



# SAMPLE REGISTRATIO SYSTEM 1982



VITAL STATISTICS DIVISION  
OFFICE OF THE REGISTRAR GENERAL, INDIA  
MINISTRY OF HOME AFFAIRS  
NEW DELHI

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## P R E F A C E

Civil registration system in India being deficient, Sample registration system (SRS) has been the main source of information on fertility and mortality indicators at state and national level for more than a decade. Based on the mechanism of dual record system, the SRS combines in itself the advantages of both, registration method as well as survey procedure. The mechanism of dual record system provides a cross-check on the correctness and completeness of events of births and deaths listed in either records. Thus the SRS mechanism involves collection of data by two agencies, through two different procedures, viz, continuous enumeration and retrospective half-yearly surveys which is followed by a process of matching of the two records and subsequent field verification of unmatched and partially matched events.

This report while presenting the data for the year 1982 gives a detailed account of the salient features of the SRS alongwith the organisational and operational aspects involved in the implementation of SRS. The report also contains an analysis of the data relating to population composition, fertility and mortality. The analysis aims at describing the population composition by broad age-group, the levels of fertility both overall as well as for different age-groups of women, the overall level of mortality as well as the mortality level for various age-groups during the year 1982. It also aims at bringing out the rural-urban and inter-state differentials as well as sex-wise differentials wherever relevant. Further the analysis aims at indicating the changes over the recent years.

The SRS is a Centre-State venture and the present study would not have been possible without active involvement of the various state implementing agencies for whom my thanks are due. I am also thankful to the staff and officers of the Sample Registration Unit of the Vital Statistics Division and the Data Processing Division for their hard work. In particular, I am happy to place on record my appreciation of the efforts put in by Dr. N. Holla, Joint Registrar General, Shri V.S. Swamy, Deputy Registrar General and Shri T.K. Aiket, Senior Research Officer in bringing out this report.

New Delhi  
8.10.1985

(V.S. VERMA)  
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# C H A P T E R - 1

## INTRODUCTION

The increasing acuteness of the population problem in India and the deficiencies in the statutory registration system have greatly intensified the need for quick and reliable estimates of birth and death rates on a current and continuous basis. The population census provides decadal vital rates; it does not provide a measure of the change in population from year to year. To measure short-term changes in the growth of population for projecting its future trends and to evaluate the results of the family planning programmes, there is need for resorting to alternate sources of data. One of these sources is civil registration system. There are various other alternate methods based on the application of sampling techniques which have been tried and tested in many developing countries. Such methods include single and multi-round retrospective surveys and the dual record system. In the absence of dependable vital rates from civil registration, the Office of the Registrar General, India initiated the sample registration of births and deaths in India, popularly known as sample registration system (SRS) in 1964-65.

1.1 The main objective of SRS is to provide reliable estimates of birth and death rates at the state and national levels for rural and urban areas separately. However, SRS also provides various other measures of fertility and mortality.

1.2 The field investigation under SRS consists of continuous enumeration of births and deaths in a sample of villages/urban blocks by a resident part-time enumerator, preferably a local teacher, and an independent six monthly retrospective survey by a full-time supervisor. The data obtained through these two sources are matched. The unmatched and partially matched events are reverified in the field to get an unduplicated count of correct events. The advantage of this procedure, in addition to elimination of errors of duplication is that it can lead to a quantitative assessment of the sources of distortion in the two sets of records. In that way it is a self-evaluating technique.

*Basic structure of the system*

1.3 The main components of SRS are:

- (i) Base-line survey of the sample unit to obtain usual resident population of the same area;
- (ii) Continuous (longitudinal) enumeration of vital events pertaining to usual resident population by the enumerator;
- (iii) An independent half-yearly survey for recording births and deaths occurred during the half-year under reference and up-dating the houselist and household schedule by the supervisor;
- (iv) Matching of events recorded during continuous enumeration and those listed during the course of the half-yearly survey.
- (v) Field verification of unmatched and partially matched events.

1.4 *Baseline Survey:* The base-line survey is carried out prior to the start of continuous enumeration. This involves house numbering and houselisting and filling in of household schedule. Wherever a sound system of house numbering exists the same is adopted. Otherwise, the house numbering is done by the enumerator with help of chalk, tar, etc. at a conspicuous place near the entrance to the house. The enumerator prepares a notional map showing important landmarks and location of the houses covered by the sample unit. He then prepares a list of houses/households covered by the sample in form 1 and fills in the household schedule (form 2) wherein he records the residential status and demographic particulars of each individual residing in the household e.g. name, sex, age, marital status and relation to head of household. Visitors to the household on the specified date who are likely to stay in the household for a fairly long period are also listed and their residential status is shown as 'V' as against 'UR' for usual residents. The inmates of public institutions like hotels, inns, schools and hospitals are excluded, but households living permanently within the compound of such institutions are covered.

1.5 *Enumeration:* The enumerator maintains a birth record (form 5) and death record (form 6) in respect of his area. The enumerator is expected to record all births and death occurring within the sample unit, as well as those of the usual residents occurring outside the unit. Events to visitors occurring with<sup>in</sup> the sample unit are also listed, but these are not taken into account while calculating rates. Thus the events to be enumerated by the enumerator are those pertaining to

- (i) Usual residents inside the sample unit
- (ii) Usual residents outside the sample unit
- (iii) Visitors inside the sample unit



1.6 For ensuring complete netting, the enumerator uses different means to keep himself informed of the occurrence of vital events in the sample unit. The enumerator takes the help of the village priest, barber, village headman, midwife and such other functionaries. He contacts those informants at frequent intervals and collects information about the occurrences of births and deaths. On being informed about the occurrence of an event, the enumerator visits the concerned household and records the prescribed particulars. The enumerator also keeps in touch with other socially important persons and visits local or nearby hospitals, nursing homes, cremation or burial grounds, at frequent intervals to keep himself informed about the occurrence of events. He is required to maintain a list of pregnant women so as to help netting all the birth events. Despite all these efforts, the enumerator may fail to have information about some of the events. So he is required to visit all the households once in each quarter and ensure whether all the events have been recorded or not. In the urban areas, the enumerator is required to visit each household during a month so as to net all births and deaths pertaining to his area.

