33–37	38–42	43–47	48& Over
Rural	167·4	114·2	67·1	20·2
Urban	138·5	98·6	52·9	17·7

The nuptial fertility rate at first increases with age attaining its maximum during the ages 23-27 and then begins to fall. After 37 years of age the reproductive power falls below half of the maximum and progressively goes on lessening. Even women of 48 years and over who have not yet reached menopause are capable of having children, though the probability in its favour cannot be rated high. The low fertility rate below 18 indicates a type of sub-fecundity. It appears that a girl does not become fully mature immediately after the commencement of menstruation. The capacity to conceive and bear children is acquired slowly. The proportion of women able to conceive rises by gradual acceleration, until it reaches a point of inflexion beyond which it levels off. This point is somewhere near 18 years, though its location may differ from one demographic group to another. Certain circumstances also lead to low fertility in the earlier years of marriage, such as the wife living with her parents or the husband living elsewhere for education or employment.

15. The Fertility Survey gives the nuptial fertility rate for all ages as 179·3 for rural and 178·6 for urban areas which are less than the computed rate of 221·6. Similarly, it gives birth rates of 36·8 and 32·7 for rural and urban areas respectively which again are slightly lower than the computed rate. The lower rates of Fertility Survey are possibly on account of omissions in the recording of the number of births, particularly in the case of deceased children.

Age at Marriage

16. The effect of age at marriage on the fertility performance of woman can be studied in relation to the average number of children born, average completed family size, age-specific fertility rates, parity progression ratio, average number of children contributed by each birth order, expectations of fertile life, childlessness and sterility. For this purpose three marriage age-groups, viz., below 18, 18-22 and 23 and above have been selected. Since a very large majority of marriages take place below the age of 18 years, the proportion of women who marry between the ages 18-22 is small and of those who marry above the age of 23 very small. This reduces the number of women marrying in higher age-groups to such an extent that the data suffer in value. This has especially to be kept in view in studying the fertility behaviour of women married at the age of 23 or later.

17. The Fertility Survey data show that the average number of children born to A—type mothers of completed fertility is 4·22 in rural and 4·40 in urban areas. These figures are lower than the computed family size (no. of children) of 5·51 owing to possible omissions in recording the number of births. The slightly smaller number of children born to women in rural areas may be reporting error or may to some extent be due to different living conditions of married couples. On the whole, the average family size is almost the same for both areas. Differentiating the average family size by the three marriage age-groups, the following pattern emerges :

Table 3.6 : Average No. of Children born to Women of Completed Fertility by Age at Marriage (A—Type Women)

	Marriage Age			
	Below 18	18-22	23 and Above	All Ages
Rural	4·22	4·04	3·68	4·22
Urban	4·52	3·99	3·65	4·40

It is apparent that there are fewer children as marriage age advances. Early marriages are more fertile except when some physical impairment takes place in the early years of marriage. Reduction becomes significant in rural areas after the age of 22, and in urban areas even after the age of 18.

Contribution of Birth Orders to Family Size

18. All birth orders are not equally important in the building-up of a family. In fact, the importance of each birth decreases with increasing birth order as the following Table will show :

Table 3.7 : Percentage of Children contributed by each Birth Order to Family Size of Women of Completed Fertility (A—Type Women)

		Order of Birth									
		1	2	3	4	5	6	7	8	9	10+
All Ages at Marriage	Rural	22·3	20·4	17·0	14·0	10·4	6·9	4·3	2·4	1·2	0·7
	Urban	21·1	19·1	16·6	14·1	10·7	7·7	5·0	2·7	1·6	1·4
Below 18	Rural	22·3	20·4	17·0	14·0	10·4	6·9	4·3	2·4	1·2	0·7
	Urban	20·8	18·8	16·6	13·9	10·8	8·0	5·1	3·1	1·8	1·1
18—22	Rural	23·0	20·8	17·8	14·1	10·4	6·4	4·0	2·0	1·0	0·5
	Urban	22·8	19·3	17·0	14·3	10·3	7·3	4·3	2·5	1·5	0·7
23 and Above	Rural	25·5	22·8	19·0	14·4	9·5	5·7	2·2	0·6	0·3	..
	Urban	24·4	22·5	17·8	13·7	9·9	6·0	3·6	1·9	0·2	..

The average contribution of each birth order gets less and less. This aspect can be further studied by the age at marriage which tells the same tale. However, the importance of the first birth increases with the age at marriage and the fall in the contribution of successive births much quicker. This is as expected, as the percentage contribution of the first birth should go up with lowering fertility and of very high orders should go down.

Parity Strains

19. Table 3.8 shows the percentage of mothers of completed fertility by the number of children born to them. The percentage rises gradually with parity and then starts falling. There seems to be a common belief that parity and spacing are governed by a woman's personal equation. The largest number of women are of parity 4, both in rural and urban areas. Women

of parity O, i.e., childless women, are 5·7 per cent in rural areas and 6·7 per cent in urban, but the picture changes for higher birth orders. For example, in rural areas women of parity 10 and above are 2·0 per cent and in urban 4·0 per cent. In interpreting results the observations made in para 17 require to be kept in view.

Table 3.8: Percentage of Families of different Sizes for Mothers of Completed Fertility (A—Type Women)

		Percentage of families having number of children										
		0	1	2	3	4	5	6	7	8	9	10+
All Ages at Marriage	Rural	5·7	8·8	11·4	15·2	15·2	14·5	11·5	8·0	5·0	2·7	2·0
	Urban	6·7	9·7	10·2	11·9	14·7	13·1	12·2	9·2	5·0	3·3	4·0
Below 18	Rural	6·1	9·0	11·0	15·1	15·1	14·2	11·2	8·0	5·1	2·9	2·3
	Urban	6·2	8·8	10·3	12·1	13·7	13·2	12·8	9·2	5·9	3·2	4·6
18—22	Rural	7·3	9·1	11·9	14·6	15·3	15·7	10·3	8·0	3·9	2·4	1·5
	Urban	9·2	13·6	9·2	11·1	15·9	11·7	11·8	7·9	3·7	2·8	3·1
23 and Above	Rural	6·4	9·2	14·3	17·4	17·5	14·1	12·6	6·0	1·5	0·8	0·2
	Urban	10·7	7·8	16·5	14·5	14·1	14·6	8·7	6·3	5·3	1·0	0·5

20. Analysing the data further by age at marriage, it appears that the percentage of childless mothers generally increases with the age at marriage. In rural areas out of the women married below the age of 18 and those married between 18 and 22 the largest number have 4 to 5 children; while among those married above the age of 23 the largest number have 3 to 4 children. Among the women of urban areas married below 18 years the largest number have 4 to 5 children, among those married between 18 and 22 years 4 children, while among those married above 23 years of age the largest number have 2 children and the next largest 5 children. Considering that some omissions have occurred in reporting the number of children the peak in the above Table would shift slightly to the right.

Parity Progression Ratio

21. The pattern of parity progression for different birth orders is indicated by the following Table (three sets of ratios for the different marriage age-groups are presented):

Table 3.9: Parity Progression Ratio, i.e., Pro portions of Women who get $n+1st$ Child, n Children having been born (A—Type Women)

		0	1	2	3	4	5	6	7	8	9
All Ages at Marriage	Rural	94·3	90·7	86·7	79·5	74·3	66·8	60·6	54·9	49·2	59·8
	Urban	93·3	89·6	87·8	83·9	76·1	72·0	63·9	57·5	59·2	77·7
Below 18	Rural	93·9	90·4	87·1	79·6	74·3	67·4	62·1	56·5	50·3	45·2
	Urban	93·8	90·6	87·9	83·7	78·2	73·0	64·1	59·8	57·3	59·3
18—22	Rural	92·7	90·1	85·8	79·7	73·2	62·5	60·5	49·4	50·0	38·8
	Urban	90·8	85·0	88·1	83·7	72·0	71·4	59·5	54·8	61·6	52·8
23 and Above	Rural	93·6	90·1	83·0	75·3	66 8	59·9	40·2	28·9	38·5	20·0
	Urban	89·3	91·3	79 8	77·6	72·1	60·0	60·0	51·9	21·4	33·3

The above Table shows that the parity progression ratios are generally higher for women married below 18 as compared to those married between 18-22, and the latter in their turn are greater than for women married at 23 years or later. This trend is found both in rural and urban areas. The figures further indicate that the ratios generally decline with the order of birth. In other words, a larger percentage of women cease to reproduce at each birth except in the case of very high birth orders, but that is due to the small number of cases of very high birth orders coming up for study. The ratio shows a sudden fall after the fourth birth in the rural and after the fifth in urban areas.

Expectation of Fertile Life at Various Ages

22. The following Table gives the expectation of fertile life in various age groups:

Table 3.10: Expectation of Fertile Life at Various Ages (A—Type Women)

Ages	Years of Fertile Life	
	Rural	Urban
15—19	20·25	19·97
20—24	15·52	15·32
25—29	11·29	11·05
30—34	7·38	7·33
35—39	4·41	4·35
40—42	2·80	2·80

It appears from the above Table that the expectation of fertile life in the youngest age-group is higher for the rural areas than for the urban, but later/on it becomes the same in both. It gradually declines, until it is 2.80 years in the age-group 40—42. As would appear from the figures of the youngest age-groups fertility in the majority of women is expected to cease at 37 years of age, except in the highly fertile section in which reproduction goes on till a later age. Fertile period is not identical with the interval between the commencement of menstruation and menopause. It may begin much later and end much earlier.

Duration of Marriage

23. Table 3.11 gives the percentage distribution of women by age at marriage in different durations of marriage.

Table 3·11: Percentage Distribution of Women in different Durations of Marriage by Age at Marriage (A—Type Women)

Rural			Marriage Duration (in years)	Urban		
Age at Marriage				Age at Marriage		
23+	18—22	—18		—18	18—22	23+
0·4	13·8	85·8	0	63·4	35·0	1·6
3·6	22·1	74·3	1—4	64·4	32·7	2·9
2·7	19·9	77·4	5—9	69·7	28·3	2·0
2·2	19·2	78·6	10—14	75·2	23·4	1·4
2·0	20·7	77·3	15—29	72 9	25·7	1·4
1·3	21·1	77·6	30+	72·9	24·7	2·4
2·2	20·4	77·4	All Durations	71·5	26·7	1·8

The above Table shows that both in rural and in urban areas a very large majority of marriages takes place below the age of 18 years. The percentage of such marriages is higher in villages than in towns. In rural areas while it is more or less constant for all marriage durations, it is particularly high in the marriage duration of less than one year. To some extent this might be due to a relatively large number of young marriages in that particular year. It may at the same time be indicative of high mortality in villages among girls married before the age of 18 in the second or third year of marriage. The percentage of marriages above 23 years of age is very small, but of those in the age-group 18-22 is quite considerable particularly in urban areas on account of the differences in social systems and levels of education between villages and towns. The average age of girls at marriage is 16·2 years in rural areas and 17·0 years in urban at present.

24. Fertility performance of women married at different ages can be compared for the same duration of married life by expressing the average number of children born to one group as a ratio of those born to another group which may be taken to be the base. This ratio is called the index of performance. The indices of performance for various durations are given in the following Table expressed as per cent of fertility performance of women married between 18-22 years:

Table 3.12 Fertility Performance of Women married in various Age-Groups by Duration of Marriage (A—Type Women)

Duration of Marriage	Age at Marriage			
	Rural		Urban	
	—18	23+	—18	23+
1— 4	140	140	117	100
5— 9	113	147	106	83
10—14	104	112	103	83
15—29	105	100	110	90
30+	105	93	113	95
All Durations	108	93	118	86

A study of the above Table shows that as compared to the marriage age-group of 18-22 the marriage age-group of below 18 has generally a higher fertility for all marriage durations in both rural and urban areas. In rural areas as marriage duration exceeds 9 years fertility performance ratio becomes steady. In the case of marriages at 23 years and later, the position is different. The performance is higher than the base up to the marriage duration of 14 years, at par in 15-29 and less later on. It appears that child-bearing in women married after the age of 23 is quicker in all marriage durations especially in 5-9 years. In urban areas it is at par in the duration 1—4, and thereafter much less showing that child-bearing is much slower in women married after the age of 23. This may be the effect of social environments and education. For all marriage durations both in rural and in urban areas total fertility decreases with the age at marriage.

Duration of marriage is much more important than attained age as duration is the dominant characteristic. Age-specific fertility rates are, however, more common as they are easier to obtain, but duration-specific rates are more useful.

Sterility

25. Nuptial age-specific fertility rate is governed by the proportion of ever married women in the age-group concerned and their fecundity. Child-bearing comes to a stop after the menopause, which usually occurs between 45-50. However, there are some women who suffer from primary sterility and cannot conceive. There is also secondary sterility which may occur after one or more births due to natural or pathological causes or as a result of accident at confinement or some other time.

26. The ratios of Table 3·9 can be looked at in another way by subtracting each from 100 and calling it the sterility ratio. The sterility ratios of women of completed fertility are given below:

Table 3.13: Sterility Ratio, i.e., Proportion of Women who cease Reproduction after getting *nth* Child (A—Type Women)

		0	1	2	3	4	5	6	7	8	9
All Ages at Marriage	Rural	5·7	9·3	13·3	20·5	25·7	33·3	39 4	45·1	50·8	40·2
	Urban	6·7	10·2	12·2	16·1	23·9	28·0	36·1	42·6	40·8	22·3
Below 18	Rural	6·1	9·6	12·9	20·4	25·7	32·6	37·9	43·5	49·7	54·8
	Urban	6·2	9·4	12·1	16·3	21·8	27·0	35·9	40·2	42·7	40·7
18—22	Rural	7·3	9·9	14·2	20·3	26·8	37·5	39 5	50·6	50·0	61·2
	Urban	9·2	15·0	11·9	16·3	28·0	28·6	40·5	45·2	38·4	47·2
23 and Above	Rural	6·4	9·9	17·0	24·7	33·2	40·1	59·8	71·1	61·5	80·0
	Urban	10·7	8·7	20·2	22·4	27·9	40·0	40·0	48·1	78·6	66·7

It appears from the above Table that primary sterility occurs in 5·7 per cent unions in rural and in 6·7 per cent in urban areas and it increases with the age at marriage. Secondary sterility increases with each birth order and also with the age at marriage. After the first birth the sterility ratio is higher in rural areas than in urban.

27. Data were collected on the age of the youngest child born to A—Type women in the age-group 38—47. This excluded women suffering from primary sterility. There was, however, one drawback. If the last-born did not survive it was left out of consideration. With this limitation, the age of the mother at which she ceased child-bearing was calculated. The following Table gives the rate of sterility per 1,000 women by quinquennial age-groups:

Table 3.14: Percentage Rate of Sterility by Quinquennial Age-Groups (A—Type Women)

Ages	Rural	Urban
15—19	0·3	0·4
20—24	1·1	1·1
25—29	2·4	2·8
30—34	6·9	6·9
35—39	18·8	19·3
40—42	30·0	27·5

The above Table shows that the sterility rate suddenly becomes quite high both in rural and in urban areas in the age-group 35-39 for which the mean age can be taken as 37. After 41 years of age the onset of sterility is very quick.

28. The two Tables show that sterility increases with birth orders as well as with age. There are two ways of looking at this phenomenon. According to one view sterility increases with age. According to another, it increases after each birth the rate of increase undergoing acceleration after a few births.

Still Births

29. The following Table gives the number of still births per 100 births (all births including still births) (i) after six months of gestation and (ii) within six months of gestation:

Table 3.15: Still Births per 100 Births (both line and still) (A andC—Type Women)

Attained Age		After six months of gestation	Within six months of gestation
13—17	Rural	6·2	2·4
	Urban	..	6·0
18—22	Rural	6·0	0·2
	Urban	3·1	3·4
23—27	Rural	6·1	0·2
	Urban	2·8	3·3
28—32	Rural	6·3	2·4
	Urban	4·2	2·3
33—37	Rural	5·5	3·9
	Urban	2·9	2·7
38—42	Rural	7·8	3·6
	Urban	3·3	2·0
43—47	Rural	6·9	3·5
	Urban	9·1	1·0
All Ages (13—47)	Rural	6·2	2·7
	Urban	3·4	3·0

The above Table shows that the still-birth rate after six months of gestation in respect of all ages (13—47) for rural areas is 6·2 and for urban 3·4, while within six months of gestation it is 2·7 for rural and 3·0 for urban. The still-birth rate after six months of gestation in rural areas is highest for women in the ages 38-42 and in urban areas in the ages 43-47. In the case of still birth rates within six months of gestation, the rate for rural areas is the highest in the ages 33-37, and for urban in the ages 13-17 after which there is a continuous decline.

Multiple Births

30. The following Table gives the percentage of multiple births to total births:

Table 3.16: Multiple Births per 100 Births (A and C—Type Women)

Attained Age	Per cent contribution	
	Rural	Urban
13—17	0·8	1·8
18—22	0·4	0·2
23—27	0·2	1·2
28—32	0·5	0·4
33—37	1·6	..
38—42	0·7	..
43—47	1·4	..
48+	..	16·7
All Ages (13—47)	0·6	0·8

The data given in the above Table relate only to twins, as no case of other multiple births was reported. Out of a total of 9,916 and 3,963 current births in the rural and urban areas, only 56 in the rural and 30 in the urban areas were twin births. The percentage contribution of twin births to total births thus comes to 0·6 in the rural and 0·8 in the urban. In the attained age 48+the contribution of twin births in urban areas is as high as 16·7 per cent, and appears to be a sample bias. Leaving it out, the contribution of twin births in rural areas is greater than one per cent in the ages 33—37 and 43—47, while in urban it is so in the ages 13—17 and 23—27.

Summary of Results

31. The following gives a resume of results arrived at in the foregoing paragraphs 11-29:

(1) Marriage in women is almost universal in this country. The largest proportion of married women is in the fertile age-group of 18-32. Remarriage of widows is not common.

(2) Fertility is low in ages below 18 years as the capacity to conceive and bear children is acquired slowly and reaches maturity about the year 18.

(3) Age-specific fertility after the year 18 rises with age and reaches its peak in the age-group 23-27 after which it begins to fall.

(4) About 6 per cent unions are completely barren. In others sterility increases with age after the year 25, slowly at first but rapidly from the year 37. After 41, the onset of sterility is very quick.

(5) The normal expectation of fertile life is from the age of 18 to the age of 37, though in highly fertile women reproduction goes on till a much later age.

(6) The period of fertile life is not identical with the entire span of menstrual cycles. Usually it starts later and ends earlier.

(7) Considering a multitude of women, each succeeding birth order contributes lesser and lesser children. The largest number of children born are of the 1st birth order, next largest of the 2nd birth order and so on. A greater and greater proportion of women cease to reproduce at successive birth orders. Sterility increases with age as well as the order of birth.

(8) The age at marriage has a profound effect on the fertility pattern. Married women have been divided into 3 categories by their age at marriage—(1) those married before 18 years of age, (2) those married between 18-22 years and (3) those married at 23 years or later. A woman of the first category builds up the largest family and of the third the smallest. The extent of childlessness is also more pronounced in the third category than in the first or second.

3. Acknowledgement

32. In the writing of this chapter the paper *Indian Fertility—Our Knowledge and Gaps* issued by the office of Registrar General has been of great help. The debt owed to it is gratefully acknowledged.

CHAPTER IV

COMPUTED BIRTH RATES, DEATH RATES ETC. AND EXTENT OF UNDER-REGISTRATION

1. Methodology of Estimating Birth and Death Rates

As stated earlier, the registration of births and deaths in India is so seriously at fault that the data can not be used with any reliance. It becomes, therefore, essential to calculate birth rates and death rates from Census data. The birth and death rates so obtained indirectly are called computed birth and death rates. As Indian Census data are notoriously defective in regard to the reporting of age, age-statistics have first got to be smoothed before they can be put to use.

2. There is a direct relationship of the rates of growth and migration with the levels of birth and death rates. Difficulty is encountered in obtaining reliable migration data, but at the 1961 Census this information has been obtained on a reliable footing. Migration had not been given its due importance before 1951 in computation of birth and death rates, because its effect was deemed to be negligible. For a proper appraisal, this factor has got to be taken into account. Estimates of births and deaths are made by two methods—(1) *Differencing* and (2) *Reverse Survival.* By the Differencing method the death rate is first estimated and the birth rate is worked out from it. The observed growth rate is split up into the rate of natural increase which is the excess of births over deaths and the net rate of gain or loss by migration. On the other hand the Reverse Survival method makes a direct estimate of the birth rate.

Differencing Method

3. *Natural population* at any Census is defined as the enumerated population from which immigrants have been excluded and to which emigrants have been added. *Mean Population* for any decade is the arithmetic mean of the enumerated population at the beginning and at the end of the decade. *Mean Natural Population* is the arithmetic mean of the natural population at the commencement and the conclusion of the decade. Thus, if N_1 is the natural population at the beginning and N_2 at the end of any decade, then $\frac{1}{2}(N_1+N_2)$ is the mean natural population for that decade.

4. The population aged 10 and above in 1961 gives the survivors of 1951 population. The difference denotes deaths during the decade 1951-61 in the 1951 population. It can be shown that the number of deaths during the decade in the 1951 population is equal to the total number of deaths during the decade in the current population aged 5 years and above. A simple proof of the same is given below :—

Deaths in 1951-52=Deaths in the 1946-47 population + Deaths of children under 5 years

Deaths in 1952-53=Deaths in the 1947-48 population + Deaths of children under 5 years

....

.....

Deaths in 1959-60=Deaths in the 1954-55 population + Deaths of children under 5 years

Deaths in 1960-61=Deaths in the 1955-56 population + Deaths of children under 5 years

---

All deaths during the decade 1951-61 = All deaths in the 1951 population during the decade + All deaths of children under 5 years during the decade

As the population was slowly and continuously growing the mean of the 1946-47 and 1955-56 populations will be approximately the 1951 population.

Transposing the terms of the equation,

All deaths in the 1951 population during 1951-61 = All deaths during the decade 1951-61 *minus* Deaths of children under 5 years

= Number of deaths during the decade of persons aged 5 years and above.

5. For the above calculation natural population only should be considered which excludes the effect of migration. If P_1 stands for the enumerated population, E_1, the number of emigrants and I_1, that of immigrants

in 1951; and P_2, E_2 and I_2 the corresponding figures for 1961, then

$$N_1 = P_1 + E_1 - I_1$$
$$N_2 = P_2 + E_2 - I_2$$

Where N_1 and N_2 are the natural populations of 1951 and 1961 respectively. Let N_2 (10+) and P_2 (10+) represent the number of persons aged 10 years and above in the mean population and the enumerated population of 1961. If the number of deaths at ages 5 and above in the current population during 1951-61 be represented by d, then

$$d = N_1 - N_2 \text{ (10+)}$$
$$= P_1 - P_2 \text{ (10+)} + (E_1 - I_1) - (E_2 - I_2)$$

The expression $(E_1 - I_1) - (E_2 - I_2)$ stands for the change by 1961 in the 1951 Census migrant population. It may be called the *migration change.* It requires to be stressed that the formula is approximate and not too exact; but, on the whole, it may be taken to be reasonably correct.

6. Applying the 1951 and 1961 data of U. P. in these formulae, we have

1951 Population	$=P_1$	=63,215,742
1961 Population of persons 10 years and above (adjusted)	$=P_2$ (10+)	=52,161,900
1961 Immigrants	$=I_2$	=1,651,554
1951 Immigrants	$=I_1$	=1,388,103
1961 Emigrants (Migrants outside India estimated as 5 lakhs)	$=E_2$	=3,083,879
1951 Emigrants (Emigrants outside India estimated as 7 lakhs)	$=E_1$	=2,234,876

Therefore, the number of deaths during the decade among persons aged 5 years and above=d=

$$= P_1 - P_2 \text{ (10+)} + (E_1 - I_1) - (E_2 - I_2) = 10,468,290$$

The magnitude of the migration change is —585,552 and of $E_2 - I_2$=1,432,325.

7. For estimating the total number of deaths from the figures of deaths of 5 years and above we have to take recourse to registered data for whatever they are worth. It is assumed for the purposes of calculation that the ratio between the two will be approximately the same as in registered vital statistics. The registered number of deaths of 5 years and above for the decade is 4,006,933 and their registered total number is 6,318,738. The ratio may be taken as 1·6. If the computed total number of deaths is denoted by D, then

$$D = 10,468,290 \times 1{\cdot}6 = 16,749,640$$

The 1951 natural population $N_1 = P_1 + E_1 - I_1$=64,062,515 and the 1961 natural population $N_2 = P_2 + E_2 - I_2$ (where P_2 is the enumerated population of 1961)=75,178,726. Hence the mean natural population of the decade 1951-61

$$= \tfrac{1}{2}(N_1 + N_2) = 69,620,620$$

The mean annual death rate for the decade will, therefore, work out as

$$\frac{D}{\frac{1}{2}(N_1+N_2)} \times \frac{1000}{10} = \frac{16,749,640}{69,620,620} \times 100 = 24{\cdot}06 \text{ per thousand}$$

The recording of deaths of infants and young children of 0—4 is generally poorer than at older ages which gives a lower ratio than actual of total deaths to deaths at ages 5 and above. The actual death rate should be slightly greater.

8. It is now necessary to make an allowance for deaths among migrants to obtain fresh migration. The changing migrant population can be represented by the mean migrant population at the mid-censal point to which an over-all death rate of 22 per thousand may be applied for a period of half a decade. Fresh migration may be, therefore, deemed to be

$$= \text{migration change} - 0{\cdot}22 \text{ of } (E_2 - I_2) - \tfrac{1}{2} \times 0{\cdot}22 \text{ of migration change}$$
$$= 0{\cdot}89 \text{ of migration change} - 0{\cdot}22 \text{ of } (E_2 - I_2).$$

As stated before the migration change=—585,552 and $E_2 - I_2$=1,432,325.

Substituting these figures in the above formula,

Fresh Migration=—836,253

The fresh migration rate can be obtained by dividing the above by the mean enumerated population 68,481,072 :—

Fresh Migration Rate —1·22 per thousand

9. Birth rate can be calculated from the growth rate, death rate and the fresh migration rate according to the following formula :—

Mean Birth Rate=Mean Death Rate + Mean Growth Rate—Mean Fresh Migration Rate

The mean death rate is 24·06, the mean growth rate 15·38, and the mean fresh migration rate is—1·22. The mean birth rate is therefore,

=40·66 per thousand.

The actual birth rate can be slightly higher than this figure for reasons already given in the estimation of death rate.

10. *A simple formula for Birth Rate*—If extreme fineness in calculation is not aimed at, migrants can be ignored altogether in comparison with the total population of the State and only the enumerated population may be considered as in the following working :

(1) 1951 Population $=P_1=63,215,742$
(2) 1961 Population of persons 10 years and above (adjusted age data) $=P_2$ (10+)$=52,161,900$
(3) 1961 Population $=P_2=73,746,401$
(4) Mean Population of 1951-61$=\frac{1}{2}(P_1+P_2)=$ 68,481,072

The number of deaths among persons of 5 years and above is (1)-(2) which is equal to 11,053,842. The total number of deaths during the decade can be obtained by multiplying this by the ratio 1·6. Their number works out as 17,686,147. Dividing by the mean population the death rate comes to 25·83.

Mean Birth Rate=Mean Death Rate+Mean Growth Rate
=25·83+15·38
=41·21 per thousand

which differs only slightly from the figure worked out in the preceding paragraph.

Reverse Survival Method

11. Birth rate can be calculated from *Age Tables* and *Life Tables* prepared at the Census. Children of less than 10 years of age, i.e., belonging to the age-group 0-9 are the survivors of those born in the intercensal period. The *Life Table* gives the survivors of one lakh births at each age. The *Age Table* gives the population at each age. For this purpose, the adjusted Age Table should be employed. Suppose the number of survivors at age x is L_x. Then the ratio of the number born to the number existing is $\frac{100,000}{L_x}$. If the actual number of persons at that age is P_x, the number of births from which these persons have survived is$=100,000\times\frac{P_x}{L_x}$. Putting $x=0,1,2.....9$ we can get the number of births in each year and their sum will give the total number of births in the decade. Expressing this symbolically,

$$\text{Total number of births in the decade} = 100,000\times\sum_{0}^{9}\frac{P_x}{L_x}$$

Division of the number of births by the mean population of the decade will give the mean birth rate.

12. The estimate of birth rate obtained by the above method also has its limitations. Infant and child mortality are liable to changes and the risk to which an infant was exposed may not be the same in 1951 and 1961. But if all births during the decade are combined for the purpose of calculation, as in the above case, the chances of mistake are reduced. Besides, there is practical difficulty in consulting the *Life Tables*. They have been prepared for males and females separately and there is no Table for persons of both sexes taken together. The number of survivors is obtained by taking the arithmetic mean of the figures given in the separate Tables which can vitiate the result. Secondly, separate Tables for Uttar Pradesh have not been prepared at this Census. This State has been combined with Madhya Pradesh in the Table for the Central Zone. With these limitations the number of births in each year of the decade by the age of survivors is worked out below :

Age	Survivors of One Lakh Births	Actual Survivors in 1961	Number of Births
x	L_x	P_x	One Lakh $\times\frac{P_x}{L_x}$
0	86,018	3,031,800	3,524,611
1	79,383	2,559,300	3,223,990
2	77,178	2,318,600	3,004,224
3	75,581	2,175,000	2,877,707
4	74,244	2,082,300	2,804,671
5	73,639	2,003,100	2,720,161
6	72,865	1,934,700	2,655,184
7	72,302	1,875,700	2,594,257
8	71,889	1,824,100	2,537,384
9	71,577	1,779,900	2,486,692
			28,428,881

Dividing this by the mean population of the decade 68,481,072 the

Mean Birth Rate=41·51 per thousand.

Mean Death Rate=Mean Birth Rate—Mean Growth Rate+Mean Migration Rate
=41·51—15·38—0·86
=25·27 per thousand

The mean migration rate has been calculated from the migration change. The expectation of life is a shade higher in Madhya Pradesh during this decade than in Uttar Pradesh. This would make L_x for this State smaller and would slightly raise the birth rate of Uttar Pradesh. Looking at the figures from year to year it will be observed that the birth rate has progressively increased during the decade and is now well over 45.

Computation of Birth Rates and Death Rates by the Registrar General, India

13. Deputy Registrar General (Vital Statistics) has calculated the birth rates and death rates for all States in India taking into consideration all factors

involved and fitting them in the all-India picture. He has given the following rates for the decade 1951-61:

Uttar Pradesh 1951-61	(a) Birth Rate	41·5
	(b) Death Rate	24·9

The corresponding figures given by him for the previous decade 1941-51 are—

Uttar Pradesh 1941-51	(a) Birth Rate	38·6
	(b) Death Rate	27·2

A comparison of the two sets of figures shows that the birth rate has further increased and the death rate has further decreased making the gap between them still wider.

2. Computed Birth and Death Rates for States

14. Birth and death rates computed by the Deputy Registrar General (Vital Statistics) from Census data for the two decades since 1941 are given in the following Table :

Table 4·1 : Computed Birth and Death Rates for States in India, 1941-51 and 1951-61

India and States	1941-51 Birth Rate	1941-51 Death Rate	*India and States*	1951-61 Birth Rate	1951-61 Death Rate
INDIA	39·9	27·4	INDIA	41·7	22·8
1. Hyderabad	43·1	29·5	1. Andhra Pradesh	39·7	25·2
2. Madras	35·7	22·8	2. Madras	34·9	22·5
3. Uttar Pradesh	38·6	27·2	3. Uttar Pradesh	41·5	24·9
4. Assam	46·7	31·8	4. Assam	49·3	26·9
5. Bihar	39·0	26·6	5. Bihar	43·4	26·1
6. Madhya Pradesh	46·1	38·5	6. Madhya Pradesh	43·2	23·2
7. Orissa	37·2	29·9	7. Orissa	40·4	22·9
8. Saurashtra	42·2	24·9	8. Gujarat	45·7	23·5
9. Travancore Cochin	37·4	18·0	9. Kerala'	38·9	16·1
10. Rajasthan	42·5	27·2	10. Rajasthan	42·7	19·4
11. Bombay	41·0	24·9	11. Maharashtra	41·2	19·8
12. Mysore	36·9	18·9	12. Mysore	41·6	22·2
13. Punjab	41·2	26·3	13. Punjab	44·7	18·9
14. West Bengal	35·4	28·6	14. West Bengal	42·9	20·5

On account of the reorganisation of States the data for the two decades are not exactly comparable, the territorial jurisdiction having changed meanwhile. In the case of Uttar Pradesh, however, there has been no change in jurisdiction and exact comparisons are possible. In the majority of areas the birth rate has shown an upward trend from 1941-51 to 1951-61, and in all areas except Mysore the death rate has gone down. The All-India picture is also the same. The over-all birth rate has gone up from 39·9 to 41·7 and the over-all death rate has shrunk from 27·4 to 22·8. The gap from 12·5 has widened to 18·9. During 1941-51 the lowest birth rate obtained in West Bengal on account of the depredation caused by the Great Famine. Assam continues to have the highest birth rate, the figure for 1951-61 being as high as 49·3. The States which have birth rates exceeding that of Uttar Pradesh in 1951-61 taken in descending order are Assam, Gujarat, Punjab, Bihar, Madhya Pradesh, West Bengal, Rajasthan and Mysore—all except the last in North India. The States which have birth rates below 40·0 in ascending order are Madras, Kerala and Andhra Pradesh—all in South India. Only Assam, Bihar and Andhra Pradesh have higher death rates than Uttar Pradesh. Kerala, Punjab, Rajasthan and Maharashtra have now death rates well below 20·0.

15. The exponential growth rate net of migration (birth rate minus death rate) is 18·9 for India and 16·6 for Uttar Pradesh. These rates are given in the following Table :

Table 4·2: Exponential Growth Rate Net of Migration for States, 1951-61

India and States	*E. G. R.*	*India and States*	*E. G. R.*
INDIA	18·9		
1. Andhra Pradesh	14·5	8. Gujarat	22·2
2. Madras	12·4	9. Kerala	22·8
3. *Uttar Pradesh*	16·6	10. Rajasthan	23·3
4. Assam	22·4	11. Maharashtra	21·4
5. Bihar	17·3	12. Mysore	19·4
6. Madhya Pradesh	20·0	13. Punjab	25·8
7. Orissa	17·5	14. West Bengal	22·4

All except Madras and Andhra Pradesh have exhibited a higher exponential growth rate than Uttar Pradesh. Punjab (25·8) tops followed by Rajasthan, Kerala, West Bengal, Assam, and Gujarat. Madras (12·4) shows the lowest exponential growth rate during the decade.

3. Computed Infant Death Rates for States

16. As stated in Chapter I the infant death rate is defined as the number of deaths that occur to children under one year of age in the course of a calendar year per thousand live births during that calendar year. The infant death rate reflects health conditions in a community most vividly, as the first year is the most crucial period of life. Reliable information on the levels of infant mortality is of great essence for demographic and public health purposes.

17. The All-India infant death rate as calculated by the National Sample Survey Organisation in the 14th Round comes to 146 per thousand births, which is not very different from the figures of 139 calculated by the Deputy Registrar General (Vital Statistics) for 1951-61. The infant death rate for Uttar Pradesh has been worked out as 186 which is higher than the All-India figure. The following Table gives the computed Infant Mortality Rates in India and States for the decade 1951-61:

Table 4·3: Computed Infant Death Rates in India and States, 1951-61

India and States	*I. D.R.*	*India and States*	*I. D. R.*
INDIA	139		
1. Andhra Pradesh	111	8. Maharashtra	109
2. Assam	184	9. Mysore	120
3. Bihar	145	10. Orissa	159
4. Gujarat	110	11. Punjab	110
5. Kerala	120	12. Rajasthan	117
6. Madhya Pradesh	175	13. *Uttar Pradesh*	186
7. Madras	109	14. West Bengal	120

The above Table shows that Uttar Pradesh (186) tops the list followed by Assam (184). It can be safely presumed that States which have a high infant mortality also have a high child mortality. The very high infant and child mortality rates prevailing in Uttar Pradesh call for concerted action on the part of pre-natal care, maternity, and child welfare authorities. Madras and Maharashtra seem to be doing better than all other States in this respect as the infant death rate in these States is 109.

4. Expectation of Life at Birth

18. The expectation of life at birth and at each subsequent year is also computed from Census data and Life Tables are prepared. The *Life Tables for* 1941-50 give the following expectation for each infant at birth for India and its various parts :—

Table 4·4: Expectation of Life at Birth, 1941-50

India and Zones	*Expectation in years*
INDIA	32·1
North India (U. P.)	34·2
East India	27·8
South India	36·7
West India	31·1
Central India	25·6

The expectation of life was the highest in South India and the lowest in Central India. The All-India figures was 32·06 years and for Uttar Pradesh 34·18 years. For 1951-61 the expectation of life has been calculated by States and is given in the following Table :—

Table 4·5: Expectation of Life at Birth for States in India, 1951-60

India and States	*Expectation in years*	*India and States*	*Expectation in years*
INDIA	41·2		
1. Andhra Pradesh	36·9	8. Gujarat	40·0
2. Madras	39·8	9. Kerala	48·3
3. *Uttar Pradesh*	38·9	10. Rajasthan	46·8
4. Assam	36·8	11. Maharashtra	45·2
5. Bihar	37·6	12. Mysore	40·2
6. Madhya Pradesh	40·0	13. Punjab	47·5
7. Orissa	40·9	14. West Bengal	44·3

A comparison of the above Table with the previous Table for corresponding areas will show that the expectation of life has gone up everywhere. The All-India figure has improved from 32·1 to 41·2. The figure for Uttar Pradesh has increased from 34·2 to 38·9, but the improvement is substantially less than in other areas generally. Conditions of nutrition and health have apparently not

been so good here as elsewhere. The only three States to have a lower expectation of life than Uttar Pradesh are Assam, Andhra Pradesh and Bihar. The expectation of life of an infant born in Kerala is the highest followed by those born in Punjab, Rajasthan and Maharashtra, and is the lowest for one born in Assam.

5. Birth Rates, Death Rates and Expectation of Life in Uttar Pradesh, India and Economically Advanced Countries

19. The following Table shows that birth and death rates for India are much higher than in economically advanced countries:

Table 4·6: Birth and Death Rates in U. P., India and Advanced Countries

Territory or Country	Period	Birth Rate	Death Rate
Uttar Pradesh	1951-61	41·5	24·9
INDIA	1951-61	41·7	22·8
Japan	1962	17·0	7·5
U. S. S. R.	1962	22·5	7·5
United Kingdom	1962	18·3	11·9
France	1962	17·8	11·5
Germany	1962	18·1	11·1
United States	1962	22·4	9·5
Australia	1962	22·2	8·7

The data for countries other than India have been taken from Tables 14 and 18 of the 1962 *Demographic Yearbook* of the United Nations. The high figures of births and deaths show how much waste of human life is continuously occurring in our country.

20. The above aspect is further highlighted by comparing the expectation of life at birth in Uttar Pradesh, India and the countries mentioned above as in the Table below:

Table 4·7: Expectation of Life at Birth in U. P., India, and Advanced Countries

Territory or Country	Period	Expectation in Years	
		Males	Females
Uttar Pradesh	1951–61	39·4	38·4
INDIA	1951–61	41·9	40·6
Japan	1960	65·4	70·3
U. S. S. R.	1958–59	64·4	71·7
United Kingdom	1961	68·0	73·8
France	1961	67·6	74·5
United States	1961	67·0	73·6
Australia	1953–54	67·1	72·8

The above data for the countries other than India have been obtained from Table 21 of the 1962 *Demographic Yearbook*. As expectation of life has not been worked out for each year, the relevant period to which it relates has been indicated. The expectation of life in India, though it has made considerable progress over the previous decade (males 32·5, females 31·7) is still far below the expectation in economically advanced countries. The above Table further shows that in India the male outlives the female, whereas in the countries given above the position is just the reverse. This difference might be due to the heavy mortality among females in India during the reproductive period.

21. The infant death rate in U. P. and India *vis-a-vis* other countries can be studied from Table 4·8. The data for this Table for other countries have been obtained from Table 17 of the 1962 *Demographic Yearbook* of the United Nations:

Table 4·8: Infant Death Rates in U. P., India and Selected Countries

Territory or Country	Period	Infant Death Rates
Uttar Pradesh	1951-61	186
INDIA	1951-61	139
Sweden	1962	15
Holland	1962	15
New Zealand	1962	20
England and Wales	1962	21
Norway	1960	19
Denmark	1960	22
Switzerland	1962	22
U. S. A.	1962	25
Ireland	1962	24
Canada	1961	27
France	1962	26

The infant death rate in the economically advanced countries is very low as compared to India, and in most of these countries it is below 30 per thousand. This brings into bold relief the huge wastage occurring in the first year of life in our country.

6. General Fertility Rate, Nuptial Fertility Rate and Completed Family Size

22. The general fertility rate per 1,000 women aged 15–44 can be calculated from the computed birth rate and the sex-age distribution at the Census. The proportion of women aged 15-44 vary within the close range of 20-22 per cent in all but two States, namely, Madras and Punjab. The sex-age differences cannot, therefore, satisfactorily explain the differences in the birth rate. The marital fertility rate takes into account married women only. Owing to the universality of marriage in this country the proportion of married women in the ages 15-44 is close around 85 per cent in most of the States. However, in Uttar Pradesh the percentage is 92 and in Kerala 72. These differences can to some extent explain the variations in the birth rate from State to State. Computed birth and fertility rates for the various States are given in the following Table:

Table 4·9: Birth and Fertility Rates in States, 1951-61

State	Birth Rate	General Fertility Rate	Nuptial Fertility Rate	Completed Family Size (No. of Children)
1 Andhra Pradesh	39·7	183	213	5·23
2 Madras	34·9	153	196	4·57
3 Uttar Pradesh	41·5	204	222	5·51
4 Assam	49·3	254	317	6·79
5 Bihar	43·4	205	229	5·82
6 Madhya Pradesh	43·2	203	224	5·78
7 Orissa	40·4	183	215	5·35
8 Gujarat	45·7	220	259	6·17
9 Kerala	38·9	182	265	5·10
10 Rajasthan	42·7	209	229	5·70
11 Maharashtra	41·2	195	227	5·47
12 Mysore	41·6	201	242	5·53
13 Punjab	44·7	235	278	6·03
14 West Bengal	42·9	215	258	5·74

23. The above Table makes out a certain relationship among the three rates and the average number of children born to a women of completed fertility. All the figures are the highest in the case of Assam and the lowest in the case of Madras. An Assamese woman has on the average 6·8 children, a Gujarati woman 6·2, and a Punjabi woman 6·0. On the other hand a Madrasi woman has 4·6 children, a Kerala woman 5·1, and an Andhra woman 5·2. The average number of children born to a woman in Uttar Pradesh in the whole reproductive span is 5·5. The States in which the completed family size exceeds 5·50 in descending order are Assam, Gujarat, Punjab, Bihar, Madhya Pradesh, West Bengal, Rajasthan, Mysore and Uttar Pradesh—all except Mysore located in North India. Generally speaking, a larger number of children per woman is born to the north of the 22° N latitude than to the south of it, Mysore being an exception.

7. Extent of Error in Registration Data

24. To have an idea of the extent of error through incompleteness of registration, the recorded and computed birth and death rates may be considered. The following Table indicates that in every decade there has been under-registration in both births and deaths.

Table 4·10: Recorded and Estimated Birth and Death Rates in India

Period	Birth Rate		Death Rate	
	Recorded	Estimated	Recorded	Estimated
1891—00	33	46	31	44
1901—10	37	49	33	43
1911—20	37	48	34	47
1921—30	34	46	25	36
1931—40	34	45	23	31
1941—50	27	40	19	27
1951—60*	27	42	13	23

*Excluding Assam, Bihar and U. P. where registration is grossly deficient.

The above Table reveals that in every decade there is an appreciable difference between the registered and computed birth and death rates which shows how deplorable the registration system is almost everywhere.

25. Table 4·11 exhibits the extent of under-registration of birth rates for some States during the decades 1941-51 and 1951-61. In this Table (a) means the birth rate and (b) the death rate.

Table 4·11: Registered and Computed Birth and Death Rates in India and States, 1941-51 and 1951-61

India/States	1941-51			1951-61		
		Registered	Computed		Registered	Computed
INDIA	(a)	27·2	39·9	(a)	27·1	41·7
	(b)	19·4	27·4	(b)	13·2	22·8
Madras	(a)	30·8	35·7	(a)	28·1	34·9
	(b)	20·6	22·8	(b)	14·5	22·5
Uttar Pradesh	(a)	24·8	38·6	(a)	15·9	41·5
	(b)	16·5	27·2	(b)	9·2	24·9
Assam	(a)	16·8	46·7	(a)	9·7	49·3
	(b)	11·4	31·8	(b)	4·4	26·9
Bihar	(a)	21·9	39·0	(a)	15·0	43·4
	(b)	16·1	26·6	(b)	7·9	26·1
Madhya Pradesh	(a)	37·0	46·1	(a)	19·7	43·2
	(b)	30·3	38·5	(b)	12·3	23·2
Orissa	(a)	28·2	37·2	(a)	24·7	40·4
	(b)	26·0	29·9	(b)	15·5	22·9
Travancore-Cochin	(a)	20·3	37·4	(a)	N. A.	38·9
	(b)	9·4	18·0	(b)	N. A.	16·1
Bombay	(a)	32·9	41·0	(a)	30·6	41·2
	(b)	22·6	24·9	(b)	16·4	19·8
Mysore	(a)	16·2	36·9	(a)	25·0	41·6
	(b)	11·6	18·9	(b)	N. A.	22·2
Punjab	(a)	39·5	41·2	(a)	38·7	44·7
	(b)	23·9	26·3	(b)	14·2	18·9
West Bengal	(a)	20·5	35·4	(a)	21·5	42·9
	(b)	18·9	28·6	(b)	8·9	20·5

The States for which figures are not available have been omitted from the above Table. It appears that in Assam, Bihar, Uttar Pradesh, Madhya Pradesh and West Bengal there is more than 50 per cent under-registration of births, and in Punjab and Madras less than 20 per cent during the decade 1951-61. The registration system of these two States only can be called fairly satisfactory.

26. The extent of under-registration in Uttar Pradesh is very high. Table 4·12 gives an idea about the extent in the total, rural and urban areas during the decade 1951-61. In this Table for dividing the birth between rural and urban areas the number of married women aged 15-44 in these areas have been taken into consideration. The distribution of deaths has been made proportionately between the two areas.

Table 4·12: Under-Registration of Vital Statistics in U. P. in 1951-61

Total/Rural/Urban	Estimated Births	Registered Births	Percentage Omission	Estimated Deaths	Registered Deaths	Percentage Omission
Total	28,419,640	10,919,788	61·6	17,051,790	6,318,738	63·0
Rural	25,173,860	8,155,661	67·6	14,859,790	5,060,224	66·0
Urban	3,245,780	2,764,127	14·8	2,192,000	1,258,514	42·6

A study of the above Table reveals that during this decade the total under-registration of births is 61·6 per cent, with 67·6 per cent in rural and 14·8 in urban areas. The total under-registration of deaths is 63·0 per cent with 66·0 per cent in rural and 42·6 per cent in urban areas. The percentage of under-registration of births in urban areas is less than 15, but that of deaths is surprisingly high. Even in urban areas the under-registration is considerable. Except in a few local bodies where it can be said that adequate steps have been taken to register every birth and death, the position is still unsatisfactory and much attention is needed in this direction.

8. Acknowledgment

27. In the writing of this chapter the *Census of India, Paper No. 6 of* 1954 containing an article on Computed Birth and Death Rates in India and States during 1941-50 and a paper on State Growth Rates and their components prepared by the Registrar General's office for the All-India Seminar on Population, 1964 sponsored by the Institute of Economic Growth have been of great help. The debt owed to them is gratefully acknowledged.

CHAPTER V

CONCLUSION

We have stressed earlier the amount of importance which should be attached to the correct registration of vital statistics. The statistics of natality by sex give the trend of births in a demographic group, and if they could also be collected by community, occupation, income, and mother's age they would furnish a wealth of material for the study of birth differentials by these characteristics. Reliable mortality statistics by sex, age and cause would provide a correct estimate of the risk of death to which every man or woman is exposed at a given age and also of further expectation of life at that age. Deaths by causes and by months in which they occur provide data on the incidence of particular diseases in the localities concerned and their seasonability, which enables the State to take up its public health programmes. The recording of deaths by community, occupation and income would further add to the utility of mortality statistics and furnish material for differential study by these factors. Though deaths are even now registered by causes, yet in the absence of proper classification a large number of deaths are ascribed to such vague terms as *fever* and the recording of age is anybody's guess.

2. Birth and death statistics even in respect of the characteristics for which they are collected, as noticed before, are grossly deficient. The system of registration was fairly satisfactory up to 1940, but it has progressively deteriorated since. During 1941-50 the under-registration in births was 35·8 per cent and in deaths 39·3 per cent. During 1951-60 the percentage of under-registration of births and deaths has been 67·6 and 66·0 respectively in rural areas, and 14·8 and 42·6 in urban areas. In the total population the under-registration of births and deaths has been 61·6 per cent and 63·0 per cent respectively. The deterioration set in during the years of the Second World War and has continued ever since. The improvement hoped for by the transfer of this work from *chaukidars* to village panchayats has unfortunately not materialized.

3. Earnest measures to improve the system of registration system require to be undertaken forthwith. Collection of vital statistics may be entrusted to an agency which has a literate village official operating for a group of villages, usually not exceeding 10 in number, who may gather this information during his visits to them in the course of his normal duties. If need be, a small honorarium, say 2 paise per entry, may be paid to him. This will involve a modest expenditure of about Rs. one lakh per annum which is a small price to pay for the invaluable information so gained. It would be advisable to consolidate data at the district level in the district office of the same department which is entrusted with the all important duty of collection of this vital information, otherwise village and intermediate officials will not feel the requisite responsibility. Thereafter, the figures may be transmitted to the Director of Medical & Health Services for compilation at the State level. For the appraisal of the margin of error, periodical sample surveys may be undertaken by an independent agency, such as the Director of Economic Intelligence & Statistics.

4. In the absence of reliable data on Vital Statistics recourse of necessity has to be taken to compute birth and death rates from Census figures, but the latter can be used for the State as a whole and not for natural or administrative divisions or districts owing to the variable factor of migration and the non-availability of Life Tables and adjusted Age Tables for areas smaller than the State. The knowledge of the birth and death rates for the State as one unit is not sufficient, particularly in such a vast State as Uttar Pradesh which has seven distinct natural divisions with different climates, physical features, natural vegetation, soils and agricultural conditions. Where conditions vary to such an extent, the computed rates for the whole State do not serve the required useful purpose. This makes it all the more necessary to have dependable vital data, region by region, and district by district.

5. Several social and environmental factors have a bearing on health and consequently on diseases and deaths, such as climate, sanitation, housing condition, level of education, standard of living, nature of work, and marital status. Mortality statistics as well as computed data show that the death rate is steadily on the decline. It used to be over 40 per thousand before 1921. The mean death rate per thousand in the decade 1941-51 was 27·4 for India and 27·2 for Uttar Pradesh. For 1951-61 the corresponding figures are 22·8 and 24·9. With the fall in the death rate the expectation of life at birth has increased from 32·1 in 1941-51 to 41·2 in 1951-61 for India, and from 34·2 in 1941-51 to 38·9 in 1951-61 for Uttar Pradesh. Improvement in the case of Uttar Pradesh has been relatively less. The lowering of death

rate is due to the advancements achieved in prophylactic and curative medicine, effective control of dreaded diseases such as the plague, cholera, smallpox and malaria, and better system of distribution of substinence in times of scarcity. Even now, our country has a higher death rate and a lower expectation of life than economically advanced countries as would appear from the following:

Table 5·1: Death Rates and Expectation of Life in Uttar Pradesh, India and in certain Selected Countries

Territory or Country	Death Rate per 1,000	Expectation of Life in Years at Birth
Uttar Pradesh	24·9	38·9
INDIA	22·8	41·2
Japan	7·5	67·9
U. S. S. R.	7·5	68·1
Australia	8·7	70·0
United States	9·5	70·3
France	11·5	71·2
United Kingdom	11·9	70·9

These figures have been worked out from Tables 4·6 and 4·7 of Chapter IV. Death rate of Uttar Pradesh is still higher and expectation of life lower than obtaining in the country generally. The chief cause of the high death rate in this country is the greater incidence of infant and child mortality. Table 5·2 gives the number of survivors at each age out of 1,000 children born for India and the Central Zone in which Uttar Pradesh is located.

Table 5·2: Survivors at Ages up to 5 years out of 1,000 Births in India and Central Zone (Uttar Pradesh and Madhya Pradesh)

Exact Age	Survivors in	
	India	Central Zone (U. P. and M.P.)
At Birth	1,000	1,000
1 year	855	819
2 years	826	791
3 years	805	769
4 years	788	753
5 years	776	741

These figures have been worked out from the Life Tables for 1951-60. As many as 14·5 per cent infants in India and 18·1 per cent in the Central Zone do not live to see the second year of life, and as many as 22·4 per cent in India and 25·9 per cent in Uttar Pradesh become casualties before their fifth year is out. Thus about a quarter of the children born are not destined to see more than five summers. About 50 per cent of infant mortality cases occur in the first month, 30 per cent from one to six months, i.e. more than three-fourths in the first half-year of life. The remaining one-fourth occur in the second half of the year.

6. Here, as elsewhere in the world, the number of males at birth is greater than that of females, but in advanced countries a higher rate of mortality affects the former which reduces the number of males to less than that of females at a comparatively early stage. In India (and in certain other countries) the mortality rate among males is slightly higher only up to the age of 4 years, and in Uttar Pradesh up to the age of 2 years, after which females die in relatively greater numbers. *This results in a larger number of males than of females at every age.* However, infant mortality is far greater among males than females. Table 5·3 gives the survivors of 1,000 males and 1,000 females at each age up to 5 years for India and the Central Zone.

Table 5·3: Survivors by Sex up to 5 years out of 1,000 Male and 1,000 Female Births in India and Central Zone (Uttar Pradesh and Madhya Pradesh)

Exact Age	Survivors in			
	India		Central Zone	
	M	F	M	F
At Birth	1,000	1,000	1,000	1,000
1 year	847	862	816	822
2 years	821	831	790	792
3 years	802	807	770	769
4 years	787	789	755	751
5 years	776	775	744	738

These data too have been obtained from the Life Tables for 1951-60. In Uttar Pradesh female mortality as compared with male mortality rises rapidly from the age of 10 and is very high in the ages 15-24 after which it gradually comes to level. Thus there is a great decimation of female lives during the early reproductive period, maternity taking a heavy toll.

7. Apart from improvements in public sanitation and further intensification of preventive and curative measures the following steps are indicated for reduction of the death rate:

(1) Better medical attendance at child-birth and better pre-natal and post-natal care of mothers. There are at present far more deaths of females during the reproductive ages than warranted.

(2) Better care of infants. A large number of infants die within 24 hours of their being

born. This again calls for trained attendance at birth. Child mortality is profoundly affected by (i) the age of mother at the time of effective marriage, (ii) the number of children born, (iii) the income level of the family, and (iv) environmental factors. The child-loss index rises sharply if the age of the mother at effective marriage is below 15, or the woman gives a large number of births or if the income of the family is low. Early marriages need to be discouraged and frequent pregnancies avoided, if improvement in child mortality is desired. At the same time efforts to raise the standard of living require to be continued. As survival rates of newborn children improve, birth rates will tend to fall, as the necessity of having an extra child as a matter of precaution will cease.

8. It can be assumed that the death rate will come down still further in course of time, which will make the already wide gap between the birth rate and the death rate wider still wider. The present birth and death rates in their own stride will lead to a quick natural increase of population, but a declining death rate and an increasing birth rate will inevitably lead to a mighty population explosion in no distant future, unless the former is substantially reduced. The mean birth rate per thousand in the decade 1941-51 for India and Uttar Pradesh was 39·9 and 38·6 respectively. For 1951-61 the corresponding figures are 41·7 and 41·5. There has been an appreciable increase in the birth rate of the country, the rise in Uttar Pradesh being comparatively greater. A glance at Table 4·6 of Chapter IV will reveal that the birth rate of the economically advanced countries lies between the values 17·0 and 22·5 per thousand, which is nearly half that of India and Uttar Pradesh. In those countries both the birth and the death rates are low and the expectation of life high. Only countries which have a low birth and a low death rate can provide conditions for a normal expectation of a long and healthy life.

9. For arresting the spiral growth of population, no one in his senses would suggest pushing up the death rate. The solution of the population problem lies in the drastic curtailment of the birth rate. A concerted effort is needed not only to put a curb on the rising birth rate, but also to reverse its trend. To achieve this end repeated studies in the fertility pattern will require to be undertaken. Some investigations have been made, but more are needed to study fertility behaviour by various differentials. However, the investigations made so far have yielded some positive conclusions. They have been discussed in Chapters II and III and a brief mention of them here will be sufficient.

10. From Hospital Maternities data it appears that the upper limit of age for child-birth is 47 years and the lower 12. Other important conclusions are as under:

(1) The average age for each birth order is the lowest in mothers of the highest fertility, and it progressively increases as one proceeds to mothers of lower parity.

(2) There are welcome indications that the average age at the first child-birth has shown an upward trend during the last few years. The average age for the first confinement is 20·4 years at present.

(3) The proportion of births goes down as the birth order goes up. The highest proportion obtains in the case of the first births, and decreases progressively thereafter.

(4) The bride's age at marriage is the lowest in families belonging to the Craftsmen and Production Process Workers occupational group and Managerial Workers and of enlightened hospital-minded Farmers. The average age at first maternity in the first-mentioned occupational group is only 19·5 years and in the other two, 21·7 years.

(5) The proportion of births of the 4th and higher orders is the smallest in the occupational group of Professional and Technical Workers followed by that of Clerical Workers. In these occupational groups some indirect evidence of family planning seems to exist. On the other hand, though marriages are late in the occupational group of Administrative, Executive and Managerial Workers and in that of Farmers there is no indication of any appreciably lower fertility. The proportion of births of higher orders is the greatest in the occupational group of Sales Workers followed by those of Craftsmen and Production Workers, Farmers and Unskilled Workers. Mothers coming from families belonging to these occupational groups have a large number of children and evidence of family planning in them is scarce. In the families of Farmers who visit the hospital, while marriages are late, child-bearing is in quick succession.

(6) Income also plays its part in marriage and family-building pattern. The age at marriage is the youngest in the lowest income group and as a rule progressively rises with income. This is reflected by the average ages at first maternity. In the income group of below Rs. 75 per month the average is 20·1 years; in that of Rs. 75-150, 20·4 years; in that of Rs. 151-300, 21·6 years and in that of above Rs. 300, 21·1 years. The deviation in the last-mentioned case seems to be due to sample bias.

(7) The proportion of births of the 4th and higher orders progressively falls with the rise in income. Admittedly, it is the poorest class which has the largest number of children, and it is also the class which can least afford to have them. Evidence of consciousness of family planning is given by upper income levels. What is needed is to make the lowest-income groups conscious of the same.

(8) There seems to be reason to believe that fertility differentials by occupations or incomes are not the effect of a particular occupation or standard of living—as uncontrolled fertility in this country is not much affected by social and economic factors—but are due to awareness in certain classes for deliberate birth control.

(9) Analysis of the ages of mothers by the number of previous births shows that the largest number of children are acquired during the ages 23-27 in which age-group the reproductive power seems to be at its peak. Very few children are born before the age of 17 years. The average number born in each quinquennial age-group rises steadily with the age of the mother, reaches the maximum as mentioned above, and then commences to decline. Considerable slowing down in reproduction occurs after the age of 37 years.

11. The Fertility Survey of Ever-Married Women conducted in 1961-62 yielded the following conclusions :

(1) There is universality of marriage among females and the largest proportion of married women is between the ages 18-32 which is the most fertile period. Women married once only need be considered for discussion as the percentage of women married more than once is only 2·2 in rural and 0·9 in urban areas. Widow remarriage though in existence is not common.

(2) In rural areas more than three-fourths of the marriages of girls take place below the age of 18 years, and in urban areas about two-thirds. Less than one-fourth girls in rural areas and less than one-third in urban are married at ages 18-22. The number of girls married at 23 years and above is only 2 per cent.

(3) The percentage of mothers by parity rises at first, reaches the maximum nearabout four and then declines. The largest number of mothers of completed fertility have 4 children.

(4) Each succeeding birth order brings less children than its preceding order. The 1st order of birth contributes the largest proportion of children. This result was noticed in hospital maternity cases also. A larger and larger proportion of mothers quit the arena of reproduction at each birth.

(5) The period of fertile life is usually from 18 to 37 years of age, except in the case of highly fertile women where it continues for a longer duration.

(6) A study of age-specific fertility indicates that

(i) the fertility is low under the age of 18 years, since the capacity to conceive and bear children is acquired slowly and reaches maturity about the 18th year,

(ii) thereafter, the age-specific fertility rate rises with age acquiring the maximum value in the age-group 23-27,

(iii) then it begins to decline, dwindling to half of the maximum immediately after the age of 37 years. In the age-group 43-47 it is as low as in that of under 18.

All these facts have already been noticed in the course of analysis of hospital maternity data.

(7) About 6 per cent marriages are barren. In the remainder onset of sterility commences from the age of 30 and is very well marked from the age of 37. After the age 41, sterility sets in apace.

(8) The investigation of the fertility pattern by the age at marriage reveals that

(i) Women married under the age of 18 have the largest number of children and those married at 23 or later the smallest. In other words, the more advanced the age of a woman at marriage, the lower her parity,

(ii) the contribution of the 1st order of birth to the total family size advances with the age at marriage and the parity progression ratio diminishes more quickly—these are corollaries of (i),

(iii) childlessness and secondary sterility increase as the age at marriage advances.

12. Though fertility varies from one geographical region to another, e.g., fertility is higher to the north of 22° N latitude than to its south (Mysore being an exception). The chief causes of high birth rate in this country are :

(1) Universality of marriage among females.

(2) Low age of girls at marriage.

(3) Absence of deliberate birth control measures in an overwhelming majority of married couples.

These three causes will now be taken up one by one.

13. *Universality of Marriage*—In India marriage is almost universal for females unlike western countries which have between 25 and 30 per cent of girls and women aged 15 years and above in the unmarried state. Among males the institution of marriage cannot be that

much universal, as they are appreciably in larger numbers. In Uttar Pradesh only 1·4 per cent of girls and women of 15 years and above in rural and 4·7 in urban are in the never-married state—all else being married. The following Table shows for All-India and Uttar Pradesh the percentage of married women in various age-groups from 15 years up to 44 years :

Table 5·4 : Percentage of Married Females in India and Uttar Pradesh by Rural and Urban, 1961

Age-group	India		Uttar Pradesh	
	Rural	Urban	Rural	Urban
10—14	22	7	34	10
15—19	74	52	86	59
20—24	93	86	98	91
25—29	95	93	97	96
30—34	92	91	95	95
35—39	87	87	92	92
40—44	78	77	84	85

The above Table shows that the proportion is highest in the age-group 25-29 after which it begins to fall on account of occurring cases of widowhood. Considering several age-groups of high percentages together, the largest proportion of married women is found in the ages 20-34 which incidentally are the most fertile. In India, with some exceptions, marriage is practically the only career open to girls, unlike the case in western countries where a fair percentage is in employment. Experience of those countries suggests that women's advancement in general is likely to be accompanied by a fall in marriage rate. The increasing employment of women in industries and offices in those countries have resulted in a decrease of marriages and consequent fall in the birth rate. In our urban areas some educated women have begun taking to careers, but at present not much change can be expected in rural areas in this direction. Even the employment of married women will have some effect on the birth rate. It has been ascertained that generally women in employment have lesser number of children than those engaged in domestic duties only.

14. *Low Age at Marriage*—Table 5·4 given in the previous paragraph reveals the prevalence of marriage below the age of 14 years despite the provision of the Child Marriage Restraint Act, 1929. Child-marriages are prevalent in Uttar Pradesh to a greater extent. The current mean age of marriage for rural area is 16·2 years and for urban 17·0. By the age of 19 as many as 86 per cent girls in rural and 59 per cent in urban get married. To reduce fertility it appears desirable to raise the age of marriage for both sexes. As observed in the study of ever-married women the number of children is reduced by 0·35 when the marriage age is advanced from under 18 years to 20 years and further reduced by another 0·35 if it is advanced to 23 years. Thus there is a net reduction of 0·70 child per family if the age of girls at marriage is raised to 23 years. According to A.J. Coale and C.Y. Tye, immediate temporary reduction in birth rate can be achieved, even when completed family size is not reduced, by advancing the age of marriage which would curtail the reproductive period exposed to pregnancy. In the opinion of these authorities, there are two reasons why a younger pattern of fertility results in a faster growth. One is that on account of low age of marriage some births take place which would be avoided if the girl fails to live up to the proper marriage age in a later-marriage-age society. The other is that there is less spacing between births, leading to a higher rate of growth per annum.

15. *Absence of Deliberate Birth Control Measures* —Despite economic difficulties the desire to limit the family size is conspicuous by its absence in a very large percentage of married couples. They consider children as gifts from heaven and leave the question of shelter, food and clothing to Providence absolving themselves of all responsibility in that matter. Even among those who recognise the necessity of having fewer children, a large majority is ignorant of the mechanism of conception and of the methods for avoiding the same, and quite many of those who know are on many occasions careless enough to neglect them, fondly trusting that they would be spared just for once—and lo and behold, an unwanted pregnancy is in the offing.[1]

16. A survey of attitude towards restricting the number of births was conducted in 1955 by D. N. Majumdar's team in lower-income areas of Kanpur city. The team interviewed 1,525 married women, of whom 760 expressed themselves in favour of family limitation, 506 were positively against and the remaining 259 indifferent. Thus the percentage of those who were in favour was not even 50. In rural areas it is feared to be still less. The attitudes were further analysed by differentials of community, income, education and age. The results achieved are summarised below :

Table 5·5 : Percentages of Women desiring to restrict Births, by Community, Income, Education and Age[1]

Community	Per cent	Income Group	Per Cent	Education of Mother	Per cent	Age of Mother	Per Cent
All Communities ..	49·9	All Incomes	49·9	All Education Levels ..	49·9	All Ages	49·9
Hindus	44·8	Below Rs 50	48·0	Illiterates	44·5	15—24	47·4
Muslims	70·9	Rs. 50—100	48·8	Primary	69·1	25—34	52·8
Sikhs	58·3	Rs.101—200	56·4	Secondary and ..	72·6	35—44	60·0
Christians	100·0	Above Rs. 200	53·3	College		45 and over	26·1

1 Prepared from Tables V to VIII on pp 191-2 of *Social Contours of an Industrial City* by D. N. Majumdar.

The existence of the desire to limit the family is well known among Christians. The high percentage of such women among Muslims can be readily understood against the background of large families. Higher income and education increase the awareness of the need to restrict the family. Differentials by mother's age make an interesting reading. Those of 45 and over belong to the older school and the same time have passed the stage of child-bearing. Their negative attitude is easily understandable. But that of the age-group 15-24 requires explaining. Perhaps that is due to imperfect realisation at that age of the horrors of a large family. Out of the 760 women who favoured family planning 668 were entirely ignorant of the methods, 54 were aware of certain methods but had not used them, 36 had used them on occasions and 2 preferred not to answer[2]. *This highlights the infinitesmal extent of the practice of contraception in this country .*

17. It is of utmost essence that the people should be made conscious of the need of restricting the family, if the nation is to survive. Considering the question from the national angle, a common limit for all cases may be suggested. The concept of *improvident maternity* has come to stay. It was defined by the Census Commissioner of 1951 as a child-birth occurring to a mother who had already given birth to three or more children of whom at least one was alive. Avoidance of improvident maternity will make the population maintain itself at a reasonably stationary level. 'Consistently with this approach it is immaterial if, in a particular case, the pecuniary circumstances of the family or the state of health of the mother are such that further maternity may be allowed to occur and the offspring supported without much difficulty. Whether or not an individual can afford it, the nation cannot—and hence it is 'improvident maternity' all the same'[3]. This consciousness has to be inculcated universally in all strata of the society, educated or uneducated, rich or poor. This will remove the stock argument advanced against birth control that it is practised by the better and the more educated classes of people who will further diminish in numbers, while the illiterate masses or communities not practising birth control will continue to grow.

18. Mere arousal of awareness will not be enough. Scientific knowledge of the necessary amount of human physiology relevant for the purpose and of the mechanism of conception is most necessary. Besides, mechanical and chemical contraceptives for localised use and oral contraceptives for taking by mouth—if any reliable efficacy can be discovered—should be made available in sufficient quantity at suitable centres at cheap rates, well within the reach of the masses. These centres should also be used for giving training to married couples in the use of contraceptives. The task is tremendous and no single department of Government can hope to cope with it. The energies of all departments of Government require to be pooled for this purpose and the help of all non-official organisations which are prepared to cooperate sought. For approaching rural womenfolk the services of wives of village officials will be invaluable—of such of them as are prepared to lend a willing hand in this national programme. The approach has to be human. Love, esteem and confidence have to be won before the people can be made to listen. Extensive publicity (not smacking of propaganda) will be indispensable for the proper education of the public with regard to the need for family planning and its know-how.

19. A reduction in the birth rate will indirectly induce a fall in the death rate to some extent by effecting an improvement in the health of the mother, children and the family generally. There is all the more reason why a drastic cut in births is desirable, if the population is to be kept within reasonable limits.

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2 *Ibid.*

3 Census of India, 1951, Part IA-*Report*, p. 218.

A NOTE ON THE PHYSIOLOGY OF CONCEPTION AND BIRTH CONTROL MEASURES

1. Physiology of Conception

The basis of sexual reproduction in nature is the union of the male and female germ cells, i.e., the sperms and the ova. The spermatozoa are formed in the two testes, that is, male sex glands and are collected in the epididymis where they undergo a maturing process. From there they travel up a duct called the *vas* which opens into the back part of the urethra. Here the secretions of seminal vesicles and the prostrate gland mix with the sperms at the time of ejaculation. An average ejaculation contains two to five hundred million sperms. Nature has shown extreme extravagance in the supply of male sex cells. Each sperm measures only about 1/600 of an inch in length and can be seen only with the help of a microscope. In shape it resembles a minute long tadpole with a round head, a small middle, and a long tail. The lashing of the tail from side to side propels it forward.

2. Corresponding to the testes, the two ovaries are the sex glands in the female. They are located inside the body in the lower part of the abdomen and are not visible from outside. They develop the female germ cells called the ova, of which each ovary contains a very large number. The ripening process starts with puberty and goes on slowly. Only three to five hundred develop in the entire reproductive span, and the rest degenerate. In 28 days or so, several of the cells increase in size and one of them gets more enlarged than others. As it grows, it reaches the surface of the ovary and is eventually pushed out. This extrusion of the mature ovum is called *ovulation.* It is round in shape, about 1/200 inch in diameter, just visible to the naked eye, being of the size of a small dot, and is entirely devoid of the power of locomotion. In the matter of female germ cells nature appears to be very niggardly, as only one ovum is discharged in a month. As the ovum is extruded from the ovary it is drawn into the fallopian tube which propels it slowly towards the uterus in about 3 to 4 days' time. It stays there a few days and then disintegrates or passes out. The ejectment of the ovum is an independent process and is not in the least connected with the sexual act, unlike the case in males. Ovulation generally occurs about midway between two menstrual periods, i.e., 14 to 16 days before the next menstruation and its occurrence is not felt. As a matter of fact, the release of the ovum generally sets the pace for the next menstrual cycle.

3. Sperms ejaculated in a sexual contact gain their way into the uterus very quickly and continue their journey up the fallopian tubes. If an ovum is present in one of the tubes at this juncture, they swarm round it until *one* of them enters it. A special biological mechanism prevents the entry of any further sperm. This union is called fertilization or conception. The fertilised ovum travels towards the uterus and attaches itself to its wall. It remains in the uterus during the whole period of pregnancy and then finally emerges as a new-born infant. Ovulation is suspended at the commencement of pregnancy and is resumed some months after delivery.

2. Birth Control Measures

The 'Safe Period'

Birth control consists in preventing the fertilization of the ovum by a sperm. As we have seen, only one ovum is released each month and it retains its vitality for a short time only, which according to Potter is less than 48 hours. The sperms themselves do not survive for very long. They lose their vitality in about 48 hours after their entry into the fallopian tubes. Thus conception can take place only about the ovulation time. During the remaining part of the month fertilization is unlikely, because there is no ovum to receive the sperm and the sperms cannot hope to live till the next ovulation takes place. Thus it is possible to determine the infertile period during which the probability of conception is nil or infinitesimal. This infertile period is usually referred to as the *safe period* . Ovulation occurs *from* 14 *to* 16 *days before the beginning of the next menstrual period* which brings in an amount of uncertainty; for in women of irregular periods the date of the next period cannot be exactly foretold. But some approximation is possible and a 'safe period' of smaller duration can be determined after allowing for the estimated margin of error. Calculation of the safe period may be illustrated by an example. Suppose the average period between the commencement of two consecutive menstruations in the case of woman is 24 days. Ovulation occurs between the 8th and 10th day from the start of the previous menstruation. (If the period varies from 24 to 27 days, the ovulation can occur from the 8th to the 13th day.) For the calculation of the 'unsafe period', 3 days are added on each side to eliminate the survival of the sperms or the ovum. In the example quoted, the 'unsafe period' would extend from the 5th

to the 13th day counted from the commencement of the last menstruation. The remainder of the days constitute the 'safe period'. It consists of two distinct parts—the pre-ovulation and the post-ovulation. The latter is considered to be safer. A more accurate method to determine the time of ovulation is by observing changes in the body temperature. The oral temperature taken immediately on waking continues to be low during the initial days of the menstrual cycle. Then it shows a drop of about one-third of a degree, after which it rises by about one degree and stays constant at that level for the rest of the menstrual cycle. The changeover from low to high is usually a fortnight before the commencement of the next menses and can be presumed to coincide with ovulation.

2. Birth control by safe periods is the cheapest method, as it costs nothing. Even if it fails in some individual cases, it is likely to be generally effective when applied to a very large population. It is most suited to a low-income country like India and deserves to be given a fair trial, at least in those cases where the people cannot afford or are positively averse to other modes of contraception.

Mechanical and Chemical Contraceptives

3. The main problem is to prevent the fertilization of the ovum by a sperm. This can be done in three ways (1) by avoiding to deposit sperms in the female genital tract, (2) by putting an obstruction in their path, or (3) by employing some hostile substance for their destruction. The first includes such practices as *coitus interruptus* and *coitus reservatus*, both considered unsatisfactory from the biological and psychological points of view. The second envisages the use of mechanical contraceptives and the third of chemical.

4. For males the mechanical contraceptive is the condom also known by its other names—the sheath and the french-letter. This is used as a cover for the male part during the coitus. For females the most popular mechanical contraceptive is the check pessary which covers the neck of the uterus. There are some intra-uterine appliances too, but they are not considered too satisfactory.

5. For females another mechanical contraceptive called the "Intra Uterine Contraceptive Device" is being now advocated. It is a real technological break-through for the Family Planning Programme and gives a new hope for quicker acceptance of family planning in India. The device is made up of a non-tissue reactive plastic material in the shape of a *loop*. There are several varieties of them, but the one commonly used in India is the *Lippes Loop*. It has to be inserted into the uterine cavity by a physician. It is safe, relatively effective, and highly acceptable being a " once for all ". method. It is said to be good for both spacing and limiting the family size, and is said to be free from the usual disadvantages of other contraceptives. It is being manufactured in India now and will be available at all District Female Hospitals shortly.

6. Chemical contraceptives are for women only and may be of several kinds: douche, tablets, powders, suppositories, jellies and creams.

7. For details regarding the use of mechanical and chemical contraceptives some competent physician, or the local family planning clinic, or a standard treatise may be consulted, as they are outside the scope of this work.

Sterilization

8. Exposure of testes or ovaries to X-rays produces a temporary or permanent sterility depending on the strength of the X-ray and the period and number of exposures. Correct amount of dose is rather difficult to determine.

9. An easy surgical method, technically known as *vasectomy*, is now available for the sterilization of the male. It consists in blocking the *vas* which is a long duct carrying the sperms from the testes to the back of the urethra. If these ducts are severed or tied up, the passage of the sperms is obstructed and fertilization does not take place. Otherwise, no difference is caused to the sexual act. The operation is quite simple and only a few days' rest is all that is required.

10. A similar operation can be performed on the female and to it has been given the name of *salpingectomy*. In this the fallopian tubes are shut off, which prevents the ovum from reaching the uterus. But this operation requires an abdominal incision and is not so simple.

3. Acknowledgement

In the writing of this note Dr. Hannah Stone and Dr. Abraham Stone's book *A Marriage Manual* has been of great help and guidance and the writer acknowledges his indebtedness to these authors.

Table 1—*Decennial Birth Rate, Death Rate, Growth Rate, Rate of Natural Increase and Per Cent Migration-cum-Registration Error in Uttar Pradesh during* 1941-50 *and* 1951-60 *decades*

Decennium	Total Rural Urban	Mean Population of decade	Mean Population of decade for area under registration of birth and death	Registered births during the decade	Mean Decennial Birth Rate (Registered)	Registered Deaths during decade	Mean Decennial Death Rate (Registered)	Decennial Rate of Natural Increase	Mean Decennial Growth Rate	Per Cent Migration cum-Registration Error
1	2	3	4	5	6	7	8	9	10	11
1941-50	T	59,873,795	58,473,509	14,479,317*	24·8	9,664,105*	16·5	8·3	11·2	2·9
	R	52,050,811	50,834,416	11,963,466	23·5	7,945,208	15·6	7·9	9·9	2·0
	U	7,822,984	7,639,093	2,515,851	32·9	1,718,897	22·5	10·4	20·0	9·6
1951-60	T	68,481,072	68,481,072	10,919,788	15·9	6,318,738	9·2	6·7	15·4	8·7
	R	59,428,275	59,428,275	8,155,661	13·7	5,060,224	8·5	5·2	16·3	11·1
	U	9,052,797	9,052,797	2,764,127	30·7	1,258,514	13·9	16·8	9·4	7·4

*Excludes figures of Tehri Garhwal and Rampur being not available.

Table 2—*Registered Births, Deaths, and their Rates and Sex-ratio at birth and death from* 1941 *to* 1960 in *Uttar Pradesh*

	Births			Deaths			Birth Rate			Death Rate			Female births per 1,000 male births	Female deaths per 1,000 male deaths
Years	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1941	1,771,957	945,232	826,725	1,064,908	575,476	489,432	32·2	17·2	15·0	19·3	19·9	18·7	875	850
1942	1,593,416	850,351	743,065	1,033,429	556,759	476,670	28·5	15·2	13·3	18·8	19·0	17·9	874	856
1943	1,397,513	749,907	647,606	1,087,445	589,156	498,289	24·6	13·2	11·4	19·8	19·8	18·5	864	846
1944	1,436,026	772,719	663,307	1,072,412	590,771	481,641	25·1	13·5	11·6	19·5	19·7	17·7	858	815
1945	1,580,961	850,074	730,887	1,096,985	601,762	495,223	27·4	14·7	12·7	19·9	19·9	18·0	860	823
1946	1,459,738	784,963	674,775	918,834	504,502	414,332	25·0	13·4	11·6	15·7	16·5	14·9	860	821
1947	1,356,209	733,213	622,996	970,172	527,889	442,283	22·9	12·4	10·5	16·4	17·0	15·7	850	838
1948	1,230,783	667,624	563,159	819,266	454,975	364,291	20·6	11·2	9·4	13·7	14·5	12·8	844	801
1949	1,351,209	732,531	618,678	766,044	426,651	339,393	22·4	12·1	10·3	12·7	13·5	11·8	845	795
1950	1,308,645	710,071	598,574	839,176	463,408	375,768	21·3	11·6	9·7	13·5	14·4	12·9	843	811
1941-50	***14,486,457**	***7,796,685**	***6,689,772**	***9,668,671**	***5,291,349**	***4,377,922**	**25·1**	**13·5**	**11·6**	**16·5**	**17·4**	**15·9**	**858**	**827**
1951	1,252,028	683,356	568,672	726,410	401,230	325,180	19·8	10·8	9·0	11·5	12·1	10·8	832	810
1952	1,117,139	609,268	507,871	685,979	378,673	307,306	17·4	9·5	7·9	10·8	11·3	10·1	834	812
1953	1,120,179	613,367	506,812	705,268	390,413	314,855	17·3	9·5	7·8	11·0	11·5	10·2	826	806
1954	1,092,282	595,514	496,768	647,265	358,743	288,522	16·7	9·1	7·6	10·0	10·5	9·2	834	804
1955	1,020,309	553,074	467,235	550,677	304,606	246,071	15·5	8·4	7·1	8·4	8·8	7·8	845	808
1956	1,031,500	563,952	467,548	573,384	315,525	257,859	15·4	8·4	7·0	8·6	9·0	8·1	829	817
1957	1,002,586	551,087	451,499	571,974	316,672	255,302	14·8	8·1	6·7	8·5	8·9	7·9	819	806
1958	1,080,769	592,106	488,663	660,470	363,182	297,288	15·9	8·7	7·2	9·7	10·2	9·1	825	819
1959	1,046,109	571,528	474,581	547,826	299,740	248,086	15·2	8·3	6·9	7·9	8·3	7·5	830	828
1960	1,156,887	632,429	524,458	649,485	355,046	294,439	16·6	9·1	7·5	9·3	9·8	8·9	829	829
1951-60	**10,919,788**	**5,965,681**	**4,954,107**	**6,318,738**	**3,483,830**	**2,834,908**	**15·9**	**8·7**	**7·2**	**9·2**	**9·7**	**8·7**	**830**	**814**

*Figures for registered birth and death were not available for Tehri-Garhwal and Rampur and a portion of Banaras district comprising the former Banaras State except the figures of Rampur for the year 1950.

Table 3—*Registered Birth Rate by Sex in Uttar Pradesh and Natural Divisions*—1951-60

Number of Births per 1,000 of total population

	Uttar Pradesh		Himalayan Division		East Plain Division		Central Plain Division		West Plain Division		Hills and Plateau Division	
Years	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13
1951	10·8	9·0	12·8	12·1	8·7	7·2	9·7	8·1	12·9	10·6	12·9	10·7
1952	9·5	7·9	11·9	11·2	7·7	6·5	8·5	7·0	11·1	9·2	9·8	8·1
1953	9·5	7·8	11·7	10·7	8·1	6·6	8·0	6·6	11·0	9·1	9·6	8·0
1954	9·1	7·6	10·5	9·6	7·3	6·1	7·4	6·1	11·0	9·1	10·0	8·4
1955	8·4	7·1	9·2	8·5	6·8	5·5	6·8	6·0	10·0	8·3	9·2	7·5
1956	8·4	7·0	10·2	9·3	6·9	5·6	7·1	5·9	9·8	8·1	8·8	7·3
1957	8·1	6·7	9·6	8·7	6·3	5·1	6·7	5·5	9·4	8·0	8·1	6·7
1958	8·7	7·2	9·8	9·0	6·7	5·5	6·6	5·5	10·7	8·7	8·8	7·2
1959	8·3	6·9	9·1	8·4	6·2	5·2	6·6	5·4	10·1	8·3	8·2	6·9
1960	9·1	7·5	7·9	7·5	6·8	5·8	6·8	5·6	11·7	9·5	7·3	5·9
1951-60	**8·7**	**7·2**	**10·1**	**9·3**	**7·1**	**5·5**	**7·3**	**6·1**	**10·8**	**8·8**	**9·1**	**7·6**

Table 4—*Registered Death Rate by Sex in Uttar Pradesh and Natural Divisions*—1951-60

Number of Deaths per 1,000 of each sex of the population

	Uttar Pradesh		Himalayan Division		East Plain Division		Central Plain Division		West Plain Division		Hills and Plateau Division	
Years	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13
1951	12·1	10·8	14·7	13·9	12·4	11·2	12·1	10·6	11·3	10·5	12·2	10·6
1952	11·3	10·1	12·8	12·5	10·7	8·8	10·6	9·1	11·9	11·4	11·7	10·4
1953	11·5	10·2	14·1	14·1	10·4	8·3	9·9	8·5	12·8	12·3	11·9	10·5
1954	10·5	9·2	11·8	11·5	9·1	7·2	8·6	7·4	12·2	11·6	11·0	9·7
1955	8·8	7·8	9·7	9·2	6·8	5·4	8·2	7·2	10·1	9·6	9·0	8·1
1956	9·0	8·1	11·1	10·9	8·1	6·6	8·2	7·1	9·6	9·3	7·8	7·0
1957	8·9	7·9	9·8	9·5	7·9	6·5	8·6	7·4	9·2	8·7	8·6	7·6
1958	10·2	9·1	10·1	9·6	7·8	6·7	8·4	7·3	12·3	11·7	8·6	8·5
1959	8·3	7·5	8·7	8·2	6·1	5·2	6·4	5·6	10·5	10·2	6·7	6·3
1960	9·8	8·9	7·9	7·4	7·3	6·4	7·0	6·1	12·7	12·3	7·4	6·6
1951-60	**9·7**	**8·7**	**10·8**	**10·4**	**8·6**	**7·1**	**8·7**	**7·5**	**11·2**	**10·7**	**9·3**	**8·4**

Table 5—*Deaths by months from Cholera, Plague, Small Pox, Fever including Malaria and Dysentery and Diarrhoea in Uttar Pradesh during the decade*—1951-60

Months	Causes of Death				
	Cholera	Plague	Small Pox	Fever including Malaria	Dysentery and Diarrhoea
1	2	3	4	5	6
January	432	2,991	11,895	321,192	17,082
February	636	3,644	11,661	296,791	16,193
March	2,618	4,965	19,965	326,406	20,536
April	3,679	2,740	25,735	337,360	22,459
May	7,135	1,049	30,061	367,421	24,952
June	10,748	467	27,087	382,059	26,951
July	9,167	292	14,683	359,237	26,631
August	17,338	157	8,225	375,802	30,166
September	10,213	162	4,955	385,975	29,037
October	6,428	246	3,193	364,103	24,140
November	2,236	323	4,666	348,231	22,002
December	1,017	470	6,774	347,909	20,983
Total ..	71,647	17,506	168,900	4,212,486	281,132

Table 6—*Deaths from Specific Causes and their proportion to* 1,000

Years	Rural/Urban	Deaths from specific diseases: Cholera	Small-pox	Plague	Fever including Malaria	Dysentery and Diarrhoea	Respiratory Diseases	Other Causes
1	2	3	4	5	6	7	8	9
1951 ..	R	5,387	47,178	12,518	415,148	20,924	27,365	58,451
	U	300	2,017	441	57,404	9,277	24,233	45,767
1952 ..	R	10,296	17,581	2,882	401,827	22,170	29,123	61,213
	U	663	914	225	60,146	9,308	24,326	45,305
1953 ..	R	10,226	11,727	731	423,903	24,910	29,778	64,540
	U	929	1,898	31	60,865	9,549	22,528	43,653
1954 ..	R	2,260	12,968	445	397,135	20,315	30,618	59,090
	U	90	3,437	31	52,776	7,535	20,678	39,887
1955 ..	R	1,358	13,066	54	331,108	15,687	25,279	46,129
	U	90	2,196	2	49,178	6,238	19,916	40,376
1956 ..	R	3,584	5,056	88	344,291	17,081	28,155	56,866
	U	325	686	6	48,582	7,545	19,019	42,100
1957 ..	R	15,243	6,457	46	321,888	19,808	27,872	65,557
	U	1,405	646	2	47,047	6,799	18,059	41,145
1958 ..	R	6,288	25,288	4	370,204	21,834	37,097	69,445
	U	463	3,048	..	54,963	7,875	20,825	43,136
1959 ..	R	594	5,671	..	321,741	17,239	35,943	57,139
	U	51	657	..	44,413	6,502	17,853	40,023
1960 ..	R	10,853	7,235	..	359,545	22,712	41,902	84,108
	U	1,242	1,174	..	50,322	7,824	19,570	42,998
Total 1951-60	**T**	***71,647***	***168,900***	***17,506***	***4,212,486***	***281,132***	***520,139***	***1,046,928***
	R	**66,089**	**152,227**	**16,768**	**3,686,790**	**202,684**	**313,132**	**622,538**
	U	**5,558**	**16,673**	**738**	**525,696**	**78,452**	**207,007**	**424,390**

Table 7—*Deaths and their Rates registered from certain causes*

Years	Total Rural Urban	Fevers: Malaria Death	Malaria Rate	Enteric Fever Death	Enteric Fever Rate	Measles Death	Measles Rate	Relapsing Fever (Spirochaetal) Death	Relapsing Fever (Spirochaetal) Rate
1	2	3	4	5	6	7	8	9	10
1956	T	76,178	1·10	9,674	0·14	3,605	0·05	1,185	0·02
	R	63,471	1·10	7,334	0·13	2,409	0·04	1,066	0·02
	U	12,707	1·34	2,340	0·25	1,196	0·13	119	0·01
1957	T	56,541	0·84	8,600	0·13	1,834	0·03	1,435	0·02
	R	44,299	0·74	6,962	0·12	1,202	0·02	1,314	0·02
	U	12,242	1·27	1,638	0·17	632	0·06	121	0·01
1958	T	53,300	0·78	14,085	0·21	5,670	0·08	1,495	0·02
	R	42,387	0·72	11,929	0·20	3,955	0·07	1,395	0·02
	U	10,913	1·11	2,156	0·22	1,715	0·17	100	0·01
1959	T	43,894	0·64	9,991	0·14	2,338	0·03	1,048	0·01
	R	36,437	0·61	8,427	0·14	1,883	0·03	915	0·01
	U	7,457	0·74	1,564	0·16	455	0·04	133	0·01
1960	T	35,882	0·51	11,541	0·16	3,707	0·05	1,697	0·02
	R	28,987	0·49	9,263	0·15	2,441	0·04	1,538	0·02
	U	6,895	0·68	2,278	0·22	1,266	0·12	159	0·01

deaths with R/U break-down from 1951 *to* 1960 *in Uttar Pradesh*

		Proportion to 1,000 deaths for each specific disease						
Total deaths from all causes	Rate per 1,000	Cholera	Small-pox	Plague	Fever including Malaria	Dysentery and Diarrhoea	Respiratory Diseases	Other Causes
10	11	12	13	14	15	16	17	18
586,971	10·8	9	80	21	707	36	47	100
139,439	16·1	2	14	3	412	67	174	328
545,092	9·9	19	32	5	737	41	54	112
140,887	16·0	5	6	2	427	66	173	321
565,815	10·2	18	21	1	749	44	53	114
139,453	15·5	7	14	N	436	68	162	313
522,831	9·4	4	24	1	745	38	57	131
124,434	13·6	1	28	N	424	61	166	320
432,681	7·7	3	31	N	765	36	58	107
117,996	12·6	1	18	N	417	53	169	342
455,121	8·0	8	11	N	756	38	62	125
118,263	12·5	3	6	N	411	64	161	355
456,871	7·9	33	14	N	705	43	62	143
115,103	12·0	12	6	N	409	59	157	357
530,160	9·1	12	48	N	698	41	70	131
130,310	13·3	4	23	..	422	60	160	331
438,327	7·1	2	13	..	734	39	82	130
109,499	11·2	N	6	..	406	59	163	366
526,355	8·4	20	14	..	683	43	80	160
123,130	12·4	10	9	..	409	64	159	349
6,318,738	**9.2**	**11**	**27**	**3**	**666**	**44**	**82**	**167**
5,060,226	**8.5**	**13**	**30**	**3**	**727**	**40**	**62**	**125**
1,258,514	**13.9**	**4**	**13**	**1**	**418**	**62**	**165**	**337**

breakdown from 1956 *to* 1960 *in Uttar Pradesh*

		Fevers							
Kala Azar		Influenza		Cerebro-spinal fever		Typhus fever		Black Water fever	
Death	Rate	Death	Rate	Death	Rate	Death	Rate	Death	Rate
11	12	13	14	15	16	17	18	19	20
825	0·01	3,316	0·05	397	0·00	4,143	0·06	896	0·01
782	0·01	3,099	0·05	373	0·01	3,543	0·06	880	0·01
43	0·00	217	0·02	24	0·00	600	0·06	16	0·00
1,062	0·01	5,037	0·07	494	0·01	2,155	0·03	430	0·01
1,026	0·02	4,820	0·08	462	0·01	1,834	0·03	422	0·01
36	0·00	217	0·02	32	0·00	321	0·03	8	0·00
537	0·01	3,839	0·06	242	0·00	3,326	0·05	530	0·01
479	0·01	3,694	0·06	193	0·00	2,605	0·04	508	0·01
58	0·00	145	0·01	49	0·00	721	0·07	22	0·00
619	0·01	3,759	0·05	426	0·00	2,937	0·04	296	0·00
600	0·01	3,564	0·06	343	0·00	2,416	0·04	287	0·00
19	0·00	195	0·02	83	0·01	521	0·05	9	0·00
689	0·01	4,356	0·06	265	0·00	4,438	0·06	284	0·00
650	0·01	4,093	0·07	220	0·00	3,646	0·06	258	0·00
39	0·00	263	0·02	45	0·00	792	0·08	26	0·00

Table 7—*Deaths and their Rates registered from certain causes*

Years	Total Rural Urban	Fevers (*concld.*)		Dysentery and Diarrhoea				Respiratory	
		Other fevers		Dysentery		Diarrhoea		Pneumonia	
		Death	Rate	Death	Rate	Death	Rate	Death	Rate
1	2	21	22	23	24	25	26	27	28
1956	T	292,654	4·37	11,261	0·17	13,365	0·20	22,033	0·33
	R	261,334	4·55	8,831	0·15	8,250	0·14	12,406	0·22
	U	31,320	3·30	2,430	0·26	5,115	0·54	9,627	0·96
1957	T	291,347	4·31	11,419	0·17	15,188	0·22	20,136	0·30
	R	259,547	4·48	9,278	0·16	10,530	0·18	11,709	0·20
	U	31,800	3·29	2,141	0·22	4,658	0·48	8,427	0·87
1958	T	342,143	5·01	13,463	0·20	16,246	0·24	25,893	0·38
	R	303,059	5·18	10,373	0·18	11,461	0·20	15,549	0·26
	U	39,084	3·99	3,090	0·31	4,785	0·49	10,344	1·06
1959	T	300,846	4·36	11,802	0·17	11,939	0·17	26,376	0·38
	R	266,869	4·52	9,313	0·16	7,926	0·13	17,462	0·29
	U	33,977	3·41	2,489	0·25	4,013	0·40	8,914	0·89
1960	T	347,008	4·98	14,700	0·21	15,836	0·23	28,725	0·41
	R	308,449	5·18	11,756	0·20	10,956	0·18	18,773	0·31
	U	38,559	3·78	2,944	0·29	4,880	0·48	9,952	0·98

Table 7—*Deaths and their Rates registered from certain causes*

Years	Total Rural Urban	Other Causes					
		Diphtheria		Chicken pox		Mumps	
		Death	Rate	Death	Rate	Death	Rate
1	2	39	40	41	42	43	44
1956	T	437	0·01	5,697	0·08	425	0·01
	R	326	0·00	4,664	0·08	393	0·01
	U	111	0·01	1,033	0·11	32	0·00
1957	T	482	0·01	4,397	0·06	580	0·01
	R	369	0·01	3,858	0·07	537	0·01
	U	113	0·01	539	0·05	43	0·00
1958	T	453	0·01	9,410	0·14	364	0·00
	R	283	0·00	7,563	0·13	291	0·00
	U	170	0·02	1,847	0·19	73	0·01
1959	T	397	0·00	3,084	0·04	128	0·00
	R	201	0·00	2,444	0·04	83	0·00
	U	196	0·02	640	0·06	45	0·00
1960	T	519	0·01	5,758	0·08	212	0.00
	R	298	0·00	4,940	0·08	169	0.00
	U	221	0·02	818	0·08	43	0.00

with total/rural/urban breakdown from 1956 *to* 1960 *in Uttar Pradesh*—contd.