1.7 *Half-yearly survey:* Half yearly survey is carried out independently in each sample unit by a full-time supervisor. The supervisor visits households in the sample unit and records the particulars of births and deaths pertaining to usual residents and visitors (only those occurring within the sample unit) which had occurred during the half-yearly period under reference. Simultaneously, he updates the

house list and household schedule (initially filled-in by the enumerator) by making suitable entries for each birth, death or migration. In carrying out this survey he does not have access<sup>to</sup> the birth and death records of the enumerator which are withdrawn from the field before the supervisor is deputed for the half-yearly survey. Also an overlapping reference period of one year is adopted in the survey in order to net the events which might have been missed in the previous half-yearly survey.

1.8 *Matching* : After the completion of the half-yearly survey, the forms 3 & 4 filled-in by the supervisors are compared with the forms 5 & 6 filled-in by the enumerators. This is done either at the state or district headquarters. Each entry in the enumerator's and supervisor's records is matched item by item and events are classified as fully matched, partially matched and unmatched. The items generally considered for matching are location of the household i.e., name of the head of house-hold and house-number, name of mother (for birth) and name of the deceased (in case of death), residential status, sex and month of occurrence.

1.9 Field verification of unmatched and partially matched events: Every event whether unmatched or partially matched is verified by visit to the concerned household. This is done either by a third person or jointly by the supervisor and the enumerator, depending upon the availability of staff.

#### *Sample design*

1.10 The sample design is stratified simple random sampling. In the rural areas, stratification has been done on the basis of natural division and population size classes. Each

natural division within a state has been considered as a stratum and further stratification has been done by grouping the villages into population size classes. In the urban areas, stratification has been done on the basis of population size of cities/towns.

1.11 The sample unit in rural areas is either a village (if the population is less than 2000) or a segment of a village (if the population is 2000 or above). The segmentation of large size villages was found necessary to limit the population to be covered by a part time enumerator to a manageable size. This was done on the basis of clearly identifiable boundaries. The sample unit in urban areas is a census enumeration block with an average population size of 750. Statement A shows the sample size in rural and urban areas of different states.

## Statement A

## Sample size by States/Union Territories

States/Union Territories	Rural	Urban	Total
1	2	3	4
<b>States</b>			
1. Andhra Pradesh	190	100	290
2. Assam	200	54	254
3. Bihar	400	100	500
4. Gujarat	200	100	300
5. Haryana	100	60	160
6. Himachal Pradesh	115	25	140
7. Jammu & Kashmir	100	66	166
8. Karnataka	250	110	360
9. Kerala	150	90	240
10. Madhya Pradesh	300	100	400
11. Maharashtra	190	140	330
12. Manipur	95	30	125
13. Meghalaya	65	20	85
14. Nagaland	20	5	25
15. Orissa	250	60	310
16. Punjab	100	60	160
17. Rajasthan	230	90	320
18. Sikkim	42	8	50
19. Tamil Nadu	190	140	330
20. Tripura	60	15	75
21. Uttar Pradesh	450	180	630
22. West Bengal	300	150	450
<b>Union Territories</b>			
1. A & N Islands	28	10	38
2. Arunachal Pradesh	45	5	50
3. Chandigarh	2	13	15
4. D&N Haveli	8	2	10
5. Delhi	10	90	100
6. Coa Daman & Diu	40	29	69
7. L.M & A, Islands	2	3	5
8. Pondicherry	15	20	35
India	4147	1875	6022

## Organisation

1.12 The SRS is being implemented through the Directorates of Economics & Statistics/Directorates of Health Services/Directorates of Census Operations. The implementing agencies for the rural sample are the respective Directorates of Economics & Statistics in the State of Kerala, Madhya Pradesh and Maharashtra; Directorates of Health Services in Andhra Pradesh, Gujarat, Haryana, Orissa, Punjab, Tamil Nadu; Directorates of Census Operations in these/ (except Kerala) and the remaining states/union territories. The implementing agencies for the urban sample are the Directorates of Health Services in Haryana, Orissa and Punjab; and the Directorates of Census Operations in the remaining states/ union territories.

1.13 For continuous enumeration, there is an enumerator for each sample unit, who is usually a resident teacher employed on a part-time basis and is paid a small honorarium for this purpose. However, in certain states, full-time enumerators (Assistant Compilers) have been appointed for enumeration work in the urban areas in large cities. One full-time enumerator is usually assigned the work of enumeration in 6 to 8 sample units. For supervision and conduct of half-yearly surveys, there are full-time supervisors (Computors) at the state headquarters. One computer is usually assigned a set of 10 sample units for supervision work and another set of 10 units for conducting half-yearly surveys. The state headquarters have also a complement of other staff necessary for planning and organising various field operations, training of the field staff, effecting proper supervision and control, ensuring regular flow of returns from the field staff, forwarding

of various returns to the Office of the Registrar General, India and undertaking certain minimum tabulation.

1.14 At the national level, the Vital Statistics Division of the Office of the Registrar General, India co-ordinates the implementation work, formulates and prescribes necessary standards, provides necessary instructions and guidance, undertakes tabulation and analysis of data and their dissemination.

#### Training and supervision

1.15 Each enumerator is given the necessary training before he starts the work. This is followed by periodic training. In addition, he is provided with a manual of instructions for day to day consultation in order to sort out any difficulties during the course of work. Each computer-supervisor is also given the necessary training with a view to enable him to carry out the supervision work and conduct the half-yearly surveys properly and efficiently. Besides, each supervisor is provided with a manual of instructions for this purpose. Various state officials associated with the implementation of the SRS are also given necessary training. There is a manual for the state headquarters which provides detailed instructions and guidance with regard to the various stages of work involved at the state level. The manual is very comprehensive and covers all aspects of the system.