Diseases						Other Causes			
Pulmonary Tuberculosis		Whooping Cough		Other respiratory diseases		Beri-beri		Acute Poliomyelitis	
Death	Rate	Death	Rate	Death	Rate	Death	Rate	Death	Rate
29	30	31	32	33	34	35	36	37	38
5,503	0·08	3,804	0·06	15,508	0·23	165	0·00	612	0·01
3,527	0·06	3,211	0·05	8,685	0·15	111	0·00	517	0·01
1,976	0·21	593	0·06	6,823	0·72	54	0·00	95	0·01
5,064	0·07	3,621	0·05	16,628	0·25	134	0·00	720	0·01
3,263	0·06	3,041	0·05	9,490	0·16	117	0·00	652	0·01
1,801	0·19	580	0·06	7,138	0·74	17	0·00	68	0·01
4,869	0·07	4,410	0·06	17,887	0·20	221	0·00	749	0·01
3,083	0·05	3,649	0·06	10,884	0·19	191	0·00	657	0·01
1,786	0·18	761	0·08	7,003	0·71	30	0·00	92	0·01
5,247	0·08	4,699	0·07	17,474	0·25	65	0·00	880	0·01
3,316	0·06	3,890	0·06	11,275	0·20	49	0·00	795	0·01
1,931	0·19	809	0·08	6,199	0·62	16	0·00	85	0·01
6,039	0·09	5,710	..	20,998	0·30	85	0·00	792	0·01
4,043	0·07	4,887	..	14,199	0·24	64	0·00	684	0·01
1,996	0·19	823	..	6,799	0·67	21	0·00	108	0·01

with total/rural/urban breakdown from 1956 *to* 1960 *in Uttar Pradesh*—concld.

Other Causes								
Tuberculosis of joints		Other tubercular diseases		Leprosy		Cancer		Deaths from child birth
Death	Rate	Death	Rate	Death	Rate	Death	Rate	
45	46	47	48	59	50	51	52	53
719	0·01	3,111	0·05	364	0·00	675	0·01	2,611
529	0·01	2,198	0·04	281	0·00	266	0·00	1,754
190	0·02	913	0·10	83	0·01	409	0·04	857
710	0·01	3,048	0·04	422	0·01	578	0·01	2,479
631	0·01	2,169	0·04	341	0·00	223	0·00	1,759
79	0·01	879	0·09	81	0·01	355	0·04	720
476	0·01	3,472	0·35	257	0·00	605	0·01	2,015
327	0·00	2,436	0·04	159	0·00	227	0·00	1,291
149	0·01	1,036	0·10	98	0·01	378	0·04	724
487	0·01	4,090	0·06	212	0·00	554	0·01	1,982
244	0·00	2,449	0·04	122	0·00	128	0·00	1,237
243	0·02	1,641	0·16	90	0·01	426	0·04	745
666	0·01	3,847	0·05	277	0·00	694	0·01	1,934
447	0·01	2,856	0·05	188	0·00	220	0·00	1,284
219	0·02	991	0·10	89	0·01	474	0·05	650

Table 8—*Deaths by Age and Sex*

Years	Under 1 year			1—4 years			5—9 years		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7	8	9	10
1951 ..	161,934	90,818	71,116	121,759	66,780	54,979	48,227	26,635	21,592
1952 ..	144,214	80,435	63,779	122,040	66,778	55,262	43,289	24,107	19,182
1953 ..	136,143	76,066	60,077	132,488	72,284	60,204	48,496	26,818	21,678
1954 ..	120,583	66,552	54,031	122,690	66,942	55,748	45,159	25,018	20,141
1955 ..	101,032	55,738	45,294	101,544	55,577	45,967	41,265	22,661	18,604
1956 ..	108,551	59,220	49,331	102,017	55,727	46,290	42,300	23,254	19,046
1957 ..	97,446	53,677	43,769	94,346	51,331	43,015	43,644	23,936	19,708
1958 ..	111,282	60,826	50,456	127,345	69,799	57,546	55,913	30,697	25,216
1959 ..	89,045	48,751	40,294	98,270	53,417	44,853	41,667	22,828	18,839
1960 ..	106,141	58,400	47,741	112,935	61,226	51,709	50,321	27,505	22,816
1951-60 ..	*1,176,371*	*650,483*	*525,888*	*1,135,434*	*619,861*	*515,573*	*460,281*	*253,459*	*206,822*

Table 8—*Deaths by Age and Sex*

Years	30—39 years			40—49 years		
	Persons	Males	Females	Persons	Males	Females
1	20	21	22	23	24	25
1951	55,927	29,871	26,056	58,826	33,550	25,276
1952	51,119	27,481	23,638	55,817	32,173	23,644
1953	52,597	28,546	24,051	58,003	33,528	24,475
1954	48,319	26,289	22,030	56,113	32,526	23,587
1955	41,026	22,113	18,913	46,896	26,713	20,183
1956	42,442	22,977	19,465	47,681	26,936	20,745
1957	44,061	24,173	19,888	50,949	28,876	22,073
1958	46,885	25,287	21,598	55,354	31,196	24,158
1959	41,582	22,153	19,429	48,267	26,980	21,287
1960	49,777	26,476	23,301	58,770	32,722	26,048
1951-60	473,735	255,366	218,369	536,676	305,200	231,476

during 1951 *to* 1960 *in Uttar Pradesh*

10—14 years			15—19 years			20—29 years		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
11	12	13	14	15	16	17	18	19
37,907	20,718	17,189	36,646	19,134	17,512	53,498	26,445	27,053
33,545	18,165	15,380	33,592	17,562	16,030	49,444	24,326	25,118
36,126	19,703	16,423	34,695	18,132	16,563	50,775	25,682	25,093
32,494	17,999	14,495	30,635	16,316	14,319	44,158	22,523	21,635
29,195	16,078	13,117	26,740	14,217	12,523	36,895	18,892	18,003
30,363	*16,651*	*13,712*	*28,806*	*15,412*	*13,394*	*39,326*	*20,054*	*19,272*
31,029	16,912	14,117	30,845	16,461	14,384	40,100	20,835	19,265
35,061	19,013	16,048	33,841	18,078	15,763	44,391	23,029	21,362
29,136	15,796	13,340	28,040	15,063	12,977	37,186	18,919	18,267
33,794	18,520	15,274	33,355	17,671	15,684	43,642	22,442	21,200
328,650	**179,555**	**149,095**	**317,195**	**168,046**	**149,149**	**349,415**	**223,147**	**216,268**

during 1951 *to* 1960 *in Uttar Pradesh*—concld.

50—59 years			60 + years			Total		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
26	27	28	29	30	31	32	33	34
61,891	36,149	25,742	89,795	51,130	38,665	726,410	401,230	325,180
62,356	36,493	25,863	90,563	51,153	39,410	685,979	378,673	307,306
64,954	38,093	26,861	90,991	51,561	39,430	705,268	390,413	314,855
61,668	35,889	25,779	85,446	48,689	36,757	647,265	358,743	288,522
54,070	31,285	22,785	72,014	41,332	30,682	550,677	304,606	246,071
53,627	30,597	23,030	78,271	44,697	33,574	573,384	315,525	257,859
58,692	33,536	25,156	80,862	46,935	33,927	571,974	316,672	255,302
63,681	36,162	27,519	86,717	49,095	37,622	660,470	363,182	297,288
56,396	31,696	24,700	78,237	44,137	34,100	547,826	299,740	248,086
68,470	38,190	30,280	92,280	51,894	40,386	649,485	355,046	294,439
605,805	**348,090**	**257,715**	**845,176**	**480,623**	**364,553**	**6,3,18738**	**3,483,830**	**2,834,908**

Table 9(A)—*District wise Births and Deaths from* 1951 *to* 1955

Sl. No.	Districts	1951		1952		1953		1954		1955	
		Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths
1	2	3	4	5	6	7	8	9	10	11	12
1	*Uttar Kashi	Not Available									
2	*Chamoli	Not Available									
3	*Pithoragarh	Not Available									
4	Tehri Garhwal	Not Available		10,207	5,936	8,539	6,225	7,609	5,333	6,365	3,492
5	Garhwal	20,748	13,579	21,192	12 898	21,577	14,947	18,583	12,217	14,373	9,607
6	Almora	20,635	10,977	17,095	8,128	18,429	10,850	16,368	9,239	15,088	8,053
7	Naini Tal	6,428	3,343	5,268	2,564	5,430	2,454	5,669	2,075	5,821	2,125
8	Bijnor	25,011	10,601	18,551	10,480	15,659	8,695	24,112	14,023	21,548	12,540
9	Moradabad	47,897	19,402	39,528	19,747	39,675	21,833	39,478	22,300	34,225	16,154
10	Budaun	34,755	18,004	31,757	19,995	28,766	19,121	36,404	23,003	29,581	17,621
11	Rampur	10,481	4,768	9,061	4,138	8,234	4,160	7,674	4,476	6,987	4,039
12	Bareilly	32,129	14,656	32,286	19,775	27,371	18,385	22,290	15,802	21,328	15,191
13	Pilibhit	10,697	7,001	9,764	7,258	9,247	5,677	9,188	6,146	9,944	7,000
14	Shahjahanpur	23,564	12,368	19,253	12,623	18,112	11,498	16,719	10,104	16,100	10,353
15	Dehra Dun	6,018	3,239	5,759	3,164	5,024	2,689	6,007	2,489	5,059	2,585
16	Saharanpur	30,388	15,419	31,442	21,516	27,517	17,620	31,517	18,287	33,000	19,656
17	Muzaffarnagar	29,719	11,147	21,794	11,011	28,079	18,831	30,168	17,135	27,712	14,804
18	Meerut	52,829	20,660	43,655	21,144	50,083	29,973	53,695	28,098	56,465	24,151
19	Bulandshahr	28,503	15,049	26,288	13,884	34,063	20,441	29,825	20,091	30,589	19,250
20	Aligarh	37,475	17,101	42,091	22,930	37,260	24,515	32,275	21,928	30,288	16,205
21	Mathura	21,760	9,571	19,510	9,808	22,223	12,323	20,581	10,087	17,989	7,67 1
22	Agra	42,604	17,809	38,535	19,223	26,495	10,105	33,266	14,979	33,154	13,677
23	Etah	22,244	9,075	17,992	8,321	18,051	10,353	17,584	10,491	14,580	8,049
24	Mainpuri	20,195	9,193	10,586	9,056	18,049	10,599	15,399	9,960	14,395	7,872
25	Farrukhabad	21,843	11,913	21,204	14,672	17,602	20,192	20,825	12,076	20,743	11,065
26	Etawah	24,493	12,494	25,942	14,397	22,982	14,861	27,734	18,378	15,378	7,731
27	Kanpur	44,618	25,018	39,438	27,161	41,117	27,243	39,625	24,218	38,376	27,749
28	Fatehpur	14,460	7,944	10,935	4,508	13,849	6,931	14,313	8,021	13,900	8,421
29	Allahabad	35,455	18,494	28,977	17,129	30,416	15,369	32,626	13,913	34,347	9,186
30	Jhansi	28,901	13,114	24,483	15,954	21,552	13,738	21,918	13,331	17,206	10,127
31	Jalaun	14,422	6,149	10,796	6,309	10,878	6,687	11,792	6,229	11,767	5,884
32	Hamirpur	14,337	7,071	5,919	3,466	15,667	11,128	12,294	7,637	11,291	6,473
33	Banda	13,774	7,142	11,995	7,941	8,583	4,782	13,648	7,273	13,800	7,245
34	Kheri	19.606	13,162	11,661	10,569	14,815	9,309	15,635	9,034	15,158	8,458

Table 9(A)—*District wise Births and Deaths from* 1951 *to* 1955—concld.

Sl. No.	Districts	1951		1952		1953		1954		1955	
		Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths
1	2	3	4	5	6	7	8	9	10	11	12
35	Sitapur	21,001	12,920	14,032	10,103	16,152	10,290	15,818	9,946	13,925	10,535
36	Hardoi	27,284	13,626	30,661	17,740	23,690	13,350	16,278	9,360	14,836	8,665
37	Unnao	14,565	10,354	15,056	10,946	15,828	11,181	13,598	9,206	13,554	9,190
38	Lucknow	25,240	12,984	28,377	17,185	28,804	15,193	26,782	12,942	28,737	13,767
39	Rae Bareli	13,743	11,916	10,573	6,910	10,753	9,626	12,065	7,716	12,704	8,585
40	Bahraich	22,851	18,076	23,072	14,930	22,085	12,734	19,489	11,192	16,769	8,694
41	Gonda	26,913	22,704	22,011	16,978	19,844	16,275	29,255	19,671	24,062	14,805
42	Bara Banki	23,704	14,903	19,964	13,179	17,775	13,238	15,682	11,064	13,790	11,638
43	Faizabad	21,556	15,939	24,103	13,930	21,834	13,208	19,030	12,186	15,370	9,288
44	Sultanpur	29,484	28,827	18,824	14,459	12,271	9,829	11,504	9,469	10,882	9,179
45	Pratapgarh	15,207	10,780	12,409	8,704	10,898	7,465	11,024	7,003	9,167	5,714
46	Basti	35,868	32,061	28,906	20,764	32,470	21,056	31,596	20,249	26,280	15,029
47	Gorakhpur	38,629	30,327	32,816	24,594	35,344	23,503	21,094	24,139	28,111	13,897
48	Deoria	25,459	23,560	20,873	15,818	32,978	18,188	35,370	17,333	29,695	13,380
49	Azamgarh	30,561	22,051	33,849	21,624	25,580	14,994	22,132	12,649	24,894	13,212
50	Jaunpur	27,830	18,324	21,642	13,184	22,674	14,389	18,090	9,651	15,070	6,793
51	Ballia	11,211	7,937	13,846	9,978	15,277	9,676	14,423	7,690	12,228	6,340
52	Ghazipur	17,544	12,310	21,937	12,498	21,325	13,924	18,003	8,657	14,434	6,238
53	Varanasi	46,602	30,073	42,421	26,117	42,960	26,780	39,438	20,225	40,262	16,677
54	Mirzapur	20,787	10,275	18,303	10,583	15,293	9,734	16,786	8,544	16,982	6,515

*These districts were created in February 1960

Table 9(B)—*District wise Births, Deaths and Infant Deaths*

Sl. No.	Districts		Total Rural Urban	1956 Births	1956 Deaths	1956 Infant Deaths	1957 Births	1957 Deaths	1957 Infant Deaths
1	2		3	4	5	6	7	8	9
1	*Uttar Kashi	..	T						
			R			Not Available			
			U						
2	*Chamoli	..	T						
			R			Not Available			
			U						
3	*Pithoragarh	..	T						
			R			Not Available			
			U						
4	Tehri Garhwal	..	T	6,295	4,205	493	7,257	4,336	478
			R	6,174	4,121	478	7,151	4,301	477
			U	121	84	15	106	35	1
5	Garhwal	..	T	18,565	11,745	2,908	16,154	9,585	2,379
			R	18,347	11,704	2,902	16,008	9,553	2,379
			U	218	41	6	146	32	..
6	Almora	..	T	17,702	10,462	1,590	16,599	9,456	1,289
			R	17,121	10,302	1,555	15,963	9,316	1,253
			U	581	160	35	636	140	36
7	Naini Tal	..	T	6,810	2,362	437	6,881	2,322	358
			R	3,907	1,808	281	4,082	1,770	252
			U	2,903	554	156	2,799	552	106
8	Bijnor	..	T	22,645	11,114	3,433	20,639	10,228	1,985
			R	15,861	8,503	2,653	14,447	7,927	1,477
			U	6,784	2,611	780	6,192	2,301	508
9	Moradabad	..	T	32,847	17,951	4,399	30,451	18,036	5,023
			R	15,520	10,971	2,180	16,459	10,963	2,746
			U	17,327	6,980	2,219	13,992	7,073	2,277
10	Budaun	..	T	27,684	16,890	2,988	24,685	14,476	2,340
			R	22,523	14,660	2,442	19,756	12,574	1,812
			U	5,161	2,230	546	4,929	1,902	528
11	Rampur	..	T	7,626	3,900	416	9,383	4,648	422
			R	6,236	3,298	368	7,625	3,992	361
			U	1,390	602	48	1,758	656	61
12	Bareilly	..	T	23,261	15,288	4,340	26,807	17,266	4,638
			R	16,591	12,381	3,754	21,014	15,082	4,231
			U	6,670	2,907	586	5,793	2,184	407
13	Pilibhit	..	T	8,893	5,365	2,093	8,390	5,933	1,674
			R	5,914	4,205	1,682	5,813	4,809	1,399
			U	2,979	1,160	411	2,577	1,124	275
14	Shahjahanpur	..	T	14,478	8,772	1,729	13,003	7,590	910
			R	9,663	6,902	1,141	8,481	5,877	564
			U	4,815	1,870	588	4,522	1,713	346
15	Dehra Dun	..	T	5,743	2,130	319	5,481	2,061	536
			R	1,589	1,031	70	1,486	955	235
			U	4,154	1,099	249	3,995	1,106	301
16	Saharanpur	..	T	33,565	18,813	4,205	32,550	15,129	3,269
			R	20,515	13,223	2,429	19,664	10,196	1,887
			U	13,050	5,590	1,776	12,886	4,933	1,382
17	Muzaffarnagar	..	T	21,331	11,780	1,092	22,269	12,833	722
			R	14,982	9,584	597	15,507	10,889	279
			U	6,349	2,196	495	6,762	1,944	443
18	Meerut	..	T	54,228	23,779	5,421	54,097	22,179	4,586
			R	38,453	19,501	4,254	38,751	18,012	3,613
			U	15,775	4,278	1,167	15,346	4,167	973

from 1956 *to* 1960 *with Total/Rural/Urban break down*

1958			1959			1960		
Births	Deaths	Infant Deaths	Births	Deaths	Infant Deaths	Births	Deaths	Infant Deaths
10	11	12	13	14	15	16	17	18
			Not Available			1,925	1,475	38
						1,908	1,451	38
						17	24	..
			Not Available			3,520	2,293	420
						3,520	2,293	420
						..	..	..
			Not Available			1,367	589	85
						1,367	589	85
						..	..	..
8,430	5,040	526	9,059	4,614	320	6,808	3,625	264
8,372	5,005	524	8,859	4,575	318	6,689	3,600	264
58	35	2	200	39	2	119	25	..
15,200	9,483	2,577	12,717	7,725	1,509	11,838	7,273	1,682
14,903	9,418	2,565	12,408	7,641	1,493	11,542	7,185	1,674
297	65	12	309	84	16	296	88	8
18,356	9,515	1,525	17,149	8,659	1,441	13,117	7,296	1,055
17,658	9,371	1,498	16,553	8,535	1,421	12,434	7,142	1,044
698	144	27	596	124	20	683	154	11
7,611	2,736	329	6,811	2,372	419	7,811	2,857	449
4,679	1,955	144	3,900	1,665	221	4,369	2,058	301
2,932	781	185	2,911	707	198	3,442	799	148
22,960	13,509	2,133	23,556	11,680	1,956	24,645	15,084	2,377
16,703	10,449	1,444	17,314	9,320	1,433	18,315	11,973	1,765
6,257	3,060	689	6,242	2,360	523	6,330	3,111	612
36,518	22,265	4,987	43,294	40,453	5,037	66,868	50,580	5,918
19,022	13,735	2,525	28,508	29,865	2,763	48,327	37,798	3,125
17,496	8,530	2,462	14,786	10,588	2,274	18,541	12,782	2,793
27,621	19,960	3,625	26,487	16,372	3,018	30,604	21,000	3,252
23,132	17,578	3,224	21,675	14,796	2,595	25,617	18,745	2,688
4,489	2,382	401	4,812	1,576	423	4,987	2,255	564
10,760	6,515	707	8,903	5,644	365	9,604	6,485	163
8,934	5,723	658	7,103	4,755	299	7,595	5,738	123
1,826	792	49	1,800	889	66	2,009	747	40
31,542	24,343	6,912	28,229	19,348	5,237	28,311	18,142	5,022
25,424	21,292	6,318	22,320	17,002	4,792	23,512	15,986	4,696
6,118	3,051	594	5,909	2,346	445	4,799	2,156	326
8,883	5,791	1,530	9,192	5,900	1,419	11,164	7,166	1,631
6,158	4,532	1,172	6,726	4,829	1,125	8,577	5,909	1,322
2,725	1,259	358	2,466	1,071	294	2,587	1,257	309
16,506	10,742	2,920	16,536	10,067	1,720	19,474	12,106	2,122
11,230	8,381	2,351	11,501	8,391	1,154	14,129	9,895	1,589
5,276	2,361	569	5,035	1,676	566	5,345	2,211	533
5,693	2,033	371	6,627	1,892	282	7,417	2,315	386
1,498	863	107	2,012	947	91	2,644	1,082	139
4,195	1,170	264	4,615	945	191	4,773	1,233	247
36,051	18,543	3,962	32,859	15,755	3,591	30,914	15,250	3,078
21,421	12,113	2,155	17,217	8,895	1,649	17,275	8,677	1,685
14,630	6,430	1,807	15,642	6,860	1,942	13,639	6,573	1,393
26,826	16,175	1,100	27,150	13,076	955	30,882	16,774	1,558
20,198	13,886	554	20,259	11,373	527	23,356	14,424	1,081
6,628	2,289	546	6,891	1,703	428	7,526	2,350	477
56,308	31,951	5,413	54,132	20,925	3,427	58,067	27,441	4,070
40,744	27,125	4,325	38,697	17,288	2,587	42,075	22,855	3,124
15,564	4,826	1,088	15,435	3,637	840	15,992	4,586	946

Table 9(B)—*District wise Births, Deaths and Infant Deaths*

Sl. No.	Districts	Total Rural Urban	1956 Births	1956 Deaths	1956 Infant Deaths	1957 Births	1957 Deaths	1957 Infant Deaths
1	2	3	4	5	6	7	8	9
19	Bulandshahr ..	T	32,966	19,124	5,752	30,354	18,035	5,293
		R	24,467	16,123	5,002	23,314	15,410	4,478
		U	8,499	3,001	750	7,040	2,625	815
20	Aligarh ..	T	31,437	17,160	3,128	30,218	15,950	2,533
		R	22,011	13,156	1,853	21,568	12,683	1,602
		U	9,426	4,004	1,275	8,650	3,267	931
21	Mathura ..	T	19,112	8,414	1,515	20,857	8,590	1,461
		R	10,931	5,194	640	12,363	5,785	778
		U	8,181	3,220	875	8,494	2,805	683
22	Agra ..	T	33,483	13,802	3,730	45,263	11,728	3,094
		R	12,587	7,773	1,977	19,259	6,318	1,723
		U	20,896	6,029	1,753	26,004	5,410	1,371
23	Etah ..	T	15,461	7,912	1,431	16,128	7,559	1,251
		R	10,558	5,444	659	11,512	5,253	662
		U	4,903	2,468	772	4,616	2,306	589
24	Mainpuri ..	T	15,593	8,689	1,767	15,666	9,435	1,510
		R	13,145	8,008	1,611	13,424	8,844	1,383
		U	2,448	681	156	2,242	591	127
25	Farrukhabad ..	T	21,570	11,779	2,729	16,686	11,127	2,268
		R	17,960	10,098	2,291	13,699	9,494	1,996
		U	3,610	1,681	438	2,987	1,633	272
26	Etawah ..	T	14,054	7,744	2,562	18,714	9,033	2,670
		R	9,782	5,760	1,854	14,020	7,133	2,092
		U	4,272	1,984	708	4,694	1,900	578
27	Kanpur ..	T	38,537	32,120	8,388	36,948	34,361	10,378
		R	15,624	14,495	3,692	16,106	17,384	5,925
		U	22,913	17,625	4,696	20,842	16,977	4,453
28	Fatehpur ..	T	16,504	7,357	1,710	16,195	7,687	1,208
		R	15,156	6,973	1,617	15,214	7,312	1,138
		U	1,348	384	93	981	375	70
29	Allahabad ..	T	28,405	10,985	1,359	27,524	13,369	1,392
		R	18,676	7,368	540	18,248	9,295	667
		U	9,729	3,617	819	9,276	4,074	725
30	Jhansi ..	T	17,458	8,349	2,361	18,202	10,105	3,029
		R	8,184	5,050	1,308	10,666	6,770	2,000
		U	9,274	3,299	1,053	7,536	3,335	1,029
31	Jalaun ..	T	12,181	5,984	1,203	11,156	5,523	975
		R	10,264	5,187	968	9,363	4,720	757
		U	1,917	797	235	1,793	803	218
32	Hamirpur ..	T	9,173	6,432	1,096	9,255	6,449	857
		R	6,888	4,538	864	7,509	5,721	759
		U	2,283	1,894	232	1,746	728	98
33	Banda ..	T	12,476	4,331	732	9,052	4,284	408
		R	10,666	3,726	505	7,628	3,550	222
		U	1,810	605	227	1,424	734	186
34	Kheri ..	T	13,300	7,909	341	12,567	7,262	417
		R	10,413	7,218	191	10,039	6,783	343
		U	2,887	691	150	2,528	579	74
35	Sitapur ..	T	18,226	9,774	1,579	16,124	9,576	1,556
		R	15,475	8,921	1,322	13,859	8,674	1,346
		U	2,751	853	257	2,265	902	210
36	Hardoi ..	T	15,611	8,106	1,639	17,921	10,771	1,944
		R	12,318	6,858	1,246	15,082	9,428	1,652
		U	3,293	1,248	393	2,839	1,343	292

from 1956 *to* 1960 *with Total/Rural/Urban break down*—contd.

1958			1959			1960		
Births	Deaths	Infant Deaths	Births	Deaths	Infant Deaths	Births	Deaths	Infant Deaths
10	11	12	13	14	15	16	17	18
36,800	26,458	8,083	33,091	19,954	5,481	43,079	24,374	6,496
29,977	22,613	6,831	27,057	17,588	4,889	36,110	21,211	5,749
6,823	3,845	1,252	6,034	2,366	592	6,969	3,163	747
33,615	24,493	4,433	32,810	19,520	4,292	36,453	23,864	4,777
25,679	19,588	3,211	24,502	16,462	3,568	28,247	20,098	3,878
7,936	4,905	1,222	8,308	3,058	724	8,206	3,766	899
20,069	11,701	2,210	16,387	7,075	1,484	13,903	5,847	1,324
10,916	8,038	1,307	8,906	4,601	854	6,089	3,078	684
9,153	3,663	903	7,481	2,474	630	7,814	2,769	640
36,869	18,395	4,489	42,804	16,887	3,688	47,715	19,500	4,366
15,355	11,691	2,724	15,882	9,429	1,725	18,138	12,507	2,691
21,514	6,704	1,765	26,922	7,458	1,963	29,577	6,993	1,675
18,321	11,293	1,705	15,857	8,749	1,251	21,761	14,630	2,300
13,849	8,619	1,016	11,614	6,846	714	17,425	12,187	1,559
4,472	2,674	689	4,243	1,903	537	4,336	2,443	741
18,482	12,179	1,707	17,697	9,909	1,234	19,387	12,735	1,740
16,184	11,486	1,551	15,693	9,446	1,148	17,336	12,136	1,597
1,298	693	156	2,004	463	86	2,051	599	143
19,455	12,692	2,660	19,487	10,903	1,945	21,088	12,958	2,314
16,157	10,833	2,298	16,568	9,649	1,626	18,412	11,565	2,030
3,298	1,859	362	2,919	1,254	319	2,676	1,393	284
24,067	10,576	3,095	16,647	9,468	2,716	27,483	14,773	4,836
17,293	8,352	2,269	12,249	7,713	2,142	22,908	12,708	4,091
6,774	2,224	826	4,398	1,755	574	4,575	2,065	745
40,986	26,821	6,485	40,096	21,900	3,949	39,010	24,678	4,389
15,453	9,866	2,074	17,074	5,993	854	16,700	7,938	933
25,533	16,955	4,411	23,022	15,907	3,095	22,310	16,740	3,456
14,605	7,967	1,385	14,215	7,597	1,417	13,842	7,110	1,666
13,211	7,362	1,254	12,850	7,049	1,286	12,783	6,576	1,583
1,394	605	131	1,365	548	131	1,059	534	83
28,830	12,860	1,421	30,272	10,080	1,295	34,725	12,366	1,487
19,237	9,322	751	19,827	7,038	664	23,374	8,543	703
9,593	3,538	670	10,445	3,042	631	11,351	3,823	784
21,142	13,482	2,956	20,895	11,350	2,535	13,713	10,105	3,033
13,037	9,917	1,925	12,542	8,459	1,758	3,401	6,760	2,016
8,105	3,565	1,031	8,353	2,891	777	10,312	3,345	1,017
11,637	6,974	1,287	11,863	1,872	1,112	12,477	6,392	1,233
9,552	6,055	1,006	8,985	1,162	807	9,628	5,162	816
2,085	919	281	2,878	710	305	2,849	1,230	417
10,237	7,218	1,409	9,306	6,235	1,146	9,867	6,399	1,801
8,126	6,040	1,117	6,985	5,222	924	7,524	5,293	1,347
2,111	1,178	292	2,321	1,013	222	2,343	1,106	454
10,892	3,932	499	10,098	3,046	562	9,361	3,625	635
9,229	3,163	298	8,587	2,580	421	8,254	3,199	534
1,663	769	201	1,511	466	141	1,107	426	101
16,846	11,552	3,178	15,847	9,547	1,943	20,779	12,743	2,026
14,587	10,739	3,049	13,532	8,914	1,849	18,252	12,098	1,932
2,259	813	129	2,315	633	94	2,527	645	94
16,442	10,362	1,889	14,972	5,561	1,000	15,436	6,434	897
13,923	8,218	1,610	12,414	4,941	830	13,134	5,722	737
2,519	2,144	279	2,558	620	170	2,302	712	160
20,685	13,313	2,717	19,003	9,077	2,168	21,599	11,994	3,051
17,607	11,891	2,353	15,783	7,957	1,849	18,415	10,619	2,630
3,078	1,422	364	3,220	1,120	319	3,184	1,375	421

Table 9(B)—*District wise Births, Deaths and Infant Deaths*

Sl. No	Districts		Total Rural Urban	1956 Births	1956 Deaths	1956 Infant Deaths	1957 Births	1957 Deaths	1957 Infant Deaths
1	2		3	4	5	6	7	8	9
37	Unnao	..	T	12,114	6,298	1,607	10,428	6,342	736
			R	10,810	5,952	1,564	8,893	5 613	611
			U	1,304	346	43	1,535	729	125
38	Lucknow	..	T	29,539	11,521	2,600	20,688	10,756	1,742
			R	7,522	4,142	547	5,467	3,799	367
			U	22,017	7,379	2,053	15,221	6,957	1,375
39	Rae Bareli	..	T	11,738	8,516	1,423	14,574	10,393	1,899
			R	10,293	7,852	1,216	13,118	9,608	1,748
			U	1,445	664	207	1,456	785	151
40	Bahraich	..	T	18,366	11.233	1,160	19,357	12,679	1,895
			R	16,251	10,202	888	17,561	11,966	1,735
			U	2,115	1,031	272	1,796	713	160
41	Gonda	..	T	24,418	15,231	1,427	23,914	17,065	1,348
			R	22,365	14,414	1,245	22,248	15,139	1,180
			U	2,053	827	182	1,666	1,926	168
42	Bara Banki	..	T	12,377	12 603	2,222	12,177	8,930	1,879
			R	9,175	10,387	1,902	6,638	4.985	1,077
			U	3,202	2,216	320	5,539	3,945	802
43	Faizabad	..	T	19,808	10,421	1,148	19,075	11,100	971
			R	16,866	9,431	957	16,901	10,209	856
			U	2,942	990	191	2,174	891	115
44	Sultanpur	..	T	12,747	9,781	1,559	12,837	11,150	1,068
			R	12,236	9,564	1,494	12,439	10,958	1,030
			U	511	217	65	398	192	38
45	Pratapgarh	..	T	9,564	6,558	525	9,950	7,598	478
			R	8,996	6,366	500	9,491	7,378	450
			U	568	192	25	459	220	28
46	Basti	..	T	22,568	14,200	367	21,947	12,378	420
			R	21,937	13,871	359	21,681	12,148	410
			U	631	329	8	266	230	10
47	Gorakhpur	..	T	27,837	16 886	5,137	16,639	17.552	3,461
			R	23,050	15.223	5,105	12,463	15.877	3,214
			U	4,787	1,663	32	4,176	1,675	247
48	Deoria	..	T	23,127	15,088	551	29,308	22,745	1,831
			R	21,767	14,487	486	28,054	22,142	1,806
			U	1,360	601	65	1,254	603	25
49	Azamgarh	..	T	27,261	21,889	2,653	26,087	12,928	1,482
			R	23,724	20,120	2,277	22,800	11,415	1,287
			U	3,537	1,769	376	3,287	1,513	195
50	Jaunpur	..	T	19,620	8,567	893	18,505	11,499	887
			R	17,877	7,846	728	17,850	10,566	738
			U	1,743	.721	165	655	933	149
51	Ballia	..	T	12,824	6,100	522	12,755	7,039	251
			R	11,039	5,131	370	11,356	5,999	132
			U	1,785	969	152	1,399	1,040	119
52	Ghazipur	..	T	19,828	9,243	1,163	15,871	9,099	937
			R	17,317	7,858	964	13,414	7,857	781
			U	2,511	1,385	199	2,457	1,242	156
53	Varanasi	..	T	42,096	21,810	3,153	35,571	17,419	2,083
			R	25,324	11,732	575	18,879	6,491	75
			U	16,772	10,078	2,578	16,692	10,928	2,008
54	Mirzapur	..	T	18,446	7,912	1,374	17,427	9,380	1,082
			R	14,941	6,459	930	14,166	7,948	795
			U	3,505	1,453	444	3,261	1,432	287

*These districts were created in February 1960

from 1956 *to* 1960 *with Total/Rural/Urban break down*—concld.

1958			1959			1960		
Births	Deaths	Infant Deaths	Births	Deaths	Infant Deaths	Births	Deaths	Infant Deaths
10	11	12	13	14	15	16	17	18
8,066	6,897	1,276	12,015	6,804	1,435	13,380	7,703	2,197
6,409	6,138	1,122	10,957	6,542	1,408	12,214	7,322	2,172
1,657	759	154	1,058	262	27	1,166	381	25
18,462	12,790	2,322	21,353	9,376	1,859	21,266	9,088	1,977
3,317	3,217	237	3,315	2,350	133	2,456	1,524	162
15,145	9,573	2,085	18,038	7,026	1,726	18,810	7,564	1,815
15,950	12,002	1,262	14,349	8,955	1,019	18,044	11,107	1,354
14,361	11,135	1,114	12,231	7,993	820	16,191	10,403	1,215
1,589	867	148	2,118	962	199	1,853	704	139
21,382	13,896	1,864	18,982	10,244	1,392	19,437	10,108	1,312
19,218	13,096	1,705	16,958	9,694	1,251	17,406	9,509	1,122
2,164	800	159	2,024	550	141	2,031	599	190
25,192	19,190	1,956	21,419	13,210	712	20,482	13,810	1,635
23,241	17,945	1,688	19,423	12,356	538	18,369	12,704	1,401
1,951	1,245	268	1,996	854	174	2,113	1,106	234
5,920	5,796	1,111	5,172	2,561	142	4,962	2,744	8
3,426	3,583	708	2,988	1,657	46	2,715	1,470	..
2,494	2,213	403	2,184	904	96	2,247	674	8
20,558	12,858	907	19,279	9,943	856	19,650	9,284	805
18,067	11,697	749	16,830	9,181	769	16,900	8,305	700
2,491	1,161	158	2,449	762	87	2,750	979	105
14,514	11,136	1,158	13,831	9,929	990	12,379	10,738	998
14,072	10,931	1,113	13,412	9,761	951	11,937	10,579	966
442	205	45	419	168	39	442	159	32
12,015	8,155	845	12,916	7,749	855	13,054	7,647	703
11,491	7,960	814	12,279	7,559	812	12,361	7,398	703
524	195	31	637	190	43	693	249	..
22,533	13,406	348	23,616	11,766	228	25,868	18,979	527
21,919	13,043	316	22,644	11,474	212	25,243	18,724	493
614	363	32	972	292	16	625	255	34
20,633	13,475	2,544	22,791	14,494	2,489	43,591	33,183	4,686
16,044	11,750	2,202	17,525	12,805	2,156	38,231	31,321	4,405
4,589	1,725	342	5,266	1,689	333	5,360	1,862	281
33,612	16,815	31	32,483	13,008	426	27,980	13,785	413
32,225	16,276	..	30,982	12,589	377	26,654	13,387	375
1,387	539	31	1,501	419	49	1,326	398	38
22,489	11,640	1,282	12,739	7,352	1,410	12,938	6,851	1,134
18,983	10,261	1,021	9,160	6,037	1,184	9,663	5,479	945
3,506	1,379	261	3,579	1,315	226	3,275	1,372	189
20,810	11,737	718	20,644	9,697	590	19,624	9,099	724
19,111	10,824	582	18,843	8,933	492	17,943	8,462	656
1,699	913	136	1,801	764	98	1,681	637	68
10,797	8,282	287	15,272	6,506	217	15,412	5,774	176
9,487	7,247	166	13,661	5,762	99	13,683	5,042	37
1,310	1,035	121	1,611	744	118	1,729	732	139
20,002	13,008	998	21,140	9,723	1,086	17,462	6,723	691
17,436	11,778	895	18,943	8,672	942	1,949	5,798	545
2,566	1,230	103	2,197	1,051	144	15,513	925	146
40,650	19,713	3,098	37,107	16,050	2,572	39,387	18,952	4,086
22,729	9,668	884	21,030	8,000	751	18,366	9,183	1,779
17,921	10,045	2,214	16,077	8,050	1,821	21,021	9,769	2,307
17,939	8,705	1,010	17,553	7,247	953	15,953	6,232	774
14,551	7,390	696	14,089	6,036	619	12,408	4,945	469
3,388	1,315	314	3,464	1,211	334	3,545	1,287	305

Table 10(A)—*District wise Birth and Death*

Sl. No.	Districts	1951				1952			
		Birth Rate		Death Rate		Birth Rate		Death Rate	
		Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10
1	*Uttar Kashi ..					Not Available			
2	*Chamoli ..					Not Available			
3	*Pithoragarh ..					Not Available			
4	Tehri Garhwal ..		Not Available			12·48	12·17	15·78	13·27
5	Garhwal ..	16·49	15·88	22·73	19·81	16·83	16·04	21·36	18·81
6	Almora ..	13·61	12·99	14·32	13·98	11·16	10·63	10·80	9·94
7	Naini Tal ..	10·40	8·68	9·11	11·06	8·20	7·24	7·02	8·20
8	Bijnor ..	13·78	11·57	10·88	10·59	10·12	8·54	10·90	10·13
9	Moradabad ..	15·56	13·16	11·76	11·50	12·45	10·99	11·47	11·99
10	Budaun ..	15·26	12·45	15·27	13·27	13·79	11·35	16·20	15·39
11	Rampur ..	10·80	8·41	9·11	8·32	9·26	7·15	7·59	7·38
12	Bareilly ..	13·83	11·42	11·87	11·11	14·10	11·09	16·03	14·72
13	Pilibhit ..	11·49	9·69	14·79	12·79	10·55	8·73	14·39	14·27
14	Shahjahanpur ..	12·79	10·65	12·73	11·79	10·49	8·62	12·99	11·98
15	Dehra Dun ..	8·71	7·77	8·61	9·22	8·13	7·24	8·08	8·94
16	Saharanpur ..	11·98	10·37	11·23	11·47	11·96	10·88	14·85	16·56
17	Muzaffarnagar ..	13·27	10·94	9·16	8·99	9·71	7·81	9·13	8·51
18	Meerut ..	12·81	10·22	9·08	8·91	10 25	8·46	9·11	9·01
19	Bulandshahr ..	10·35	8·57	10·49	9·13	9·50	7·74	9·58	8·57
20	Aligarh ..	13·15	11·04	11·35	10·67	14·63	12·24	15·19	14·00
21	Mathura ..	13·17	10·59	11·07	9·72	11·77	9·29	11·03	10·07
22	Agra ..	15·22	13·02	11·82	11·79	13·47	11·72	12·29	12·89
23	Etah ..	10·83	8·07	8·71	7·27	8·60	7·14	7·70	6·79
24	Mainpuri ..	11·20	9·04	10·21	8·05	5·86	4·62	9·32	8·56
25	Farrukhabad ..	10·82	9·09	11·10	10·57	10·29	8·80	13·24	13·17
26	Etawah ..	13·82	11·33	13·17	12·43	14·61	11·79	15·02	14·22
27	Kanpur ..	12·34	10·51	13·07	12·49	10·62	9·19	13·80	13·45
28	Fatehpur ..	8·83	7·02	9·27	8·09	6·71	5·14	5·49	4·22
29	Allahabad ..	9·23	8·01	9·52	8·44	7·75	6·18	8·91	7·52
30	Jhansi ..	17·60	15·20	16·73	15·25	14·06	12·75	18·01	17·76
31	Jalaun ..	14·32	11·54	11·91	10·05	10·92	8·18	12·17	10·06
32	Hamirpur ..	11·96	9·49	11·50	9·60	4·83	3·90	5·66	4·55
33	Banda ..	9·68	7·70	9·87	8·08	8·46	6·55	10·96	8·82

Rates by Sex from 1951 *to* 1955

1953				1954				1955			
Birth Rate		Death Rate		Birth Rate		Death Rate		Birth Rate		Death Rate	
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
11	12	13	14	15	16	17	18	19	20	21	22
				Not Available							
				Not Available							
				Not Available							
10·51	10·04	15·80	14·26	9·36	8·89	13·91	11·86	7·76	7·45	9·50	8·42
17·04	16·24	24·30	21·95	14·69	13·80	19·74	17·85	12·85	12·11	15·76	13·66
12·26	10·98	14·41	12·99	10·63	9·79	12·37	10·72	9·70	8·93	10·64	9·27
8·59	7·12	6·38	8·10	8·80	7·40	5·53	6·99	8·83	7·60	5·57	7·26
8·29	7·34	8·57	8·80	12·91	10·99	13·58	14·25	11·41	9·79	12·31	12·37
12·64	10·63	13·14	12·42	12·47	10·43	12·99	12·88	10·58	9·06	9·36	9·17
12·56	10·06	15·28	14·74	15·84	12·58	18·36	17·49	12·66	10·28	14·27	12·94
8.06	6·67	7·75	7·09	7·26	6·31	7·98	7·84	6·71	5·50	7·20	6·90
11·87	9·33	14·83	13·54	9·44	7·70	12·82	11·36	8·83	7·45	12·08	11·03
10·07	8·14	11·98	10·25	10·05	8·00	12·45	11·64	10·97	8·51	13·99	13·39
9·99	7·95	11·96	10·70	9·09	7·44	10·26	9·66	8·84	7·04	10·73	9·58
7·00	6·07	7·11	6·84	8·14	7·11	6·30	6·35	6·81	5·72	6·46	6·33
10·44	9·29	12·08	13·31	11·96	10·36	12·55	13·44	12·58	10·51	13·76	13·75
12·37	9·91	15·20	14·62	13·01	10·62	13·50	13·33	11·76	9·66	11·33	11·59
11·72	9·40	12·98	12·24	12·30	9·98	11·82	11·47	12·82	10·24	10·02	9·67
12·63	9·45	14·16	12·21	10·63	8·48	13·35	12·33	10·55	8·82	12·45	11·89
12·98	10·55	16·05	14·82	11·11	9·06	14·13	13·20	10·26	8·46	10·32	9·66
12·99	10·73	13·63	12·60	11·64	10·08	11·03	10·20	10·14	8·63	8 23	7·74
12·93	10·60	12·04	12·65	11·30	9·86	9·57	9·48	11·00	9·81	8·46	8·73
8·60	7·00	9·39	8·45	8·27	6·74	9·56	8·28	6·70	5·60	7·17	6·36
9·76	7·89	11·00	9·64	8·19	6·70	10·04	9·16	7·49	6·26	7·86	7·13
7·80	7·85	16·10	20·18	9·93	8·36	10·79	10·41	9·90	8·10	9·91	9·23
12·71	10·48	15·49	14·40	15·09	12·65	18·83	17·84	8·04	7·20	7·51	7·85
10·90	9·36	13·62	13·18	10·22	8·94	11·82	11·58	9·80	8·42	13·06	13·32
8·13	6·71	8·08	6·71	8·43	6·74	9·12	7·82	7·97	6·61	9·34	8·27
8·02	6·44	7·90	6·68	8·49	6·85	7·13	5·92	6·91	9·06	4·59	3·76
12·85	11·04	15·53	14·90	12·78	11·24	14·91	14·28	9·90	8·73	11·00	10·94
10·60	8·40	12·46	10·84	11·11	9·24	11·42	10·01	11·16	8·89	10·36	9·65
12·65	10·17	17·81	14·51	9·80	7·88	11·85	10·06	9·14	6·88	10·09	8·22
6·04	4·60	6·59	5·22	9·44	7·35	8·67	8·15	9·30	7·53	9·51	8·11

Table 10(A)—*District wise Birth and Death*

Sl. No.	Districts	1951				1952			
		Birth Rate		Death Rate		Birth Rate		Death Rate	
		Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10
34	Kheri ..	10·70	7·80	13·69	10·93	6·13	4·84	10·79	8·94
35	Sitapur ..	8·34	6·84	9·51	9·14	5·67	4·41	7·51	6·97
36	Hardoi ..	10·97	9·00	10·78	9·05	12·21	10·04	13·94	11·64
37	Unnao ..	7·59	6·01	10·50	8·75	7·59	6·33	11·14	9·00
38	Lucknow ..	11·61	10·64	11·29	11·64	13·19	11·44	15·00	14·82
39	Rae Bareli ..	6·55	5·30	11·21	9·29	5·34	3·70	6·53	5·26
40	Bahraich ..	9·39	7·53	14·33	12·35	9·45	7·51	11·81	10·05
41	Gonda ..	7·99	6·30	13·05	10·99	6·99	5·13	9·69	8·13
42	Bara Banki ..	10·40	8·30	13·15	10·20	8·90	6·72	11·19	9·34
43	Faizabad ..	7·99	6·50	11·56	9·85	8·21	7·82	9·94	8·56
44	Sultanpur ..	12·68	10·21	23·56	20·46	7·79	6·61	12·11	10·02
45	Pratapgarh ..	7·38	6·28	11·10	8·32	6·18	4·89	9·06	6·54
46	Basti ..	8·32	6·66	14·35	12·39	6·56	5·41	9·29	7·87
47	Gorakhpur ..	9·45	7·80	14·63	12·44	8·05	6·60	12·16	9·78
48	Deoria ..	6·50	5·54	12·36	9·92	5·33	4·37	8·48	6·23
49	Azamgarh ..	7·91	6·56	11·25	9·64	8·65	7·17	11·21	9·02
50	Jaunpur ..	10·02	8·27	13·33	10·78	7·73	6·37	9·66	7·55
51	Ballia ..	5·31	4·04	7·51	5·76	6·28	5·13	9·37	7·12
52	Ghazipur ..	8·33	6·97	11·73	9·74	10·46	8·42	11·72	9·79
53	Varanasi ..	12·48	10·95	15·49	14·73	11·05	9·70	13·35	12·49
54	Mirzapur ..	10·84	9·51	10·62	9·49	9·37	8·35	10·82	9·66

*These districts were created in February 1960

Rates by Sex from 1951 to 1955—concld.

1953				1954				1955			
Birth Rate		Death Rate		Birth Rate		Death Rate		Birth Rate		Death Rate	
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
11	12	13	14	15	16	17	18	19	20	21	22
7·71	6·18	9·29	8·08	8·15	6·46	8·88	7·93	7·93	6·20	8·19	7·51
6·36	5·17	7·45	7·22	6·13	5·09	7·21	6·87	5·44	4·37	7·72	7·08
9·43	7·61	10·39	8·69	6·34	5·26	7·36	5·89	5·94	4·54	6·54	5·69
8·06	6·43	11·02	9·37	6·68	5·64	8·83	7·81	6·67	5·50	8·69	7·76
13·08	11·54	13·21	12·73	12·02	10·53	11·31	10·41	12·58	11·26	11·67	11·13
5·20	3·93	9·31	6·97	5·64	4·52	7·16	5·80	5·83	4·78	7·75	6·56
9·09	7·02	10·26	8·21	7·81	6·30	9·00	7·10	6·69	5·35	6·71	5·73
6·31	4·06	9·24	7·71	8·30	6·85	11·20	9·10	6·88	5·48	8·24	6·93
7·92	5·88	11·31	9·13	6·82	5·27	9·30	7·64	6·03	4·51	9·71	7·98
7·68	6·69	9·34	8·01	6·89	5·49	8·80	7·04	5·53	4·37	6·52	5·42
4·99	4·27	7·90	6·89	4·63	3·94	7·57	6·53	4·20	3·79	7·15	6·33
5·38	4·29	7·68	5·62	5·31	4·41	6·96	5·43	4·38	3·65	5·84	4·22
7·26	6·08	9·83	7·42	6·98	5·89	9·17	7·28	5·77	4·84	6·75	5·36
8·38	7·38	11·45	9·60	5·10	4·30	12·07	9·44	6·97	5·55	6·93	5·44
8·26	6·81	9·51	7·12	8·77	7·13	8·87	6·73	7·28	5·86	6·84	5·00
6·62	5·64	7·75	6·10	5·47	4·61	6·47	5·06	6 25	4·94	6·84	5·07
8·15	6·50	10·71	7·91	6·41	5·18	7·09	5·29	5·28	4·29	4·87	3·77
7·01	5·43	9·39	6·45	6·43	5·18	7·42	5·03	5·44	4·29	6·12	4·04
9·92	8·18	12·97	10·68	8·27	6·82	8·06	6·45	6·40	5·54	5·72	4·68
11·24	9·71	13·73	12·35	10·18	8·77	10·14	9·27	10·19	8·87	8·28	7·49
7·71	6·92	9·97	8·64	8·43	7·46	8·78	7·38	8·67	7·22	6·59	5·59

Table 10(B)—*District wise Birth Rates, Death Rates, and Infant*

Sl. No.	Districts		Total Rural Urban	1956			1957		
				Birth Rate	Death Rate	Infant Death Rate	Birth Rate	Death Rate	Infant Death Rate
1	2		3	4	5	6	7	8	9
1	*Uttar Kashi	..	T				Not Available		
			R						
			U						
2	*Chamoli	..	T				Not Available		
			R						
			U						
3	*Pithoragarh	..	T				Not Available		
			R						
			U						
4	Tehri Garhwal	..	T	15·0	10·0	78·3	17·2	10·3	65·9
			R	15·0	10·0	61·2	17·3	10·4	66·7
			U	15·2	10·5	124·0	13·0	4·3	9·4
5	Garhwal	..	T	28·1	17·8	156·6	24·4	14·5	147·3
			R	28·8	18·3	158·2	25·0	14·9	148·6
			U	9·7	1·8	27·5	6·3	1·4	..
6	Almora	..	T	21·6	12·8	89·9	20·1	11·4	77·7
			R	21·6	13·0	90·8	20·0	11·7	78·5
			U	22·9	6·3	60·2	24·7	5·4	56·6
7	Naini Tal	..	T	19·0	6·6	64·2	19·0	6·4	52·0
			R	14·3	6·6	71·9	14·8	6·4	61·7
			U	32·9	6·3	53·7	30·7	6·1	37·9
8	Bijnor	..	T	22·1	10·9	151·6	20·0	9·9	96·2
			R	20·4	10·9	167·3	18·5	10·1	102·2
			U	26·6	10·3	115·0	24·0	8·9	82·4
9	Moradabad	..	T	18·7	10·2	133·9	17·1	10·1	165·0
			R	11·6	8·2	137·2	12·1	8·1	166·8
			U	39·9	16·1	128·1	31·7	16·0	162·7
10	Budaun	..	T	21·3	13·0	107·9	18·9	11.1	94·8
			R	19·6	12·8	108·4	17·1	10·9	97·8
			U	33·2	14·3	105·8	31·3	12·1	107·1
11	Rampur	..	T	13·2	6·7	54·6	16·0	7·9	45·0
			R	16·5	8·7	59·0	20·1	10·5	47·3
			U	7·7	3·3	34·5	9·6	3·6	34·7
12	Bareilly	..	T	17·6	11·6	186·6	20·2	13·0	173·0
			R	16·2	12·1	226·3	20·3	14·6	201·2
			U	20·9	9·1	87·9	17·7	6·7	70·3
13	Pilibhit	..	T	17·4	10·5	235·4	16·4	11·6	199·5
			R	12·0	9·7	284·4	13·3	11·0	240·7
			U	35·0	13·6	138·0	29·6	12·9	106·7
14	Shahjahanpur	..	T	14·3	8·6	119·4	12·8	7·5	70·0
			R	11·1	8·0	118·1	9·8	6·8	66·5
			U	30·1	11·7	122·1	27·9	10·6	76·5
15	Dehra Dun	..	T	13·9	5·2	55·6	13·0	2·3	97·8
			R	7·7	5·0	44·1	7·1	4·6	158·1
			U	22·8	6·0	59·9	21·7	6·0	75·3
16	Saharanpur	..	T	23·2	13·0	125·3	22·2	10·3	100·4
			R	19·1	12·3	118·8	18·2	9·4	100·6
			U	35·1	15·0	136·1	29·8	13·0	107·3
17	Muzaffarnagar	..	T	16·3	9·0	51·2	16·8	9·7	32·4
			R	13·8	8·8	39·9	14·1	9·9	18·0
			U	27·7	9·6	78·0	30·1	8·3	65·5
18	Meerut	..	T	21·8	9·6	100·0	21·4	8·8	84·8
			R	20·0	10·2	110·6	19·9	9·3	93·2
			U	27·6	7·5	74·0	26·2	7·1	63·4

Death Rates with Total/Rural/Urban break down from 1956 to 1960

1958			1959			1960		
Birth Rate	Death Rate	Infant Death Rate	Birth Rate	Death Rate	Infant Death Rate	Birth Rate	Death Rate	Infant Death Rate
10	11	12	13	14	15	16	17	18
			Not Available			15·9	12·2	19·7
						15·9	12·1	19·9
						12·5	17·7	..
			Not Available			14·1	9·2	119·3
						14·1	9·2	119·3
						..	..	..
			Not Available			5·3	2·3	62·2
						5·3	2·3	62·2
						..	..	..
19·9	11·9	62·4	19·8	10·1	35·3	19·8	10·5	38·8
20·1	12·0	62·6	19·7	10·2	35·9	19·8	10·7	39·7
7·0	4·2	34·5	25·4	5·0	10·0	18·2	3·8	..
22·8	14·1	169·5	17·8	10·8	118·7	24·8	15·2	142·1
23·1	14·6	172·1	17·8	11·0	120·3	25·2	15·7	145·0
12·2	2·7	40·4	15·6	4·2	51·8	14·9	4·4	27·0
22·0	11·4	83·1	19·7	9·9	84·0	20·9	11·7	80·4
21·9	11·6	84·8	19·6	10·1	85·8	20 7	11·9	84·0
30·5	5·1	33·8	22·8	4·7	33·6	28·2	6·4	16·1
20·7	7·5	43·2	12·8	4·5	61·5	14·0	5·1	57·5
16·9	7·0	30·8	9·4	4·0	56·7	10·0	4·7	68·9
31·2	8·3	63·1	25·3	6·1	68·0	28·5	6·6	43·0
22·1	13·0	92·9	20·5	10·2	83·0	21·0	12·8	96·4
21·8	13·3	86·5	19·7	10·6	82·8	20·4	13·4	96·4
23·9	11·7	110·1	23·0	8·7	83·8	22·8	11·2	96·7
20·3	12·4	136·6	22·7	21·2	116·3	34·4	26·0	88·5
13·9	10·0	132·7	19·5	20·5	96·9	32·4	25·4	64·7
38·9	19·0	140·7	33·0	23·7	153·8	40·7	28·0	150·6
21·0	15·2	131·2	19·2	11·9	113·9	21·9	15·0	106·3
19·8	15·1	139·4	17·8	12·1	119·7	20·7	15·1	104·9
28·1	15·9	89·3	30·6	10·0	87·9	31·7	14·1	113·1
18·2	11·0	65·7	13·2	8·4	41·0	13·9	9·4	17·0
23·4	15·0	73·7	15·4	10·3	42·1	16·1	12·1	16·2
9·9	4·3	26·8	8·5	4·2	36·7	9·2	3·4	19·9
23·6	18·2	219·1	19·7	13·5	185·5	19·4	12·4	177·4
24·4	22·5	248·5	19·9	15·1	214·7	20·6	14·0	199·7
18·2	9·1	97·1	19·0	7·5	75·3	15·2	6·8	67·9
17·3	11·3	172·2	15·5	9·9	154·4	18·4	11·8	146·1
14·1	10·4	190·3	13·3	9·5	167·3	16·5	11·4	154·1
30·6	14·1	131·4	28·3	12·3	119·2	29·1	14·2	119·4
16·2	10·5	176·9	15·0	9·1	98·0	17·4	10·8	109·0
12·9	9·6	209·4	12·2	8·9	100·3	14·8	10·4	112·5
32·1	14·4	107·9	31·0	10·3	92·6	32·5	13·4	99·7
13·2	4·7	65·2	16·0	4·6	42·6	17·5	5·5	52·0
7·1	4·1	78·1	9·1	4·3	45·2	11·7	4·8	52·6
22·5	6·3	62·9	23·8	4·9	41·4	24·2	6·3	51·7
24·3	12·5	109·9	21·0	10·1	109·3	19 4	9·6	99·6
19·6	11·1	100·6	14·6	7·5	95·8	14·4	7·2	97·5
37·9	16·7	123·5	40·8	17·9	124·2	34·9	16·8	102·1
20·0	10·3	41·0	19·4	9·3	35·2	21·7	11·8	50·5
18·1	12·5	27·4	17·3	9·7	26·0	19 6	12·1	46·3
27·7	9 6	82·4	29·8	7·4	62·1	32·0	10 0	64 4
22·0	12·5	96·1	20·6	8·0	63·3	21·7	10·3	70·1
20·7	13·8	106·2	18·8	8·4	66·9	20·0	10·9	74·2
25·9	8·0	69·9	27·3	6·4	54·4	27·8	8·0	59·2

Table 10(B)—*District wise Birth Rates, Death Rates and Infant*

Sl. No.	Districts		Total Rural Urban	1956			1957		
				Birth Rate	Death Rate	Infant Death Rate	Birth Rate	Death Rate	Infant Death Rate
1	2		3	4	5	6	7	8	9
19.	Bulandshahr	..	T	20·6	11·9	174·5	18·8	11·2	174·4
			R	18·0	11·9	204·4	17·0	11·2	192·1
			U	33·7	11·9	88·3	27·5	10·2	115·8
20.	Aligarh	..	T	19·2	10·5	99·5	18·3	9·7	83·8
			R	16·7	10·0	84·2	16·3	9·6	74·3
			U	29·2	12·4	135·3	26·3	9·9	107.6
21.	Mathura	..	T	19·7	8·7	79·3	21·3	8·8	70·0
			R	14·2	6·8	58·6	16·0	7·5	62·9
			U	40·7	16·0	107·0	41·5	13·7	80·4
22.	Agra	..	T	20·7	8·6	111·4	27·7	6·9	68·4
			R	12·7	7·9	157·0	19·3	6·3	87·5
			U	35·5	10·2	83·9	42·8	8·9	52·7
23.	Etah	..	T	12·9	6·6	92·6	13·3	6·2	77·6
			R	10·0	5·2	62·4	10·8	4·9	57·5
			U	39·2	16·4	130·8	30·1	15·1	127·6
24.	Mainpuri	..	T	14·7	8·2	113·3	14·1	8·3	96·4
			R	13·5	8·3	122·6	13·6	9·0	103·0
			U	28·0	7·8	63·7	25·0	6·6	56·7
25.	Farrukhabad	..	T	18·5	10·1	126·5	14·1	9·4	135·9
			R	17·7	10·4	127·6	13·3	9·2	145·7
			U	23·6	11·0	121·3	19·2	10·5	91·1
26	Etawah	..	T	13·8	7·6	182·3	18·2	8·8	142·7
			R	10·8	3·1	189·5	15·3	7·8	149·2
			U	38·1	17·7	165·7	41·0	16·6	123·1
27.	Kanpur	..	T	18·0	15·0	217·7	16·9	15·7	280·9
			R	11·9	3·1	236·3	12·1	3·1	367·9
			U	28·0	20·6	196·4	23·7	19·3	213·7
28.	Fatehpur	..	T	17·1	7·6	103·6	16·6	7·9	74·6
			R	16·6	7·7	106·7	16·5	7·9	74·8
			U	25·3	7·2	69·0	18·0	6·9	71·4
29.	Allahabad	..	T	13·1	5·1	47·8	12·5	6·1	50·6
			R	10·6	4·7	28·9	10·2	5·2	36·6
			U	23·3	8·7	84·2	21·7	9·5	78·2
30.	Jhansi	..	T	18·7	8·9	135·2	19·3	10·7	166·4
			R	11·8	2·1	159·8	15·2	9·7	187·5
			U	37·2	13·2	113·5	29·4	13·0	136·5
31.	Jalaun	..	T	20·5	10·1	98·8	18·6	9·2	87·4
			R	20·5	10·6	94·3	18·9	9·0	80·9
			U	19·6	8·1	122·6	17·9	10·0	121·6
32.	Hamirpur	..	T	12·9	7·6	119·5	12·8	8·9	92·6
			R	10·8	1·5	125·4	11·7	8·9	101·0
			U	27·1	22·5	101·6	20·3	9·5	56·1
33.	Banda	..	T	15·1	5·2	58·7	10·9	5·1	45·1
			R	13·8	0·3	47·4	10·1	4·7	29·1
			U	27·6	9·2	125·4	21·3	11·0	130·6
34.	Kheri	..	T	12·4	7·3	25·6	11·6	6·7	33·2
			R	10·5	7·3	18·3	10·1	6·8	34·2
			U	32·6	7·8	52·0	27·8	6·4	29·3
35.	Sitapur	..	T	12·8	6·9	86·6	11·2	6·7	96·5
			R	11·8	6·8	85·4	10·5	6·6	97·1
			U	21·4	7·0	93·4	17·0	6·8	92·7
36.	Hardoi	..	T	10·9	5·7	105·0	12·5	7·5	108·5
			R	9·5	5·3	101·2	11·5	7·2	109·5
			U	25·0	9·5	119·3	21·2	9·3	102·9

Death Rates with Total/Rural/Urban break down from 1956 to 1960—contd.

1958			1959			1960		
Birth Rate	Death Rate	Infant Death Rate	Birth Rate	Death Rate	Infant Death Rate	Birth Rate	Death Rate	Infant Death Rate
10	11	12	13	14	15	16	17	18
22·1	16·2	219·7	19·6	11·8	165·6	25·1	14·2	150·8
21·6	16·3	227·9	18·9	12·3	180·7	24 8	14·6	159·2
26·2	14·8	183·5	23·4	9·2	98·1	26·6	12·1	107·2
20·1	14· 6	131·9	19·1	11·4	130·8	20 9	13·7	131·0
19·1	14 54	125·0	17·5	11·7	145·6	19·8	14·1	137·3
23·7	14 62	154·0	26·2	9·6	87·1	25·5	11·7	109·6
20·3	11·8	110·1	15·8	6·8	90·6	13·1	5·5	95·2
14·0	10·3	119·7	10·7	5·5	95·9	7·2	3·6	112·3
44·0	17·6	98·7	36·2	12·0	84·2	37·2	13·2	81·9
22·3	11·1	121·8	23·9	9·4	86·2	26·0	10·6	91·5
15·4	11·7	177·4	13·2	7·8	108·6	14·7	10·1	148·4
34·4	10·7	82·0	46·1	12·8	72·9	49·6	11·7	56·6
14·9	9·2	93·1	12·6	6·9	78·9	16·9	11·4	105·7
12·9	8·0	73·4	10·5	6·2	61·5	15·4	10·8	89·5
28·7	17·2	154·1	27·8	12·5	126·6	27·9	15·7	170 9
16·1	11·3	92·4	15·5	8·7	69·7	16·6	10·9	89·8
16·2	11·5	95·8	14·8	8·9	73·2	16·1	11·3	92·1
14·1	7·5	120·2	23·5	5·4	42·9	23·7	6·9	69·7
16·3	10·6	136·7	15·5	8·7	99·8	16·5	10·1	109·7
15·5	10·4	142·2	15·1	8·8	98·1	16·5	10·3	110·3
20·8	11·7	109·8	18·5	7·9	109·3	16·7	9·9	106·1
23·3	10·2	128·6	14·6	8·3	163·2	23·6	12·7	176·0
20·9	9·1	131·2	12·0	7·5	174·9	21·9	12·2	178·6
38·1	19 1	121·9	37·6	15·0	130·5	38·4	17·3	162·8
18·5	12·1	158·2	17·5	9·5	98·5	16·6	10·5	112·5
11 5	7·3	134·2	11·7	4·1	50 0	11·2	5·3	55·9
28·1	18·7	172·8	27·5	19·0	134·4	26·1	19·6	154·9
14·8	8·1	94·8	13·7	7·3	99·7	13·1	6·7	120·4
14·1	7·9	94·9	13·0	7·2	100·1	12·7	6·5	123·8
25·1	10·9	94·0	25·5	10·2	96·0	19·4	9·8	78·4
13·0	5·8	49·3	12·8	4·3	42·8	14·4	5·1	42·8
10•7	5·2	39 0	10 2	3·6	33·5	11·8	4·3	30 1
21 9	8·1	69·8	25·2	7·3	60·4	26·9	9·1	69·1
22 2	14·1	139·8	20·0	10·8	121·3	12·8	9·4	221·2
18·4	14·0	147·6	15·7	10·6	140·2	4·2	8·3	592·8
30·8	15·5	127·2	33·4	11·6	93·0	40·4	13·1	98·6
19 1	11·5	110·6	18·5	2·9	93·7	19·1	9·8	98 8
18·6	11·8	105·3	16·6	2·1	89·8	17·4	9·4	84·9
20·5	9·0	134·8	28·7	7·1	106·0	27·8	12·0	146·4
14·0	9·9	137·6	12·1	8·1	123·1	12·6	8·2	182·5
12·4	9·3	137·5	10·2	7·6	132 3	10·8	7·6	179·0
24·0	13·4	138·3	27·4	11·9	95·6	27·1	12 8	193·8
13 0	4·7	45·8	11·0	3·3	55·7	10·0	3·9	67·8
11·9	4·1	32·3	10·1	3·0	49·0	9·5	3·7	64·7
24•3	11·3	120·9	22·4	6·9	93 3	16·1	6·2	91·2
15·5	10·7	188·7	13·0	7·8	122·6	16·7	10·3	97·5
14·6	10·7	222·7	12 0	7·9	136·6	15·8	10·5	105·9
24·3	8·7	57·1	26·5	7·2	40·6	28·4	7·2	37·2
11·4	7·2	114·9	9·6	3·6	66·8	9·7	4·0	58·1
10·5	6 9	115·6	8·6	3·4	66·9	8·9	3·9	56·1
18 2	16·7	110·8	22·1	5·3	66·5	19·5	6·0	69·5
14·3	9·2	131·4	12·4	5·9	114·1	13·9	7·7	141·3
13·2	8·9	133·6	11·3	5·7	117·2	13·0	7·5	142·8
22·7	10·5	118·3	23·8	8·3	99·1	23·1	10·0	132·2

Table 10(B)—*District wise Birth Rates, Death Rates and Infant*

Sl. No.	Districts		Total Rural Urban	1956 Birth Rate	1956 Death Rate	1956 Infant Death Rate	1957 Birth Rate	1957 Death Rate	1957 Infant Death Rate
1	2		3	4	5	6	7	8	9
37.	Unnao	..	T	10·8	5·6	132·7	9·2	5·6	70·6
			R	10·1	5·6	144·7	8·3	5·2	68·7
			U	21·6	6·1	33·0	25·1	11·9	81·4
38.	Lucknow	..	T	24·1	9·4	88·0	16·7	8·7	84·2
			R	11·7	6·4	72·9	8·4	5·8	67·1
			U	36·7	12·3	93·3	24·7	11·3	90·3
39.	Rae Bareli	..	T	9·7	7·1	121·2	12·0	8·6	130·3
			R	8·9	6·8	118·1	11·3	8·3	133·3
			U	26·0	13·7	143·3	25·7	13·8	103·7
40.	Bahraich	..	T	13·1	8·0	63·2	13·7	8·9	97·9
			R	12·2	7·7	54·6	13·1	8·9	98·8
			U	26·8	13·1	128·6	22·4	8·9	89·1
41.	Gonda	..	T	12·4	7·8	58·4	12·1	8·1	56·4
			R	12·0	7·7	64·5	11·7	8·1	53·0
			U	19·8	8·0	40·3	15·7	18 2	100·8
42.	Bará Banki	..	T	9·4	9·6	179·5	9·2	6·7	154·3
			R	7·5	8·4	207·3	5·4	4·0	162·3
			U	36·1	25·0	99·9	61 6	43·9	144·8
43.	Faizabad	..	T	12·6	6·6	58·0	12·0	7·0	50·9
			R	11·9	6·7	56·7	11·9	7·2	50·7
			U	20·4	6·6	64·9	15·0	6·1	52·9
44.	Sultanpur	..	T	9·2	7·1	122·3	9·2	8·0	83·2
			R	9·0	7·0	122·1	9·0	8·0	82·8
			U	23·5	10·0	127·2	17·6	8·5	95·5
45.	Pratapgarh	..	T	8·3	5·7	54·9	8·6	6·6	48·0
			R	8·0	5·7	55·6	8·4	6·5	47·4
			U	19·1	6·5	44·0	15·1	7·2	61·0
46.	Basti	..	T	9·0	5·7	16·3	8·7	4·9	19·1
			R	9·0	5·7	16·4	8 8	4·9	10·9
			U	10 9	6·8	15·1	5·4	4·7	37·6
47.	Gorakhpur	..	T	12·4	7·5	184·5	7·4	7·8	208·0
			R	11·2	7·4	221·5	6·0	7·7	257·9
			U	24·4	9·5	6·7	20·7	8·3	59·2
48.	Deoria	..	T	10·1	6·6	23·8	12·6	9·8	62·5
			R	9·8	6·5	22·3	12·5	9·8	64·4
			U	16·7	7·4	47·8	15·1	7·3	19·9
49.	Azamgarh	..	T	12·1	9·7	97·3	11·4	5·7	56·8
			R	11·1	9·4	96·0	10·5	5·3	56·5
			U	28·8	14·4	106·3	26·1	12·0	59·3
50.	Jaunpur	..	T	12·4	5·4	45·5	12·2	7·2	47·9
			R	12·0	5·4	40·7	11·8	7·0	41·4
			U	19·0	5·7	94·7	17 0	10·0	227·6
51.	Ballia	..	T	10·1	4·8	40·7	9·9	5·5	19·7
			R	9·6	4·3	31·5	9·8	5·2	11·6
			U	15·2	8·2	85·2	11·8	8·7	85·1
52.	Ghazipur	..	T	16·2	7·6	58·7	12·8	7·3	59·0
			R	15·8	6·4	55·7	12·1	7·1	58·2
			U	18·7	10·3	79·3	18·1	9·1	63·5
53.	Varanasi	..	T	19 6	10·2	74·9	16·4	8·0	58·6
			R	15·1	1·1	22·7	11·1	3·8	4·0
			U	34·0	20·4	153·7	32 8	21·5	120·3
54.	Mirzapur	..	T	17·0	7·3	74·5	16·0	8·6	62·1
			R	15·6	6·7	62·2	14·7	8·2	56·1
			U	28·3	11·7	126·7	25·9	11·4	88·0

*These districts were created in February 1960

Death Rates with Total/Rural/Urban break down from 1955 to 1960—concld.

1958			1959			1960		
Birth Rate	Death Rate	Infant Death Rate	Birth Rate	Death Rate	Infant Death Rate	Birth Rate	Death Rate	Infant Death Rate
10	11	12	13	14	15	16	17	18
7·0	6·0	158·2	10·1	5·7	119·4	11·0	6·4	164·2
5·9	5·7	182·8	9·7	5·8	128·5	10·6	6·4	177·8
26·8	12·3	92 9	17·0	4·2	25·5	18·5	6·0	21·4
14·7	10·2	125·8	16·5	7·2	87·1	16·1	6·9	93·0
5·0	4·9	51·6	4·7	3·3	40·1	3·4	2·1	66·0
24·0	15·2	137·7	30·7	11·9	95·7	31·4	12·6	96·5
13·0	9·8	79·1	11·2	7·0	71·0	13·9	8·5	75·0
12·3	9·5	69·7	10·0	6·5	67·0	13·0	8·4	75·0
27·5	15·0	93·1	38·5	17·5	94·0	33·3	12·6	75·0
15·0	9·8	87·2	13·0	7·0	73·3	13·1	6·8	67·5
14·3	9·7	91·8	12·2	7·0	73·8	12·4	6·8	64·5
26·5	9·8	73·5	26·4	7·2	69·7	26·2	7·7	93·5
12·6	9·6	77·6	10·6	6·5	33·3	10·0	6·7	79·8
12·3	9·5	72 6	10 1	6·4	27·7	9·4	6·5	76·3
18·0	11·5	137 4	20·5	8·8	87·2	21 5	11 2	110·7
4·4	4·3	187·7	3·7	1·9	27·5	3 5	1·5	1·6
2 7	2·9	206·7	2·3	1·3	15·4	2·1	1 1	..
27 4	24 3	161·6	24·5	10·1	44·0	24·9	7 5	3·6
12·8	8·0	44·1	12·1	6 2	44·4	12·3	5·7	41·0
12·6	8·1	41 5	11·6	6·3	45·7	11·5	5 6	41·4
17·0	7·9	63·4	16·9	5·3	35·5	18·7	6·7	38·2
10·3	7·9	79·8	10·0	7·2	71·6	8·8	7·7	80·6
10·1	7·8	79·1	9·8	7·1	70·9	8·6	7·7	90·9
18·8	8·7	101·8	22·6	9·1	93·1	23·6	8·5	72·4
10·3	7·0	70·3	10·6	6·3	62·2	10·5	6·2	53·9
10·1	7·0	113·3	10·3	6·3	66·1	10·2	6·1	56·7
16·9	6 3	59 2	22·2	6·6	67·5	23·9	8·6	..
8·9	5·3	15·4	9·2	4·6	9·8	13·8	7·3	14·7
8·8	5·3	14·4	9 0	4·5	9·4	13 8	7·3	14·0
12·4	7 3	52·1	20 1	6·0	16·5	12 8	5·2	54·4
9·2	6·0	123·3	9·1	5·8	109·2	17·2	13·1	107·5
7·8	5·7	137·3	7·6	5 5	123·0	16·3	13·3	115·2
22·1	8·3	74·5	28·8	9·2	63·2	28·9	10·1	52·4
14·2	7·1	09	14·0	5·6	13·1	11·9	5·9	14·1
14·1	7·1	..	13·9	5·6	12·2	11·7	5·9	14·1
16·3	6·3	22·4	19·1	5·3	32·6	16 6	5·0	28·7
9·8	5·0	57·0	5 4	3·1	110·7	5·4	2·9	87·6
8·7	4·7	53·8	4·1	2·7	129·3	4·3	2·4	97·8
27·2	10 7	74·4	30·2	11·1	63·1	27·2	11·4	57·7
12·9	7·3	34·5	12·2	5·8	28·6	11·5	5·3	36·9
12·6	7·1	30·5	11·9	5·6	26·1	11·1	5·2	36·6
17·9	9 6	80·0	19·6	8·3	54·4	18·1	6·8	40·5
8·3	6·4	26 6	11·7	5·0	14·2	11·7	4·4	11·4
8·1	6·2	7·5	11·6	4·9	7·2	11·4	4·2	2·7
10 9	8·6	92 4	13 5	6·3	73·2	14·4	6·1	80 4
15·9	10 4	49·9	16·5	7·6	51 4	13 4	5 1	39·6
15 8	10 5	51·6	16 5	7·6	49·7	13·7	5 0	34·2
18·6	8 9	40·1	15 9	7·6	65 5	10·8	6 6	96·5
18·4	9 0	76·2	16 2	7·0	69 3	16·9	8·1	103·7
13·2	5·6	38·9	11·6	4·4	35·7	9·9	5·0	96·9
34·2	19·1	123·5	34·1	17·1	113·3	43·7	20·3	109 7
16 3	7 9	56·3	14·6	6·0	54·3	13·0	5·1	48·5
14·9	7 6	47·8	13·2	5·6	43·9	11·3	4·5	37·8
26·5	10 3	92·7	26·1	9·1	96·4	26·1	9·5	86·0

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age: Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
1.	Uttar Kashi ..	1960	R	25	13	159	120	83	76	57	55
2.	Chamoli ..	1960	R	216	204	157	149	50	50	37	34
3.	Pithoragarh ..	1960	R	50	35	33	37	10	12	3	7
4.	Tehri Garhwal ..	1957	R	229	248	365	317	176	168	134	112
			U	..	1	1	..	..	..	2	1
		1958	R	273	251	432	377	186	191	128	143
			U	..	..	4	2	..	..	5	2
		1959	R	153	165	441	386	200	164	82	78
			U	1	1	2	1	2	1	2	1
		1960	R	192	122	371	318	174	167	122	106
			U	..	..	1	1	..	..	..	1
5.	Garhwal ..	1957	R	1,173	1,206	629	626	218	222	197	184
			U	..	..	4	2	..	1	1	..
		1958	R	1,293	1,272	801	772	292	276	235	236
			U	1	11	5	9	4	1	..	..
		1959	R	757	736	672	641	218	240	227	236
			U	9	7	3	7	4	1	..	..
		1960	R	859	815	670	672	183	213	134	146
			U	4	4	10	6	7	2	3	..
6.	Almora ..	1957	R	683	570	670	623	281	301	202	220
			U	15	21	12	3	2	2	1	1
		1958	R	786	712	682	658	296	300	199	164
			U	11	16	10	12	3	1	..	..
		1959	R	787	634	587	561	305	301	150	152
			U	11	9	3	6	4	3	1	3
		1960	R	572	472	540	510	252	211	180	186
			U	7	4	11	15	4	2	4	2
7.	Naini Tal ..	1957	R	136	116	119	112	58	49	48	36
			U	51	55	65	49	17	12	12	10
		1958	R	78	66	144	111	72	61	65	51
			U	64	84	91	120	20	25	7	11
		1959	R	117	104	128	128	48	43	34	48
			U	121	77	53	44	30	24	20	10
		1960	R	167	134	133	77	57	45	46	51
			U	76	72	73	73	35	32	15	24
8.	Bijnor ..	1957	R	823	754	269	237	301	248	329	207
			U	253	255	295	333	27	25	16	23
		1958	R	763	681	934	818	471	452	346	305
			U	349	330	461	441	56	35	20	24
		1959	R	744	679	1,144	974	515	484	320	259
			U	277	246	321	370	49	41	25	36
		1960	R	968	797	1,312	1,055	657	602	448	425
			U	316	297	525	563	73	73	23	39

Rural/Urban break down from 1957 to 1960

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
61	58	78	78	88	78	74	89	66	68	69	56	760	691	1,451
37	36	59	92	79	89	116	132	158	170	228	200	1,137	1,156	2,293
7	8	20	17	15	20	35	20	57	66	72	65	302	287	589
144	119	143	159	196	187	246	191	280	219	364	304	2,277	2,024	4,301
3	..	..	2	4	2	4	3	2	3	4	2	20	15	35
118	110	283	229	192	249	271	235	308	263	436	330	2,627	2,378	5,005
4	1	3	4	..	1	2	3	3	..	..	1	21	14	35
115	120	177	228	194	206	267	246	266	270	426	391	2,321	2,254	4,575
2	..	2	3	4	..	..	2	6	..	3	6	24	15	39
85	87	113	140	154	149	154	154	241	199	311	291	1,867	1,733	3,600
..	..	6	3	4	3	7	5	13	8	6	4	37	37	74
192	216	246	347	318	339	314	341	502	466	951	866	4,740	4,813	9,553
1	..	3	1	4	3	3	2	..	1	3	3	19	13	32
203	249	228	262	257	286	331	325	395	391	711	603	4,746	4,672	9,418
1	..	1	7	1	1	4	1	8	3	4	3	29	36	65
174	184	255	231	178	174	228	187	312	262	873	856	3,894	3,747	7,641
1	2	11	2	6	5	3	4	5	2	9	3	51	33	84
111	117	154	179	233	264	243	206	292	314	713	667	3,592	3,593	7,185
3	1	5	..	9	1	5	2	5	1	13	7	64	24	88
173	214	287	365	409	443	525	460	586	543	981	780	4,797	4,519	9,316
4	4	5	10	2	5	11	5	7	1	19	10	78	62	140
175	201	277	342	313	368	479	473	591	526	966	863	4,764	4,607	9,371
1	3	9	6	5	7	5	6	7	6	15	11	66	68	134
189	168	279	311	303	319	371	397	550	489	930	752	4,451	4,084	8,535
1	3	2	8	4	3	2	5	12	4	21	19	61	63	124
167	170	242	273	309	255	330	349	353	304	763	704	3,708	3,434	7,142
..	2	3	10	5	7	9	6	10	7	24	22	77	77	154
34	40	82	100	83	95	121	106	130	108	94	103	905	865	1,770
8	12	13	29	21	10	33	19	24	14	54	44	298	254	552
43	42	79	96	105	108	129	94	178	159	169	105	1,062	893	1,955
46	25	32	36	24	17	19	8	27	18	65	42	395	386	781
41	41	101	99	72	95	108	75	105	78	126	74	880	785	1,665
19	21	20	26	39	19	26	17	29	22	43	47	400	307	707
46	46	136	87	113	109	127	88	127	91	199	159	1,191	867	2,058
21	26	24	33	24	30	30	35	21	17	87	49	408	391	799
356	265	364	297	379	334	431	388	496	458	530	461	4,278	3,649	7,927
16	29	51	79	56	56	58	56	79	60	312	222	1,163	1,138	2,301
393	371	522	395	534	419	603	500	632	515	432	363	5,630	4,819	10,449
26	32	62	105	41	60	62	68	94	69	420	305	1,591	1,469	3,060
197	190	413	350	379	344	373	294	525	412	364	360	4,964	4,356	9,320
25	30	38	88	44	62	61	45	82	61	261	198	1,183	1,177	2,360
361	309	419	459	558	452	591	459	603	504	524	470	6,441	5,532	11,973
17	47	40	74	44	62	68	67	93	79	355	256	1,554	1,557	3,111

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age- Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
9.	Moradabad	1957	R	1,307	1,439	755	749	560	517	327	421
			U	1,173	1,104	640	696	141	157	110	113
		1958	R	1,355	1,170	800	942	395	438	358	361
			U	1,268	1,194	911	1,002	205	200	122	166
		1959	R	1,401	1,362	3,866	3,918	969	962	728	738
			U	1,160	1,119	1,284	1,260	355	388	231	289
		1960	R	1,639	1,486	3,516	3,922	1,422	1,407	1,222	1,170
			U	1,437	1,356	1,187	1,141	362	336	376	301
10.	Budaun	1957	R	1,069	863	1,106	831	508	439	277	232
			U	282	246	245	215	27	25	26	22
		1958	R	1,776	1,448	2 568	1,871	1,195	777	476	263
			U	207	194	363	342	162	148	124	113
		1959	R	1,475	1,120	1,923	1,547	756	573	449	367
			U	256	367	198	155	16	25	9	11
		1960	R	1,537	1,151	2,135	1,772	849	653	540	393
			U	321	243	277	271	61	57	19	19
11.	Rampur	1957	R	196	165	497	425	241	180	141	119
			U	40	22	57	65	13	10	6	8
		1958	R	355	303	688	586	313	302	100	93
			U	28	21	95	78	13	14	15	12
		1959	R	157	142	565	507	329	276	232	224
			U	36	30	138	123	53	41	14	14
		1960	R	75	38	477	353	326	284	367	268
			U	22	18	62	76	43	25	19	23
12.	Bareilly	1957	R	2,404	1,827	1,111	804	697	567	493	373
			U	152	215	284	233	38	46	43	35
		1958	R	3,559	2,769	1,589	1,228	833	653	603	495
			U	316	271	456	430	78	100	58	43
		1959	R	2,693	2,099	1,313	1,026	709	592	602	538
			U	217	228	286	304	58	59	24	29
		1960	R	2,645	2,051	1,207	930	708	589	467	404
			U	169	157	285	288	70	63	37	31
13.	Pilibhit	1957	R	811	588	439	364	239	189	158	139
			U	145	128	157	148	23	15	12	9
		1958	R	674	498	403	324	255	191	170	147
			U	209	149	134	165	26	14	11	9
		1959	R	622	503	496	418	229	192	157	112
			U	151	143	121	157	37	30	8	8
		1960	R	704	618	479	422	308	257	138	113
			U	166	143	126	148	39	32	14	17
14.	Shahjahanpur	1957	R	326	238	784	517	393	307	194	153
			U	180	166	143	165	40	41	38	30
		1958	R	754	481	1,012	676	496	356	299	241
			U	313	256	248	262	65	73	21	24

Rural/Urban break down from 1957 to 1960—contd.

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
434	416	404	478	427	419	360	364	418	412	366	390	5,358	5,605	10,963
111	142	153	222	155	186	179	188	283	195	663	462	3,608	3,465	7,073
415	368	402	411	520	466	645	568	934	876	1,190	1,121	7,014	6,721	13,735
126	211	185	280	169	197	197	169	255	188	865	560	4,303	4,167	8,470
779	685	660	827	1,088	1,225	1,327	1,298	1,884	1,847	2,223	2,078	14,925	14,940	29,865
234	239	269	306	289	305	296	243	414	284	938	686	5,469	5,119	10,588
1,040	1,193	1,375	1,547	1,262	1,249	1,894	1,584	2,344	2,195	3,416	2,915	19,130	18,668	37,798
354	369	397	458	425	446	424	379	504	470	1,093	967	6,559	6,223	12,782
213	183	301	216	426	342	663	494	1,161	858	1,541	851	7,265	5,309	12,574
9	15	41	48	40	37	37	33	85	43	260	165	1,053	849	1,902
363	263	487	426	610	460	705	623	923	833	849	662	9,952	7,626	17,578
111	117	71	60	47	50	21	17	31	21	110	82	1,247	1,135	2,382
448	375	474	408	611	443	728	487	824	573	719	496	8,407	6,389	14,796
14	17	26	49	32	26	52	30	80	32	144	137	927	649	1,576
607	483	705	609	858	664	1,049	712	1,070	759	1,114	785	10,464	7,981	18,745
18	28	39	64	52	68	69	42	70	56	292	194	1,218	1,042	2,260
182	144	261	197	117	134	169	109	190	141	228	156	2,222	1,770	3,992
9	11	17	20	28	28	28	17	37	12	144	84	379	277	656
192	150	292	254	269	182	250	198	328	247	344	277	3,131	2,592	5,723
12	9	24	29	42	35	50	32	45	20	135	83	459	333	792
189	155	215	189	200	202	207	155	203	187	238	183	2,535	2,220	4,755
20	14	30	36	25	22	34	18	52	24	117	48	519	370	889
328	296	272	269	332	292	263	219	270	235	408	357	3,127	2,611	5,738
19	14	23	24	22	15	37	29	20	22	129	85	396	341	737
461	309	571	477	715	514	734	486	767	539	702	531	8,655	6,427	15,082
25	32	62	74	73	82	82	53	133	57	279	184	1,171	1,013	2,184
754	539	763	609	892	622	1,041	771	1,012	716	1,031	713	12,077	9,215	21,292
34	38	90	112	77	60	91	83	143	82	312	177	1,655	1,396	3,051
506	477	562	501	789	567	740	600	724	527	837	580	9,475	7,507	17,002
19	46	49	76	53	54	93	66	112	64	283	226	1,194	1,152	2,346
508	459	616	515	648	525	646	504	691	468	825	580	8,961	7,025	15,986
21	28	38	68	60	52	68	33	108	63	297	220	1,153	1,003	2,156
146	127	151	104	164	102	206	159	230	189	195	108	2,739	2,070	4,809
11	18	21	31	28	30	43	22	44	27	118	94	602	522	1,124
135	115	168	138	219	175	207	129	174	119	178	113	2,583	1,949	4,532
14	12	27	38	26	34	45	29	39	24	138	116	669	590	1,259
106	76	194	172	194	177	204	162	284	191	199	141	2,685	2,144	4,829
10	10	16	39	13	31	26	14	33	19	125	86	537	534	1,071
143	154	281	222	308	239	297	251	348	238	223	166	3,229	2,680	5,909
11	22	19	65	34	37	41	36	52	24	132	119	634	623	1,257
165	137	224	149	312	224	358	234	367	254	323	217	3,446	2,431	5,877
10	29	45	88	45	50	75	55	83	45	245	140	904	809	1,713
262	141	254	224	415	275	435	298	583	386	485	308	4,247	3,386	8,381
13	35	46	92	60	58	74	53	99	66	290	213	1,229	1,132	2,361

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age- Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
14.	Shahjahanpur—(*concld.*)	1959	R	697	457	862	574	480	374	354	289
			U	260	206	154	156	33	37	21	19
		1960	R	948	641	1,035	773	516	400	358	250
			U	301	232	198	248	91	85	25	29
15.	Dehra Dun ..	1957	R	141	94	55	51	20	26	24	15
			U	187	114	47	50	14	16	20	10
		1958	R	72	45	57	43	29	22	17	11
			U	141	123	75	64	15	15	17	9
		1959	R	57	34	66	54	13	11	14	15
			U	94	97	53	56	7	12	15	11
		1960	R	79	60	71	58	27	24	26	26
			U	127	120	58	72	14	9	11	14
16.	Saharanpur ..	1957	R	1,075	903	828	681	538	424	355	296
			U	726	656	481	538	49	64	38	51
		1958	R	1,164	991	1,260	1,037	777	589	522	448
			U	929	878	689	797	162	170	70	74
		1959	R	931	718	922	771	448	399	298	255
			U	1,014	928	651	671	201	175	131	102
		1960	R	898	787	927	805	498	439	281	243
			U	729	665	657	683	247	229	182	173
17.	Muzaffarnagar ..	1957	R	160	119	1,603	1,256	774	655	511	452
			U	241	202	207	228	39	38	12	17
		1958	R	301	253	2,070	1,697	911	802	447	421
			U	288	258	268	275	67	47	27	27
		1959	R	300	227	1,758	1,292	744	612	361	342
			U	238	190	173	165	38	40	26	25
		1960	R	602	479	2,288	1,696	1,013	808	461	353
			U	241	236	251	245	82	75	42	45
18.	Meerut ..	1957	R	2,016	1,557	1,977	1,622	701	515	443	359
			U	486	493	449	465	77	66	37	32
		1958	R	2,408	1,917	3,973	2,934	1,310	917	612	480
			U	573	515	670	633	126	90	58	81
		1959	R	1,436	1,151	2,112	1,634	623	496	419	314
			U	401	441	323	347	68	62	36	44
		1960	R	1,724	1,400	308	2,373	1,001	774	533	471
			U	508	438	491	555	131	108	84	71
19.	Bulandshahr ..	1957	R	2,617	1,861	1,341	987	745	535	436	321
			U	453	363	312	286	81	54	45	36
		1958	R	3,986	2,845	1,746	1,291	1,038	729	728	574
			U	609	540	534	484	113	107	82	54
		1959	R	2,870	2,019	1,154	874	709	487	569	471
			U	307	283	263	230	67	63	49	36
		1960	R	3,437	2,312	1,335	936	1,022	677	715	583
			U	381	366	361	345	86	74	37	39

Rural/Urban break down from 1957 to 1960—contd.