1.16 Supervision forms an important component of SRS. This is regularly done by the computer supervisors. Each computer supervisor is expected to supervise the enumeration work in a set of 10 sample units in each month. In addition,

other staff and officers at the state head-quarters also undertake visits to sample units and inspect the work at the field level.

#### Flow of returns

1.17 An enumerator is required to send to the state head-quarters on the first of each month, a monthly report (form 10) in duplicate for the previous month. This report is copied from the birth and death records. On the basis of the monthly reports received from the sample units, the state headquarters are required to prepare a consolidated monthly report (form 10A) and forward the same to the office of the Registrar General, India within one month following the month to which the report relates. The monthly reports (form 10) for the individual units remain at the state headquarters till the results of the half yearly survey are finalised. These are corrected in the light of the results of the half yearly survey and matching & field verification operations associated therewith. The finalised form 10 after necessary corrections and inclusion of additional events recorded during the survey is sent to the Office of the Registrar General, India alongwith the half-yearly survey results in form 11.

#### Estimation procedure

1.18 Estimation of births, deaths and population for both rural and urban areas are obtained using unbiased method of estimation. The estimates of birth and death rates are obtained as the ratios of the estimated births to the estimated population and the ratios of estimated deaths to the estimated population, respectively.

## C H A P T E R - 2

### AGE COMPOSITION OF POPULATION

2.1 Children aged 0-14 years comprise 38 percent of India's total population (Statement 1). Population in the age group 15-49 years is about 49 percent, while population aged 50 years & above is roughly about 13 percent of the total population. The difference between the male & female percentages are small or almost negligible.

#### STATEMENT-1

Percentage Distribution of population  
by broad age group, India, 1932

Sex	Age-group		
	0-14	15-49	50 & above
Male	38.79	48.58	12.63
Female	38.19	49.16	12.65
Person	38.50	48.86	12.64

2.2 A comparison of rural & urban age composition of population shows that the percentage of child population (0-14 years) in rural areas is higher than the corresponding percentage in urban areas (Statement 2). However, reverse is the case in respect of population aged 15-49 years which has a higher percentage in urban areas. Population aged 50 years & above has a slightly higher percentage in rural areas than in urban areas. The apparent difference between the rural-urban age composition of population may be mainly due to higher fertility in rural areas than in urban areas and migration of population from rural to urban areas. Higher fertility in rural areas as compared to urban areas would result in a higher percentage



of child population in rural areas than in urban areas. Migration from rural to urban areas may be mostly for employment purposes and mainly concentrated in the age-group 15-49 years. This would tend to inflate/deflate the percentages of population aged 15-49 years in urban/rural areas. As a result of increase in percentage of population aged 15-49 years in urban areas, there would be corresponding reduction in the percentage of population aged 0-14 years and 50 years & above. Similarly, as a result of decrease in the percentage of population aged 15-49 years in rural areas, there would be corresponding increase in the percentages of population aged 0-14 years and 50 years & above.

## STATEMENT--2

Percentage distribution of population  
by broad age-group by rural/urban,  
India, 1982

Rural/Urban	Sex	0-14	15-49	50 & above
Rural	Male	39.52	47.43	13.05
	Female	38.45	48.54	13.01
	Person	39.01	47.97	13.02
Urban	Male	36.58	52.07	11.35
	Female	36.87	51.94	11.19
	Person	36.71	52.00	11.29

2.3 Statewise variations in the age composition of population are observed from Statement 3. Kerala, Punjab and Tamil Nadu are found to have lowest percentages (around 34) of population in age-group 0-14. The percentages

of population aged 15-49 years in these states are about 52 and the percentages of population aged 50 years & above are around 14. Andhra Pradesh and Maharashtra have about 37 percent population in the age-group 0-14 years, 50 percent in the age-group 15-49 years and 13 percent aged 50 years & above. Karnataka and Orissa have about 38 percent population aged 0-14 years, 50 percent aged 15-49 years and 12 percent aged 50 years & above. In Haryana and Rajasthan, the percentages of population in the three broad age-groups are about 40, 48 and 12 respectively. The highest child population is found to be 41.46 in Bihar, while the lowest is found to be 33.89 in Kerala. For age-group 15-49 years, the highest and lowest percentages are 52.06 (Kerala) and 45.79 (Bihar) respectively. For age 50 years & above, the lowest percentage is 9.47 for Assam and the highest is 15.26 for Punjab.

## STATEMENT-3

Percentage distribution of population  
by broad age-group for major states, 1982

States	Age-groups		
	0-14	15-49	50 & above
1	2	3	4
Andhra Pradesh	36.89	49.52	13.59
Assam	39.17	51.36	9.47
Bihar	41.46	45.79	12.75
Gujarat	38.05	50.34	11.61
Haryana	39.19	48.53	12.28
Himachal Pradesh	38.59	47.86	13.55
Jammu & Kashmir	39.59	49.14	11.27
Karnataka	37.95	49.80	12.25
Kerala	33.89	52.06	14.05
Madhya Pradesh	40.12	47.74	12.14
Maharashtra	36.85	50.29	12.86
Orissa	37.83	49.86	12.31
Punjab	34.24	50.50	15.26
Rajasthan	39.91	48.26	11.83
Tamil Nadu	34.20	51.86	13.94
Uttar Pradesh	40.50	46.51	12.99
West Bengal	38.71	49.79	11.50

2.4 Over the recent years, the percentage of child population in India has declined. A comparison of the percentages of child population for the period 1975-77 and 1980-82 shows 4 percent decline during the 5 years interval (Statement-4). The margin of decline in the urban areas is lower as compared to rural areas. The percentage of population in the age-group 15-49 has gone up by 2 percent. The margin of increase is lower for urban areas. The percentage of population aged 50 years & above has also gone up by 6 percent. In this case also the margin of increase in urban areas is lower than that in the rural areas.

## STATEMENT-4

Percentage distribution of population for  
India by rural/urban, 1975-77 & 1980-82

Sector	Age-group	1975-77	1980-82	Index with 1975-77=100
1	2	3	4	5
Rural	0-14	40.64	38.80	95.47
	15-49	47.44	48.47	102.17
	50 & above	11.92	12.73	106.80
Urban	0-14	36.84	35.68	96.85
	15-49	52.08	52.67	101.13
	50 & above	11.08	11.65	105.14
Total	0-14	39.92	38.17	95.62
	15-49	48.31	49.33	102.11
	50 & above	11.77	12.50	106.20

2.5 State-wise comparison of the percentage distribution of population for the periods 1975-77 and 1980-82 indicate decline in the percentages of child population in all the

states. The margin of decline is as low as 1 percent for Uttar Pradesh and as high as about 10 percent for Assam (Statement 5).

Percentages of population aged 15-49 years have increased in all states. The margin of increase is generally small. However, in case of Assam and Punjab, the increase is found to be 7 and 5 percent respectively. The percentage of population in the age group 50 years & above has also increased in all states.

## STATEMENT-5

Percentage distribution of population  
by broad age group for major states,  
1975-77 & 1980-82

State	0-14			15-49			50+		
	75-77	80-82	Index	75-77	80-82	Index	75-77	80-82	Index
Andhra Pradesh	38.34	36.66	95.62	49.49	49.94	100.91	12.17	13.40	110.11
Assam	43.05	38.97	90.52	47.94	51.53	107.49	9.01	9.50	105.44
Gujarat	40.61	38.02	93.62	48.67	50.35	103.45	10.72	11.63	108.49
Haryana	42.43	40.27	94.91	46.59	48.01	103.05	10.98	11.72	106.74
Himachal Pradesh	41.23	39.55	95.93	45.69	47.23	103.48	13.08	13.17	100.69
Jammu & Kashmir	40.35	38.95	96.53	49.08	49.74	101.34	10.57	11.31	107.00
Karnataka	40.79	37.98	93.11	47.94	49.84	103.96	11.27	12.18	108.07
Kerala	36.57	34.70	94.89	50.80	51.59	101.56	12.63	13.71	108.55
Madhya Pradesh	42.19	40.09	95.02	46.40	47.97	103.38	11.41	11.94	104.65
Maharashtra	38.91	36.71	94.35	49.11	50.46	102.75	11.98	12.83	107.10
Orissa	40.07	37.98	94.76	48.45	49.77	102.72	11.47	12.25	106.80
Punjab	37.04	34.32	92.66	48.03	50.64	105.43	14.93	15.04	100.74
Rajasthan	41.55	39.90	96.03	47.64	48.55	101.91	10.81	11.55	106.85
Tamil Nadu	36.67	34.18	93.21	50.62	51.75	102.23	12.71	14.07	110.70
Uttar Pradesh	40.06	39.63	98.93	47.60	47.63	100.06	12.34	12.74	103.24

## MEASURES OF FERTILITY

Crude birth rate is the most commonly used measure of fertility. For the year 1982, the crude birth rate for India is found to be 33.8. The rate for rural areas is 35.5 which is much higher than the rate of 27.6 for urban areas. From Statement 6 it may be seen that Kerala is having the lowest birth rate (26.2) and Uttar Pradesh is having the highest birth rate (38.6). Madhya Pradesh has almost the same birth rate (38.5) as Uttar Pradesh and Rajasthan also has almost equally high birth rate (38.0). The rural rates are generally much higher than the urban rates. However, in respect of Kerala and Punjab; the rural-urban differences are relatively small. In respect of seven states, viz. Assam, Bihar, Gujarat, Haryana, Madhya Pradesh, Rajasthan and Uttar Pradesh the birth rates are higher than the national average.

## STATEMENT 6

Crude birth rates, by rural/urban,  
India and major states, 1982

India/States	Rural	Urban	Total
1	2	3	4
India	35.5	27.6	33.8
Andhra Pradesh	32.0	28.0	31.2
Assam	35.1	23.9	34.2
Bihar	37.8	32.5	37.3
Gujarat	35.6	31.2	34.3
Haryana	38.4	30.1	36.7
Himachal Pradesh	33.2	22.9	32.5
Jammu & Kashmir	33.2	22.8	30.7
Karnataka	28.8	25.7	27.9
Kerala	26.4	25.1	26.2
Madhya Pradesh	39.9	32.4	38.5
Maharashtra	31.3	26.3	29.8
Orissa	33.7	30.9	33.4
Punjab	30.9	28.7	30.4
Rajasthan	39.3	33.1	38.0
Tamil Nadu	29.2	24.9	27.7
Uttar Pradesh	39.9	32.5	38.6
West Bengal	37.0	20.4	32.3

3.1 Statement 7 shows distribution of states according to rural and urban birth rates. Karnataka, Kerala and Tamil Nadu have relatively low rural as well as urban birth rates. On the other extreme; Bihar, Gujarat, Haryana, Madhya Pradesh, Rajasthan and Uttar Pradesh have relatively very high/birth rates for both rural as well as urban areas. The urban birth rates are below 25 in 4 out of 17 major states. The rural birth rates are above 30 for all states except Karnataka, Kerala and Tamil Nadu. The maximum rural-urban difference is observed in respect of West Bengal.