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
340	214	389	319	471	327	455	310	501	367	349	262	4,898	3,493	8,391
11	26	32	69	38	36	71	32	88	47	226	114	734	742	1,676
366	278	416	311	490	300	524	388	597	404	557	343	5,807	4,088	9,895
26	28	35	69	45	68	73	44	117	59	270	168	1,181	1,030	2,211
19	23	30	18	58	42	46	35	73	44	72	69	538	417	955
25	19	47	49	44	36	51	27	73	16	164	97	672	434	1,106
6	12	36	31	44	38	65	36	77	57	114	51	517	346	863
14	13	43	40	45	27	73	32	82	18	205	119	710	460	1,170
13	12	23	28	48	50	64	54	74	53	149	115	521	426	947
22	6	26	32	50	22	39	19	64	31	192	97	562	383	945
9	23	17	26	55	56	81	74	77	48	158	87	600	482	1,082
13	13	34	40	48	20	80	32	96	26	263	143	744	489	1,233
374	281	372	374	505	401	527	419	506	407	523	407	5,603	4,593	10,196
53	61	115	164	121	110	159	100	197	109	691	450	2,630	2,303	4,933
419	350	453	485	449	450	535	417	524	403	485	355	6,588	5,525	12,113
54	88	127	181	152	142	184	123	245	156	727	481	3,339	3,091	6,430
257	210	334	340	381	283	321	298	420	323	571	415	4,883	4,012	8,895
109	124	149	170	169	209	240	142	284	180	700	511	3,648	3,212	6,860
234	226	300	252	305	295	368	323	376	383	466	271	4,653	4,024	8,677
153	166	213	225	221	199	206	151	244	154	446	430	3,298	3,075	6,373
291	270	400	372	396	337	503	433	679	573	660	445	5,977	4,912	10,889
20	24	32	62	59	41	70	48	76	51	284	258	1,040	897	1,937
346	275	486	418	557	435	695	587	890	684	945	666	7,648	6,238	13,886
25	34	49	75	59	49	69	45	82	70	306	169	1,240	1,049	2,289
278	218	377	317	394	351	596	457	778	538	843	590	6,429	4,944	11,373
28	25	43	48	47	35	68	35	69	57	211	142	941	762	1,703
325	247	402	340	556	470	637	519	882	658	1,012	676	8,178	6,246	14,424
52	32	60	66	36	41	59	51	94	75	339	228	1,256	1,094	2,350
412	361	530	540	569	476	733	598	1,112	791	1,641	1,019	10,134	7,178	17,312
37	68	97	122	85	96	122	79	172	117	639	430	2,201	1,968	4,169
497	381	750	735	957	855	1,129	840	1,598	1,060	2,362	1,610	15,396	11,729	27,125
38	50	79	149	80	104	124	72	202	124	638	420	2,588	2,238	4,826
351	331	497	490	624	535	846	643	1,223	813	1,613	1,137	9,744	7,544	17,288
43	59	72	141	59	100	116	90	170	90	593	382	1,881	1,756	3,637
410	324	695	668	768	658	1,045	731	1,500	1,036	2,154	1,582	10,138	10,017	20,155
41	61	71	151	106	125	129	90	181	111	674	458	2,416	2,168	4,584
441	335	462	347	530	399	643	447	778	634	878	673	8,871	6,539	15,410
32	33	44	63	36	44	61	50	123	77	259	175	1,446	1,181	2,627
737	599	761	624	741	611	896	680	1,007	767	1,259	994	12,899	9,714	22,613
40	39	69	98	74	67	83	52	135	83	243	248	1,991	1,772	3,763
633	503	655	526	735	531	771	548	881	629	1,163	860	10,140	7,448	17,588
34	22	53	49	43	45	53	43	106	80	334	206	1,309	1,057	2,366
744	557	836	629	858	685	1,128	806	1,114	728	1,236	883	12,425	8,786	12,211
35	35	73	90	55	76	81	82	131	92	453	281	1,693	1,480	3,173

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age- Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
20.	Aligarh ..	1957	R	903	699	1,913	1,522	725	517	349	225
			U	448	483	321	336	56	72	32	33
		1958	R	1,782	1,429	2,946	2,273	1,227	992	579	440
			U	605	617	708	713	165	171	66	66
		1959	R	1,978	1,590	2,169	1,642	896	695	398	314
			U	370	354	359	360	90	89	41	34
		1960	R	2,170	1,708	2,428	1,848	1,133	909	621	418
			U	468	431	522	458	132	110	36	51
21.	Mathura ..	1957	R	446	332	561	400	422	351	13	7
			U	348	333	303	293	55	64	35	24
		1958	R	742	565	985	796	745	579	213	141
			U	472	430	423	485	118	96	35	47
		1959	R	489	365	490	357	296	249	122	153
			U	335	295	314	207	72	45	43	31
		1960	R	375	309	194	196	168	178	142	111
			U	357	288	259	275	69	67	24	30
22.	Agra ..	1957	R	963	760	638	501	266	192	136	101
			U	680	691	616	722	88	102	60	46
		1958	R	1,504	1,220	1,118	845	540	417	385	284
			U	842	923	869	1,017	138	157	62	55
		1959	R	972	753	969	770	492	407	328	224
			U	938	1,025	846	983	151	126	95	78
		1960	R	1,530	1,161	1,196	897	681	508	402	257
			U	821	864	888	1,092	121	116	48	56
23.	Etah ..	1957	R	374	288	455	342	313	261	204	162
			U	305	284	243	230	63	41	30	27
		1958	R	540	476	911	744	575	545	374	354
			U	351	338	373	311	101	89	37	40
		1959	R	404	310	824	663	448	338	318	199
			U	299	238	223	168	87	50	42	34
		1960	R	835	724	1,512	1,352	841	745	473	412
			U	413	328	305	294	72	59	49	41
24.	Mainpuri ..	1957	R	773	610	1,218	935	279	215	185	116
			U	78	49	34	36	11	9	4	8
		1958	R	863	688	2,162	1,600	524	448	284	181
			U	91	65	91	72	19	20	6	8
		1959	R	613	535	1,641	1,362	372	302	237	195
			U	43	43	36	36	13	8	1	2
		1960	R	931	666	1,997	1,639	459	378	290	189
			U	76	70	60	51	18	10	9	6
25.	Farrukhabad ..	1957	R	1,135	861	815	703	316	273	256	176
			U	137	135	185	178	28	28	23	15
		1958	R	1,263	1,035	1,354	866	438	362	270	221
			U	192	170	239	222	42	33	20	23

Rural/Urban break down from 1957 to 1960—contd.

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
296	220	402	362	512	475	576	396	727	591	729	544	7,132	5,551	12,683
34	43	63	89	69	56	93	75	147	94	441	282	1,704	1,563	3,267
481	375	724	547	660	520	854	619	914	684	872	670	11,039	8,549	19,588
45	73	62	123	84	99	116	77	209	134	469	313	2,529	2,386	4,915
378	304	500	452	489	438	700	597	807	702	791	622	9,106	7,356	16,462
38	32	70	79	62	61	65	43	129	56	435	291	1,659	1,399	3,058
328	292	704	523	766	615	978	721	1,225	899	1,058	754	11,411	8,687	20,098
34	33	61	130	66	79	106	67	114	85	474	309	2,013	1,753	3,766
242	193	184	131	303	201	263	181	459	362	463	271	3,356	2,429	5,785
37	33	51	85	50	48	90	58	156	76	390	276	1,515	1,290	2,805
266	235	264	229	280	232	329	225	340	278	350	234	4,514	3,534	8,038
44	44	96	122	49	78	103	52	140	82	414	343	1,894	1,769	3,663
238	160	141	127	176	108	208	129	177	144	280	192	2,617	1,984	4,601
27	31	58	61	39	31	75	49	74	50	316	321	1,353	1,121	2,474
105	85	115	94	119	145	101	104	112	136	131	158	1,562	1,516	3,078
33	40	81	67	69	63	83	60	130	60	394	320	1,499	1,270	2,769
135	116	197	154	217	162	273	214	317	246	457	273	3,599	2,719	6,318
59	75	110	165	115	116	170	115	240	101	674	465	2,812	2,598	5,410
255	275	370	283	423	307	509	371	683	476	900	526	6,687	5,004	11,691
63	77	115	202	129	134	163	113	243	118	744	540	3,368	3,336	6,704
229	172	285	251	319	354	477	355	606	394	621	451	5,298	4,131	9,429
84	93	171	271	170	165	211	155	257	130	902	607	3,825	3,633	7,458
372	291	425	378	468	402	601	421	712	511	737	557	7,124	5,383	12,507
56	79	232	194	127	142	178	123	257	156	879	664	3,607	3,486	9,093
214	147	253	208	266	159	350	247	320	208	325	157	3,074	2,179	5,253
29	38	43	56	56	77	82	58	68	44	284	248	1,203	1,103	2,306
382	265	321	200	418	307	337	313	495	306	411	254	4,764	3,855	8,619
51	39	58	57	58	33	58	38	74	45	244	221	1,405	1,269	2,674
209	173	267	228	266	201	449	293	442	283	319	212	3,946	2,900	6,846
36	30	37	48	46	38	42	31	67	47	200	127	1,092	811	1,903
406	344	438	402	454	380	522	443	616	499	411	378	6,508	5,679	12,187
31	43	46	58	52	41	65	55	72	38	221	160	1,326	1,117	2,443
168	165	339	317	400	322	457	353	557	462	607	376	4,973	3,871	8,844
3	16	15	27	24	16	22	19	47	26	94	53	332	259	591
195	181	297	304	368	309	562	396	594	453	624	453	6,473	5,013	11,486
7	12	14	26	16	19	21	7	44	23	73	59	382	311	693
175	161	302	242	323	255	506	390	491	394	586	364	5,246	4,200	9,446
6	9	10	10	19	11	27	14	26	9	93	47	274	189	463
178	175	333	294	439	330	452	331	711	638	961	749	6,741	5,389	12,130
5	16	19	27	23	11	20	12	27	19	85	35	342	257	599
221	185	310	273	439	300	545	383	601	393	764	545	5,402	4,092	9,494
25	26	45	63	47	39	63	39	88	53	264	152	905	728	1,633
382	275	386	327	419	408	640	455	332	311	609	480	6,093	4,740	10,833
16	36	35	70	31	54	71	39	84	38	267	177	997	862	1,859

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age- Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
25.	Farrukhabad (*concld.*)	1959	R	872	754	1,234	1,114	385	318	222	243
			U	180	139	122	97	26	20	19	21
		1960	R	1,139	891	1,412	1,110	486	370	305	261
			U	155	129	126	99	45	43	40	41
26.	Etawah ..	1957	R	1,170	922	426	357	204	156	147	114
			U	324	254	194	208	35	49	21	14
		1958	R	1,266	1,003	495	417	212	166	174	130
			U	444	382	238	279	50	52	11	16
		1959	R	1,220	922	518	387	240	225	183	168
			U	312	262	172	187	45	40	10	22
		1960	R	2,317	1,774	1,122	722	417	374	274	215
			U	376	369	217	229	38	51	17	25
27.	Kanpur ..	1957	R	3,353	2,572	339	331	401	371	475	453
			U	2,533	1,620	1,795	1,441	952	824	828	799
		1958	R	1,185	889	679	589	419	386	334	250
			U	2,414	1,997	1,328	1,139	790	663	689	665
		1959	R	459	395	684	418	304	210	141	142
			U	1,751	1,344	418	158	581	241	571	343
		1960	R	514	419	853	674	455	352	234	186
			U	1,928	1,528	321	118	621	243	761	406
28.	Fatehpur ..	1957	R	656	482	810	648	187	202	158	143
			U	41	29	45	44	13	11	4	5
		1958	R	700	554	709	689	256	216	178	135
			U	74	57	73	54	19	17	11	5
		1959	R	746	540	836	642	297	270	184	148
			U	73	58	65	48	10	15	10	4
		1960	R	904	679	989	766	239	146	120	93
			U	44	39	92	46	39	24	13	7
29.	Allahabad ..	1957	R	361	306	1,097	751	553	414	347	288
			U	387	338	446	471	90	100	66	55
		1958	R	390	361	968	776	470	376	220	191
			U	377	293	369	374	53	78	53	57
		1959	R	363	301	723	594	362	300	156	120
			U	328	303	247	243	48	39	33	47
		1960	R	392	311	911	712	369	309	261	214
			U	422	362	493	464	85	91	32	42
30.	Jhansi ..	1957	R	1,087	913	617	530	244	209	162	124
			U	556	477	398	411	87	60	34	36
		1958	R	956	968	797	617	487	394	342	327
			U	542	489	425	467	109	75	43	27
		1959	R	940	818	730	656	327	306	230	251
			U	402	375	321	323	77	56	32	27
		1960	R	1,092	924	617	534	237	206	158	116
			U	522	448	368	385	90	57	33	43

Rural/Urban break down from 1957 to 1960—contd.

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
301	243	335	327	398	379	549	315	403	280	591	386	5,290	4,359	9,649
25	31	37	57	43	25	51	31	61	36	151	82	715	539	1,254
343	290	419	371	483	408	643	437	641	422	676	458	6,547	5,018	11,565
34	32	47	57	36	31	83	49	74	43	155	74	795	598	1,393
130	111	186	160	237	208	311	248	449	427	623	587	3,883	3,290	7,173
15	24	35	57	28	40	56	31	95	50	225	145	978	872	1,850
169	132	191	173	267	209	332	292	462	392	955	915	4,523	3,829	8,352
9	28	31	52	40	35	59	32	85	38	197	146	1,164	1,060	2,224
274	234	286	277	345	275	384	252	398	219	496	410	4,344	3,369	7,713
18	23	38	49	32	50	50	41	74	53	158	119	909	846	1,755
239	218	156	347	517	416	546	463	646	509	730	506	7,164	5,544	12,708
11	16	37	47	37	37	66	53	95	64	159	121	1,053	1,012	2,065
579	484	677	531	781	476	898	677	999	786	1,192	1,009	9,694	7,690	17,384
689	631	595	505	503	419	495	399	474	319	607	549	9,471	7,506	16,977
363	241	405	371	427	362	505	384	593	383	627	474	5,537	4,329	9,866
655	608	619	509	575	514	714	542	664	528	798	544	9,246	7,709	16,955
154	119	210	206	177	167	348	239	369	276	579	396	3,425	2,568	5,993
580	440	668	548	744	781	934	1,010	1,090	1,119	1,353	1,233	8,690	7,217	15,907
279	189	287	213	316	266	429	340	491	369	634	438	4,492	3,446	7,938
734	505	768	605	779	753	867	1,008	992	1,102	1,398	1,303	9,169	7,571	16,740
195	157	194	181	382	240	387	313	466	372	686	453	4,121	3,191	7,312
3	3	18	19	5	12	11	7	10	7	59	29	209	166	375
155	143	386	189	286	169	396	295	442	354	673	437	4,181	3,181	7,362
10	5	22	16	14	15	19	12	28	17	85	52	355	250	605
165	147	189	178	262	186	344	310	397	307	563	338	3,983	3,066	7,049
12	4	18	24	17	6	25	11	14	17	55	62	299	249	548
72	58	54	57	70	72	136	144	315	294	734	634	3,633	2,945	6,578
20	14	30	17	18	19	16	9	18	3	48	18	338	196	534
256	197	394	295	427	346	517	403	544	446	854	499	5,350	3,945	9,295
80	91	110	158	84	72	131	119	202	147	511	416	2,107	1,967	4,074
248	187	369	341	355	290	500	416	731	524	912	697	5,163	4,159	9,322
55	58	111	130	113	88	121	76	190	116	466	360	1,908	1,630	3,538
171	172	249	249	277	258	342	297	538	402	683	481	3,864	3,174	7,038
45	61	75	132	74	89	106	67	159	97	515	334	1,630	1,412	3,042
98	84	314	282	357	310	607	442	687	481	768	634	4,764	3,779	8,543
41	81	72	122	85	62	122	63	183	89	513	399	2,048	1,775	3,823
152	134	147	195	264	225	295	256	346	292	306	272	3,620	3,150	6,770
43	36	46	62	80	56	97	60	146	102	262	286	1,749	1,586	3,335
352	298	351	269	401	389	526	440	564	456	528	457	5,304	4,615	9,919
23	43	54	95	78	64	107	73	140	116	276	287	1,797	1,736	3,533
227	205	229	268	302	315	407	401	470	429	492	456	4,354	4,105	8,459
21	41	54	69	76	71	87	62	152	103	283	239	1,505	1,366	2,871
155	134	146	187	276	225	300	249	343	288	296	277	3,620	3,140	6,760
39	35	44	64	68	52	87	60	138	102	260	264	1,649	1,510	3,159

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age- Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
31.	Jalaun ..	1957	R	453	304	432	384	236	163	107	85
			U	118	100	82	86	31	23	8	10
		1958	R	564	442	649	480	268	227	193	163
			U	155	128	108	110	31	33	7	13
		1959	R	440	367	13	8	..	16	8	..
			U	148	156	27	24	21	16	16	6
		1960	R	447	369	561	446	253	234	158	106
			U	256	209	144	116	61	48	21	27
32.	Hamirpur ..	1957	R	417	342	906	598	300	230	126	109
			U	59	39	115	93	30	26	11	8
		1958	R	595	522	1,096	755	364	267	84	64
			U	185	107	175	139	47	27	28	21
		1959	R	505	419	859	617	272	194	113	94
			U	155	98	114	83	39	28	29	28
		1960	R	788	559	710	533	259	185	120	83
			U	264	190	101	70	41	33	25	25
33.	Banda ..	1957	R	139	83	253	148	164	98	198	103
			U	98	88	88	94	22	20	9	5
		1958	R	174	122	339	266	164	107	83	65
			U	123	84	102	124	15	20	4	11
		1959	R	222	199	307	164	168	90	70	55
			U	84	57	45	43	11	10	5	5
		1960	R	290	244	311	243	146	113	106	54
			U	65	44	51	35	12	11	5	3
34.	Kheri ..	1957	R	182	161	640	462	488	384	288	253
			U	44	30	30	38	10	6	6	7
		1958	R	1,706	1,543	782	538	544	368	396	258
			U	73	58	114	121	28	33	9	10
		1959	R	1,045	804	714	522	450	357	250	209
			U	54	40	79	40	25	18	8	9
		1960	R	1,092	840	1,027	761	562	429	418	338
			U	51	43	52	47	14	23	10	18
35.	Sitapur ..	1957	R	768	578	976	745	488	359	295	288
			U	129	81	105	95	37	29	15	14
		1958	R	852	737	1,018	761	430	317	269	224
			U	137	142	134	175	49	32	18	10
		1959	R	448	382	659	439	263	187	141	108
			U	88	82	67	60	17	12	8	11
		1960	R	399	338	738	526	315	271	184	132
			U	83	77	70	54	13	16	19	12
36.	Hardoi ..	1957	R	971	681	1,114	856	311	188	202	152
			U	152	140	136	133	33	24	23	16
		1958	R	1,267	900	1,700	1,365	395	331	288	218
			U	215	149	153	150	25	28	15	1

Rural/Urban break down from 1957 to 1960—contd.

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
137	95	174	192	339	246	263	208	270	202	253	177	2,664	2,056	4,720
6	15	24	24	18	21	37	24	24	22	72	58	420	383	803
178	142	243	227	367	321	378	298	306	207	230	172	3,376	2,679	6,055
13	14	22	18	16	20	30	14	32	14	73	68	487	432	919
13	2	13	21	16	72	34	18	74	27	18	2	629	533	1,162
10	8	17	18	23	18	22	15	33	18	49	45	386	324	710
142	110	193	206	251	236	315	266	305	226	198	148	2,815	2,347	5,162
25	21	42	37	46	37	55	41	58	44	79	49	787	629	1,416
136	98	200	184	263	231	309	209	345	277	237	204	3,239	2,482	5,721
10	10	34	30	32	24	49	43	42	29	23	21	405	323	728
170	131	203	153	207	158	251	251	275	174	172	148	3,417	2,623	6,040
21	17	50	42	33	28	44	40	53	37	48	36	684	494	1,778
140	102	85	80	155	134	237	194	263	202	296	261	2,925	2,297	5,222
25	17	29	35	36	38	35	22	55	31	58	58	575	438	1,013
73	51	74	68	149	128	262	201	300	251	255	244	2,990	2,303	5,293
16	13	25	19	33	34	32	21	36	31	57	40	630	367	997
130	88	202	131	228	173	289	171	292	184	269	207	2,164	1,386	3,550
6	8	23	20	20	19	28	18	20	27	76	95	390	344	734
147	67	131	84	176	113	185	131	225	161	259	164	1,883	1,280	3,163
6	9	18	21	11	13	24	16	20	16	65	67	388	381	769
86	57	86	94	105	93	123	120	153	104	167	117	1,487	1,093	2,580
1	8	7	9	11	9	16	15	12	8	63	47	255	211	466
102	50	90	81	142	121	201	130	250	168	223	128	1,861	1,332	3,193
5	5	12	8	11	3	14	6	21	10	55	50	251	175	426
286	224	397	300	384	279	441	292	372	304	397	249	3,875	2,908	6,783
20	15	26	21	24	32	23	13	25	17	60	32	268	211	479
293	218	418	319	514	323	487	340	501	333	523	335	6,164	4,575	10,739
17	14	17	31	19	22	26	12	30	19	99	63	432	383	815
314	289	363	331	488	409	485	351	504	430	324	275	4,937	3,977	8,914
10	21	17	31	22	17	23	18	39	20	78	64	355	278	633
465	347	467	373	502	408	748	572	732	563	824	630	6,837	5,261	12,098
27	14	21	37	31	25	26	18	40	11	116	59	350	295	645
258	232	360	310	356	277	406	309	524	340	511	294	4,942	3,732	8,674
12	14	15	24	25	28	31	33	39	20	29	67	497	405	902
231	196	334	282	413	283	561	392	523	383	614	398	5,245	3,973	9,218
5	18	25	33	16	26	20	29	41	18	111	105	556	588	1,144
144	100	208	155	205	161	222	175	251	203	302	188	2,843	2,098	4,941
8	13	9	23	15	14	18	17	23	17	71	47	324	296	620
155	130	186	148	223	177	302	246	331	169	466	286	3,299	2,423	5,722
13	11	13	18	17	23	32	21	41	31	89	59	390	322	712
242	174	339	329	361	293	466	304	560	320	905	660	5,471	3,957	9,428
12	15	37	61	34	45	37	43	59	38	178	127	701	642	1,343
273	210	441	318	420	310	458	310	606	360	974	747	6,822	5,069	11,891
26	13	39	52	30	44	41	23	61	32	194	114	799	623	1,422

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age- Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
36.	Hardoi—(*concld.*)	1959	R	1,105	744	1,007	695	248	171	156	126
			U	173	146	109	89	26	14	17	11
		1960	R	1,525	1,105	1,252	941	406	204	237	154
			U	242	179	130	117	50	34	21	21
37.	Unnao ..	1957	R	414	297	638	474	278	184	158	107
			U	74	51	79	67	24	8	15	9
		1958	R	551	427	625	556	314	225	189	148
			U	85	69	76	65	25	17	17	14
		1959	R	805	603	271	218	299	206	224	189
			U	15	12	23	18	7	2	5	4
		1960	R	1,193	979	322	220	323	259	295	190
			U	18	7	31	31	19	10	10	10
38.	Lucknow ..	1957	R	204	163	471	280	96	78	67	58
			U	706	669	615	568	171	119	101	98
		1958	R	98	73	414	280	128	113	49	44
			U	1,137	948	1,119	1,049	326	276	127	83
		1959	R	83	50	201	102	135	94	128	101
			U	945	781	495	554	127	124	91	68
		1960	R	86	76	317	223	99	75	42	22
			U	929	886	806	868	197	136	98	88
39.	Rae Bareli ..	1957	R	939	800	518	424	473	389	448	334
			U	78	73	81	86	22	21	15	12
		1958	R	572	428	830	602	602	458	480	391
			U	77	71	72	69	34	19	19	18
		1959	R	429	391	480	359	311	269	261	217
			U	116	83	60	86	18	31	15	11
		1960	R	652	563	829	630	542	452	370	273
			U	84	55	98	96	27	16	10	12
40.	Bahraich ..	1957	R	981	518	1,325	980	629	482	330	264
			U	96	86	73	78	26	20	17	20
		1958	R	958	830	1,384	998	657	416	464	368
			U	96	72	85	90	22	25	11	9
		1959	R	958	555	1,109	859	442	331	318	240
			U	77	54	51	70	12	9	8	9
		1960	R	696	491	917	661	454	390	305	274
			U	77	85	50	58	13	22	10	10
41.	Gonda ..	1957	R	627	553	1,331	1,170	738	588	616	348
			U	105	63	134	120	21	23	13	6
		1958	R	953	735	2,141	1,534	770	603	519	425
			U	86	122	138	149	51	44	16	11
		1959	R	279	259	1,114	832	492	466	539	363
			U	100	74	78	100	11	20	9	9
		1960	R	717	684	1,006	740	447	456	388	313
			U	133	101	91	103	30	14	13	9

Rural/Urban break down from 1957 to 1960—contd.

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
184	164	239	186	287	212	466	245	472	220	633	397	4,797	3,160	7,957
16	18	42	33	34	29	38	26	44	30	137	88	636	484	1,120
217	184	323	297	354	271	460	341	522	450	856	520	6,152	4,467	10,619
20	21	37	50	39	36	39	27	39	29	156	88	773	602	1,375
157	116	195	139	208	153	356	271	415	293	462	298	3,281	2,332	5,613
7	4	14	17	33	29	37	30	42	33	86	33	411	281	692
258	135	223	147	215	164	337	232	350	271	457	314	3,519	2,619	6,138
12	7	28	21	25	16	34	33	44	22	89	60	435	324	759
322	242	353	247	334	261	294	271	346	308	442	307	3,690	2,852	6,542
3	3	14	10	7	6	18	7	20	12	43	33	155	107	262
374	222	368	250	423	253	377	276	306	206	279	207	4,260	3,062	7,322
25	14	11	17	16	12	18	12	21	18	45	36	214	167	381
72	55	128	63	201	156	279	204	367	258	347	252	2,232	1,567	3,799
109	89	234	278	221	183	308	166	426	184	1,025	687	3,916	3,041	6,957
104	62	163	119	235	151	219	179	227	164	233	162	1,870	1,347	3,217
132	124	280	330	248	209	297	193	494	264	1,132	805	5,292	4,281	9,573
140	120	127	102	121	119	145	104	140	99	141	98	1,361	989	2,350
164	133	231	334	249	199	280	176	397	177	853	648	3,832	3,194	7,026
38	36	27	26	37	39	70	51	74	57	64	65	854	670	1,524
82	134	227	255	265	183	261	151	347	191	886	574	4,098	3,466	7,564
386	332	398	406	454	373	578	431	533	385	595	403	5,331	4,277	9,608
18	22	25	24	27	21	26	21	46	31	86	50	424	361	785
451	420	517	448	582	464	677	506	805	610	741	551	6,257	4,878	11,135
20	31	37	32	24	31	41	28	55	45	77	67	456	411	867
213	182	288	239	415	339	561	437	795	595	704	508	4,457	3,536	7,993
15	19	19	28	28	38	57	54	56	52	91	90	470	492	962
316	312	339	291	608	450	648	496	847	589	702	494	5,853	4,550	10,403
5	12	11	20	26	17	14	11	51	20	75	44	401	303	704
314	235	464	378	666	498	919	626	666	466	541	384	6,835	4,831	11,666
14	14	14	32	9	3	25	20	23	10	76	57	373	340	713
403	319	533	456	635	494	749	553	792	637	821	629	7,396	5,700	13,096
29	21	13	42	18	20	17	14	34	26	82	74	407	393	800
278	188	374	271	514	359	530	421	529	493	453	472	5,505	4,189	9,694
9	14	16	27	20	17	16	14	17	13	56	41	282	268	550
360	318	405	332	511	425	572	425	607	451	503	412	5,330	4,179	9,509
13	21	42	29	12	20	15	6	17	8	58	33	307	292	599
399	316	577	474	543	498	997	853	1,367	896	1,398	850	8,593	6,546	15,139
9	14	16	26	56	30	32	18	48	27	75	90	509	417	926
451	421	587	524	753	576	1,161	850	1,279	946	1,499	1,218	10,113	7,832	17,945
15	17	16	38	41	39	33	33	62	30	135	119	643	602	1,245
367	309	553	423	568	496	898	642	883	823	1,121	929	6,814	5,542	12,356
10	10	15	32	33	22	34	22	48	25	128	74	466	388	854
355	280	623	443	660	588	808	697	909	846	950	794	6,863	5,841	12,704
13	10	38	40	42	30	61	32	49	32	147	118	617	489	1,106

Table 11—*District wise Total Deaths by Age with*

Age-

Sl. no.	District	Year	Rural Urban	Under 1 year		1		5		10	
				Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12
42.	Bara Banki ..	1957	R	575	512	779	605	334	254	263	240
			U	440	358	490	390	302	237	222	215
		1958	R	365	339	563	451	283	205	203	180
			U	140	187	321	240	208	172	144	131
		1959	R	24	22	190	161	108	92	98	72
			U	51	45	144	112	71	72	50	42
		1960	R	..	..	147	107	146	94	86	71
			U	3	5	120	79	53	42	35	25
43.	Faizabad ..	1957	R	477	379	849	687	475	413	312	264
			U	72	43	78	90	19	7	19	13
		1958	R	426	323	941	749	696	603	504	434
			U	90	68	145	94	45	39	16	15
		1959	R	425	344	736	575	440	334	324	292
			U	51	36	70	38	14	12	20	8
		1960	R	373	327	894	692	412	341	177	165
			U	50	55	119	108	26	29	15	17
44.	Sultanpur ..	1957	R	540	490	742	539	416	338	313	265
			U	21	17	26	21	6	2	..	3
		1958	R	628	485	805	608	435	395	355	296
			U	12	8	24	28	60	9	3	1
		1959	R	519	432	704	533	343	276	287	259
			U	25	14	14	18	4	1	2	2
		1960	R	574	452	773	571	455	361	365	313
			U	17	15	18	19	4	2	..	..
45.	Pratapgarh ..	1957	R	256	194	471	389	318	319	288	215
			U	14	14	23	26	5	7	3	1
		1958	R	213	175	647	483	435	372	338	268
			U	14	17	25	17	3	7	3	3
		1959	R	441	371	700	562	367	333	353	264
			U	21	22	24	21	7	8	4	2
		1960	R	390	313	451	412	327	302	305	293
			U	..	..	29	17	10	12	15	12
46.	Basti ..	1957	R	124	112	1,182	961	562	460	372	291
			U	4	6	26	15	12	9	4	6
		1958	R	172	144	1,495	1,209	769	594	474	390
			U	10	12	16	15	13	18	5	3
		1959	R	117	95	1,266	1,049	699	572	458	382
			U	11	5	30	18	30	22	7	7
		1960	R	269	224	1,910	1,598	1,036	891	614	546
			U	27	7	10	8	18	10	3	3
47.	Gorakhpur ..	1957	R	1,773	1,441	449	380	460	434	593	550
			U	131	116	107	108	32	33	22	25
		1958	R	1,158	1,044	439	382	344	330	353	296
			U	179	163	133	125	59	73	39	33

Rural/Urban break down from 1957 to 1960—contd.

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females.	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
214	261	176	136	131	132	137	56	78	22	61	19	2,748	2,237	4,985
199	161	169	149	130	117	96	85	56	61	49	19	2,153	1,792	3,945
162	127	132	120	95	84	92	50	51	28	32	21	1,978	1,605	3,583
116	86	87	66	60	47	37	24	25	29	20	10	1,221	992	2,213
76	56	78	71	130	95	126	94	77	42	32	13	939	718	1,657
33	25	20	33	19	24	24	22	31	31	26	32	469	438	904
95	86	82	55	67	45	86	48	39	38	106	72	854	616	1,470
24	26	29	26	24	21	29	15	21	21	46	30	384	290	674
350	309	464	388	576	405	592	487	609	449	998	726	5,702	4,507	10,209
16	20	22	49	20	50	32	38	51	25	132	95	461	430	891
475	392	545	474	604	560	613	469	614	485	978	812	6,394	5,303	11,697
31	36	31	46	39	33	47	33	42	32	169	110	655	506	1,161
350	301	452	392	536	414	546	410	489	407	767	647	5,065	4,116	9,181
22	22	22	21	27	22	46	24	48	25	141	93	461	201	662
292	216	390	341	386	346	443	349	525	395	666	575	4,558	3,747	8,305
17	18	18	25	39	32	35	30	45	39	149	113	513	466	979
374	338	520	411	632	546	878	588	954	777	725	572	6,094	4,864	10,958
3	4	2	10	3	3	11	4	7	3	20	26	99	93	192
335	261	411	343	558	494	693	616	902	775	837	699	5,959	4,972	10,931
1	4	5	7	2	7	..	5	14	4	21	17	115	90	205
312	242	407	325	458	428	647	515	823	706	824	721	5,324	4,437	9,761
2	5	1	7	4	1	5	10	8	5	27	13	92	76	168
368	267	423	355	637	535	623	560	837	772	750	588	5,805	4,774	10,579
2	2	3	7	6	3	4	5	14	5	18	15	86	73	159
228	218	348	277	437	286	648	454	595	410	575	452	4,164	3,214	7,378
2	..	8	8	4	6	7	6	10	8	36	32	112	108	220
290	304	349	287	441	327	566	451	618	482	516	398	4,413	3,547	7,960
5	1	4	8	1	2	6	3	10	5	39	22	110	85	195
258	256	335	295	366	321	418	364	375	321	491	368	4,104	3,455	7,559
1	2	6	4	1	5	4	5	5	5	26	17	99	91	190
304	324	338	308	367	358	555	464	474	336	478	299	3,989	3,409	7,398
3	2	..	1	10	4	15	12	20	20	44	23	146	103	249
358	264	584	449	740	586	968	768	855	713	983	816	6,728	5,420	12,148
2	4	11	3	13	7	10	9	20	8	34	27	136	94	230
395	314	652	609	675	623	832	648	826	712	783	717	7,073	5,960	13,033
5	2	16	40	21	21	27	16	28	16	42	35	183	178	363
343	346	473	494	590	514	681	595	738	689	737	636	6,102	5,372	11,474
5	8	7	16	9	14	19	7	17	6	35	19	170	122	292
682	578	848	790	1,041	878	1,201	973	1,175	958	1,355	1,157	10,131	8,593	18,724
3	3	16	15	11	12	9	4	8	9	53	26	158	97	255
645	622	681	523	809	693	894	686	1,077	888	1,487	792	8,868	7,009	15,877
24	29	52	96	56	64	99	69	137	105	219	151	879	796	1,675
304	310	389	347	471	405	642	616	1,178	1,144	866	732	6,144	5,606	11,750
17	43	58	101	53	70	68	61	87	82	166	115	859	866	1,725

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age- Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
47.	Gorakhpur (*concld.*)	1959	R	1,135	1,021	344	335	308	307	343	292
			U	178	155	114	102	34	47	23	26
		1960	R	2,277	2,128	654	607	702	738	805	684
			U	149	132	105	108	36	46	24	31
48.	Deoria ..	1957	R	1,109	697	1,112	1,014	1,151	984	1,159	966
			U	12	13	25	22	11	13	9	8
		1958	R	..	..	1,495	1,128	741	634	553	477
			U	21	10	57	40	22.	25	5	10
		1959	R	222	155	819	592	581	414	435	286
			U	27	22	25	25	15	17	6	6
		1960	R	210	165	871	662	729	524	656	510
			U	23	15	36	26	19	15	2	13
49.	Azamgarh ..	1957	R	770	517	665	538	486	384	472	364
			U	106	89	169	176	60	55	28	30
		1958	R	619	402	1,131	896	599	570	412	374
			U	129	132	134	145	47	33	17	24
		1959	R	676	508	494	446	382	342	232	214
			U	132	94	127	143	34	39	9	13
		1960	R	538	407	328	277	205	178	193	115
			U	102	87	89	64	36	24	29	20
50.	Jaunpur ..	1957	R	408	330	738	562	632	469	250	199
			U	67	82	50	42	36	32	29	33
		1958	R	344	208	711	496	603	594	545	448
			U	57	79	33	38	33	41	35	31
		1959	R	259	233	530	388	576	446	516	413
			U	41	57	40	42	22	24	24	27
		1960	R	389	267	621	476	369	297	133	74
			U	51	34	41	47	26	16	29	31
51.	Ballia ..	1957	R	73	59	197	143	190	131	182	100
			U	61	58	102	95	32	37	20	21
		1958	R	104	62	476	369	286	223	185	158
			U	67	54	94	86	46	45	21	31
		1959	R	71	28	204	159	120	106	156	136
			U	70	48	74	68	19	19	26	22
		1960	R	16	21	362	244	252	171	132	141
			U	82	57	80	71	27	20	18	11
52.	Ghazipur ..	1957	R	445	336	605	522	335	276	303	257
			U	97	59	128	76	43	30	51	35
		1958	R	524	391	1,232	956	800	661	515	415
			U	56	47	144	112	56	37	43	27
		1959	R	512	430	640	463	448	370	399	280
			U	83	61	67	62	50	47	40	47
		1960	R	302	243	373	283	285	231	237	212
			U	81	65	47	48	46	27	28	24

Rural/Urban break down from 1957 to 1960—contd.

Groups

15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
400	340	456	433	523	561	806	728	1,119	1,032	1,252	1,070	6,686	6,119	12,805
28	41	50	83	45	63	67	55	120	102	186	170	845	844	1,689
873	970	1,054	1,162	1,397	1,778	2,368	2,121	3,053	3,110	2,554	2,286	15,737	15,584	31,321
34	52	59	95	53	79	82	64	130	119	185	153	857	879	1,736
1,261	1,030	1,267	963	1,307	1,052	1,227	997	1,278	970	1,392	1,206	12,263	9,879	22,142
7	12	28	19	33	23	29	20	62	49	125	83	341	262	603
617	497	921	760	1,062	847	1,174	931	1,187	989	1,231	1,032	8,981	7,295	16,276
11	12	24	22	14	18	15	18	20	12	110	73	299	240	539
464	334	625	558	762	692	935	769	966	784	1,187	1,009	6,996	5,593	12,589
2	5	13	27	18	16	17	14	17	17	76	54	216	203	419
442	423	520	417	827	761	794	768	1,154	1,018	1,170	966	7,373	6,014	13,387
5	12	12	18	18	18	21	11	36	27	35	36	207	191	398
382	339	347	307	406	379	689	617	1,071	954	961	767	6,249	5,166	11,415
22	33	36	70	51	50	50	39	72	63	178	136	772	741	1,513
272	274	192	168	188	169	633	532	681	617	825	707	5,552	4,709	10.261
17	31	29	59	23	26	46	51	80	66	161	129	683	696	1,379
143	113	86	85	107	89	178	163	428	440	450	461	3,176	2,861	6,037
16	28	29	41	24	22	50	53	92	85	159	125	672	643	1,315
212	162	173	138	248	194	304	274	434	394	372	333	3,007	2,472	5,479
19	16	39	37	71	61	115	102	134	114	129	84	763	609	1,372
483	360	634	503	672	474	613	454	640	449	976	720	6,046	4,520	10,566
25	27	28	34	44	50	39	51	49	54	85	76	452	481	933
574	499	573	433	673	606	657	483	579	465	647	506	6,086	4,738	10,824
32	32	33	37	37	39	34	47	42	57	80	96	416	497	913
404	357	518	389	649	435	590	430	273	214	780	533	5,095	3,838	8,933
22	27	31	34	26	26	31	33	37	37	88	95	362	402	764
448	330	359	313	541	386	639	444	682	483	698	513	4,879	3,583	8,462
22	16	14	37	20	17	29	11	36	41	177	136	351	286	637
161	153	286	293	446	311	494	432	566	385	804	593	3,399	2,600	5,999
9	18	28	37	22	35	37	25	49	40	276	138	636	504	1,140
214	164	304	275	414	336	593	385	671	472	930	626	4,177	3,070	7,247
11	16	30	40	32	33	34	36	42	37	154	126	531	504	1,035
175	108	234	192	428	299	535	337	623	455	770	626	3,316	2,446	5,762
17	15	25	50	24	22	30	19	30	18	74	74	389	355	744
115	111	220	177	406	239	546	416	440	351	388	294	2,877	2,165	5,042
8	8	26	21	24	18	22	20	41	22	78	70	406	318	724
300	271	302	262	393	326	434	348	417	397	760	568	4,294	3,563	7,857
33	33	48	36	50	54	60	54	78	68	106	73	694	548	1,242
481	421	521	480	537	404	552	470	583	488	731	616	6,476	5,302	11,778
37	43	43	45	43	46	54	51	90	62	124	70	690	540	1,230
415	320	498	397	500	394	428	353	517	389	511	408	4,868	3,804	8,672
44	40	43	34	57	52	63	54	63	36	53	55	563	488	1,051
247	227	308	259	291	244	328	226	293	207	581	421	3,245	2,553	5,798
46	30	32	49	26	21	47	31	45	36	106	90	504	421	925

Table 11—*District wise Total Deaths by Age with*

Sl. no.	District	Year	Rural Urban	Age- Under 1 year Males	Under 1 year Females	1 Males	1 Females	5 Males	5 Females	10 Males	10 Females
1	2	3	4	5	6	7	8	9	10	11	12
53.	Varanasi ..	1957	R	42	33	891	673	372	294	287	249
			U	1,075	933	999	1,139	244	267	125	124
		1958	R	468	416	1,180	1,099	572	434	281	222
			U	1,125	1,089	901	926	231	261	113	166
		1959	R	392	359	817	702	349	246	318	289
			U	916	905	607	744	165	184	81	105
		1960	R	1,015	764	599	512	251	216	253	206
			U	1,223	1 084	732	913	175	196	123	129
54.	Mirzapur ..	1957	R	440	355	753	612	316	290	243	200
			U	148	139	151	140	35	40	19	24
		1958	R	377	319	638	498	340	296	235	181
			U	170	144	103	135	31	40	14	22
		1959	R	341	278	671	536	306	258	136	102
			U	167	167	98	105	16	29	9	20
		1960	R	248	221	481	403	247	210	115	107
			U	169	144	102	134	39	47	23	17

Rural/Urban break down from 1957 to 1960—concld.

Groups														
15		20		30		40		50		60+		Total		
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Persons
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
264	190	283	278	223	196	237	174	262	207	796	540	3,657	2,834	6,491
118	216	275	426	248	279	330	227	432	266	1,647	1,558	5,493	5,435	10,928
250	203	419	369	350	348	380	256	387	363	904	767	5,191	4,477	9,668
126	215	251	389	231	239	291	201	364	202	1,443	1,377	5,076	5,065	10,141
166	168	292	264	375	282	352	275	459	397	864	634	4,384	3,616	8,000
102	163	166	331	169	175	237	170	326	158	1,259	1,087	4,028	4,022	8,050
320	167	315	225	305	252	351	250	356	316	1,371	1,139	5,136	4,047	9,183
109	161	187	386	192	258	309	171	305	217	1,553	1,346	4,908	4,861	9,769
216	194	317	321	507	414	517	358	461	339	585	510	4,355	3,593	7,948
17	20	37	63	48	46	33	35	49	19	208	161	745	687	1,432
255	216	401	331	432	391	448	369	474	392	431	366	4,031	3,359	7,390
12	35	32	52	28	35	31	32	54	35	177	133	652	663	1,315
165	116	247	259	359	300	378	297	334	270	368	315	3,305	2,731	6,036
6	22	31	42	18	34	39	19	60	30	173	126	617	594	1,211
161	119	226	183	246	227	362	240	296	251	316	286	2,698	2,247	4,945
19	24	48	50	32	34	38	27	52	24	134	130	656	631	1,287

Table 12--*District wise Infant Deaths by*

Serial No.	District	Year	Within 1st 24 hours after birth		After 24 hours to the end of the 1st week		From the beginning of the second week to the end of the 1st month		Total	
			Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11
1	*Uttar Kashi	1960	..	..	4	..	5	..	9	..
2	*Chamoli	1960	7	..	23	..	51	..	81	..
3	*Pithoragarh ..	1960	3	..	1	..	6	..	10	..
4	Tehri Garhwal	1957	38	1	52	..	75	..	165	1
		1958	20	..	11	..	71	..	102	..
		1959	14	1	46	1	35	..	95	2
		1960	2	..	3	..	16	..	21	..
5	Garhwal	1957	64	..	210	..	400	..	674	..
		1958	67	..	198	2	385	6	650	8
		1959	52	1	95	2	138	7	285	10
		1960	49	1	134	1	240	2	423	4
6	Almora	1957	52	4	113	13	124	7	289	24
		1958	80	5	110	8	235	5	425	18
		1959	93	3	93	7	235	4	421	14
		1960	79	2	153	5	166	..	398	7
7	Naini Tal	1957	31	9	49	22	47	29	127	60
		1958	24	19	28	37	9	35	61	91
		1959	73	38	28	59	52	38	153	135
		1960	32	24	39	36	31	20	102	80
8	Bijnor	1957	185	28	212	78	258	105	655	211
		1958	145	33	163	110	195	161	503	304
		1959	58	21	124	56	294	123	476	200
		1960	79	26	147	74	299	126	525	226
9	Moradabad	1957	330	251	383	332	378	489	1,091	1,072
		1958	360	215	297	350	416	556	1,073	1,121
		1959	263	132	300	327	366	434	929	893
		1960	217	150	240	333	372	681	829	1,164
10	Budaun	1957	108	54	204	110	287	107	599	271
		1958	101	68	350	99	414	27	865	194
		1959	85	40	207	45	364	84	656	169
		1960	109	29	213	85	417	95	739	209
11	Rampur	1957	36	6	46	8	9	4	91	18
		1958	67	3	86	5	84	8	237	16
		1959	..	1	10	7	7	7	17	15
		1960	..	1	21	..	..	..	21	1
12	Bareilly	1957	449	13	547	61	667	68	1,663	142
		1958	705	14	1,024	69	1,171	104	2,900	187
		1959	426	11	866	59	790	95	2,082	165
		1960	493	8	718	46	711	62	1,922	116
13	Pilibhit	1957	93	14	237	39	233	60	563	113
		1958	93	6	79	50	401	99	573	155
		1959	125	7	95	48	142	75	362	130
		1960	133	6	127	37	178	71	438	114
14	Shahjahanpur	1957	64	16	60	36	112	93	236	145
		1958	186	19	297	74	416	140	899	233
		1959	101	19	94	85	262	84	457	188
		1960	135	4	201	56	232	134	568	194
15	Dehra Dun	1957	54	46	38	89	32	35	124	170
		1958	14	41	21	69	20	37	55	147
		1959	6	31	4	42	2	38	12	111
		1960	3	40	5	52	19	40	27	132

*These districts were created in 1960.

Age with Rural/Urban break down 1957 to 1960

During the second and third months		During the fourth to six months		During the seventh to twelfth months		Total		Grand Total		Serial No.
Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	
12	13	14	15	16	17	18	19	20	21	1
..	..	..	..	29	..	29	..	38	..	1
27	..	37	..	275	..	339	..	420	..	2
11	..	5	..	59	..	75	..	85	..	3
57	..	85	..	170	..	312	..	477	1	4
41	..	139	..	242	2	422	2	524	2	
33	..	87	..	103	..	223	..	318	2	
30	..	63	..	150	..	243	..	264	..	
392	..	483	..	830	..	1,705	..	2,379	..	5
412	1	455	1	1,048	2	1,915	4	2,565	12	
298	2	347	..	563	4	1,208	6	1,493	16	
234	1	365	..	652	3	1,251	4	1,674	8	
192	5	257	2	515	5	964	12	1,253	36	6
253	2	332	3	488	4	1,073	9	1,498	27	
112	1	256	4	532	1	900	6	1,321	20	
195	..	273	2	308	2	776	4	1,174	11	
46	14	48	12	31	20	125	46	252	106	7
21	28	31	22	31	44	83	94	144	185	
13	20	13	18	42	25	68	63	221	198	
48	15	55	19	96	34	199	68	301	148	
265	82	250	87	307	128	822	297	1,477	508	8
234	89	210	107	497	189	941	385	1,444	689	
206	81	254	76	497	166	957	323	1,433	523	
364	102	349	105	527	179	1,240	386	1,765	612	
432	391	594	348	629	466	1,655	1,205	2,746	2,277	9
437	449	415	356	600	536	1 452	1,341	2,525	2,462	
585	350	569	407	680	624	1,834	1,381	2,763	2,274	
552	529	736	568	1,008	532	2,296	1,629	3,125	2,793	
359	58	406	74	548	125	1,313	257	1,812	528	10
550	40	465	49	1,344	118	2,359	207	3,224	401	
392	31	348	70	1,199	153	1,939	254	2,595	423	
487	36	341	121	1,121	198	1,949	355	2,688	564	
3	10	44	7	223	26	270	43	361	61	11
18	4	41	5	362	24	421	33	658	49	
10	4	16	9	256	38	282	51	299	66	
9	..	10	5	83	34	102	39	123	40	
727	67	803	71	1,038	127	2,568	265	4,231	407	12
900	115	845	109	1,673	183	3,418	407	6,318	594	
734	51	888	89	1,088	140	2,710	280	4,792	445	
635	49	1,043	48	1,096	113	2,774	210	4,696	326	
228	43	287	42	321	77	836	162	1,399	275	13
166	49	116	55	317	99	599	203	1,172	358	
259	41	119	41	385	82	763	164	1,125	294	
240	47	192	43	452	105	884	195	1,322	309	
75	48	53	46	200	107	328	201	564	346	14
437	92	415	86	600	158	1,452	336	2,351	569	
95	53	172	74	430	151	697	278	1,154	466	
174	58	240	129	607	152	1,021	339	1,589	533	
33	30	32	38	46	63	111	131	235	301	15
16	20	18	38	28	59	52	117	107	264	
11	20	24	26	44	34	79	80	91	191	
12	25	24	29	76	61	112	115	139	247	

Table 12—*District wise Infant Deaths by*

Serial No.	District	Year	Within 1st 24 hours after birth		After 24 hours to the end of the 1st week		From the beginning of the second week to the end of the 1st month		Total	
			Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11
16.	Saharanpur	1957	336	104	297	234	349	278	982	616
		1958	583	232	204	280	96	333	883	845
		1959	345	200	181	328	370	380	896	908
		1960	245	128	312	241	285	251	842	620
17.	Muzaffarnagar	1957	7	15	38	35	14	102	59	152
		1958	24	18	33	54	87	115	144	187
		1959	16	26	26	30	26	74	68	130
		1960	..	16	..	29	51	70	51	115
18.	Meerut	1957	202	35	313	69	548	168	1,063	272
		1958	122	29	242	110	543	180	907	319
		1959	105	20	172	70	300	170	577	260
		1960	138	44	224	88	380	157	742	289
19.	Bulandshahr	1957	119	10	282	30	459	98	860	138
		1958	202	4	238	32	388	71	828	107
		1959	188	21	242	26	192	53	622	100
		1960	609	12	806	75	640	102	2,055	189
20.	Aligarh	1957	60	72	69	75	116	148	245	295
		1958	103	60	182	88	220	166	505	314
		1959	55	36	119	57	264	102	438	195
		1960	78	70	326	53	259	142	663	265
21.	Mathura	1957	..	46	..	84	..	78	..	208
		1958	..	73	..	60	..	103	..	236
		1959	..	24	..	38	..	61	..	123
		1960	31	37	10	51	15	101	56	189
22.	Agra	1957	61	51	124	128	212	199	397	378
		1958	144	99	92	153	224	243	460	495
		1959	4	102	33	121	148	373	185	596
		1960	5	124	55	133	159	311	219	568
23.	Etah	1957	34	20	56	71	122	118	212	209
		1958	51	55	75	51	187	98	313	204
		1959	31	22	31	58	23	104	85	184
		1960	60	67	62	84	220	115	342	266
24.	Mainpuri	1957	33	22	30	14	124	28	187	64
		1958	33	13	73	24	148	32	254	69
		1959	52	3	53	15	114	19	219	37
		1960	18	23	17	31	148	20	202	74
25.	Farrukhabad	1957	190	20	305	45	343	56	838	121
		1958	302	24	368	37	367	100	1,037	161
		1959	227	18	182	35	277	69	686	122
		1960	255	4	250	23	332	78	837	105
26.	Etawah	1957	131	20	210	94	331	104	672	218
		1958	88	24	262	98	310	172	760	294
		1959	290	25	297	69	365	100	952	194
		1960	299	14	576	109	715	150	1,771	273
27.	Kanpur	1957	928	1,171	903	538	1,009	582	2,840	2,291
		1958	245	929	263	471	287	538	795	1,938
		1959	6	674	3	336	43	417	52	1,427
		1960	15	763	6	302	12	472	33	1,537
28.	Fatehpur	1957	83	..	203	8	160	16	451	24
		1958	57	10	221	17	210	20	488	47
		1959	81	7	230	30	176	17	487	54
		1960	305	..	181	12	259	19	745	31

Age with Rural/Urban break down 1957 to 1960—contd.

During the second and third months		During the fourth to six months		During the seventh to twelfth months		Total		Grand Total		Serial No.
Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	
12	13	14	15	16	17	18	19	20	21	1
126	217	285	194	494	355	905	766	1,887	1,382	16
188	237	493	241	591	484	1,272	962	2,155	1,807	
187	282	228	351	338	401	753	1,034	1,649	1,942	
242	206	347	254	254	313	843	773	1,685	1,393	
52	86	39	58	129	147	220	291	279	443	17
71	96	60	89	279	174	410	359	554	546	
37	84	61	84	361	130	459	298	527	428	
5	53	217	90	808	219	1,030	362	1,081	477	
603	125	641	170	1,306	406	2,550	701	3,613	973	18
647	162	803	172	1,968	435	3,418	769	4,325	1,088	
326	103	445	162	1,239	315	2,010	580	2,587	840	
343	113	389	158	1,650	386	2,382	657	3,124	946	
422	71	1,087	197	2,109	409	3,618	677	4,478	815	19
223	116	2,282	290	3,498	739	6,003	1,145	6,831	1,252	
190	59	1,542	117	2,535	316	4,267	492	4,889	592	
604	96	956	145	2,134	317	3,694	558	5,749	747	
108	120	506	200	743	316	1,357	636	1,602	931	20
165	235	742	237	1,799	437	2,706	909	3,211	1,222	
114	113	793	163	2,223	253	3,130	529	3,568	724	
295	110	1,385	181	1,535	343	3,215	634	3,878	899	
8	66	105	106	665	303	778	475	778	683	21
..	125	426	238	881	304	1,307	667	1,307	903	
11	110	568	224	275	173	854	507	854	630	
55	139	310	109	263	203	628	451	684	640	
194	252	310	244	822	497	1,326	993	1,723	1,371	22
443	294	475	382	1,346	594	2,264	1,270	2,724	1,765	
249	335	271	295	1,020	737	1,540	1,367	1,725	1,963	
391	426	438	315	1,643	366	2,472	1,107	2,691	1,675	
99	82	153	98	198	200	450	380	662	589	23
188	91	120	98	395	296	703	485	1,016	689	
39	52	173	82	417	219	629	353	714	537	
207	66	211	167	799	242	1,217	475	1,559	741	
254	15	201	12	741	36	1,196	63	1,383	127	24
238	8	262	13	797	66	1,297	87	1,551	156	
160	8	202	8	567	33	929	49	1,148	86	
156	18	250	16	989	35	1,395	69	1,597	143	
185	31	226	36	747	84	1,158	151	1,996	272	25
239	59	294	45	728	107	1,261	201	2,298	362	
245	86	224	46	471	65	940	197	1,626	319	
266	49	226	59	701	71	1,193	179	2,030	284	
362	79	469	101	589	180	1,420	360	2,092	578	26
356	124	501	153	652	255	1,509	532	2,269	826	
262	122	316	107	612	151	1,190	380	2,142	574	
504	130	479	130	1,337	212	2,320	472	4,091	745	
1,010	545	1,008	649	1,067	968	3,085	2,162	5,925	4,453	27
326	678	356	729	597	1,066	1,279	2,473	2,074	4,411	
219	571	138	472	445	625	802	1,668	854	3,095	
190	604	332	540	378	775	900	1,919	933	3,456	
199	7	140	9	348	30	687	46	1,138	70	28
179	17	194	20	393	47	766	84	1,254	131	
198	18	199	21	402	38	799	77	1,286	131	
253	6	260	15	325	31	838	52	1,583	83	

Table 12—*District wise Infant Deaths by*

Serial No.	District	Year	Within 1st 24 hours after birth		After 24 hours to the end of the 1st week		From the beginning of the second week to the end of the 1st month		Total	
			Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11
29.	Allahabad	1957	33	52	57	102	93	116	196	270
		1958	37	27	69	128	165	126	291	281
		1959	13	57	45	118	98	131	156	306
		1960	25	53	34	137	95	128	154	318
30.	Jhansi	1957	128	4	276	133	277	126	681	263
		1958	..	..	251	118	253	116	504	234
		1959	195	10	281	107	177	89	593	206
		1960	128	132	280	129	280	121	688	382
31.	Jalaun	1957	38	15	58	12	57	30	153	57
		1958	23	10	53	22	56	31	132	63
		1959	..	12	..	6	..	16	..	34
		1960	16	38	14	39	27	75	57	152
32.	Hamirpur	1957	70	5	43	7	100	11	213	23
		1958	55	10	96	24	73	53	224	87
		1959	102	36	90	49	110	29	302	114
		1960	189	97	229	103	177	56	595	256
33.	Banda	1957	29	4	26	32	52	31	107	67
		1958	23	4	38	38	39	51	100	93
		1959	16	2	12	14	60	42	88	58
		1960	33	3	47	18	48	32	128	53
34.	Kheri	1957	79	6	..	11	3	17	82	34
		1958	857	9	409	34	416	23	1,682	66
		1959	584	3	485	21	245	18	1,314	42
		1960	244	8	466	28	406	12	1,116	48
35.	Sitapur	1957	110	26	179	27	275	34	564	87
		1958	189	4	216	45	223	60	628	109
		1959	100	9	131	27	172	45	403	81
		1960	118	2	122	25	126	45	366	72
36.	Hardoi	1957	115	5	268	45	354	61	737	111
		1958	242	15	293	33	423	104	958	152
		1959	128	27	247	55	345	51	720	133
		1960	84	15	443	55	540	103	1,067	173
37.	Unnao	1957	51	43	114	13	174	25	239	81
		1958	110	19	205	15	217	10	532	44
		1959	15	2	129	6	322	7	466	15
		1960	44	5	288	6	479	4	820	15
38.	Lucknow	1957	32	80	87	281	96	295	215	656
		1958	38	134	24	301	34	416	96	851
		1959	35	151	24	268	3	334	62	753
		1960	23	93	24	336	16	334	63	763
39.	Rae Bareli	1957	170	9	228	29	250	31	648	69
		1958	67	18	115	27	170	29	352	74
		1959	154	28	164	52	152	23	450	103
		1960	81	20	267	29	254	16	602	65
40.	Bahraich	1957	165	10	243	14	257	35	665	59
		1958	170	18	172	32	348	34	690	84
		1959	84	25	145	20	155	33	454	78
		1960	43	28	93	22	146	38	282	88
41.	Gonda	1957	63	28	153	34	131	38	347	100
		1958	68	23	155	56	198	49	421	128
		1959	26	27	57	36	127	32	210	95
		1960	247	35	218	46	320	35	785	116
42.	Bara Banki	1957	253	233	183	87	149	118	585	438
		1958	150	91	119	69	83	55	352	251
		1959	4	4	8	17	..	36	12	57
		1960	..	..	..	..	..	..	..	..

Age with Rural/Urban break down 1957 to 1960—contd.

During the second and third months		During the fourth to six months		During the seventh to twelfth months		Total		Grand Total		Serial No.
Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	
12	13	14	15	16	17	18	19	20	21	1
104	122	109	111	258	222	471	455	667	725	29
57	98	82	101	321	190	460	389	751	670	
82	73	55	105	371	147	508	325	664	631	
118	92	51	121	380	253	549	466	703	784	
151	1	561	390	607	375	1,319	766	2,000	1,029	30
151	..	595	406	675	391	1,421	797	1,925	1,031	
171	33	438	290	556	248	1,165	571	1,758	777	
147	5	570	348	611	284	1,328	635	2,016	1,017	
88	17	88	66	428	78	604	161	757	218	31
124	28	160	44	590	146	874	218	1,006	281	
..	48	119	23	688	200	807	271	807	305	
150	45	150	96	459	114	759	255	816	417	
71	3	194	16	281	56	546	75	759	98	32
43	17	175	29	675	159	893	205	1,117	292	
91	37	157	30	374	41	622	108	924	222	
230	79	211	55	311	64	752	198	1,347	454	
36	20	21	34	58	65	115	119	222	186	33
38	18	45	30	115	58	198	108	298	201	
58	20	61	30	214	33	333	83	421	141	
56	9	124	14	226	25	406	48	534	101	
3	9	1	12	257	19	261	40	343	74	34
366	20	548	17	453	26	1,367	63	3,049	129	
210	19	240	7	85	26	535	52	1,849	94	
285	16	306	8	225	22	816	46	1,932	94	
213	25	239	32	330	66	782	123	1,346	210	35
224	31	291	55	467	84	982	170	1,610	279	
127	20	125	27	175	42	427	89	830	170	
50	21	114	24	207	43	371	88	737	160	
258	36	279	44	378	101	915	181	1,652	292	36
330	42	412	49	653	121	1,395	212	2,353	364	
319	43	247	52	563	91	1,129	186	1,849	319	
485	65	509	79	569	104	1,563	248	2,630	421	
75	11	137	19	160	14	372	44	611	125	37
98	19	160	32	332	59	590	110	1,122	154	
308	3	165	3	469	6	942	12	1,408	27	
506	4	211	2	641	4	1,352	10	2,172	25	
66	189	26	182	60	348	152	719	367	2,375	38
24	281	17	264	100	689	141	1,234	237	2,085	
15	258	25	248	31	467	71	973	133	1,726	
36	314	20	250	43	488	99	1,052	162	1,815	
408	20	363	25	329	37	1,100	82	1,748	151	39
83	23	233	14	446	37	762	74	1,114	148	
68	30	151	18	151	48	370	96	820	199	
136	24	78	13	399	37	613	74	1,215	139	
157	21	139	18	774	62	1,070	101	1,735	160	40
..	15	301	26	714	34	1,015	75	1,705	159	
93	12	310	20	394	31	797	63	1,251	141	
72	15	250	34	518	53	840	102	1,122	190	
222	18	226	13	385	37	833	68	1,180	168	41
241	23	300	49	726	68	1,267	140	1,688	268	
79	13	51	23	198	43	328	79	538	174	
159	29	157	40	300	49	616	110	1,401	234	
96	56	242	198	154	110	492	364	1,077	802	42
50	24	197	118	109	56	356	188	708	403	
..	..	26	21	8	18	34	39	46	96	
..	..	..	..	..	8	..	8	..	8	

Table 12—*District wise Infant Deaths by*

Serial No.	District	Year	Within 1st 24 hours after birth		After 24 hours to end of the 1st week		From the beginning of the second week to the end of the 1st month		Total	
			Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11
43.	Faizabad	1957	42	20	93	20	123	20	258	60
		1958	38	37	25	17	92	30	155	84
		1959	35	5	69	12	92	11	196	28
		1960	5	2	43	10	76	9	124	21
44.	Sultanpur	1957	162	..	217	7	155	11	534	18
		1958	113	7	151	5	252	10	516	22
		1959	130	1	163	4	211	12	504	17
		1960	150	..	143	5	179	13	472	18
45.	Pratapgarh	1957	45	3	90	11	117	7	252	21
		1958	57	4	85	2	85	5	227	11
		1959	85	3	115	4	125	9	325	16
		1960	49	..	14	..	65	..	128	..
46.	Basti	1957	14	1	19	3	50	2	83	6
		1958	8	1	13	9	38	6	59	16
		1959	9	..	19	7	27	5	55	12
		1960	5	..	29	16	55	12	89	28
47.	Gorakhpur	1957	219	13	282	39	407	39	908	91
		1958	103	6	135	60	306	67	544	133
		1959	124	4	347	57	401	70	872	131
		1960	196	13	533	42	881	65	1,610	120
48.	Deoria	1957	187	2	197	1	244	5	628	8
		1958	..	1	..	2	..	6	..	9
		1959	3	1	23	5	20	10	46	16
		1960	4	..	6	3	27	2	37	5
49.	Azamgarh	1957	225	5	115	6	154	18	494	29
		1958	143	3	96	3	85	9	324	15
		1959	46	2	73	6	101	..	220	8
		1960	38	3	37	6	67	6	142	15
50.	Jaunpur	1957	27	2	54	9	114	17	195	28
		1958	1	..	44	3	61	26	106	29
		1959	..	2	17	6	73	10	90	18
		1960	..	..	..	..	..	..	..	..
51.	Ballia	1957	9	53	26	6	32	14	67	73
		1958	14	51	30	7	40	6	84	64
		1959	14	27	18	11	32	11	64	49
		1960	..	37	..	15	..	15	..	67
52.	Ghazipur	1957	121	21	102	21	129	24	352	66
		1958	110	13	100	8	83	16	293	37
		1959	125	32	107	13	90	15	322	60
		1960	138	52	61	6	55	18	254	76
53.	Varanasi	1957	..	89	4	266	4	408	8	763
		1958	47	105	52	272	128	492	227	869
		1959	62	56	71	243	141	415	274	714
		1960	189	95	240	373	333	512	762	980
54.	Mirzapur	1957	58	35	85	30	145	64	288	129
		1958	36	36	79	42	135	92	250	170
		1959	26	46	85	50	135	97	246	193
		1960	27	29	62	53	92	85	181	167

Age with Rural/Urban break down 1957 to 1960—concld.

During the second and third months		During the fourth to six months		During the seventh to twelfth months		Total		Grand Total		Serial No.
Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	
12	13	14	15	16	17	18	19	20	21	1
80	15	69	13	449	27	598	55	856	115	43
38	8	103	26	453	40	594	74	749	158	
25	12	90	9	458	38	573	59	769	87	
36	8	52	7	488	69	576	84	700	105	
122	8	129	3	245	9	496	20	1,030	38	44
156	4	138	10	203	9	597	23	1,113	45	
163	6	84	5	200	11	447	22	951	39	
126	8	172	1	196	5	494	14	966	32	
43	2	93	2	62	3	198	7	450	28	45
65	5	473	8	49	7	587	20	814	31	
116	2	107	11	264	14	487	27	812	43	
204	..	128	..	243	..	575	..	703	..	
39	..	201	3	87	1	327	4	410	10	46
14	10	30	6	213	..	257	16	316	32	
23	..	6	1	128	3	157	4	212	16	
46	1	111	3	247	2	404	6	493	34	
624	52	791	55	891	49	2,306	156	3,214	247	47
427	76	521	73	710	60	1,658	209	2,202	342	
415	68	412	72	457	62	1,284	202	2,156	333	
807	48	954	25	1,034	61	2,795	161	4,405	281	
271	1	349	2	558	14	1,178	17	1,806	25	48
..	1	..	11	..	10	..	23	..	31	
4	1	35	9	292	23	331	33	377	49	
37	2	22	5	279	26	338	33	375	38	
185	31	217	57	391	78	793	166	1,287	195	49
223	19	160	16	314	211	697	246	1,021	261	
200	7	297	7	467	204	964	218	1,184	226	
137	25	176	13	490	136	803	174	945	189	
..	45	46	41	497	35	543	121	738	149	50
21	43	57	30	398	34	476	107	582	136	
..	41	..	26	402	13	402	80	492	98	
..	..	31	21	625	47	656	68	656	68	
23	9	14	10	28	27	65	46	132	119	51
16	5	16	19	50	33	82	57	166	121	
12	33	10	15	13	21	35	69	99	118	
..	11	..	14	37	47	37	72	37	139	
137	14	106	23	186	53	429	90	781	156	52
128	16	207	27	267	23	602	66	895	103	
114	21	181	33	325	30	620	84	942	144	
86	11	88	4	117	55	291	70	545	146	
4	365	3	345	60	535	67	1,245	75	2,008	53
127	460	142	373	388	512	657	1,345	884	2,214	
69	375	73	304	335	428	477	1,107	751	1,821	
375	460	275	363	367	504	1,017	1,327	1,779	2,307	
107	43	125	44	275	71	507	158	795	287	
81	44	125	41	240	59	446	144	696	314	54
28	47	60	39	285	55	373	141	619	334	
56	42	62	30	170	66	288	138	469	305	

Table 13—*Births, Deaths, Infant Deaths and Maternal Deaths in*

Towns	1951				1952	1953
	Births	Deaths	Infant deaths	Maternal deaths	Maternal deaths	Maternal deaths
1	2	3	4	5	6	7
1. Kanpur M. C.	21,134	15,728	4,816	254	381	308
2. Lucknow M. C.	18,591	8,472	2,474	27	40	27
3. Varanasi M. C.	16,693	10,626	2,808	82	31	36
4. Agra M. C.	18,001	7,042	2,094	32	19	9
5. Allahabad M. C.	14,114	4,784	1,403	36	40	40
6. Bareilly M. B.	8,419	2,915	841	15	8	16
7. Meerut M. B.	6,214	1,884	447	16	17	15
8. Saharanpur M. B.	5,841	2,699	861	11	28	24
9. Aligarh M. B.	4,068	1,708	489	18	11	11
10. Gorakhpur M. B.	3,676	1,853	439	8	11	11
11. Moradabad M. B.	7,463	2,981	869	31	26	16
12. Jhansi M. B.	5,266	2,310	833	..	..	..
13. Rampur M. B.	1,050	869	125	6	12	7
14. Dehra Dun M. B.	2,541	1,164	262	10	7	2
15. Mathura M. B.	4,577	1,716	461	8	4	5
16. Shahjahanpur M. B.	3,897	1,467	532	15	6	4
17. Mirzapur-*cum*-Vindhyachal M. B. ..	4,122	1,849	593	8	11	5
18. Firozabad M. B.	2,126	925	233	..	..	..
19. Farrukhabad-*cum*-Fatehgarh M. B. ..	2,862	1,624	511	1	2	3
20. Muzaffarnagar M. B.	2,132	818	274	3	5	..
21. Faizabad-*cum*-Ayodhya M. B. ..	2,214	987	178	17	16	27
22. Meerut Cantt.	2,146	478	99	..	..	..
23. Etawah M. B.	2,943	1,642	672	13	..	..
24. Amroha M. B.	2,947	1,232	396	17	17	19
25. Sambhal M. B.	3,074	1,229	343	13	20	18
26. Hathras M. B.	2,810	1,293	614	20	13	25
27. Ghaziabad M. B.	1,558	441	147	3	6	5
28. Jaunpur M. B.	1,416	786	125	1	12	3
29. Budaun M. B.	2,083	997	318	6	5	4
30. Hardwar M. B.	20,45	1,365	364	1	4	7
31. Pilibhit M. B.	2,017	893	302	2	7	2
32. Kanpur Cantt.	1,010	596	78	..	..	..
33. Bahraich M. B.	1,422	659	206	6	5	2
34. Hapur M. B.	2,026	882	294	3	1	1

Towns having Population 30,000 *and above*—1951 to 1960

1954	1955	1956				1957	
Maternal deaths	Maternal deaths	Births	Deaths	Infant deaths	Maternal deaths	Births	Deaths
8	9	10	11	12	13	14	15
270	238	21,591	17,364	4,656	369	19,616	16,679
30	28	19,756	6,820	1,892	38	13,394	6,295
38	12	16,011	9,624	2,575	25	16,024	10,580
..	2	15,564	4,662	1,446	..	21,288	4,156
24	31	8,584	3,277	794	24	8,382	3,697
10	14	3,931	1,594	408	10	3,251	1,192
37	..	5,718	1,215	313	15	5,699	1,316
20	13	6,033	2,296	727	2	5,659	2,314
8	17	3,804	1,394	387	6	3,231	1,112
1	..	3,983	1,406	362	..	3,441	1,165
21	18	6,324	2,374	736	13	3,884	2,192
..	..	5,224	1,799	596	..	3,820	1,738
13	1	471	248	16	3	N. A.	N. A.
3	5	3,275	866	204	6	3,095	888
3	8	4,647	1,527	390	3	4,559	1,273
8	6	3,275	1,270	374	10	3,176	1,166
3	..	2,626	1,158	373	1	2,489	1,095
2	1	2,142	567	138	1	2,034	506
..	..	2,524	1,134	349	1	2,030	1,083
4	8	1,922	677	184	1	1,987	693
..	..	1,731	518	126	23	1,314	496
..	..	1,700	344	60	..	1,594	248
..	..	2,517	1,289	445	..	2,878	1,237
10	10	2,955	1,141	409	2	2,334	1,302
13	7	2,701	1,291	337	7	2,170	1,064
9	19	2,747	1,454	528	6	2,705	1,177
2	5	1,838	428	134	1	1,777	401
..	4	1,355	548	153	3	1,192	666
..	2	1,685	793	236	2	1,502	576
5	1	1,715	1,216	336	..	1,714	1,046
11	2	1,589	613	229	5	1,369	622
..	..	1,074	131	18	..	1,017	151
4	6	1,263	532	147	2	936	283
5	4	2,084	717	226	3	1,900	641

Table 13—*Births, Deaths, Infant Deaths and Maternal Deaths in*

Towns	1957—*concld.*		1958			
	Infant deaths	Maternal deaths	Births	Deaths	Infant deaths	Maternal deaths
1	16	17	18	19	20	21
1. Kanpur M. C.	4,391	369	22,064	15,658	4,206	311
2. Lucknow M. C.	1,293	14	13,808	8,753	1,950	21
3. Varanasi M. C.	2,000	9	17,186	9,864	2,190	10
4. Agra M. C.	1,123	..	16,564	5,088	1,412	..
5. Allahabad M. C.	704	20	8,849	3,171	646	17
6. Bareilly M. B.	246	12	3,447	1,488	330	4
7. Meerut M. B.	274	9	6,105	1,570	342	44
8. Saharanpur M. B.	654	4	6,120	2,901	764	5
9. Aligarh M. B.	288	2	2,670	1,643	400	6
10. Gorakhpur M. B.	234	1	4,057	1,469	336	..
11. Moradabad M. B.	586	20	6,701	2,576	643	14
12. Jhansi M. B.	482	..	4,008	1,717	451	..
13. Rampur M. B.	45	5	843	304	20	2
14. Dehra Dun M. B.	241	3	3,133	953	211	2
15. Mathura M. B.	283	1	4,669	1,585	361	15
16. Shahjahanpur M. B.	245	3	3,862	1,674	397	8
17. Mirzapur-*cum*-Vindhyachal M. B. ..	246	3	2,555	1,065	277	..
18. Firozabad M. B.	128	5	2,261	618	143	2
19. Farrukhabad-*cum*-Fatehgarh M. B. ..	213	4	2,009	1,081	257	3
20. Muzaffarnagar M. B.	174	4	1,935	736	202	5
21. Faizabad-*cum*-Ayodhya M. B. ..	96	11	1,464	632	138	12
22. Meerut Cantt.	35	..	1,658	289	54	..
23. Etawah M. B.	349	1	2,881	1,355	498	..
24. Amroha M. B.	469	10	2,812	1,688	502	11
25. Sambhal M. B.	362	11	2,486	1,524	454	9
26. Hathras M. B.	373	3	2,620	1,890	504	21
27. Ghaziabad M. B.	113	5	1,756	494	142	1
28. Jaunpur M. B.	138	5	1,183	666	131	4
29. Budaun M. B.	176	..	1,105	878	130	..
30. Hardwar M. B.	265	..	1,882	1,208	326	..
31. Pilibhit M. B.	150	4	1,461	705	205	7
32. Kanpur Cantt.	27	..	863	124	23	..
33. Bahraich M. B.	69	2	1,269	309	76	1
34. Hapur M. B.	214	3	1,887	755	224	..

Towns having Population 30,000 *and above*—1951 to 1960—contd.

1959				1960			
Births	Deaths	Infant deaths	Maternal deaths	Births	Deaths	Infant deaths	Maternal deaths
22	23	24	25	26	27	28	29
21,572	15,668	3,077	335	20,970	16,497	3,453	247
16,276	6,488	1,657	11	17,350	7,143	1,718	3
15,757	7,819	1,821	6	20,533	9,512	2,307	11
21,890	6,336	1,777	..	24,988	5,738	1,472	..
9,487	2,807	614	27	10,566	3,563	771	15
3,368	1,314	263	10	2,385	941	158	11
5,838	1,171	262	49	6,319	1,224	276	39
5,821	2,188	629	19	5,920	2,604	589	4
3,324	1,096	252	11	2,644	1,273	265	11
4,606	1,366	323	3	4,511	1,347	276	8
5,099	3,240	605	..	4,766	3,179	623	15
4,537	1,575	412	8	4,102	1,748	482	..
N. A.	N. A.	33	..	899	237	16	1
3,243	741	148	1	3,366	949	189	1
3,958	1,101	237	9	4,600	1,355	356	24
3,423	1,165	315	2	3,676	1,595	369	6
2,669	988	282	1	2,839	1,001	264	6
2,281	426	74	3	2,011	368	69	3
1,928	814	224	..	1,712	916	222	..
2,142	578	179	2	2,132	694	196	3
1,424	381	69	3	1,744	416	65	2
1,339	245	29	..	1,337	267	30	1
2,573	1,063	348	..	2,620	1,251	444	..
321	2,043	455	12	3,493	2,428	552	8
2,242	1,754	424	6	3,315	2,256	523	2
2,389	962	241	8	2,887	1,002	297	7
1,951	411	111	6	2,079	516	122	3
1,243	491	98	2	1,038	425	61	2
1,645	605	196	..	1,700	849	245	2
1,599	1,002	280	6	1,940	1,256	201	1
1,248	595	146	4	1,334	634	170	4
1,106	120	5	..	1,096	150	2	..
1,235	269	63	3	1,374	299	93	1
1,984	577	158	1	1,913	723	208	1

Table 13 *Births, Deaths, Infant Deaths and Maternal Deaths in*

Towns	1951				1952	1953
	Births	Deaths	Infant deaths	Maternal deaths	Maternal deaths	Maternal deaths
1	2	3	4	5	6	7
35. Sitapur M. B.	1,390	578	181	..	..	..
36. Maunath Bhanjan M. B. ..	1,556	638	170	2	2	7
37. Chandausi M. B.	1,800	813	279	11	3	1
38. Bulandshahr M. B.	1,047	258	53	1	2	..
39. Gonda M. B.	781	377	92	4	16	10
40. Khurja M. B.	1,323	652	220	2	3	2
41. Agra Cantt.	871	281	43	..	..	..
42. Lucknow Cantt.	238	217	50	..	..	..
43. Basti M. B.	154	151	1	..	..	..
44. Ballia M. B.	562	402	63	..	..	2
45. Haldwani-*cum*-Kathgodam M. B. ..	868	244	88	..	..	..
46. Banda M. B.	747	261	69	2	..	..
47. Kasganj M. B.	898	308	67	4	3	1
48. Ghazipur M. B.	1,331	690	111	7	5	2
49. Hardoi M. B.	690	157	40	4	..	..
50. Najibabad M. B.	1,289	520	186	..	..	..
51. Bijnor M. B.	1,111	435	118	5	5	3
52. Roorkee M. B.	759	346	111	..	..	..
53. Mainpuri M. B.	684	246	74	..	..	..
54. Tanda M. B.	861	539	74	..	..	..
55. Azamgarh M. B.	772	442	N. A.	..	..	..
56. Lakhimpur M. B.	990	235	71	..	..	..
57. Balrampur M. B.	785	537	121	..	..	..
58. Nagina M. B.	1,198	465	113	..	..	..

Towns having Population 30,000 *and above*—1951 to 1960 contd.

1954	1955	1956				1957	
Maternal deaths	Maternal deaths	Births	Deaths	Infant deaths	Maternal deaths	Births	Deaths
8	9	10	11	12	13	14	15
..	..	1,204	326	90	..	1,105	325
3	2	1,415	768	230	2	1,280	497
10	8	2,014	855	304	3	1,529	718
3	1	500	133	12	..	559	138
5	3	626	183	35	..	489	148
..	6	2,592	619	174	..	1,115	460
..	..	1,328	185	34	..	1,168	160
..	..	1,154	178	44	..	1,036	171
..	..	235	130	N.A.	..	97	115
..	..	483	236	86	..	382	284
..	..	1,254	183	60	..	1,214	140
1	1	802	212	84	..	623	219
7	7	661	228	80	5	508	147
7	..	1,174	724	59	..	1,175	548
..	..	570	140	37	..	589	181
..	..	1,109	366	125	..	1,043	297
2	1	854	298	100	2	733	204
..	..	752	251	94	..	696	221
..	..	668	246	75	..	651	209
..	..	643	246	49	..	367	188
..	..	813	351	71	..	772	365
..	..	1,204	219	87	..	1,160	169
..	..	536	311	56	..	494	397
..	..	1,029	317	97	..	868	285

Table 13—*Births, Deaths, Infant Deaths and Maternal Deaths in*

Towns	1957—*concld.*		1958			
	Infant deaths	Maternal deaths	Births	Deaths	Infant deaths	Maternal deaths
1	16	17	18	19	20	21
35. Sitapur M. B.	77	..	1,133	401	79	1
36. Maunath Bhanjan M. B. ..	114	2	1,466	484	129	3
37. Chandausi M. B.	229	3	1,777	1,115	372	3
38. Bulandshahr M. B.	16	..	596	172	45	1
39. Gonda M. B.	31	2	657	249	66	3
40. Khurja M. B.	129	4	1,126	937	208	..
41. Agra Cantt.	18	..	976	153	38	..
42. Lucknow Cantt.	26	..	647	213	42	..
43. Basti M. B.	N. A.	..	337	185	6	..
44. Ballia M. B.	69	1	392	268	54	..
45. Haldwani-*cum*-Kathgodam M. B. ..	39	..	1,177	283	72	..
46. Banda M. B.	69	..	612	236	59	..
47. Kasganj M. B.	38	1	443	177	25	..
48. Ghazipur M. B.	81	..	1,123	508	42	2
49. Hardoi M. B.	22	..	756	205	50	..
50. Najibabad M. B.	59	..	1,001	445	91	..
51. Bijnor M. B.	45	..	857	315	72	1
52. Roorkee M. B.	64	..	792	330	98	..
53. Mainpuri M. B.	59	..	678	290	83	..
54. Tanda M. B.	6	..	477	281	20	..
55. Azamgarh M. B.	44	..	842	372	84	..
56. Lakhimpur M. B.	57	..	1,284	201	79	..
57. Balrampur M. B.	53	..	454	430	61	..
58. Nagina M. B.	77	..	762	375	59	..

Note—(1) Data relating to Births, Deaths and Infant Deaths are not available from 1952 to 1955.
(2) N. A. stands for Not Available.

Towns having Population 30,000 *and above*—1951 to 1960 concld.

1959				1960			
Births	Deaths	Infant deaths	Maternal deaths	Births	Deaths	Infant deaths	Maternal deaths
22	23	24	25	26	27	28	29
1,127	216	60	1	1,158	219	37	..
1,545	432	95	12	1,011	432	95	1
1,839	1,525	312	11	2,503	1,811	392	3
422	111	18	..	390	108	20	..
590	192	30	..	639	278	69	4
1,176	481	124	2	1,466	629	169	5
926	114	16	..	953	113	13	..
927	169	32	3	615	159	58	1
727	196	2	3	370	142	1	..
522	183	51	1	602	130	63	1
1,271	187	85	1	1,368	181	30	2
548	127	34	..	361	79	10	..
510	152	35	..	488	194	59	..
966	402	44	..	241	179	27	..
972	270	78	..	926	293	69	2
980	300	59	4	951	384	80	6
711	217	52	1	819	415	80	2
745	216	55	..	733	278	81	1
651	158	32	1	731	235	63	N. A.
495	210	17	..	545	384	39	..
823	414	86	1	689	421	76	2
1,248	146	61	5	1,608	182	69	14
588	331	60	1	585	320	74	N. A.
851	289	43	2	858	375	34	2

Table 14—*Birth Rate, Death Rate, Infant Death Rate and Maternal Death*

Towns with Population 30,000 and above	1951				1952	1953
	Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate	Maternal Death Rate	Maternal Death Rate
1	2	3	4	5	6	7
1. Kanpur M. C.	32·88	24·47	227·88	11·8	20·5	15·3
2. Lucknow M. C.	41·51	18·92	133 07	1·4	2·7	1 6
3. Varanasi M. C.	8·43	30·83	168 20	4·7	2·0	2·2
4. Agra M. C.	47·41	18·55	116·33	1 8	1·0	0·5
5. Allahabad M. C.	43·51	14·75	99·40	2·5	4·6	4·2
6. Bareilly M. B.	43·14	14·94	99·89	1·8	1 6	3·4
7 Meerut M. B.	38·89	11·68	71·93	2·6	3·2	2·8
8. Saharanpur M. B.	38·97	18·01	147·41	1 8	5·1	4·3
9. Aligarh M. B.	28·53	11·98	120·21	4·4	2·9	2 9
10. Gorakhpur M. B.	29·48	14·86	119·42	2·2	4·0	3·3
11. Moradabad M. B.	48·30	19·40	116·44	4·1	3·9	2·5
12. Jhansi M. B.	49·05	21·51	158·18	..	..	..
13. Rampur M. B.	7·73	6·50	123·81	5·7	12·7	7·8
14. Dehra Dun M. B.	21·49	9·84	103·10	3·8	3·3	1·0
15. Mathura M. B.	42·88	16·07	100 72	1·7	1·1	1·3
16. Shahjahanpur M. B.	39·44	14·85	136·51	3·8	2·0	1·4
17. Mirzapur-*cum*-Vindhyachal M. B. ..	47·32	21·22	143·80	1·9	3·8	1·9
18. Firozabad M. B.	32·08	13·96	109·59	..	..	..
19. Farrukhabad-*cum*-Fatehgarh M. B. ..	38·29	21·73	178·55	0·3	0·9	1·4
20. Muzaffarnagar M. B.	32·90	12·62	128·50	1·4	2·6	..
21. Faizabad-*cum*-Ayodhya M. B. ..	28·63	12·11	80·40	7·7	8·4	13·4
22. Meerut Cantt.	28·39	6·32	46·13	..		..
23. Etawah M. B.	48·85	27·26	228·33	4·3		..
24. Amroha M. B.	49·74	20·80	134·37	5·7	6·3	6·6
25. Sambhal M. B.	49·83	19·92	111·58	4·2	7·5	6·2
26. Hathras M. B.	49·34	27·97	218·50	6·9	4·7	8·6
27. Ghaziabad M. B.	35·07	9·93	94·35	1·9	14·6	4·0
28. Jaunpur M. B.	26·92	14·94	88·28	0·7	9·6	2·4
29. Budaun M. B.	38·87	18·60	152·66	2·9	2·7	2·6
30. Hardwar M. B.	35·31	23·57	177·99	0·5	2·3	4·2
31. Pilibhit M. B.	43·57	19·29	149·73	1·0	3·7	1·1
32. Kanpur Cantt.	14·41	8·50	77·23	..	..	..
33. Bahraich M. B.	31·67	14·67	144·87	4·2	3·6	1·7
34. Hapur M. B.	40·68	17·71	145·11	1·5	0·7	0·5

Rate in the Towns having Population 30,000 *and above*—1951 to 1960 contd.

1954	1955	1956				1957	
Maternal Death Rate	Maternal Death Rate	Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate	Birth Rate	Death Rate
8	9	10	11	12	13	14	15
12·9	10·8	29·51	23·74	215·64	16·9	26·19	22·27
1·8	1·5	40·08	13·83	95·77	1·9	26 69	12·54
2 6	0·7	41·29	24·82	160·83	1·5	40·43	26·69
..	0·1	35·47	10·62	92·91	..	47·24	9·22
2·9	3·2	24·70	9·43	92·50	2·8	23·67	10·44
2·7	3·1	9·55	7·88	103·79	0·3	15·96	50·85
7·4	..	31·69	28·91	54·74	2·6	30·89	7·13
3·6	2·1	35·23	13·41	120·50	0·3	32·23	13·18
2·3	4·7	24·22	8·87	101·73	1·6	20·20	6·95
0·3	..	29·05	10·25	90·92	..	24·65	8·35
3·2	2·8	39·19	14·71	116·40	2·0	23·87	13·47
..	..	42·56	14·66	114·09	..	30 36	13·81
18·4	4·0	2·98	1·57	34·77	6·3	N. A.	N. A.
1·1	2·1	22·43	5·93	62·29	1·8	20·42	5·86
6·7	1·7	42·17	13·85	83·92	0·6	40·56	11·33
2·3	1·5	34·37	13·33	114·20	3·0	33·57	12·32
1·2	..	27·69	12 21	142·04	0·4	25·82	11·36
1·2	0·5	27·22	7·20	64·92	0·5	25·05	6·23
..	..	30·80	13 84	138·27	0·4	24·35	12·99
2·0	3·7	26·14	9·21	95·73	0·5	26·40	9·21
..	..	19·68	5·89	72·79	12·6	14·58	5·50
..	..	8·06	3·96	35·29	..	17·88	2·78
..	..	39·54	20·25	176·80	..	44·73	19·23
3·6	3·7	48·62	18·77	138·41	6·0	38·20	21·31
4·4	3·0	41·37	19·77	124·77	2·6	32·87	16·12
3·2	6·3	44·48	23·55	192·21	2·1	43·13	18·77
1·5	2·7	33·81	7·87	72·90	0·5	31·53	7·11
..	3·0	24·04	9·72	112·91	2·2	20·87	11·66
..	1·2	31·04	14·61	140·06	1·2	27·57	10·58
2·9	5·3	25·93	18·38	195·92	..	25·28	15·43
6·5	1·1	33·79	13·03	144·11	3·0	29·01	13·18
..	..	12·33	1·50	16·76	..	11·23	1·67
3·0	4·5	26·71	11·25	116·39	1·6	19·60	5·92
2·6	1·8	36·23	12·46	108·44	1·4	32·16	10·85

Table 14—*Birth Rate, Death Rate, Infant Death Rate and Maternal Death*

Towns	1957—*concld.*		1958			
	Infant Death Rate	Maternal Death Rate	Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate
1	16	17	18	19	20	21
1. Kanpur M. C.	223·85	18·3	28·77	20·69	190·63	13·9
2. Lucknow M. C.	96·53	1·0	27·03	17·13	141·22	1·5
3. Varanasi M. C.	124·81	0·6	42·44	24·36	127·43	0·6
4. Agra M. C.	52·75	..	35·82	11·00	85·24	N. A.
5. Allahabad M. C.	83·99	2·4	24·53	8·79	73·00	1·9
6. Bareilly M. B.	75·67	3·7	16·81	7·26	95·73	1·2
7. Meerut M. B.	48·08	1·6	32·36	8·32	56·02	7·1
8. Saharanpur M. B.	115·57	0·7	34·03	16·13	124·84	0·8
9. Aligarh M. B.	89·14	0·6	16·39	10 09	149·81	2·2
10. Gorakhpur M. B.	68·00	0·3	28·55	10·34	82·82	N. A.
11. Moradabad M. B.	149·59	5·1	40·83	15·70	95·95	2·1
12. Jhansi M B.	126·18	..	31·10	13·32	112·52	N. A.
13. Rampur M. B.	46·49	5·2	5·04	1·84	23·72	2·4
14. Dehra Dun M. B.	77·87	0·3	19·94	6·06	67·35	0·6
15. Mathura M. B.	62·07	0·2	40·75	13·83	77·32	3·2
16. Shahjahanpur M. B.	77·14	0·9	39·03	16·91	102·80	2·1
17. Mirzapur-*cum*-Vindhyachal M. B. ..	98·83	1·2	26·08	10·87	108·41	N. A.
18. Firozabad M. B.	62·93	2·4	27·02	7·86	63·25	0·9
19. Farrukhabad-*cum*-Fatehgarh M. B. ..	104·93	1·7	23·65	12·73	127·92	1·5
20. Muzaffarnagar M. B.	87·57	2·0	25·15	9·56	104·39	2·6
21. Faizabad-*cum*-Ayodhva M. B. ..	73·06	7·9	15·87	6·85	94·26	7·9
22. Meerut Cantt.	21·96	..	18·14	3·16	22·57	N. A.
23. Etawah M. B.	121·26	0·3	44·31	20·84	172·86	N. A.
24. Amroha M. B.	200·94	4·3	45·79	27·49	178·52	3·9
25. Sambhal M. B.	166·82	5·1	37·25	22·83	182·62	3·6
26. Hathras M. B.	137·89	1·1	41·15	29·68	192·37	17·3
27. Ghaziabad M. B.	63·59	2·4	36·10	8·46	80·86	0·6
28. Jaunpur M B.	116·61	4·1	20·45	11·51	110·73	3·4
29. Budaun M. B.	117·18	..	20·25	16·09	117·65	N. A.
30. Hardwar M. B.	154·61	..	27·10	17·39	173·22	N. A.
31. Pilibhit M. B.	109·57	2·6	30·87	14·89	140·31	4·8
32. Kanpur Cantt.	26·25	..	9·18	1·31	26·65	N. A.
33. Bahraich M. B.	73·72	2·1	26·31	6·40	59·89	0·8
34. Hapur M. B.	112·63	1·6	31·12	12·45	118·71	N. A.

Rate in the Towns having Population 30,000 *and above*—1951 to 1960 contd.

1959				1960			
Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate	Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate
22	23	24	25	26	27	28	29
27·49	19·97	142·64	15·5	26·13	20·55	164·7	11·8
31·31	12·48	101·81	0·7	32·81	13·51	87·6	0·2
38·10	18·91	115·59	0·4	48·64	22·53	112·4	0·5
46·16	13·36	81·38	..	51·40	11·80	59·6	..
25·83	7·64	64·72	2·8	28·26	9·53	73·0	1·4
16·31	6·36	78·09	3·0	11·47	4·53	82·0	5·7
26·91	6·07	44·88	8·4	32·09	7·23	43·7	6·2
31·62	11·88	108·06	3·3	31·42	13·82	99·5	0·7
20·05	6·61	75·81	3·3	14·06	6·82	101·0	4·2
31·86	9·45	70·12	0·7	30·67	9·16	61·2	1·8
30·81	19·58	118·65	2·4	28·56	19·05	93·7	2·3
34·38	11·93	90·81	..	30·38	129·45	107·7	..
6·50	2·50	37·54	3·4	6·60	1·70	17·8	1·1
19·93	4·55	45·64	0·3	20·01	5·64	56·1	0·3
30·90	9·43	59·88	2·3	38·68	13·67	76·1	5·1
34·59	11·77	92·02	0·6	37·15	6·59	100·4	1·6
26·82	9·93	105·65	0·4	28·09	29·04	93·0	2·1
3·26	4·94	32·44	1·3	22·69	41·51	34·3	1·5
22·32	9·42	116·18	..	19·49	10·43	129·7	..
27·20	7·34	83·56	0·9	26·48	8·62	91·9	1·4
15·09	4·04	48·45	0·7	18·07	4·31	37·3	1·1
14·30	2·61	21·66	N. A.	13·94	2·78	22·4	N. A.
39·16	16·18	135·25	0·4	39·46	18·84	169·5	..
52·01	33·10	141·11	1·9	56·27	39·12	158·0	3·3
33·23	26·00	189·12	4·9	48·62	33·09	157·8	0·6
36·96	14·88	100·88	3·3	44·01	15·27	102·9	2·4
32·33	6·81	56·89	3·1	33·35	8·28	58·7	1·4
21·21	8·38	78·84	1·6	17·49	7·16	58·8	1·6
30·06	11·06	119·15	..	30·98	15·47	144·1	1·2
22·49	14·09	175·11	3·8	26·67	17·26	103·6	0·5
26·28	12·53	116·99	3·2	28·00	13·31	127·4	3·0
11·35	1·23	4·52	N. A.	10·87	1·49	N. A.	N. A.
25·35	5·52	51·01	2·4	17·93	6·08	67·7	0·7
31·91	9·28	79·64	0·5	30·02	11·34	108·7	0·5

Table 14—*Birth Rate, Death Rate, Infant Death Rate and Maternal Death*

Towns	1951				1952	1953
	Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate	Maternal Death Rate	Maternal Death Rate
1	2	3	4	5	6	7
35. Sitapur M. B.	30·97	12·88	130·21	..	..	..
36. Maunath Bhanjan M. B. ..	44·47	18·23	119·25	1·3	1·4	5·9
37. Chandausi M. B.	48·71	22·00	155·00	6·0	1·6	0·5
38. Bulandshahr M. B.	27·72	6·83	50·62	1·0	3·2	..
39. Gonda M. B.	23·89	11·53	117·80	5·1	19·7	11·1
40. Khurja M. B.	34·30	16·91	166·29	1·5	2·5	1·5
41. Agra Cantt.	20·41	6·59	49·37	..	..	..
42. Lucknow Cantt.	6·30	5·75	211·08	..	..	..
43. Basti M. B.	4·59	4·50	6·49	..	..	..
44. Ballia M. B.	18·20	13·02	112·10	..	..	3·0
45. Haldwani-*cum*-Kathgodam M. B. ..	34·30	9·64	101·38	..	..	..
46. Banda M. B.	24·54	8·57	92·37	2·7	..	..
47. Kasganj M. B.	28·36	9·73	74·61	4·4	4·7	0·6
48. Ghazipur M. B.	39·64	20·55	83·39	5·2	6·7	1·5
49. Hardoi M. B.	22·94	5·22	57·97	5·8	..	..
50. Najibabad M. B.	43·47	17·66	140·30	..	..	..
51. Bijnor M. B.	36·14	14·15	106·21	4·5	5·1	3·3
52. Roorkee M. B.	32·38	17·76	146·24	..	..	..
53. Mainpuri M. B.	29·75	10·70	108·19	..	..	..
54. Tanda M. B.	29·29	18·33	85·95	..	..	..
55. Azamgarh M. B.	28·90	16·55	N. A.	..	..	..
56. Lakhimpur M. B.	39·31	9·33	71·72	..	..	..
57. Balrampur M. B	34·69	23·68	154·14	..	..	..
58. Nagina M. B.	42·76	16·60	111·02	..	..	..