## STATEMENT - 7

Distribution of major states by rural  
and urban birth rates for 1982

Rural birth rate	Urban birth rate			
	Below 25	25-30	30-35	35 & above
Below 25	-	-	-	-
25-30	-	Karnataka Kerala, Tamil Nadu	-	-
30-35	Himachal Pradesh Jammu & Kashmir	Andhra Pradesh Maharashtra Punjab	Orissa	-
35 &	Assam, West Bengal	-	Bihar, Gujarat, Haryana, Madhya Pradesh, Rajasthan and Uttar Pradesh	

3.2 A comparison of the average birth rates for the period 1975-77 and 1980-82 indicates a small (2 percent) decline in the birth rate at the national level. Decline

in the statewise birth rates is also observed. The exceptions in this regard may be due to variations in the field work (Statement 8)

## STATEMENT-8

Average crude birth rates for  
India and major states, 1975-77  
& 1980-82

India/State	1975-77	1980-82	Index with 1975-77=100
1	2	3	4
INDIA	34.2	33.7	98
Andhra Pradesh	33.6	31.3	93
Assam	31.0	33.0	106
Gujarat	36.8	34.9	95
Haryana	36.3	36.8	101
Himachal Pradesh	32.6	32.0	98
Jammu & Kashmir	31.9	31.2	98
Karnataka	27.8	27.9	100
Kerala	27.2	26.2	96
Madhya Pradesh	39.5	37.7	95
Maharashtra	28.4	29.2	103
Orissa	32.8	32.7	100
Punjab	31.5	30.2	96
Rajasthan	34.7	37.9	109
Tamil Nadu	30.4	27.9	92
Uttar Pradesh	41.1	39.2	95

3.3 General fertility rate (GFR) is yet another measure of fertility expressed as the number of live births per thousand of women in the reproductive age-group 15-49 years. This is found to be 151 for rural areas of India, 114 for urban areas and 142 for rural and urban combined (Statement 9). Statewise rates indicate wide variations. The lowest rate is 97 for Kerala and the highest is 171 for Uttar Pradesh.

Rural rates are much higher than the urban rates in all states. While the rural rates vary in the range of 98 to 179, urban rates vary in the range of 84 to 144. A broad grouping of states on the basis of the rates for rural and urban areas combined is as follows:

## STATES

Below 100	Kerala
100-120	Karnataka and Tamil Nadu
120-140	Andhra Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Maharashtra, Orissa, Punjab and West Bengal
140-160	Gujarat
160-180	Bihar, Haryana, Madhya Pradesh Rajasthan and Uttar Pradesh

## STATEMENT-9

General fertility rates by rural/  
urban, India and major states, 1982

India/States	Rural	Urban	Total
1	2	3	4
INDIA	150.8	113.6	142.2
Andhra Pradesh	132.2	110.5	127.3
Assam	141.0	91.1	137.0
Bihar	172.5	144.4	169.8
Gujarat	148.1	126.4	141.3
Haryana	169.8	130.1	161.3
Himachal Pradesh	135.9	94.8	133.2
Jammu & Kashmir	143.8	92.5	130.7
Karnataka	118.2	104.0	114.3
Kerala	98.4	90.3	97.0
Madhya Pradesh	174.5	136.9	167.1
Maharashtra	129.0	107.9	121.5
Orissa	134.8	131.8	134.5
Punjab	130.2	119.8	127.6
Rajasthan	172.3	144.3	166.4
Tamil Nadu	114.2	94.7	107.2
Uttar Pradesh	179.2	133.8	170.7
West Bengal	158.1	83.7	136.4



3.4 Over the years, there has been a decline in the general fertility rate. A comparison of the GFRs for the periods 1975-77 and 1980-82 as given in Statement 10 shows highest decline (about 12 percent) in Tamil Nadu. The margin of decline is also very high in Uttar Pradesh (10 percent) and Andhra Pradesh (9 percent). For Maharashtra and Rajasthan, the rates for the latter period are slightly higher than those for the earlier period which may be due to variations in the field work.

## STATEMENT-10

Average general fertility rates for  
India and major states, 1975-77 &  
1980-82

India/States	1975-77	1980-82	Index with 1975-77=100
1	2	3	4
INDIA	145.6	140.3	96
Andhra Pradesh	137.6	125.0	91
Assam	133.8	131.2	98
Gujarat	155.8	143.7	92
Haryana	164.9	163.0	99
Himachal Pradesh	138.7	131.3	95
Jammu & Kashmir	140.0	131.6	94
Karnataka	117.6	113.5	96
Kerala	104.2	97.4	94
Madhya Pradesh	175.1	163.4	93
Maharashtra	117.8	118.6	101
Orissa	135.7	131.1	97
Punjab	138.5	126.0	91
Rajasthan	154.6	165.6	107
Tamil Nadu	121.9	107.3	88
Uttar Pradesh	191.8	172.8	90

3.5 The age pattern of fertility is indicated by the age specific fertility rates. Statement 11 shows the age specific fertility rates for India. It is observed that fertility is relatively low in the age-group 15-19 years but shoots up sharply to reach a peak in the age-group 20-24 years and remains almost equally high in the age-group 25-29 years but comes down very much thereafter at an accelerated pace with increase in age. The rural age specific fertility rates are very much higher than the corresponding urban rates, because the level of fertility in rural areas is higher than that in urban areas. However, the age pattern of fertility is quite similar in both the areas.

## STATEMENT-11

Age specific fertility rates by  
rural/urban India, 1982

Sector	Age-group						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8
Rural	96.4	258.2	245.5	180.0	112.4	53.9	25.8
Urban	62.7	207.6	193.0	117.9	62.3	26.3	12.0
Total	88.9	245.9	232.2	165.5	101.0	48.1	23.0

3.6 The age pattern of fertility in different states is broadly similar to the aforementioned pattern. Statement 12 shows that the peak age-group in most of the states is 20-24 years. In the exceptional cases, the age-group 25-29 years is found to be the peak age-group for Assam, Bihar, Jammu & Kashmir, Punjab and Uttar Pradesh. For Karnataka also, the fertility rate is highest for age-group 25-29 years but this is only marginally higher than the rate for 20-24 years. Kerala having the lowest birth rate is found

to have the lowest age specific fertility rates in most of the age-groups. On the other extreme, Uttar Pradesh is found to have the highest age-specific fertility rates in most of the age-groups and is having the highest birth rate.