Rate in the Towns having Population 30,000 *and above* 1951 to 1960—contd.

1954	1955	1956				1957	
Maternal Death Rate	Maternal Death Rate	Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate	Birth Rate	Death Rate
8	9	10	11	12	13	14	15
..	..	23·21	6·28	74·75	..	20·74	6·10
2·6	1·3	37·52	20·36	162·54	1·4	33·46	12·99
5·3	4·1	49·23	20·90	150·94	1·5	36·66	17·22
4·8	1·8	12·42	3·30	24·00	..	13·78	3·40
7·4	5·2	18·17	5·31	55·91	..	14·05	4·25
..	4·3	64·63	15·43	67·13	..	27·59	11·38
..	..	26·39	3·68	25·60	..	22·52	3·09
..	..	26·52	4·09	38·13	..	23·20	3·83
..	..	6.16	3·41	N. A.	..	12·62	2·94
..	..	14.03	6·85	178·05	..	10·87	8·08
..	..	43.48	6·34	47·85	..	41·08	4·74
1·3	1·2	25.53	6·75	104·47	..	19·77	6·95
11·0	12·9	19.91	6·87	121·03	7·6	15·16	4·39
5·7	..	33.88	20·89	50·25	..	33·69	15·71
..	..	17.33	4·26	64·91	..	17·61	5·41
..	..	36.15	11·93	112·71	..	33·73	9·60
2·2	0·9	26.64	9·30	117·10	2·3	22·62	6·31
..	..	28.50	5·51	125·00	..	25·80	8·19
..	..	28.03	10·32	112·27	..	27·12	8·71
..	..	20.76	7·94	76·20	..	11·73	6·00
..	..	29.17	12·59	87·83	..	27·47	12·99
..	..	44.44	8·08	72·26	..	42·22	6·15
..	..	23.21	13·47	10·45	..	21·40	17·19
..	..	35.55	10·95	94·27	..	29·80	9·78

Table 14—*Birth Rate, Death Rate, Infant Death Rate and Maternal Death*

Towns	1957—*concld*		1958			
	Infant Death Rate	Maternal Death Rate	Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate
15	16	17	18	19	20	21
35. Sitapur M. B.	69·68	..	0·56	7·33	69·73	0·9
36. Maunath Bhanjan M. B. ..	56·99	1·6	37·78	12·47	87·99	2·0
37. Chandausi M. B.	149·77	0·9	41·81	26·23	209·34	1·7
38. Bulandshahr M. B.	115·69	..	14·58	4·21	75·50	1·7
39. Gonda M. B.	107·29	4·1	18·68	7·08	100·46	6·5
40. Khurja M. B.	28·62	3·6	27·65	23·01	184·70	N. A.
41. Agra Cantt.	15·41	..	18·28	2·80	38·93	N. A.
42. Lucknow Cantt.	26·00	..	14·12	4·65	64·91	N. A.
43. Basti M. B.	N. A.	..	8·42	4·62	17·80	N. A.
44. Ballia M. B.	180·63	2·6	10·93	7·47	137·75	N. A.
45. Haldwani-*cum*-Kathgodam M. B. ..	32·12	..	38·90	9·35	61·17	N. A.
46. Banda M. B.	110·75	..	18·71	7·21	96·40	N. A.
47. Kasganj M. B.	74·80	1·9	13·10	5·23	56·43	N. A.
48. Ghazipur M. B.	68·94	..	32·00	14·48	37·40	1·8
49. Hardoi M. B.	37·35	..	31·50	8·54	66·14	N. A.
50. Najibabad M. B.	56·57	..	32·12	14·28	90·91	N. A.
51. Bijnor M. B.	61·39	..	26·30	9·67	84·01	1·2
52. Roorkee M. B.	79·12	..	28·73	11·97	123·74	N. A.
53. Mainpuri M. B.	90·63	..	28·85	12·06	122·42	N. A.
54. Tanda M. B.	16·35	..	15·09	8·89	41·93	N. A.
55. Azamgarh M. B	89·06	..	29·72	13·13	99·76	N. A.
56. Lakhimpur M. B.	49·14	..	46·08	7·21	61·53	N. A.
57. Balrampur M. B.	63·39	..	19·66	18·62	134·36	N. A.
58. Nagina M. B.	88·71	..	25·99	12·79	77·43	N. A.

Note—(1) Data relating to birth rates, death rates and infant death rates are not available from 1952 to 1955.
(2) N. A. stands for Not Available.

Rate in the Towns having Population 30,000 *and above* 1951 to 1960—concld.

1959				1960			
Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate	Birth Rate	Death Rate	Infant Death Rate	Maternal Death Rate
22	23	24	25	26	27	28	29
20·10	3·85	53·24	0·9	20·15	3·81	32·0	..
39·26	10·98	61·48	7·8	25·34	10·83	94·0	1·0
42·48	35·23	169·66	1·1	56·78	41·08	156·6	1·2
9·43	2·48	42·65	..	8·02	2·22	51·3	..
16·61	5·41	50·85	1·7	17·81	7·75	108·0	6·3
28·66	11·72	105·44	1·7	35·46	15·22	115·3	N. A.
38·64	2·07	17·28	N. A.	16·88	2·00	11·64	..
19·74	3·60	11·04	N. A.	12·78	3·31	94·31	N. A.
17·75	4·78	2·75	4·1	8·83	3·39	2·7	..
14·28	5·00	97·70	1·9	16·15	3·49	104·7	1·7
41·05	6·04	66·87	0·8	43·19	57·15	21·9	1·5
16·59	3·84	62·04	..	10·82	2·37	27·7	..
14·95	4·45	66·67	..	14·17	5·63	120·9	..
27·36	11·37	45·55	..	7·20	5·34	112·0	..
39·57	10·99	80·25	..	36·85	11·66	74·5	2·1
31·22	9·55	60·20	4·1	30·04	12·13	84·1	6·3
21·65	6·61	73·14	1·4	24·73	12·53	91·7	2·4
26·46	7·67	73·82	N. A.	25·50	9·67	N. A.	N. A.
26·74	6·49	49·15	N. A.	29·82	9·58	N. A.	N. A.
15·51	6·58	34·34	..	16·90	11·91	71·6	..
28·81	14·49	104·49	N. A.	23·93	14·62	N. A.	N. A.
44·19	5·17	48·88	N. A.	56·18	6·36	N. A.	N. A.
25·47	14·34	102 04	N. A.	25·34	13·86	N. A.	N. A.
28·84	9·79	50·53	N. A.	28·90	12·63	N. A.	N. A.

Table 15—*Infant Deaths by Age in Towns having Population* 30,000 *and above*—1957 to 1960

Towns	Year	Within 1st 24 hours after birth	After 24 hours to the end of the first week	From the beginning of the second week to end of 1st month	Total	During the second and third months	During the fourth to sixth months	During the seventh to twelfth months	Total	Grand Total
1	2	3	4	5	6	7	8	9	10	11
1. Kanpur M. C. ..	1957	1,169	531	578	2,278	535	636	942	2,113	4,391
	1958	916	469	522	1,907	643	692	964	2,299	4,206
	1959	674	336	417	1,427	571	466	613	1,650	3,077
	1960	763	302	472	1,537	604	540	772	1,916	3,453
2. Lucknow M. C. ..	1957	77	266	270	613	181	170	329	680	1,293
	1958	126	281	391	798	270	253	629	1,152	1,950
	1959	144	247	322	713	248	240	456	944	1,657
	1960	77	302	319	698	308	242	470	1,020	1,718
3. Varanasi M. C. ..	1957	89	266	408	763	365	345	527	1,237	2,000
	1958	105	272	492	869	457	373	491	1,321	2,190
	1959	56	243	415	714	375	304	428	1,107	1,821
	1960	95	373	512	980	460	363	504	1,327	2,307
4. Agra M. C. ..	1957	48	84	164	296	226	189	412	827	1,123
	1958	71	119	188	378	253	318	463	1,034	1,412
	1959	88	104	335	527	318	253	679	1,250	1,777
	1960	111	114	269	494	402	282	294	978	1,472
5. Allahabad M. C. ..	1957	50	99	116	265	117	107	215	439	704
	1958	24	120	119	263	93	100	190	383	646
	1959	52	111	131	294	72	103	145	320	614
	1960	44	135	128	307	92	115	257	464	771
6. Bareilly M. B. ..	1957	..	44	38	82	47	41	76	164	246
	1958	..	48	49	97	69	57	107	233	330
	1959	2	25	52	79	33	57	94	184	263
	1960	5	20	21	46	27	21	64	112	158
7. Meerut M. B. ..	1957	9	17	42	68	43	48	115	206	274
	1958	6	34	64	104	68	49	121	238	342
	1959	4	23	58	85	33	47	97	177	262
	1960	15	28	50	93	40	56	87	183	276
8. Saharanpur M. B. ..	1957	59	138	142	339	83	94	138	315	654
	1958	61	136	175	372	95	100	197	392	764
	1959	25	121	155	301	82	82	164	328	629
	1960	56	83	124	263	81	107	138	326	589
9. Aligarh M. B. ..	1957	33	16	53	102	39	51	96	186	288
	1958	22	32	51	105	67	76	152	295	400
	1959	16	21	25	62	33	59	98	190	252
	1960	16	20	41	77	28	51	109	188	265
10. Gorakhpur M. B. ..	1957	13	38	39	90	52	51	41	144	234
	1958	6	60	66	132	76	70	58	204	336
	1959	3	57	70	130	66	67	60	193	323
	1960	11	42	65	118	48	50	60	158	276
11. Moradabad M. B. ..	1957	64	86	121	271	118	86	111	315	586
	1958	20	73	148	241	114	99	189	402	643
	1959	22	73	110	205	119	117	164	400	605
	1960	29	85	159	273	133	113	104	350	623
12. Jhansi M. B. ..	1957	..	77	56	133	..	172	177	349	482
	1958	..	72	49	121	..	183	147	330	451
	1959	..	76	63	139	..	172	101	273	412
	1960	..	77	56	133	..	172	177	349	482
13. Rampur M. B. ..	1957	4	8	3	15	10	4	16	30	45
	1958	1	3	5	9	4	2	5	11	20
	1959	..	3	4	7	2	4	20	26	33
	1960	1	..	..	1	..	1	14	15	16

Table 15—*Infant Deaths by Age in Towns having Population* 30,000 *and above*—1957 to 1960—contd.

	Town	Year	Within 1st 24 hours after birth	After 24 hours to the end of the first week	From the beginning of the second week to end of 1st month	Total	During the second and third months	During the fourth to sixth months	During the seventh to twelfth months	Total	Grand Total
	1	2	3	4	5	6	7	8	9	10	11
14.	Dehra Dun M. B. ..	1957	35	76	28	139	23	31	48	102	241
		1958	34	60	30	124	16	33	38	87	211
		1959	29	31	29	89	16	19	24	59	148
		1960	31	41	33	105	19	22	43	84	189
15.	Mathura M. B. ..	1957	6	40	31	77	33	39	134	206	283
		1958	11	24	45	80	51	107	123	281	361
		1959	10	18	30	58	30	83	66	179	237
		1960	23	41	63	127	49	54	126	229	356
16.	Shahjahanpur M. B. ..	1957	11	26	73	110	43	26	66	135	245
		1958	17	47	96	160	78	66	93	237	397
		1959	16	56	53	125	38	59	93	190	315
		1960	4	33	97	134	47	108	80	235	369
17.	Mirzapur-*cum*-Vindhyachal M. B.	1957	29	28	60	117	38	38	53	129	246
		1958	34	34	85	153	42	34	48	124	277
		1959	42	44	83	169	41	31	41	113	282
		1960	29	47	78	154	38	20	52	110	264
18.	Firozabad M. B. ..	1957	..	41	18	59	10	31	28	69	128
		1958	10	22	27	59	16	25	43	84	143
		1959	4	8	14	26	5	13	30	48	74
		1960	3	5	23	31	6	7	25	38	69
19.	Farrukhabad-*cum*-Fatehgarh M. B.	1957	14	38	44	96	21	25	71	117	213
		1958	23	21	72	116	39	31	71	141	257
		1959	18	31	47	96	66	30	32	128	224
		1960	..	15	64	79	41	54	48	143	222
20.	Muzaffarnagar M. B. ..	1957	14	14	36	64	26	27	57	110	174
		1958	12	20	36	68	25	37	72	134	202
		1959	5	15	32	52	32	38	57	127	179
		1960	9	19	41	69	30	24	73	127	196
21.	Faizabad-*cum*-Ayodhya M. B.	1957	13	19	19	51	13	12	20	45	96
		1958	37	17	30	84	8	20	26	54	138
		1959	5	12	11	28	12	9	20	41	69
		1960	2	10	9	21	8	6	30	44	65
22.	Meerut Cantt. ..	1957	10	1	4	15	5	7	8	20	35
		1958	7	2	8	17	6	15	16	37	54
		1959	2	9	2	13	2	6	8	16	29
		1960	2	9	5	16	3	6	5	14	30
23.	Etawah M. B. ..	1957	..	45	72	117	55	60	117	232	349
		1958	..	60	116	176	76	91	155	322	498
		1959	..	40	58	98	92	68	90	250	348
		1960	..	57	89	146	95	81	122	298	444
24.	Amroha M. B. ..	1957	52	93	126	271	59	46	93	198	469
		1958	42	65	126	233	93	71	105	269	502
		1959	21	63	84	168	70	69	148	287	455
		1960	29	71	127	227	114	107	104	325	552
25.	Sambhal M. B. ..	1957	10	30	86	126	78	39	119	236	362
		1958	32	37	128	197	106	69	82	257	454
		1959	26	63	103	192	61	52	119	232	424
		1960	34	82	120	236	91	87	109	287	523
26.	Hathras M. B. ..	1957	6	33	49	88	61	102	122	285	373
		1958	8	40	52	100	131	107	166	404	504
		1959	8	25	34	67	55	58	61	174	241
		1960	9	20	49	78	51	64	104	219	297

Table 15—*Infant Deaths by Age in Towns having Population* 30,000 *and above*—1957 to 1960—contd.

Town	Year	Within 1st 24 hours after birth	After 24 hours to the end of the first week	From the beginning of the second week to end of 1st month	Total	During the second and third months	During the fourth to sixth months	During the seventh to twelfth months	Total	Grand Total
1	2	3	4	5	6	7	8	9	10	11
27. Ghaziabad M. B. ..	1957	2	6	24	32	19	16	46	81	113
	1958	3	19	29	51	17	21	53	91	142
	1959	3	7	25	35	15	24	37	76	111
	1960	4	10	26	40	16	25	41	82	122
28. Jaunpur M. B. ..	1957	2	9	16	27	44	38	29	111	138
	1958	..	3	25	28	43	30	30	103	131
	1959	2	6	10	18	41	26	13	80	98
	1960	..	..	..	..	..	19	42	61	61
29. Budaun M. B. ..	1957	15	30	33	78	31	27	40	98	176
	1958	48	47	4	99	5	5	21	31	130
	1959	25	19	46	90	15	37	54	106	196
	1960	8	48	45	101	15	69	60	144	245
30. Hardwar M. B. ..	1957	20	35	38	93	43	34	95	172	265
	1958	27	49	45	121	73	41	91	205	326
	1959	24	41	59	124	52	26	78	156	280
	1960	6	22	34	62	37	49	53	139	201
31. Pilibhit M. B. ..	1957	6	16	40	62	29	21	38	88	150
	1958	4	25	46	75	35	37	58	130	205
	1959	5	13	38	56	29	19	42	90	146
	1960	3	15	39	57	20	27	66	113	170
32. Kanpur Cantt. ..	1957	1	2	1	4	3	11	9	23	27
	1958	1	1	..	2	12	7	2	21	23
	1959	..	..	..	..	..	..	5	5	5
	1960	..	..	..	..	..	..	2	2	2
33. Hapur M. B. ..	1957	5	16	46	67	27	38	82	147	214
	1958	5	21	33	59	37	40	88	165	224
	1959	3	17	35	55	29	17	57	103	158
	1960	22	19	42	83	33	23	69	125	208
34. Bahraich M. B. ..	1957	4	7	19	30	9	10	20	39	69
	1958	6	14	19	39	7	9	21	37	76
	1959	9	6	16	31	6	6	20	32	63
	1960	13	13	20	46	7	12	28	47	93
35. Sitapur M. B. ..	1957	17	11	4	32	7	13	25	45	77
	1958	..	12	9	21	2	23	33	58	79
	1959	4	10	11	25	1	15	19	35	60
	1960	..	2	10	12	8	9	8	25	37
36. Maunath Bhanjan M. B.	1957	..	3	12	15	26	38	35	99	114
	1958	1	2	8	11	16	11	91	118	129
	1959	..	5	..	5	3	1	86	90	95
	1960	..	3	5	8	7	7	73	87	95
37. Chandausi M. B. ..	1957	23	38	45	106	44	35	44	123	229
	1958	31	71	77	179	86	35	72	193	372
	1959	22	54	69	145	42	62	63	167	312
	1960	31	56	95	182	69	73	68	210	392
38. Bulandshahr M. B. ..	1957	1	1	2	4	2	7	3	12	16
	1958	..	1	1	2	1	15	27	43	45
	1959	..	2	3	5	3	3	7	13	18
	1960	..	1	..	1	8	6	5	19	20
39. Gonda M. B. ..	1957	4	7	11	22	3	1	5	9	31
	1958	6	13	16	35	8	7	16	31	66
	1959	3	7	8	18	4	3	5	12	30
	1960	7	16	14	37	10	7	15	32	69

Table 15—*Infant Deaths by Age in Towns having Population* 30,000 *and above*—1957 to 1960—contd.

Town	Year	Within 1st 24 hours after birth	After 24 hours to the end of the first week	From the beginning of the second week to end of 1st month	Total	During the second and third months	During the fourth to sixth months	During the seventh to twelfth months	Total	Grand Total
1	2	3	4	5	6	7	8	9	10	11
40. Khurja M. B. ..	1957	..	5	25	30	23	31	45	99	129
	1958	..	5	14	19	55	36	98	189	208
	1959	1	13	15	29	22	27	46	95	124
	1960	2	17	36	55	21	24	69	114	169
41. Agra Cantt. ..	1957	..	..	..	..	7	5	6	18	18
	1958	15	4	2	21	1	6	10	17	38
	1959	4	2	2	8	3	2	3	8	16
	1960	5	3	1	9	1	1	2	4	13
42. Lucknow Cantt. ..	1957	2	2	12	16	1	3	6	10	26
	1958	4	16	5	25	6	2	9	17	42
	1959	4	14	6	24	1	3	4	8	32
	1960	14	27	6	47	2	2	7	11	58
43. Basti M. B. ..	1957	..	..	..	..	..	..	..	..	..
	1958	..	1	3	4	2	..	..	2	6
	1959	..	..	..	..	..	..	2	2	2
	1960	..	..	1	1	..	..	..	..	1
44. Ballia M. B. ..	1957	52	2	2	56	5	3	5	13	69
	1958	42	2	2	46	1	4	3	8	54
	1959	26	11	6	43	5	1	2	8	51
	1960	36	12	5	53	5	3	2	10	63
45. Haldwani-*cum*-Kathgodam M. B.	1957	4	7	9	20	6	5	8	19	39
	1958	8	19	5	32	13	8	19	40	72
	1959	31	23	11	65	7	8	5	20	85
	1960	4	9	7	20	4	3	3	10	30
46. Banda M. B. ..	1957	1	11	13	25	6	4	34	44	69
	1958	1	16	14	31	6	4	18	28	59
	1959	..	3	5	8	5	6	15	26	34
	1960	..	1	1	2	3	..	5	8	10
47. Kasganj M. B. ..	1957	1	4	7	12	1	8	17	26	38
	1958	7	..	4	11	..	4	10	14	25
	1959	..	6	5	11	5	10	9	24	35
	1960	1	6	9	16	4	21	18	43	59
48. Ghazipur M. B. ..	1957	10	12	16	38	3	16	24	43	81
	1958	5	8	10	23	11	1	7	19	42
	1959	16	4	5	25	4	9	6	19	44
	1960	7	4	10	21	..	..	6	6	27
49. Hardoi M. B. ..	1957	2	3	1	6	3	6	7	16	22
	1958	6	4	9	19	4	9	18	31	50
	1959	20	16	7	43	13	13	9	35	78
	1960	9	21	13	43	7	8	11	26	69
50. Najibabad M. B. ..	1957	..	6	13	19	5	13	22	40	59
	1958	1	6	21	28	8	17	38	63	91
	1959	..	3	20	23	9	3	24	36	59
	1960	1	4	17	22	10	12	36	58	80
51. Bijnor M. B. ..	1957	..	4	5	9	10	10	16	36	45
	1958	..	1	17	18	10	16	28	54	72
	1959	..	3	17	20	9	6	17	32	52
	1960	1	2	20	23	12	15	30	57	80
52. Roorkee M. B. ..	1957	3	10	6	19	15	8	22	45	64
	1958	10	15	15	40	14	12	32	58	98
	1959	1	13	10	24	7	9	15	31	55
	1960	15	30	12	57	10	7	7	24	81

Table 15—*Infant Deaths by Age in Town having Population* 30,000 *and above*—1957 to 1960—concld.

	Town	Year	Within 1st 24 hours after birth	After 24 hours to the end of the first week	From the beginning of the second week to end of 1st month	Total	During the second and third months	During the fourth to sixth months	During the seventh to twelfth months	Total	Grand Total
	1	2	3	4	5	6	7	8	9	10	11
53.	Mainpuri M. B. ..	1957	17	7	5	29	4	5	21	30	59
		1958	4	8	16	28	5	9	41	55	83
		1959	3	2	7	12	3	2	15	20	32
		1960	18	9	5	32	6	10	15	31	63
54.	Tanda M. B. ..	1957	1	..	..	1	..	..	5	5	6
		1958	..	..	..	..	..	6	14	20	20
		1959	..	..	..	..	..	..	17	17	17
		1960	..	..	..	..	..	..	39	39	39
55.	Azamgarh M. B. ..	1957	3	1	4	8	2	13	21	36	44
		1958	..	..	..	..	..	3	81	84	84
		1959	..	..	..	..	..	..	86	86	86
		1960	3	3	1	7	12	..	57	69	76
56.	Lakhimpur M. B. ..	1957	2	11	14	27	8	9	13	30	57
		1958	4	27	12	43	7	13	16	36	79
		1959	1	17	12	30	9	4	18	31	61
		1960	7	20	9	36	12	6	15	33	69
57.	Balrampur M. B. ..	1957	9	14	13	36	3	5	9	17	53
		1958	5	17	4	26	..	19	16	35	61
		1959	18	7	11	36	..	8	16	24	60
		1960	13	20	4	37	..	25	12	37	74
58.	Nagina M. B. ..	1957	2	5	13	20	21	10	26	57	77
		1958	2	2	7	11	13	18	17	48	59
		1959	1	3	9	13	2	8	20	30	43
		1960	3	3	10	16	5	4	9	18	34

Table 16—*Deaths and Death Rates from Certain causes in Cities*

Cities	Year	Fevers					
		Malaria		Enteric fever		Measles	
		Deaths	Rate	Deaths	Rate	Deaths	Rate
1	2	3	4	5	6	7	8
1. Kanpur M. C.	1956	358	0·49	537	0·74	..	..
	1957	417	0·56	477	0·64	..	..
	1958	505	0·66	573	0·75	40	0·05
	1959	339	0·43	127	0·16	..	..
	1960	5	0·01	501	0·62	144	0·18
2. Lucknow M. C.	1956	1	0·00	4	0·01	3	0·01
	1957	..	..	7	0·01	5	0·01
	1958	3	0·00	11	0·02	5	0·01
	1959	100	0·19	7	0·01	2	0·00
	1960	..	..	26	0·05	1	0·00
3. Varanasi M. C.	1956	105	0·27	35	0·09	234	0·60
	1957	70	0·18	22	0·05	31	0·08
	1958	47	0·12	29	0·07	29	0·07
	1959	47	0·11	14	0·03	11	0·03
	1960	30	0·07	34	0·08	51	0·12
4. Agra M. C.	1956	16	0·04	2	0·00	1	0·00
	1957	10	0·02	3	0·01	..	..
	1958	7	0·01	14	0·03	11	0·02
	1959	4	0·01	46	0·10	4	0·01
	1960	5	0·01	20	0·04	4	0·01
5. Allahabad M. C.	1956	1	0·00	34	0·10	5	0·01
	1957	3	0·01	18	0·05	..	..
	1958	1	0·00	23	0·06	1	0·00
	1959	1	0·00	18	0·05	1	0·00
	1960	..	..	38	0·10	2	0·00
6. Bareilly M. B.	1956	174	0·86	72	0·36	5	0·02
	1957	108	0·53	26	0·13	4	0·02
	1958	99	0·48	51	0·25	40	0·19
	1959	46	0·22	11	0·05	..	..
	1960	32	0·15	12	0·06	2	0·01
7. Meerut M. B.	1956	37	0·20	19	0·10	1	0·00
	1957	53	0·29	30	0·16	..	..
	1958	61	0·32	21	0·11	63	0·33
	1959	71	0·37	23	0·12	..	..
	1960	93	0·47	14	0·07	12	0·06
8. Saharanpur M. B.	1956	16	0·09	..	..	..	..
	1957	1	0·00	..	..	..	..
	1958	..	..	..	..	2	0·01
	1959	..	..	..	..	1	0·00
	1960	3	0.01	..	..	13	0·07
9. Aligarh M. B.	1956	19	0·12	111	0·71	74	0·47
	1957	13	0·08	59	0·37	14	0·09
	1958	18	0·11	141	0·86	249	1·53
	1959	16	0·10	57	0·34	24	0·14
	1960	23	0·12	106	0·57	5	0·03
10. Gorakhpur M. B	1956	93	0·68	..	..	4	0·03
	1957	99	0·71	50	0·36	..	..
	1958	114	0·80	17	0·11	2	0·01
	1959	135	0·93	1	0·00	..	..
	1960	95	0·65	6	0·04	..	..
11. Moradabad M. B.	1956	309	1·91	50	0·31	10	0·06
	1957	137	0·84	..	..	8	0·05
	1958	216	1·32	..	..	..	..
	1959	155	0·94	22	0·13	8	0·05
	1960	335	2·01	42	0·25	13	0·08

with Population 100,000 *and above*, 1956 ot 1960

Fevers											
Relapsing fever (spirochaetal)		Kala-Azar		Influenza		Cerebro-spinal fever		Typhus fever		Black Water fever	
Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
9	10	11	12	13	14	15	16	17	18	19	20
..	..	..	..	38	0·05	..	..	..	..	..	..
..	..	..	..	6	0·01	..	..	..	..	..	..
..	..	..	..	..	..	..	..	26	0·03	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	3	0·01	..	..	..	..	..	..	..	..
..	..	3	0·00	3	0·00	..	..	..	..	..	..
..	..	2	0·00	..	..	..	..	1	0·00	..	..
22	0·04	..	..	4	0·01	..	..	16	0·03	..	..
8	0·01	2	0·00	..	..	1	0·00	6	0·01	1	0·00
..	..	21	0·05	..	..	4	0·01	..	..	..	..
..	..	10	0·02	5	0·01	4	0·01	2	0·00	..	..
..	..	11	0·03	..	..	1	0·00	..	..	..	..
5	0·01	5	0·01	4	0·01	1	0·00	..	..	..	..
..	..	6	0·01	..	..	7	0·02	..	..	..	..
..	..	..	..	..	..	4	0·01	..	..	2	0·00
..	..	..	..	..	..	4	0·01	..	..	..	..
..	..	..	..	..	..	10	0·02	..	..	..	..
..	..	..	..	..	..	30	0·06	..	..	..	..
1	0·00	..	..	..	..	1	0·00	..	..	..	..
..	..	..	..	..	..	1	0·00	..	..	..	..
..	..	..	..	..	..	..	..	1	0·00	..	..
..	..	..	..	..	..	2	0·00	..	..	..	..
..	..	..	..	..	..	2	0·00	..	..	..	..
..	..	..	..	..	..	8	0·02	..	..	..	..
..	..	..	..	..	..	..	..	4	0·02	..	..
..	..	..	..	2	0·01	..	..	..	..	..	..
..	..	..	..	4	0·02	..	..	..	..	..	..
..	..	..	..	28	0·13	..	..	..	..	..	..
..	..	..	..	37	0·18	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	1	0·00	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	30	0·18	1	0·00
..	..	..	..	..	..	..	..	..	..	..	..
..	..	1	0·01	..	..	..	..	..	..	1	0·01
..	..	1	0·01	12	0·08	..	..	1	0·01	..	..
3	0·02	12	0·08	..	..	..	..	2	0·01	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	1	0·01	..	..	..	..	..	..	..	..
..	..	1	0·01	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..

Table 16—*Deaths and Death Rates from Certain causes in Cities*

Cities	Year	Fevers (*concld.*)		Dysentery and Diarrhoea			
		Other fevers		Dysentery		Diarrhoea	
		Deaths	Rate	Deaths	Rate	Deaths	Rate
1	2	21	22	23	24	25	26
1. Kanpur M. C.	1956	5,573	7·62	13	0·02	1,043	1·42
	1957	5,330	7·11	..	..	1,149	1·53
	1958	4,657	6·07	148	0·19	1,079	1·41
	1959	4,805	6·12	380	0·48	985	1·25
	1960	4,791	5·96	286	0·36	1,147	1·43
2. Lucknow M. C.	1956	1,132	2·30	163	0·33	329	0·67
	1957	1,137	2·27	103	0·20	391	0·78
	1958	1,664	3·26	211	0·41	420	0·82
	1959	1,218	2·34	97	0·19	268	0·51
	1960	1,071	2·02	134	0·25	262	0·49
3. Varanasi M. C.	1956	2,190	5·65	223	0·57	302	0·78
	1957	2,380	6·00	193	0 49	267	0·67
	1958	2,403	5 93	199	0 49	204	0·50
	1959	1,920	4·63	102	0·25	168	0 41
	1960	2,338	5·54	173	0·41	271	0·64
4. Agra M. C.	1956	25	0·06	65	0·15	206	0 47
	1957	21	0·05	80	0·18	130	0·29
	1958	21	0·04	73	0·16	146	0·31
	1959	70	0·15	94	0·20	260	0·55
	1960	47	0·10	95	0·19	134	0·27
5. Allahabad M. C.	1956	47	0·13	76	0·22	4	0·01
	1957	34	0·10	91	0·26	10	0·03
	1958	8	0 02	101	0·28	5	0·01
	1959	8	0·02	90	0·24	6	0·02
	1960	27	0·07	90	0·24	23	0·06
6. Bareilly M. B.	1956	225	1·11	36	0·18	105	0·52
	1957	199	0·98	20	0·10	84	0·41
	1958	208	1·01	51	0·25	103	0·50
	1959	297	1·44	48	0·23	44	0·21
	1960	173	0·83	37	0·18	31	0·15
7. Meerut M. B.	1956	304	1·68	50	0·28	19	0·10
	1957	288	1·56	25	0 13	45	0·24
	1958	340	1·80	69	0·36	43	0·23
	1959	209	1·08	51	0·26	24	0·12
	1960	286	1·45	23	0·12	97	0·49
8. Saharanpur M. B.	1956	1,485	8·67	41	0·24	21	0·12
	1957	1,578	8·98	49	0·28	1	0·00
	1958	1,989	11·06	33	0·18	55	0·30
	1959	1,455	7·90	23	0·12	24	0·13
	1960	1,735	9·21	30	0·16	33	0·18
9. Aligarh M. B.	1956	313	1·99	33	0·21	131	0·83
	1957	272	1·70	23	0·14	100	0·62
	1958	341	2·09	49	0·30	112	0·69
	1959	224	1·35	35	0·21	97	0·58
	1960	227	1·22	51	0·27	171	0·92
10. Gorakhpur M. B.	1956	297	2·17	137	1·00	87	0·63
	1957	210	1·50	68	0·49	49	0·35
	1958	219	1·54	142	1·00	73	0·51
	1959	222	1·53	145	1·00	126	0·87
	1960	233	1·58	118	0·80	94	0·64
11. Moradabad M. B.	1956	382	2·37	55	0·34	150	0·93
	1957	362	2·22	42	0·26	108	0 66
	1958	499	3·04	68	0·41	209	1·27
	1959	778	4·70	77	0·46	88	0·53
	1960	805	4·82	78	0·47	120	0·72

with Population 100,000 *and above,* 1956 to 1960—contd.

Respiratory Diseases								Other Causes			
Pneumonia		Pulmonary Tuberculosis		Whooping cough		Other respiratory diseases		Beri Beri		Acute Poliomy	
Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
27	28	29	30	31	32	33	34	35	36	37	38
597	0 82	592	0·81	..	..	1,158	1·58	..	..	..	..
558	0 74	536	0·71	..	..	1,105	1·47	..	..	..	..
670	0·87	524	0 68	11	0·01	1,209	1·58	..	..	..	..
648	0 82	706	0 90	..	..	1,149	1·46	..	..	..	..
869	1·08	837	1·04	..	..	1,158	1·44	..	..	..	..
864	1·74	60	0 12	..	..	303	0·61	..	..	..	..
720	1·43	36	0·07	3	0·00	280	0·56	..	..	..	..
1,266	2 48	40	0 08	2	0·00	291	0·57	..	..	..	..
640	1·23	1	0 00	2	0·00	215	0·41	..	..	1	0·00
894	1·69	51	0·10	51	0·10	157	0·30	..	..	1	0·00
449	1·16	56	0·14	..	..	479	1·23	2	0·00	1	0·00
394	0·99	55	0·14	..	..	513	1·29	2	0·00	1	0·00
314	0·77	79	0·19	..	..	410	1·01	..	..	3	0·01
219	0·53	74	0·18	..	..	426	1·03	..	..	1	0·00
266	0·63	84	0·20	..	..	453	1·07	..	..	..	..
1,592	3·63	36	0 08	..	..	677	1·54	..	..	1	0·00
1,180	2·62	24	0 05	..	..	797	1·77	..	..	..	..
1,796	3·88	37	0 08	..	..	831	1·80	..	..	..	..
1,974	4·16	110	0·23	..	..	812	1·71	..	..	14	0·03
1,997	4·11	69	0·14	..	..	979	2·01	..	..	..	..
1,182	3·40	140	0 40	..	..	162	0·47	..	..	..	..
1,353	3·82	137	0·39	..	..	155	0·44	..	..	..	..
1,099	3·05	131	0·36	..	..	136	0·38	..	..	..	..
778	2·12	124	0·34	1	0·00	80	0·22	..	..	..	..
1,258	3·36	139	0·37	..	..	156	0·42	..	..	..	..
151	0·75	114	0 56	12	0·06	232	1·15	..	..	..	..
106	0·52	96	0 47	1	0·00	218	1·07	..	..	..	..
138	0·67	82	0 40	4	0·02	201	0·98	..	..	..	..
135	0 65	33	0·16	..	..	199	0·96	..	..	6	0·03
87	0·42	34	0·16	2	0·01	147	0 71	..	..	..	..
118	0·65	63	0·35	16	0·09	146	0·81	..	..	..	..
224	1·21	60	0·32	..	..	195	1·06	..	..	..	..
174	0·92	50	0·26	..	..	154	0·82	..	..	..	..
122	0·63	72	0·37	7	0·04	132	0·68	..	..	..	..
188	0·95	61	0·31	..	..	156	0·79	..	..	..	..
84	0·49	..	..	..	..	27	0·16	..	..	..	..
102	0·58	..	..	..	..	83	0·47	..	..	..	..
99	0·55	11	0·06	8	0·04	48	0·27	..	..	..	..
75	0 41	7	0·04	2	0·01	55	0·30	..	..	..	..
88	0·47	2	0·01	6	0·03	67	0·35	..	..	..	..
117	0·74	5	0·03	..	..	92	0·58	..	..	..	..
99	0·62	..	..	..	..	107	0·67	..	..	..	..
153	0·94	..	..	11	0·07	89	0·55	..	..	..	..
76	0·46	7	0·04	3	0·02	68	0·41	..	..	..	..
104	0·56	..	..	..	..	98	0·52	..	..	..	..
221	1·61	..	..	14	0·10	..	..	..	..	..	..
143	1·02	14	0·10	17	0·12	14	0·10	1	0·01	..	..
288	2·03	..	..	19	0·13	4	0·03	..	..	..	..
239	1·65	..	..	13	0·09	1	0·00	..	..	4	0·03
190	1·29	..	..	39	0·26	..	..	..	..	9	0·06
392	2·43	3	0·02	2	0·01	136	0·84	..	..	..	..
428	2·63	19	0·12	34	0·21	150	0 92	..	..	..	..
419	2·55	1	0·01	7	0·04	188	1·14	..	..	..	..
458	2·77	9	0·05	9	0·05	198	1·20	..	..	..	..
338	2·02	38	0·23	28	0·17	222	1·33	..	..	..	..

Table 16—*Deaths and Death Rates from Certain causes in Cities*

Cities	Year	Diptheria		Chicken pox		Mumps		Other
		Deaths	Rate	Deaths	Rate	Deaths	Rate	
1	2	39	40	41	42	43	44	
1. Kanpur M. C.	1956	22	0·03	..	..	1	0·00	
	1957	32	0·04	..	..	9	0·01	
	1958	13	0·02	..	..	..	..	
	1959	32	0·04	..	..	..	..	
	1960	34	0·04	..	..	..	..	
2. Lucknow M. C.	1956	12	0·02	1	0·00	..	..	
	1957	12	0·02	2	0·00	2	0·00	
	1958	39	0·08	6	0·01	..	..	
	1959	48	0·09	1	0·00	9	0·02	
	1960	66	0·12	9	0·02	..	..	
3. Varanasi M. C.	1956	4	0·01	197	0·51	..	..	
	1957	3	0·01	48	0·12	..	..	
	1958	2	0·00	62	0·15	..	..	
	1959	4	0·01	12	0·03	..	..	
	1960	5	0·01	23	0·05	..	..	
4. Agra M. C.	1956	12	0·03	..	..	..	..	
	1957	7	0·01	..	..	..	..	
	1958	49	0·10	..	..	..	..	
	1959	29	0·06	..	..	..	..	
	1960	18	0·04	..	..	..	..	
5. Allahabad M. C.	1956	2	0·00	12	0·03	..	..	
	1957	9	0·02	11	0·03	..	..	
	1958	3	0·01	1	0·00	..	..	
	1959	2	0·00	1	0·00	..	..	
	1960	13	0·03	18	0·05	..	..	
6. Bareilly M. B.	1956	1	0·00	21	0·10	..	..	
	1957	1	0·00	16	0·08	..	..	
	1958	..	..	129	0·63	..	..	
	1959	..	..	17	0·08	..	..	
	1960	..	..	42	0·20	3	0·01	
7. Meerut M. B.	1956	..	..	..	..	..	..	
	1957	..	..	13	0·07	..	..	
	1958	..	..	102	0·54	..	..	
	1959	..	..	1	0·00	..	..	
	1960	..	..	49	0·25	..	..	
8. Saharanpur M. B.	1956	..	..	1	0·00	..	..	
	1957	..	..	..	..	..	..	
	1958	..	..	..	..	..	..	
	1959	3	0·02	..	..	..	..	
	1960	..	..	13	0·07	1	0·00	
9. Aligarh M. B.	1956	5	0·03	..	..	..	..	
	1957	7	0·04	..	..	..	..	
	1958	3	0·02	..	..	..	..	
	1959	4	0·02	5	0·03	..	..	
	1960	4	0·02	46	0·25	..	..	
10. Gorakhpur M. B.	1956	..	..	..	..	6	0·04	
	1957	9	0·06	..	..	5	0·03	
	1958	15	0·10	..	..	18	0·13	
	1959	11	0·08	..	..	11	0·08	
	1960	9	0·06	..	..	6	0·04	
11. Moradabad M. B.	1956	..	..	..	..	..	..	
	1957	5	0·03	11	0·07	..	..	
	1958	..	..	..	..	..	..	
	1959	..	..	2	0·01	..	..	
	1960	..	..	..	..	..	..	

with Population 100,000 *and above*, 1956 to 1960—contd.

Causes—*concld.*

Tuberculosis of Joints		Other Tuberculer Diseases		Leprosy		Cancer		Deaths from Child Birth
Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths
45	46	47	48	49	50	51	52	54
..	..	2	0·00	1	0·00	79	0·11	369
..	..	..	..	..	..	79	0·10	364
2	0·00	2	0·00	6	0·01	52	0·07	311
..	..	..	..	..	..	68	0·09	335
..	..	..	..	..	..	105	0·13	247
..	..	97	0·20	..	..	85	0·17	38
..	..	225	0·45	1	0·00	70	0·14	14
1	0·00	212	0·41	17	0·03	68	0·13	21
..	..	216	0·41	..	..	85	0·16	11
..	..	71	0·13	..	..	71	0·13	3
9	0·02	12	0·03	25	0·06	17	0·04	25
6	0·01	13	0·03	29	0·07	20	0·05	9
4	0·01	21	0·05	29	0·07	40	0·10	10
4	0·00	28	0·07	33	0·08	30	0·07	6
11	0·03	21	0·05	44	0·10	35	0·08	11
16	0·04	6	0·01	4	0·01	31	0·07	..
..	..	..	..	2	0·00	14	0·03	..
..	..	..	..	1	0·00	27	0·06	..
..	..	..	..	..	..	47	0·10	..
..	..	..	..	2	0·00	33	0·07	..
1	0·00	..	..	..	..	30	0·09	24
..	..	1	0·01	3	0·01	24	0·07	20
1	0·00	..	..	2	0·00	23	0·06	17
1	0·00	3	0·04	..	..	28	0·08	27
1	0·00	1	0·00	..	..	40	0·11	15
..	..	..	..	..	..	8	0·04	10
..	..	7	0·03	..	..	10	0·05	12
..	..	..	..	..	..	15	0·07	4
..	..	64	0·31	..	..	13	0·06	10
..	..	34	0·16	..	..	10	0·05	11
..	..	..	..	..	..	..	..	15
..	..	..	..	..	..	..	..	9
..	..	..	..	..	..	..	..	44
..	..	..	..	..	..	3	0·01	49
..	..	..	..	..	..	15	0·08	39
..	..	..	..	..	..	4	0·02	2
..	..	..	..	..	..	8	0·04	4
..	..	10	0·05	..	..	4	0·02	5
..	..	..	..	..	..	8	0·04	19
..	..	7	0·04	..	..	4	0·02	4
..	..	64	0·41	..	..	..	..	6
..	..	64	0·40	..	..	..	..	2
..	..	51	0·31	..	..	..	..	6
..	..	77	0·46	..	..	..	..	11
..	..	61	0·33	..	..	..	..	11
29	0·21	45	0·33	3	0·02	33	0·24	..
..	..	78	0·56	2	0·01	14	0·10	1
..	..	135	0·95	6	0·04	28	0·20	..
20	0·14	63	0·43	3	0·02	29	0·20	3
..	..	56	0·38	2	0·01	20	0·14	8
..	..	..	..	1	0·01	..	..	13
..	..	8	0·05	2	0·01	2	0·01	20
..	..	..	..	..	..	..	..	14
19	0·11	346	2·09	..	..	..	..	12
14	0·08	67	0·40	..	..	..	..	15

Table 16—*Deaths and Death Rates from Certain causes in Cities*

Cities	Year	Fevers					
		Malaria		Enteric fever		Measles	
		Deaths	Rate	Deaths	Rate	Deaths	Rate
1	2	3	4	5	6	7	8
12. Jhansi M. B.	1956	..	..	..	..	..	..
	1957	..	..	..	..	..	..
	1958	..	..	..	..	..	..
	1959	..	..	..	..	..	..
	1960	..	..	..	..	..	..
13. Rampur M. B.	1956	..	..	..	..	..	..
	1957	6	0·04	6	0·04	3	0·02
	1958	4	0·02	4	0·02	3	0·02
	1959	21	0·12	..	..	..	..
	1960	3	0·02	..	..	..	..
14. Dehra Dun M. B.	1956	18	0·12	5	0·03	5	0·03
	1957	6	0·04	..	..	3	0·02
	1958	5	0·03	..	..	3	0 02
	1959	2	0·01	1	0·01	..	..
	1960	6	0·03	..	..	..	..
15. Mathura M. B.	1956	6	0·05	63	0·57	48	0 43
	1957	1	0·01	54	0·48	22	0·19
	1958	3	0·03	..	..	52	0·45
	1959	6	0 05	7	0·06	9	0·08
	1960	6	0·05	1	0·01	24	0 00
16. Shahjahanpur M. B.	1956	39	0·41	7	0·07	7	0 07
	1957	32	0·34	8	0·08	6	0·06
	1958	54	0·54	2	0·02	46	0·46
	1959	56	0·16	2	0·02	9	0·09
	1960	6	0·06	4	0·04	83	0·84
17. Mirzapur-*cum*-Vindhyachal ..	1956	10	0·10	1	0·01	20	0·21
	1957	11	0·11	1	0·01	7	0·07
	1958	7	0·07	..	..	6	0·06
	1959	8	0·08	..	..	1	0·01
	1960	4	0·04	..	..	3	0·03

with Population 100,000 *and above*, 1956 to 1960—contd.

Fevers											
Relapsing fever spirochaetal		Kala-Azar		Influenza		Cerebro-spinal fever		Typhus fever		Black Water fever	
Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
9	10	11	12	13	14	15	16	17	18	19	20
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	1	0·00	1	0·00	1	0·00
..	..	..	..	..	..	..	..	..	..	..	..
2	0·01	..	..	..	..	..	..	4	0·02	..	..
3	0·02	..	..	..	..	..	..	6	0·04	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	4	0·02	..	..	..	..	2	0·01	..	..
..	..	..	..	..	..	..	..	5	0·03	..	..
..	..	..	..	..	..	..	..	2	0·01	..	..
..	..	..	..	..	..	..	..	15	0·14	..	..
..	..	..	..	3	0·03	..	..	1	0·01	..	..
..	..	..	..	11	0·10	..	..	102	0·89	..	..
..	..	..	..	..	..	..	..	86	0·74	..	..
..	..	..	..	..	..	..	..	80	0·67	1	0·01
..	..	..	..	1	0·01	1	0·01	8	0·08	..	..
..	..	1	0·01	5	0·05	..	..	..	..	..	..
..	..	..	..	1	0·02	..	..	1	0·02	..	..
..	..	..	..	..	..	..	..	5	0·05	..	..
..	..	..	..	..	..	..	..	21	0·21	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	1	0·01	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..