## STATEMENT-12

Age-specific fertility rates, India  
& major states, 1982

India/States	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8
INDIA	88.9	245.9	232.2	165.5	101.0	48.1	23.0
Andhra Pradesh	121.1	235.8	202.0	123.5	64.8	29.2	8.4
Assam	91.9	212.1	219.9	168.6	102.1	42.6	12.1
Bihar	98.6	241.4	263.3	216.0	150.7	91.1	56.2
Gujarat	53.2	300.7	242.7	143.9	68.8	28.1	12.0
Haryana	72.3	300.2	275.8	182.8	97.3	41.9	16.4
Himachal Pradesh	55.7	287.8	231.5	140.2	70.4	23.0	6.4
Jammu & Kashmir	55.8	203.3	239.0	179.1	111.2	57.1	25.7
Karnataka	69.4	193.1	194.0	130.0	81.6	34.3	13.6
Kerala	37.1	190.1	177.8	93.8	56.8	17.7	4.5
Madhya Pradesh	133.1	308.5	262.3	188.1	108.1	47.2	17.7
Maharashtra	86.5	244.0	210.6	119.0	63.4	22.9	9.4
Orissa	89.9	258.6	232.2	151.8	84.4	32.4	13.8
Punjab	19.7	223.6	267.6	154.0	97.5	30.7	10.8
Rajasthan	93.1	282.1	267.4	199.1	132.2	68.2	34.3
Tamil Nadu	67.3	212.6	195.2	116.7	55.2	17.4	4.7
Uttar Pradesh	87.5	263.4	271.8	230.4	153.8	83.3	45.9
West Bengal	123.4	226.9	195.6	138.4	87.9	34.5	14.8

3.7 The mean age of fertility has been calculated from the age specific fertility rates. Statement 13 shows the mean age of fertility for India and different states. The mean age of fertility for India is found to be 28.5 years. The highest value among the states is 30.1 for Bihar. The mean age for

Jammu & Kashmir, Uttar Pradesh are almost equally high. Punjab and Rajasthan also have relatively high mean ages. Andhra Pradesh is found to have the lowest mean age (26.8). Maharashtra and Tamil Nadu have also relatively low mean ages.

## STATEMENT-13

Mean age of fertility, India and  
major states, 1982

India/States	Mean age of fertility
1	2
INDIA	28.5
Andhra Pradesh	26.8
Assam	28.4
Bihar	30.1
Gujarat	27.5
Haryana	28.1
Himachal Pradesh	27.4
Jammu & Kashmir	29.6
Karnataka	28.3
Kerala	27.6
Madhya Pradesh	27.7
Maharashtra	27.1
Orissa	27.7
Punjab	28.9
Rajasthan	29.1
Tamil Nadu	27.1
Uttar Pradesh	29.9
West Bengal	27.5

3.8 The cumulated value of the age specific fertility rates at the end of the reproductive period gives a measure of fertility known as total fertility rate (TFR). This is independent of age & sex composition of the population and indicates the average number of children expected to be born per women during the entire span of reproductive

period, if the age specific fertility rates continue to be the same and there is no mortality. The TFRs worked out on the basis of ASFRs of 1982 are given in Statement 14. The TFR for India is found to be 4.5. Bihar, Haryana, Madhya Pradesh, Rajasthan and Uttar Pradesh have higher value than this. Uttar Pradesh has the highest TFR (5.7). On the other extreme Kerala has the lowest TFR (2.9). The values for different states fall in the following ranges.

<u>TFR</u>	<u>States</u>
2.0-3.0	Kerala
3.0-4.0	Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu
4.0-5.0	Assam, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Orissa, Punjab and West Bengal
5.0-6.0	Bihar, Madhya Pradesh Rajasthan and Uttar Pradesh

## STATEMENT-14

Total fertility rates by rural/urban,  
India and major states, 1982

India/States	Rural	Urban	Total
1	2	3	4
INDIA	4.9	3.4	4.5
Andhra	4.2	3.1	3.9
Assam	4.4	2.7	4.2
Bihar	5.7	4.7	5.6
Gujarat	4.6	3.6	4.2
Haryana	5.2	3.8	4.9
Himachal Pradesh	4.2	2.7	4.1
Jammu & Kashmir	4.8	2.9	4.4
Karnataka	3.8	3.0	3.6
Kerala	3.0	2.6	2.9
Madhya Pradesh	5.6	4.2	5.3
Maharashtra	4.1	3.2	3.8
Orissa	4.4	3.8	4.3
Punjab	4.2	3.5	4.0
Rajasthan	5.6	4.4	5.3
Tamil Nadu	3.7	2.8	3.3
Uttar Pradesh	6.0	4.2	5.7
West Bengal	4.3	2.5	4.1

3.9 A comparison of TFRs for the period 1975-77 and 1980-82 indicates decline in the TFRs in almost all States (Statement 15). The margin of decline is found to be highest (13 per cent) in case of Punjab. The margin of decline is also very high (10 percent or above) in case of Andhra Pradesh, Gujarat, Kerala, Madhya Pradesh and Tamil Nadu. In case of Rajasthan, the TFR for the latter period is found to be higher than that for the earlier period. This may be due to variation in the field work.

## STATEMENT-15

Total fertility rates, India &  
Major states 1975-77 and 1980-82

India/States	1975-77	1980-82	Index with 1975-77=100
1	2	3	4
INDIA	4.7	4.5	96
Andhra Pradesh	4.4	3.9	89
Assam	4.2	4.1	98
Gujarat	5.0	4.4	88
Haryana	5.3	5.0	94
Himachal Pradesh	4.3	4.0	93
Jammu & Kashmir	4.7	4.4	94
Karnataka	3.7	3.6	97
Kerala	3.3	2.9	88
Madhya Pradesh	5.8	5.2	90
Maharashtra	3.9	3.7	95
Orissa	4.4	4.2	96
Punjab	4.6	4.0	87
Rajasthan	5.1	5.4	106
Tamil Nadu	3.8	3.4	90
Uttar Pradesh	6.2	5.8	94

3.10 When the age specific fertility rates are calculated on the basis of female births only, then the cumulated value of these ASFRs at the end of the reproductive period is known as gross reproduction rate (GRR). This would indicate the average number of female children expected to be born per woman during the entire reproductive span of 15-49 years, if there is no mortality and fertility schedules represented by the age specific fertility rates continue to remain the same. This is also considered as a replacement index as it provides an indication as to whether the females of one generation would be replaced by a smaller or a larger or equal number of females in the succeeding generation under assumptions of constant fertility and no mortality. The GRRs

for India and major states are given in Statement 16. The GRR for India is found to be 2.2. State-wise variations are in the range of 1.4 to 2.7. Kerala is having the lowest GRR, while Bihar and Uttar Pradesh are having the highest GRR. The rural rates are higher than the urban rates in all states. The rates for rural areas are in the range of 1.4 to 2.9, while the rates for urban areas are in the range of 1.2 to 2.2. The values of GRR for different states fall in the following ranges.

GRR	States
1.0-1.5	Kerala
1.5-2.0	Andhra Pradesh, Karnataka, Maharashtra Punjab & Tamil Nadu
2.0-2.5	Assam, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Orissa and West Bengal
2.5-3.0	Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh

## STATEMENT-16

Gross reproduction rates by rural/  
urban, India and major states, 1982

India/States	Rural	Urban	Total
1	2	3	4
INDIA	2.3	1.6	2.2
Andhra Pradesh	2.1	1.5	1.9
Assam	2.1	1.3	2.1
Bihar	2.7	2.2	2.7
Gujarat	2.2	1.7	2.0
Haryana	2.5	1.8	2.3
Himachal Pradesh	2.1	1.4	2.0
Jammu & Kashmir	2.3	1.4	2.1
Karnataka	1.8	1.5	1.7
Kerala	1.4	1.2	1.4
Madhya Pradesh	2.7	2.0	2.6
Maharashtra	2.0	1.5	1.8
Orissa	2.1	1.9	2.1
Punjab	2.0	1.6	1.9
Rajasthan	2.7	2.2	2.5
Tamil Nadu	1.8	1.4	1.6
Uttar Pradesh	2.9	2.0	2.7
West Bengal	2.3	1.2	2.0



3.11 Information about type of attention at birth is collected in respect of every birth recorded, as such information is likely to be useful by way of indicating the extent of <sup>availability of</sup> institutional and professional medical help. Births are classified into four categories. All births which have taken place in hospitals, nursing homes etc. are categorised as institutional. All domicilliary births are classified according to whether these are attended by (i) trained professionals; (ii) untrained professionals and (iii) others. The percentage distribution of births according to the type of attention at birth at the national level is shown in Statement 17. It is observed that institutional births comprise only 16.6 percent of the total births. Births attended by trained professionals account for 17.7 percent and the remaining 65.7 percent of births are found to have been attended by untrained professionals and others. So far as rural areas are concerned, institutional births comprise only 11.1 percent and births attended by trained professionals comprise 15.7 percent of the total births. Thus the percentage of births attended by untrained professionals and others is 73.2. In urban areas, there is a sharp contrast, as the births attended by untrained professionals and others comprise only 31 percent of the total births. The institutional births in urban areas comprise about 42 percent of the total births and the births attended by trained professionals comprise 27 percent. These are much higher than the corresponding figures for the rural areas.

## STATEMENT-17

Percent distribution of births, by type of attention at birth by rural/urban, India 1982

Sector	Type of attention at birth		
	Institutional	Attended by trained professionals	Attended by untrained professionals and others
1	2	3	4
Rural	11.1	15.7	73.2
Urban	41.5	27.2	31.3
Total	16.6	17.7	65.7

3.12 Statewise percentage distribution for rural areas (Statement 18) indicate that institutional births comprise less than 10 percent of the total births except in respect of Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu and West Bengal. In Kerala, 48 percent of the total births are found to be institutional. The percentages of births attended by trained professionals are also generally low. As a result, percentages of births attended by untrained professionals and others are generally very high. In Kerala, the percentage of births attended by untrained professionals and others is the lowest (35). In Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and West Bengal; the percentages of births attended by untrained professionals & others are in the range of 75 to 90.

## STATEMENT-18

Percent distribution of births by type of attention at birth in rural areas of major states, 1982

States	Type of attention at birth		
	Institu- tional	Attended by trained professionals	Attended by untrained professionals and others
1	2	3	4
Andhra Pradesh	9.6	15.7	74.7
Assam	9.1	5.5	85.4
Bihar	6.0	9.1	84.9
Gujarat	11.4	30.7	57.9
Haryana	12.0	58.5	29.5
Himachal Pradesh	16.2	9.3	74.5
Jammu & Kashmir	3.1	17.8	79.1
Karnataka	16.0	20.1	63.9
Kerala	47.5	17.7	34.8
Madhya Pradesh	1.4	11.4	87.2
Maharashtra	13.9	9.5	76.6
Orissa	1.7	9.2	89.1
Punjab	6.8	48.2	45.0
Rajasthan	2.6	7.8	89.6
Tamil Nadu	24.2	17.4	58.4
Uttar Pradesh	1.8	14.2	84.0
West Bengal	19.5	4.2	76.3

3.13 In the urban areas, percentages of institutional births are much higher than those in the rural areas (Statement 19). The percentages of births attended by trained professionals are also generally higher as compared to the corresponding percentages for rural areas. As a result, the percentages of births attended by untrained professionals and others are much lower than the corresponding figures for rural areas. The lowest percentage of births attended by untrained professionals and others is found to be 7.4 for Kerala. The highest percentage is found to be 65.2 for Orissa. The institutional births are generally above 10 percent. The highest percentage is found to be 78.4 for Kerala. West Bengal (73.9), Maharashtra (70.7), Tamil Nadu (64.1), Karnataka (60.1) and Andhra Pradesh (58.8) have also very high percentages.