Table 16—*Deaths and Death Rates from Certain causes in Cities*

Cities	Year	Fevers (*concld.*)		Dysentery and Diarrhoea			
		Other fevers		Dysentery		Diarrhoea	
		Deaths	Rate	Deaths	Rate	Deaths	Rate
1	2	21	22	23	24	25	26
12. Jhansi M. B.	1956	1,123	9·15	12	0·10	59	0·48
	1957	1,148	9·12	8	0·06	2	0·01
	1958	1,106	8·58	15	0·12	30	0·23
	1959	967	7·33	8	0·06	39	0·29
	1960	1,158	8·58	8	0·06	2	0·01
13. Rampur M. B.	1956	109	0·69	7	0·04	3	0·02
	1957	106	0·65	12	0·07	1	0·01
	1958	71	0·42	14	0·08	1	0·00
	1959	98	0·57	9	0·05	..	..
	1960	90	0·51	9	0·05	..	..
14. Dehra Dun M. B.	1956	74	0·51	25	0·17	22	0·15
	1957	135	0·89	31	0·20	22	0·14
	1958	80	0·51	27	0·17	34	0·22
	1959	105	0·64	14	0·09	19	0·12
	1960	88	0·52	26	0·15	13	0·08
15. Mathura M. B.	1956	498	4·52	25	0·23	85	0·77
	1957	474	4·22	12	0·11	53	0·47
	1958	633	5·52	29	0·25	37	0·32
	1959	423	3·62	20	0·17	52	0·44
	1960	624	5·25	20	0·17	73	0·61
16. Shahjahanpur M. B.	1956	501	5·26	13	0·14	51	0·53
	1957	529	5·59	14	0·15	51	0·54
	1958	913	9·23	16	0·16	45	0·45
	1959	648	6·55	6	0·06	27	0·27
	1960	794	8·02	21	0·21	30	0·30
17. Mirzapur-*cum*-Vindhyachal M. B. ..	1956	409	4·31	65	0·68	28	0·29
	1957	398	4·13	83	0·86	19	0·20
	1958	404	4·12	51	0·52	22	0·22
	1959	369	3·71	60	0·60	23	0·23
	1960	371	3·67	60	0·59	17	0·17

with Population 100,000 *and above*, 1956 to 1960—contd.

Respiratory Diseases								Other Causes			
Pneumonia		Pulmonary Tuberculosis		Whooping cough		Other respiratory diseases		Beri Beri		Acute Poliomytitis	
Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
27	28	29	30	31	32	33	34	35	36	37	38
95	0·77	..	..	..	..	2	0·02	..	..	..	..
41	0·32	..	..	..	..	..	..	..	..	..	..
63	0·49	..	..	..	..	..	..	..	..	..	..
50	0 38	..	..	..	..	..	..	..	..	..	..
41	0·30	..	..	..	..	..	..	..	..	..	..
25	0·16	4	0·02	..	..	9	0·06	..	..	..	..
34	0·21	1	0·01	1	0·01	19	0·12	..	..	..	..
17	0·10	1	0·00	..	..	24	0·14	..	..	..	..
16	0·09	2	0·01	2	0·01	18	0·10	..	..	..	..
17	0·10	7	0·04	8	0 04	12	0·07	..	..	..	..
109	0·75	10	0·06	4	0·03	32	0·22	..	..	..	..
57	0·38	17	0·11	8	0·05	54	0·36	..	..	..	..
97	0·62	20	0·13	1	0·01	75	0·48	..	..	1	0·01
33	0·20	4	0·02	15	0·09	32	0·20	..	..	..	..
72	0·43	..	..	..	..	75	0·44	..	..	..	..
186	1·69	60	0·54	5	0·04	86	0·78	..	..	..	..
111	0·99	42	0·37	6	0·05	103	0·92	..	..	..	..
127	1·11	43	0·37	25	0·22	68	0·59	..	..	..	..
101	0·86	41	0·35	32	0·27	69	0·59	..	..	..	..
143	1·20	43	0·36	37	0·31	53	0·44	..	..	..	..
89	0·93	..	..	59	0·62	1	0.01	..	..	..	..
49	0·52	..	..	52	0·54	..	..	..	..	..	..
87	0·88	2	0·02	49	0 49	22	0·22	..	..	..	..
53	0·53	1	0·01	24	0·24	41	0·41	..	..	..	..
90	0·91	..	..	..	..	58	0·59	..	..	..	..
65	0·68	1	0·01	..	..	82	0 86	..	..	..	..
55	0·57	2	0·02	..	..	121	1·25	..	..	..	..
72	0·73	..	..	..	..	105	1·07	..	..	..	..
60	0·60	1	0·01	..	..	105	1·05	..	..	..	..
45	0·44	..	..	..	..	72	0·71	..	..	..	..

Table 16—*Deaths and Death Rates from Certain causes in Cities*

Cities	Year	Other Causes: Diphtheria Deaths	Diphtheria Rate	Chicken pox Deaths	Chicken pox Rate	Mumps Deaths	Mumps Rate
1	2	39	40	41	42	43	44
12. Jhansi M. B.	1956	..	..	..	..	..	..
	1957	..	..	..	..	..	..
	1958	..	..	..	..	..	..
	1959	..	..	..	..	..	..
	1960	..	..	..	..	..	..
13. Rampur M. B.	1956	..	..	..	..	..	..
	1957	..	..	..	..	..	..
	1958	..	..	1	0·00	..	..
	1959	..	..	7	0·04	..	..
	1960	..	..	1	0 00	..	..
14. Dehra Dun M. B.	1956	1	0.01	4	0·03	..	..
	1957	..	..	..	..	..	..
	1958	4	0·02	..	..	..	..
	1959	6	0·03	3	0·02	..	..
	1960	..	..	5	0·03	3	0.02
15. Mathura M. B.	1956	1	0·01	..	..	..	..
	1957	1	0·01	1	0 01	..	..
	1958	..	..	13	0·11	..	..
	1959	..	..	1	0·00	..	..
	1960	..	..	3	0·02	..	..
16. Shahjahanpur M. B.	1956	..	..	4	0·04	..	..
	1957	..	..	5	0·05	..	..
	1958	..	..	14	0·14	..	..
	1959	..	..	5	0·05	..	..
	1960	..	..	60	0·61	..	..
17. Mirzapur-*cum*-Vindhyachal M. B. ..	1956	..	..	39	0·41	..	..
	1957	1	0 01	3	0·03	..	..
	1958	..	..	10	0·10	..	..
	1959	..	..	2	0·02	..	..
	1960	1	0·01	6	0·06	..	..

with Population 100,000 *and above,* 1956 to 1960—concld.

Other causes								
Tuberculosis of Joints		Other Tuberculosis Diseases		Leprosy		Cancer		Deaths from Child Birth
Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths
45	46	47	48	49	50	51	52	53
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	8
..	..	..	..	..	..	..	..	..
..	..	1	0.01	..	..	..	..	3
..	..	26	0.16	..	..	4	0.02	5
3	0.02	15	0.09	..	..	4	0.02	2
..	..	17	0.10	..	..	6	0 03	3
..	..	11	0.06	..	..	1	0.00	1
..	..	12	0.08	..	..	5	0 03	6
2	0.01	1	0.01	..	..	3	0.02	3
..	..	2	0.01	..	..	14	0.09	2
..	..	..	..	..	..	3	0.02	1
..	..	..	..	..	..	3	0.02	1
2	0.02	2	0.02	..	..	1	0.01	3
..	..	..	..	..	..	1	0.01	1
..	..	..	..	..	..	3	0.03	15
..	..	..	..	..	..	2	0.02	9
..	..	8	0.07	..	..	10	0.08	24
..	..	50	0.52	..	..	5	0.05	10
..	..	46	0.49	..	..	7	0.07	4
..	..	44	0.44	..	..	4	0.04	8
..	..	35	0.35	..	..	8	0.08	2
..	..	66	0.67	1	0.01	4	0.04	6
..	..	..	..	1	0.01	1	0.01	1
..	..	..	..	..	..	..	..	3
..	..	..	..	..	..	..	..	..
..	..	..	..	1	0.01	..	..	1
..	..	..	..	..	..	..	..	6

Table 17—*Live Births by Birth Order during*

Cities	Population (in 000)		Total Births	Birth		
	Census 1961	Estimated 1960		1st	2nd	3rd
1	2	3	4	5	6	7
Agra	509	500	24,706	2,541	2,008	2,128
Allahabad	431	424	10,566	2,136	1,646	1,416
Bareilly	273	269	1,927	457	324	273
Dehra Dun	156	156	3,366	116	107	86
Gorakhpur	180	177	4,511	714	398	562
Jhansi	170	167	4,475	1,136	1,048	950
Kanpur	971	953	20,970	2,002	2,988	4,118
Aligarh	185	182	2,624	527	497	567
Lucknow	656	645	19,613	3,647	2,673	2,924
Mathura	125	124	4,679	830	511	697
Meerut	284	280	6,319	1,123	1,505	1,214
Moradabad	192	190	6,649	828	938	962
Rampur	135	135	899	165	161	119
Saharanpur	185	183	5,923	1,336	1,089	822
Shahjahanpur	118	116	3,676	746	1,132	853
Varanasi	490	481	20,443	3,369	3,434	3,019

Table 18—*Live Births by Age of Mother during* 1960 *in Cities each with Population over one lakh*

Cities	Population (in 000)		Total Births	Age of Mother								
	Census 1961	Estimated 1960		Below 15	15—19	20—24	25—29	30—34	35—39	40—44	45 and above	Not known
1	2	3	4	5	6	7	8	9	10	11	12	13
Agra	509	500	24,706	337	2,803	3,100	3,760	4,522	4,948	4,426	810	..
Allahabad	431	424	10,566	38	2,402	2,610	2,337	1,789	1,231	159	..	..
Bareilly	273	269	1,927	27	181	273	467	531	364	84	..	..
Dehra Dun ..	156	156	3,366	..	39	174	203	156	35	2	..	2,757
Gorakhpur	180	177	4,511	..	647	912	871	635	740	706	..	..
Jhansi	170	167	4,475	1	752	1,035	1,160	684	565	242	36	..
Kanpur	971	953	20,970	32	1,841	5,642	5,016	4,478	2,560	1,383	18	..
Aligarh	185	182	2,624	3	363	501	511	532	374	231	109	..
Lucknow	656	645	19,613	62	3,145	4,836	3,597	3,623	2,859	1,491	..	..
Mathura	125	124	4,679	6	614	1,509	987	864	397	213	89	..
Meerut	284	280	6,319	4	1,058	1,870	1,627	693	510	494	63	..
Moradabad ..	192	190	6,649	..	702	1,443	1,404	1,394	1,032	560	114	..
Rampur	135	135	899	2	110	272	266	153	72	24	..	..
Saharanpur ..	185	183	5,923	55	731	1,479	1,623	996	666	276	97	..
Shahjahanpur ..	118	116	3,676	4	725	925	698	569	377	236	142	..
Varanasi	490	481	20,443	29	3,664	5,606	5,353	3,457	1,643	633	58	..

1960 *in Cities each with Population over one Lakh*

Order									
4th	5th	6th	7th	8th	9th	10th	Over 10	Not known	Twi
8	9	10	11	12	13	14	15	16	17
1,998	1,897	1,971	1,948	1,739	1,681	1,458	5,337	..	..
1,663	1,547	886	614	298	191	89	80	..	..
285	172	166	154	46	48	2	..	..	..
73	66	62	40	27	18	9	5	2,757	..
420	548	366	370	293	202	234	404	..	..
417	214	187	234	118	69	70	32	..	..
3,258	2,504	2,025	1,584	1,016	560	405	510	..	..
336	207	134	72	52	48	64	120	..	..
2,182	2,963	1,131	1,020	804	611	582	1,076	..	..
736	511	464	318	271	159	94	88	..	..
867	490	339	212	236	81	76	176	..	..
796	643	560	428	353	284	229	628	..	..
113	95	72	51	39	42	18	24	..	..
746	564	468	328	253	126	98	93	..	..
453	244	139	66	32	7	4	..	..	..
2,870	2,569	2,075	1,149	860	557	252	289	..	..

Table 19—*Live Births by Age of Mother and Birth Order during* 1960 *in the Uttar Pradesh* (*covering* *16 *Cities*)

Age of Mother	Birth Order												
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Over 10	Not known	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Below 15 ..	551	48	1	..	..	..	..	..	..	..	..	..	600
15—19 ..	9,790	5,165	2,785	928	603	351	155	..	..	..	..	..	19,777
20—24 ..	7,026	8,584	7,896	4,615	2,455	891	544	128	46	2	..	..	32,187
25—29 ..	2,728	4,202	6,090	6,173	5,016	2,880	1,487	772	375	106	51	..	29,880
30—34 ..	956	1,677	2,600	3,463	4,393	3,666	2,979	2,170	1,454	823	895	..	25,076
35—39 ..	513	553	948	1,425	2,164	2,330	2,208	2,187	1,617	1,464	2,964	..	18,373
40—44 ..	107	216	367	537	495	853	1,139	1,084	1,106	1,134	4,122	..	11,160
45& over ..	2	14	23	72	108	74	76	96	86	155	828	2	1,536
Not known ..	..	..	..	..	..	..	..	..	..	..	..	2,757	2,757
All Ages ..	21,673	20,459	20,710	17,213	15,234	11,045	8,588	6,437	4,684	3,684	8,860	2,759	141,346

*Agra, Allahabad, Aligarh, Bareilly, Dehra Dun, Gorakhpur, Jhansi, Kanpur, Lucknow, Mathura, Meerut, Moradabad, Rampur Saharanpur, Shahjahanpur and Varanasi

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LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS

(As on February 17, 1964)

AGARTALA—Laxmi Bhandar Books & Scientific Sales. (Rest.)

AGRA—
1 National Book House, Jeoni Mandi.. .. (Reg.)
2 Wadhawa& Co., 45, Civil Lines .. .. (Reg.)
3 Banwari Lal Jain, Publishers, Moti Katra (Rest.)
4 English Book Depot, Sadar Bazar, Agra Cantt. (Rest.)

AHMADNAGAR—V. T. Jorakar, Prop., Rama General Stores, Navi Path. (Rest.)

AHMEDABAD—
1 Balgovind Kuber Dass& Co., Gandhi Road .. (Reg.)
2 Chandra Kant Chimanlal Vora, Gandhi Road (Reg.)
3 New Order Book Co., Ellis Bridge .. .. (Reg.)
4 Mahajan Bros. Opp. Khadia Police Gate .. (Rest.)
5 Sastu Kitab Ghar, Near Relief Talkies, Pathar Kuva, Relief Road. (Reg.)

AJMER—
1 Book-Land, 663, Madar Gate .. .. (Reg.)
2 Rajputana Book House, Station Road .. (Reg.)
3 Law Book House, 271, Hathi Bhata .. (Reg.)
4 Vijay Bros., Kutchery Road .. .. (Rest.)
5 Krishna Bros., Kutchery Road .. .. (Rest.)

ALIGARH—Friends Book House Muslim University Market. (Reg.)

ALLAHABAD—
1 Superintendent, Printing & Stationery, U. P.
2 Kitabistan, 17-A, Kamla Nehru Road .. (Reg.)
3 Law Book Co., Sardar Patel Marg, P. Box 4 .. (Reg.)
4 Ram Narain Lal Beni Madho, 2-A, Katra Road (Reg.)
5 Universal Book Co., 20, M. G. Road .. (Reg.)
6 The University Book Agency (of Lahore), Elgin Road. (Reg.)
7 Wadhwa& Co., 23 M. G. Marg .. .. (Rest.)
8 Bharat Law House, 15, Mahatma Gandhi Marg (Rest.)
9 Ram Narain Lal Beni Prasad, 2-A, Katra Road (Rest.)

AMBALA—
1 English Book Depot, Ambala Cantt. .. (Reg.)
2 Seth Law House, 8719, Railway Road, Ambala Cantt. (Rest.)

AMRITSAR—
1 The Law Book Agency, G. T. Road, Putligarh.. (Reg.)
2 S. Gupta, Agent Government Publications, Near P. O. Majith Mandi .. .. (Reg.) (Reg.)
3 Amar Nath& Sons Near P. O. Majith Mandi .. (Reg.)

ANAND—
1 Vijaya Stores, Station Road .. (Rest.)
2 Charto Book Stall, Tulsi Sadan, Station Road (Rest.)

ASANSOL—D.N. Roy & R. K. Roy, Booksellers, Atwal Building. (Rest.)

BANGALORE—
1 The Bangalore Legal Practitioner Co-op. Society, Ltd., Bar Association Building. (Reg.)
2 S. S. Book Emporium, 118, Mount Roy Road (Reg.)
3 The Bangalore Press, Lake View, Mysore Road, P. O. Box. 507. (Reg.)
4 The Standard Book Depot, Avenue Road .. (Reg.)
5 Vichara Sahitya Private Ltd., Balepet .. (Reg.)
6 Makkala Pustaka Press, Balamandira, Ghandhi-nagar. (Reg.)
7 Maruthi Book Depot, Avenue Road .. (Reg.)

BANGALORE—*concld.*
8 International Book House P. Ltd.,4F, Mahatma Gandhi Road. (Reg.)
9 Navakarnataka Pubns. Private Ltd., Majestic Circle. (Rest.)

BAREILLY—Agarwal Brothers, Bara Bazar .. (Reg.)

BARODA—
1 Shri Chandrakant Mohan Lal Shah, Raopura .. (Rest.)
2 Good Companions Booksellers, Publishers & Sub-Agent. (Rest.)
3 New Medical Book House, 540, Madan Zampa Road. (Rest.)

BEAWAR—The Secretary, S. D. College Co-operative Stores, Ltd. (Rest.)

BELGHARIA—Granthlok, Antiquarian Booksellers and Publishers (24-Parganas), 5-1 Amlica Mukerjee Road (Reg.)

BHAGALPUR—Paper Stationery Stores, D. N. Singh Road. (Reg.)

BHOPAL—
1 Superintendent, State Government Press.
2 Lyall Book Depot, Mohd. Din Bldg., Station Road. .. (Reg.)
3 Delite Books, Opp. Bhopal Talkies .. (Rest.)

BHUBANESHWAR—Ekamra Vidyabhaban, Eastern Tower Room no. 3. (Rest.)

BIJAPUR—Shri D. V. Deshpande, Recognised Law Booksellers, Pro. Vinod Book Depot, near Hiralshetti Chowk. (Rest.)

BIKANER—Bhandani Bros. .. .. (Rest.)

BILASPUR—Sharma Book Stall, Sadar Bazar (Rest.)

BOMBAY—
1 Superintendent, Printing and Stationery, Queens Road.
2 Charles Lambert& Co., 101, Mahatma Gandhi Road. (Reg.)
3 Co-operators Book Depot, 5/32, Ahmed Sailor Bldg., Dadar. (Reg.)
4 Current Book House, Maruti Lane, Raghunath Dadaji St. (Reg.)
5 Current Technical Literature Co. P., Ltd., India House, 1st Floor. (Reg.)
6 International Book House Ltd., 9, Ash Lane, M. G. Road. (Reg.)
7 Lakkani Book Depot, Girgaum .. .. (Reg.)
8 Elpes Agencies, 24, Bhangwadi, Kalbadevi (Reg.)
9 P. P. H. Book Stall, 190-B, Khetawadi Main Road. (Reg)
10 New Book Co., 188-190, Dr. Dadabhai Naoroji Road. (Reg.)
11 Popular Book Depot, Lamington Road .. (Reg.)
12 Sunder Das Gaian Chand, 601, Girgaum Road, Near Princess Street. (Reg.)
13 D. B. Taraporewala Sons& Co. (P), Ltd., 210, Dr. Dadabhai Naoroji Road. (Reg.)
14 Thacker& Co., Rampart Row .. .. (Reg.)
15 N. M. Tripathi, Private Ltd., Princess Street .. (Reg.)
16 The Kothari Depot, King Edward, Road .. (Reg.)

LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS—*contd.*

BOMBAY—*concld.*

17 P. H. Rama Krishna & Sons, 147, Rajaram Bhuvan, Shivaji Park Road, no. 5. (Rest.)
18 C. Jamnadas & Co., Booksellers, 146-C, Princess Street. (Reg.)
19 Indo Nath & Co., A-6, Daulat Nagar Voriuli, Mahatma Gandhi Road. (Rest.)
20 Minerva Book Shop, Shop no. 1/80, N. Subhas Road. (Reg.)
21 Academic Book Co., Association Building, Girgaum Road. (Rest.)
22 Dominion Publishers, 23, Bell Building, Sir P. M. Road. (Rest.)
23 Bombay National History Society, 91, Walkeshwar Road. (Rest.)
24 Dowmadeo & Co., 16, Nazira Building, Ballard Estate. (Rest.)
25 Asian Trading Co., 310, the Miraball, P. B. 1505.

CALCUTTA—

1 Chatterjee & Co., 3/1, Bacharam Chatterjee Lane. (Reg.)
2 Dass Gupta & Co., Ltd., 54/3, College Street (Reg)
3 Hindu Librar, 69A, Bolaram De Street .. (Reg.)
4 S. K. Lahiri & Co., Private Ltd., College Street. (Reg.)
5 M. C. Sarkar & Sons, Private Ltd., 14, Bankim Chatterjee Street. (Reg.)
6 W. Newman & Co., Ltd., 3, Old Court House Street. (Reg.)
7 Oxford Book & Stationery Co., 17, Park Street. (Reg.)
8 R. Chambrar & Co. Ltd., Kent House, P. 33, Mission Road Extension. (Reg.)
9 S. C. Sarkar & Sons, Private, Ltd., I.-C. College Square. (Reg.)
10 Thacker Spink & Co. (1933) Private Ltd., 3, Esplanade East. (Reg.)
11 Firma K. L. Mukhopadhaya, 6/1A, Banchha Ram Akrar Lane. (Reg.)
12 K. K. Roy, P. Box no. 10210, Calcutta-19 .. (Rest.)
13 Sm. P. D. Upadhyay, 77, Muktaram Baby Street. (Rest.)
14 Universal Book Dist., 8/2, Hastings Street .. (Rest.)
15 Modern Book Depot, 9, Chowringhee Centre .. (Rest.)
16 Soor & Co., 125, Canning Street .. .. (Reg.)
17 S. Bhattacharjee, 49, Dharamtala Street .. (Rest.)
18 Mukherjee Library, 10, Sarba Khan Road .. (Reg.)
19 Current Literature Co., 208, Mahatma Gandhi Road. (Reg.)
20 The Book Depository, 4/1, Madan Street (1st Floor). (Rest.)
21 Scientific Book Agency, Netaji Subhash Road .. (Rest.)
22 Reliance Trading Co., 17/1, Banku Bihari Ghose Lane, District Howrah. (Rest.)
23 Indian Book Dist. Co., 6512, Mahatma Gandhi Road. (Rest.)

CALICUT—Touring Book Stall .. .. (Rest.)

CHANDIGARH—

1 Superintendent, Government Printing and Stationery, Punjab.
2 Jain Law Agency, Flat no. 8, Sector no. 22 .. (Reg.)
3 Rama News Agency, Booksellers, Sector no. 22 (Reg.)
4 Universal Book Store, Booth 25, Sector 22-D (Reg.)
5 English Book Shop, 34, Sector 22-D .. (Rest.)
6 Mehta Bros., 15-Z, Sector 22-B .. .. (Rest.)
7 Tandan Book Depot, Shopping Centre, Sector 16. (Rest.)
8 Kailash Law Publishers, Sector 22-B .. (Rest.)

CHHINDWARA—The Verma Book Depot .. (Rest.)

COCHIN—Saraswat Corporation, Ltd., Palliarakav Road. (Reg.)

CUTTACK—

1 Press Office, Orissa Sectt.
2 Cuttack Law Times .. .. .. (Reg.)
3 Prabhat K. Mahapatra Mangalabag, P. B. 35 .. (Reg.)
4 D. P. Sur Sons, Mangalabag .. .. (Rest.)
5 Utkal Stores, Balu Bazar .. .. (Rest.)

DEHRADUN—

1 Jugal Kishore & Co., Rajpur Road .. (Reg.)
2 National News Agency, Paltan Bazar .. (Reg.)
3 Bishan Singh and Mahendra Pal Singh, 318, Chukhuwala. (Reg.)
4 Uttam Pustak Bhandar, Paltan Bazar .. (Rest.)

DELHI—

1 J. M. Jaina & Brothers, Mori Gate .. .. (Reg.)
2 Atma Ram & Sons, Kashmere Gate.. .. (Reg.)
3 Federal Law Book Depot, Kashmere Gate .. (Reg.)
4 Bahri Bros., 188, Lajpat Rai Market .. (Reg.)
5 Bawa Harkishan Dass Bedi (Vijaya General Agencies), P. B. 2027, Ahata Kedara, Chamallian Road. (Reg.)
6 Book-Well, 4, Sant Narankari Colony, P. B. 1565 (Reg.)
7 Imperial Publishing Co., 3, Faiz Bazar, Daryaganj. (Reg.)
8 Metropolitan Book Co., 1, Faiz Bazar .. (Reg.)
9 Publication Centre, Subzimandi .. .. (Reg.)
10 Youngman & Co., Nai Sarak .. .. (Reg.)
11 Indian Army Book Depot, 3, Daryaganj .. (Reg.)
12 All India Educational Supply Co., Shri Ram Buildings, Jawahar Nagar. (Rest.)
13 Dhanwant Medical & Law Book House, 1522, Lajpat Rai Market. (Rest.)
14 University Book House, 15, U. B. Bangalore Road, Jawahar Nagar. (Rest.)
15 Law Literature House, 2646, Balimaran .. (Rest.)
16 Summer Brothers, P. O. Birla Lines .. (Rest.)
17 Universal Book and Stationery Co., 16, Netaji Subhas Marg. (Reg.)
18 B. Nath & Bros., 3808, Charkhawalan (Chowri Bazar). (Rest.)
19 Rajkamal Prakashan, P. Ltd., 8, Faiz Bazar .. (Reg.)
20 Premier Book Co., Printers, Publishers and Booksellers, Nai Sarak. (Reg.)
21 Universal Book Traders, 80, Gokhale Market .. (Reg.)
22 Tech. and Commercial Book Co., 75, Gokhale Market. (Rest.)
23 Saini Law Publishing Co., 1416, Chabiganj, Kashmere Gate. (Rest.)
24 G. M. Ahuja, Booksellers and Stationers, 309, Nehru Bazar. (Rest.)
25 Sat Narain & Sons, 3141, Mohd. Ali Bazar, Mori Gate. (Reg.)
26 Kitab Mahal (Wholesale Div.) P. Ltd., 28, Faiz Bazar. (Reg.)
27 Hindu Sahitya Sansar, Nai Sarak .. .. (Rest.)
28 Munshi Ram Manohar Lal, Oriental Booksellers and Publishers, P. B. 1165, Nai Sarak. (Rest.)
29 K. L. Seth, Suppliers of Law, Commercial Tech Books, Shanti Nagar, Ganeshpura. (Rest.)
30 Adarsh Publishing Service, 5A/10, Ansari Road (Rest.)

DHANBAD—

1 Ismag Co-operative Stores Ltd., P. O. Indian School of Mines. (Rest.)
2 New Sketch Press, Post Box 26 .. .. (Rest.)

DHARWAR—

1 The Agricultural College Consumers' Co-op. Society. (Rest.)
2 Ramesraya Book Depot, Subhas Road .. (Rest.)
3 Karnatakaya Sahitya Mandira of Publishers and Booksellers. (Rest.)

LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS—*contd.*

ERNAKULAM—
1 Pai & Co., Cloth Bazar Road .. .. (Rest.)
2 South India Traders, Co., Constitutional Journal (Reg.)

FEROZEPUR—English Book Depot, 78, Jhoke Road (Reg.)

GAUHATI—Mokshada Pustakalaya .. .. (Reg.)

GAYA—Sahitya Sadan, Gautam Budha Marg .. (Reg.)

GHAZIABAD—Jayana Book Agency .. .. (Rest.)

GORAKHPUR—Vishwa Vidyalaya Prakashan, Nakhes Road. (Reg.)

GUDUR—The General Manager, the N. D. C. Publishing and Ptg. Society Ltd. (Rest.)

GUNTUR—Book Lovers Private Ltd., Kadriguda Chowrasta. (Reg.)

GWALIOR—
1 Superintendent, Printing and Stationery, M. B.
2 Loyal Book Depot, Patankar Bazar, Laskhar .. (Reg.)
3 M. C. Daftari, Prop. M.B. Jain & Bros., Booksellers, Sarafa, Laskhar. (Rest.)

HUBLI—Pervaje's Book House, Koppikar Road .. (Reg.)

HYDERABAD—
1 Director, Government, Press.
2 The Swaraj Book Depot, Lakdikapul .. (Reg.)
3 Book Lovers ,Private Ltd. .. .. (Rest.)
4 Labour Law Publications, 873, Sultan Bazar .. (Rest.)

IMPHAL—Tikendra& Sons, Bookseller .. (Rest.)

INDORE—
1 Wadhawa& Co., 56, M. G. Road .. .. (Reg.)
2 Swarup Brothers, Khajuri Bazar .. .. (Rest.)
3 Madhya Pradesh Book Centre, 41, Ahilya Pura (Rest.)
4 Modern Book House. Shiv Vilas Palace .. (Rest.)
5 Navyug Sahitya Sadan, Publishers and Booksellers, 10, Khajuri Bazar. (Rest.)

JABALPUR—
1 Modern Book House, 286, Jawaharganj .. (Reg.)
2 National Book House, 135, Jai Prakash Narain Marg. (Rest.)

JAIPUR—
1 Government Printing and Stationery Department, Rajasthan.
2 Bharat Law House, Booksellers and Publishers, Opp. Prem Prakash Cinema. (Reg.)
3 Garg Book Co., Tripolia Bazar .. .. (Reg.)
4 Vani Mandir, Sahwai Mansingh Highway .. (Reg.)
5 Kalyan Mal& Sons, Tripolia Bazar .. (Rest.)
6 Popular Book Depot, Chaura Rasta.. .. (Reg.)
7 Krishna Book Depot, Chaura Rasta .. (Rest.)
8 Dominion Law Depot, Shah Building, P. B. No. 23. (Rest.)

JAMNAGAR—Swedeshi Vastu Bhandar.. .. (Reg.)

JAMSHEDPUR—
1 Amar Kitab Ghar, Diogonal Road, P. B. 78 .. (Reg.)
2 Gupta Stores, Dhatkidih .. .. (Reg.)
3 Sanyal Bros., Booksellers& News Agents, Bistapur Market. (Rest.)

JWALAPUR—Sahyog Book Depot. .. .. (Rest.)

JHUNJHUNU—
1 Shashi Kumar Sarat Chand .. .. (Rest.)
2 Kapram Prakashan Prasaran, 1/90, Namdha Niwas Azad Marg. (R.)

JODHPUR—
1 Dwarka Das Rathi, Wholesale Books and News Agents. (Reg.)
2 Kitab-Ghar, Sojati Gate .. .. .. (Reg.)
3 Choppra Brothers, Tripolia Bazar .. .. (Reg.)

JULLUNDUR—
1 Hazooria Bros., Mai Hiran Gate .. .. (Rest.)
2 Jain General House, Bazar Bansanwala .. (Reg.)
3 University Publishers, Railway Road .. (Rest.)

KANPUR—
1 Advani& Co., P. Box 100, The Mall .. (Reg.)
2 Sahitya Niketan, Shradhanand Park .. (Reg.)
3 The Universal Book Stall, The Mall .. (Reg.)
4 Raj Corporation, Raj House, P. B. 200, Chowk (Rest.)

KARUR—Shri V. Nagaraja Rao, 26, Srinivasapuram (Rest.)

KODARMA—The Bhagwati Press, P. O. Jhumri Tilaiya, Dt. Hazaribagh. (Reg.)

KOLHAPUR—Maharashtra Granth Bhandar. Mahadwar Road. (Rest.)

KOTA—Kota Book Depot .. .. .. (Rest.)

KUMTA—S. V. Kamat, Booksellers & Stationers (N. Kanara). (Reg.)

LUCKNOW—
1 Soochna Sahitya Depot (State Book Depot). (Reg.)
2 Balkrishna Book Co. Ltd., Hazratganj .. (Reg.)
3 British Book Depot, 84, Hazratganj .. (Reg.)
4 Ram Advani, Hazratganj, P. B. 154 .. (Reg.)
5 Universal Publishers (P) Ltd., Hazratganj .. (Reg.)
6 Eastern Book Co., Lalbagh Road .. .. (Reg.)
7 Civil and Military Educational Stores, 106/B, Sadar Bazar. (Rest.)
8 Acquarium Supply Co., 213, Faizabad Road .. (Rest.)
9 Law Book Mart, Amin-Ud-Daula Park .. (Rest).

LUDHIANA—
1 Lyall Book Depot, Chaura Bazar .. .. (Reg.)
2 Mohindra Brothers, Kutcheri Road .. (Rest.)
3 Nanda Stationery Bhandar, Pustak Bazar .. (Rest.)
4 The Pharmacy News, Pindi Street .. .. (Rest.)

MADRAS—
1 Superintendent, Government Press, Mount Road.
2 Account Test Institute, P. O. 760, Emgore .. (Reg.)
3 C. Subbiah Chetty& Co., Triplicane .. (Reg.)
4 K. Krishnamurty, Post Box 384 .. .. (Reg.)
5 Presidency Book Suppliers, 8, Pyerafts Road Triplicane. (Reg.)
6 P. Vardhachary& Co., 8, Linghi Chetty Street .. (Reg.)
7 Palani Parchuram, 3, Pyerafts Road Triplicane.. (Reg.)
8 NCBH Private Ltd., 199, Mount Road .. (Rest.)
9 V. Sadanand, The Personal Bookshop, 10,Congress Building, 111, Mount Road. (Rest.)

MADURAI—
1 Oriental Book House, 258, West Masi Street .. (Reg.)
2 Vivekanand Press, 48, West Masi Street .. (Reg.)

MANDYA SUGAR TOWN—K. N. Narimhe Gowda & Sons. (Rest.)

MANGALORE—U. R. Shenoye Sons, Car Street, P. Box 128. (Rest.)

MANJESHWAR—Mukenda Krishna Nayak .. (Rest.)

LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS—*contd.*

MATHURA—Rath & Co., Tilohi Building, Bengali Ghat. (Rest.)

MEERUT—
1 Prakash Educational Stores, Subhas Ba ar .. (Reg.)
2 Hindi Chitra Press, West Kutchery Road .. (Reg.)
3 Loyal Book Depot, Chhippi Tank .. .. (Reg.)
4 Bharat Education Store, Chhippi Tank .. (Rest.)
5 Universal Book Depot, Booksellers & News Agents. (Rest.)

MONGHYR—Anusandhan, Minerva Press Building (Rest.)

MUSSOURI—
1 Cambridge Book Depot, The Mal .. .. (Rest.)
2 Hindi Traders .. .. .. (Rest.)

MUZAFFARNAGAR—
1 Mittal& Co., 85-C., New Mandi .. .. (Rest.)
2 B. S. Jain& Co., 71, Abupura .. .. (Rest.)

MUZAFFARPUR—
1 Scientific and Educational Supply Syndicate .. (Reg.)
2 Legal Corner, Tikmanio House, Amgola Road (Rest.)
3 Tirhut Book Depot .. .. .. (Rest.)

MYSORE—
1 H. Venkataramiah& Sons, New Statue Circle .. (Reg.)
2 Peoples Book House, Opp. Jagan Mohan Palace (Reg.)
3 Geeta Book House, Booksellers and Publishers, Krishnamurthipuram. (Rest.)
4 News Paper House, Lansdowne Building .. (Rest.)
5 Indian Mercantile Corporation, Toy Paace, Ramvilas. (Rest.)

NADIAD—R. S. Desary, Station Road. .. .. (Rest.)

NAGPUR—
1 Superintendent, Government, Press and Book Depot.
2 Western Book Depot, Residency Road .. (Reg.)
3 The Assistant Secretary, Mineral Industry Association, Mineral House. (Rest.)

NAINITAL—Coural Book Depot, Bara Bazar .. (Rest.)

NANDED—
1 Book Centre, College Law General Books, Station Road. (Rest.)
2 Hindustan General Stores, Paper & Stationery Merchants P. B. No. 51. (Rest.)
3 Sanjoy Book Agency, Vazirabad .. .. (Rest.)

NEW DELHI—
1 Amrit Book Co., Connaught Circus .. (Reg.)
2 Bhawani& Sons, 8F, Connaught Place .. (Reg.)
3 Central News Agency, 23/90, Connaught Circus (Reg.)
4 Empire Book Depot, 278, Aliganj .. .. (Reg.)
5 English Book Stores, 7-L, Connaught Circus, P. O. B. 328. (Reg.)
6 Faqir Chand& Sons, 15-A, Khan Market .. (Reg.)
7 Jain Book Agency, Co., Prem House, Connaught Place. (Reg.)
8 Oxford Book & Stationery Co., Scindia House (Reg.)
9 Ram Krishna & Sons (of Lahore), 16-B, Connaught Place. (Reg.)
10 Sikh Publishing House, 7-C, Connaught Place (Reg.)
11 Suneja Book Centre, 24-90, Connaught Circus (Reg.)
12 United Book Agency, 31, Municipal Market, Connaught Circus. (Reg.)
13 Jayana Book Depot, Chhparwala Kuan, Karol Bagh. (Reg.)
14 Navayug Traders, Desh Bandhu Gupta Road, Dev Nagar. (Reg.)
15 Saraswati Book Depot, 15, Lady Harding Road (Reg.)
The Secretary, Indian Met. Society, Lodi Road (Reg.)

NEW DELHI—*concld.*
17 New Book Depot, Latest Books, Periodicals, Sty. & Novelles, P. B. 96, Connaught Place. (Eng.) (Reg.)
18 Mehra Brothers, 50-G, Kalkaji .. .. (Reg.)
19 Laxmi Book Stores, 42, Janpath .. .. (Rest.)
20 Hindi Book House, 82, Janpath .. .. (Reg.)
21 Peoples Publishing House (P) Ltd., Rani Jhansi Road. (Reg.)
22 R. K. Publishers, 23, Beadon Pura, Karol Bagh (Rest.)
23 Sharma Bros., 17, New Market, Moti Nagar .. (Reg.)
24 Aapki Dukan, 5-5777, Dev Nagar .. .. (Rest.)
25 Sarvodaya Service, 66A-1, Rohtak Road, P. B. 2521. (Rest.)
26 H. Chandson, P. B. no. 3034 .. .. (Rest.)
27 The Secretary, Federation of Association of Small Industry of India, 23-B/2, Rohtak Road. (Rest.)
28 Standard Booksellers and Stationers, Palam Enclave. (Rest.)
29 Lakshmi Book Depot, 57, Regarpura .. (Rest.)
30 Sant Ram Booksellers, 16, New Municipal Market, Lody Colony. (Rest.)

PANJIM—
1 Singhals Book House, P. O. B.—70, Near the Church. (Rest.)
2 Sagoon Gaydev Dhoud, Booksellers, 5-7, Rua, 3, Idc Jameria. (Rest.)

PATHANKOT—The Krishna Book Depot, Main Bazar. (Rest.)

PATIALA—
1 Superintendent, Bhupendra State Press .. (Reg.)
2 Jain& Co., 17, Shah Nashin Bazar .. .. (Reg.)

PATNA—
1 Superintendent, Government Printing (Bihar).
2 J. N. P. Agrawal& Co., Padri-ki-Haveli, Raghunath Bhawan. (Reg.)
3 Luxmi Trading Co., Padri-ki-Haveli .. .. (Reg.)
4 Moti Lal Banarsi Dass, Bankipore .. .. (Reg.)
5 Bengal Law House, Chowhatta .. .. (Rest.)

PITHORAGARH—Maniram Punetha & Sons .. (Rest.)

PONDICHERRY—M/s. Honesty Book House, 9, Rue Duplix. (Rest.)

POONA—
1 Deccan Book Stall, Deccan Gymkhana .. (Reg.)
2 Imperial Book Depot, 266, M. G. Road .. (Reg.)
3 International Book Service, Deccan Gymkhana (Reg.)
4 Raka Book Agency, Opp. Natu's Chawl, Near Appa Balwant Chow. (Reg.)
5 Utility Book Depot, 1339, Shivaji Nagar .. (Rest.)

PUDUKOTTAI—Sri P. N. Swaminathan Sivam & Co., East Main Road. (Rest.)

RAJKOT—Mohan Lal Dossabhai Shah, Booksellers and Sub-Agents. (Reg.)

RANCHI—
1 Crown Book Depot, Upper Bazar .. .. (Reg.)
2 Pustak Mahal, Upper Bazar .. .. (Rest.)

REWA—Superintendent, Government State Emporium, V. P.

ROURKELA—The Rourkela Review .. .. (Rest.)

SAHARANPUR—Chandra Bharata Pustak Bhandar, Court, Road. (Rest.)

LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS—*contd.*

SECUNDERABAD—Hindustan Diary Publishers, (Reg.)
Market Street.

SILCHAR—Shri Nishitto Sen Nazirpatti .. (Rest.)

SIMLA—
1 Superintendent, Himachal Pradesh Government.
2 Minerva Book Shop, The Mall .. .. (Reg.)
3 The New Book Depot, 79 The Mall .. .. (Reg.)

SINNAR—Shri N. N. Jakhadi, Agent, Times of (Rest.)
India, Sinnar (Nasik).

SHILLONG—
1 The Officer-in-Charge, Assam - Government
B. D.
2 Chapla Bookstall, P. B. No. 1 .. .. (Rest.)

SONEPAT—United Book Agency .. .. (Reg.)

SRINAGAR—The Kashmir Bookshop, Residency (Reg.)
Road.

SURAT—Shri Gajanan Pushtakalaya, Tower Road .. (Reg.)

TRICHINOPOLY—
1 Kalpna Publishers, Wosiur .. .. (Reg.)
2 S. Krishnaswami & Co., 35, Subhas Chander (Reg.)
Bose Road.
3 Palamiappa Bros. .. .. .. (Rest.)

TRIVANDRUM—
1 International Book Depot, Main Road .. (Reg.)
2 Reddear Press& Book Depot, P. B. No. 4 .. (Rest.)

TUTICORIN—Shri K. Thagarajan, 10-C, French (Rest.)
Chapal Road.

UDAIPUR—
1 Jagdish& Co., Inside Surajapole .. .. (Rest.)
2 Book Centre, Maharana Bhopal Consumers (Rest.)
Co-op. Society, Ltd.

UJJAIN—Manak Chand Book Depot, Sati Gate .. (Rest.)

VARANASI—
1 Students Friends & Co., Lanka .. .. (Rest.)
2 Chowkhamba Sanskrit Series Office, Gopal (Reg.)
Mandir Road, P. B. 8.
3 Globe Book Centre .. .. .. (Rest.)
4 Kohinoor Stores, University Road, Lanka .. (Reg.)
5 B. H. U. Book Depot .. .. .. (Rest.)

VELLORE—A. Venkatasubhan, Law Booksellers .. (Reg.)

VIJAYAWADA—The Book & Review Centre, Eluru (Rest.)
Road, Governpet.

VISAKHAPATNAM—

1 Gupta Brothers, Vizia Building .. .. (Reg.)
2 Book Centre, 11/97, Main Road .. .. (Reg.)
3 The Secretary, Andhra University, General (Rest.)
Co-op. Stores Ltd.

VIZIANAGRAM—Sarda& Co. .. .. (Rest.)

WARDHA—Swarajaya Bhandar, Bhorji Market .. (Reg.)

FOR LOCAL SALE

1 Government of India Kitab Mahal, Janpath, Opp.
India Coffee House, New Delhi.
2 Government of India Book Depot, 8, Hastings Street,
Calcutta.
3 High Commissioner for India in London, India House,
Lond 2. no, W. C.

RAILWAY BOOKSTALL HOLDERS

1 S/S. A. H. Wheeler & Co., 15, Elgin Road, Allahabad.
2 Gahlot Bros., K. E. M. Road, Bikaner.
3 Higginbotham & Co., Ltd., Mount Road, Madras.
4 M. Gulan Singh & Sons, Private, Ltd., Mathura Road,
New Delhi.

FOREIGN

1 S/S. Education Enterprise Private Ltd., Kathmandu
(Nepal).
2 S/S. Aktie Bologat, C. E. Frizes Kungi Hovobokhanded,
Fredgation, 2, Box, 1656, Stockholm (Sweden).
3 Reise-und Verkehrsverlag Stutigart, Post 730, Guten-
bergstra 21, Stutigart No. 11245, Stutigart
(Germany West).
4 Shri Iswar Subramanyam, 452, Reversite Driv Apt,
6, New York, 27, NWY.
5 The Proprietor, Book Centre, Lakshmi Mansons, 49,
The Mall, Lahore (Pakistan).

ON S. AND R. BASIS

1 The Head Clerk, Government Book Depot, Ahmeda-
bad.
2 The Assistant Director, Extension Centre, Kapileshwar
Road, Belgaum.
3 The Employment Officer, Employment Exchange,
Dhar.
4 The Assistant Director, Footwear Extension Centre,
Polo Ground No. 1, Jodhpur.
5 The O. I/C Extension Centre, Club Road, Muzaffar-
pur.
6 The Director, Indian Bureau of Mines, Government
of India, Ministry of Mines and Fuel, Nagpur.
7 The Assistant Director, Industrial Extension Centre,
Nadiad (Gujarat).
8 The Head Clerk, Photozincographic Press, 5, Finance
Road, Poona.
9 Government Printing and Stationery, Rajkot.
10 The O. I/C Extension Centre, Industrial Estate, Kokar
Ranchi.
11 The Director, S. I. S. I. Industrial Extension Centres,
Udhna, Surat.
12 The Registrar of Companies, Narayani Building, 27,
Erabourne Road, Calcutta-1.
13 The Registrar of Companies, Kerala, 50, Feet Road,
Ernakulam.
14 The Registrar of Companies, H. No. 3-5-83, Hyderguda,
Hyderabad.
15 The Registrar of Companies, Assam, Manipur and
Tripura, Shillong.
16 The Registrar of Companies, Sunlight Insurance Build-
ing, Ajmeri Gate Extension, New Delhi.
17 The Registrar of Companies, Punjab and Himachal
Pradesh, Link Road, Jullundur City.
18 The Registrar of Companies, Bihar, Jamal Road, Patna-1.
19 The Registrar of Companies, Raj. & Ajmer, Shri Kamta
Prasad House, 1st Floor, 'C' Scheme, Ashok
Marg, Jaipur.
20 The Registrar of Companies, Andhra Bank Building,
6, Linghi Chetty Street, P. B. 1530, Madras.
21 The Registrar of Companies, Mahatma Gandhi Road,
West Cott. Bldg. P. B. 334, Kanpur.
22 The Registrar of Companies, Everest, 100, Marine
Drive, Bombay.
23 The Registrar of Companies, 162, Brigade Road, Banga-
lore.
24 The Registrar of Companies, Gwalior.
25 Assistant Director, Extension Centre, Bhuli Road,
Dhanbad.
26 The Registrar of Companies, Orissa Cuttack Chandi,
Cuttack.
27 The Registrar of Companies, Gujarat State, Gujarat
Samachar Building, Ahmedabad.

LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS—*coucld.*

ON S. AND R. BASIS—concld.

28 Publication Division, Sale Depot, North Block, New Delhi.
29 The Development Commissioner, Small-Scale Industries, New Delhi.
30 The O. I/C University Employment Bureau, Lucknow.
31 O. I/C S.I.S.I. Extension Centre, Malda.
32 O. I/C S.I.S.I. Extension Centre, Habra Tabaluria, 24-Parganas.
33 O. I/C S.I.S.I. Model Carpentry Workshop, Piyali Nagar, P. O. Burnipur.
34 O. I/C S.I.S.I. Chrontanning Extension Centre, Tangra, 33, North Topsia Road, Calcutta-46.
35 O. I/C S.I.S.I. Extension Centre (Footwear) Calcutta.
36 Assistant Director, Extension Centre, Hyderabad.
37 Assistant Director, Extension Centre, Krishna Distt. (A. P.).
38 Employment Officer, Employment Exchange, Jhabua.
39 Deputy Director Incharge S.I.S.I., c/o Chief Civil Admn., Goa, Panjim.
40 The Registrar of Trade Unions, Kanpur.
41 The Employment Officer, Employment Exchange, Gopal Bhavan, Monna.
42 The O. I/C State Information Centre, Hyderabad.
43 The Registrar of Companies, Pondicherry.
44 The Assistant Director of Publicity and Information, Vidhana Sabha (P. B. 271), Bangalore.