## STATEMENT-19

Percent distribution of births by type of attention at birth for urban areas of major states, 1982

State	Type of attention at birth		
	Institu- tional	Attended by trained pro- fessionals	Attended by un- trained profe- ssional and others
1	2	3	4
Andhra Pradesh	58.8	20.0	21.2
Assam	41.2	10.1	48.7
Bihar	37.2	8.2	54.0
Gujarat	46.3	16.5	37.2
Haryana	15.1	59.9	24.0
Bihar	40.2	35.2	24.5
Jammu & Kashmir	8.9	46.3	44.8
Karnataka	60.1	9.7	30.2
Kerala	78.4	14.2	7.4
Madhya Pradesh	47.0	10.7	42.3
Maharashtra	70.7	12.4	16.9
Orissa	15.7	19.1	65.2
Punjab	3.8	76.2	20.0
Rajasthan	12.3	28.0	59.7
Tamil Nadu	64.1	21.0	14.9
Uttar Pradesh	15.6	45.6	38.8
West Bengal	73.9	9.8	16.3

3.14 For rural and urban combined, the percentages of institutional births are found to be in the range of 4 to 54. Kerala is having the highest value (54), Karnataka (26), Maharashtra (28), Tamil Nadu (33) and West Bengal (27) have also relatively high percentages. The births attended by trained professionals are in the range of 5 to 59 percent and the births attended by untrained professionals and others are in the range of 29 to 86.

## STATEMENT-20

Percent distribution of births by type of attention at birth for rural and urban combined, major states, 1982

States	Type of attention at birth		
	Institu- tional	Attended by trained professionals	Attended by un- trained profe- ssionals and others
1	2	3	4
Andhra Pradesh	19.0	16.5	64.5
Assam	13.9	6.1	80.0
Bihar	10.1	9.0	80.9
Gujarat	16.6	28.6	54.8
Haryana	12.8	58.7	28.5
Himachal Pradesh	18.8	12.2	69.0
Jammu & Kashmir	4.5	24.6	70.9
Karnataka	25.6	17.9	56.5
Kerala	53.6	17.0	29.4
Madhya Pradesh	8.4	11.3	80.3
Maharashtra	28.3	10.2	61.5
Orissa	3.5	10.4	86.1
Punjab	6.0	55.2	38.8
Rajasthan	4.4	11.5	84.1
Tamil Nadu	33.2	18.2	48.6
Uttar Pradesh	3.9	19.1	77.0
West Bengal	27.4	5.0	67.6

C H A P T E R - 4

MEASURES OF MORTALITY

The estimated crude death rate for India for 1982 is found to be 11.9 (Statement 21). The rate for rural areas is 13.1 which is very much higher than the urban rate (7.4). Among major states, Uttar Pradesh has the highest death rate 15.1 Madhya Pradesh has also almost equally high death rate (14.9). Assam, Bihar, Orissa and Rajasthan are four other states which have higher death rates than the national average. Kerala has the lowest death rate (6.6). Rural-urban difference is very high in almost all the states. However, in respect of Kerala the rural and urban rates are the same. A classification of states on the basis of rural and urban death rates is as follows:

Urban death rate

Rural death rate	Urban death rate			
	Below 7.0	7.0-9.0	9.0-11.0	11.0 & above
Below 7.0	Kerala	-	-	-
7.0-9.0	-	-	-	-
9.0-11.0	Haryana, Himachal Pr. Jammu & Kashmir, Karnataka, Mahara- shtra, Punjab	-	-	-
11.0-13.0	Andhra Pradesh Himachal Pradesh and West Bengal	Assam	-	-
13.0 & above	-	Gujarat, Bihar, Orissa, Rajasthan & Tamil Nadu	Madhya Pradesh & Uttar Pradesh	-

## STATEMENT-21

Estimated crude death rates by rural/  
urban, India and major states, 1982

India/States	Rural	Urban	Total
1	2	3	4
INDIA	13.1	7.4	11.9
Andhra Pradesh	11.8	6.5	10.6
Assam	12.8	7.8	12.4
Bihar	14.8	7.2	14.1
Gujarat	13.2	8.3	11.7
Haryana	10.2	5.7	9.2
Himachal Pradesh	9.8	4.5	9.5
Jammu & Kashmir	9.1	6.5	8.4
Karnataka	10.2	6.3	9.2
Kerala	6.6	6.6	6.6
Madhya Pradesh	16.3	9.0	14.9
Maharashtra	9.9	6.7	8.8
Orissa	13.5	8.0	13.0
Punjab	9.1	6.4	8.4
Rajasthan	13.3	7.8	12.1
Tamil Nadu	13.4	7.4	11.2
Uttar Pradesh	16.3	9.4	15.1
West Bengal	12.0	6.3	10.4

4.1 There has been a decline in the mortality level as indicated by the average crude death rates for the period 1975-77 and 1980-82 given in Statement 22. The margin of decline is highest (26 percent) in Andhra Pradesh. In Gujarat, Jammu & Kashmir, Tamil Nadu and Uttar Pradesh also; the margin of decline is very high (more than 20 percent). In the remaining states, the extent of decline is in the range of 10 to 20 percent.

## STATEMENT-22

Average estimated crude death rates,  
India and major states, 1975-77 and  
1980-82

India/States	1975-77	1980-82	Index with 1975-77=100
1	2	3	4
INDIA	15.2	12.3	81
Andhra Pradesh	14.7	10.9	74
Assam	14.9	12.3	83
Gujarat	15.2	12.0	79
Haryana	13.0	10.6	82
Himachal Pradesh	12.8	10.3	80
Jammu & Kashmir	11.8	9.0	76
Karnataka	11.3	9.3	82
Kerala	7.9	6.7	85
Madhya Pradesh	17.6	15.6	89
Maharashtra	11.8	9.4	80
Orissa	15.3	13.5	88
Punjab	10.9	8.8	81
Rajasthan	15.1	13.3	88
Tamil Nadu	14.4	11.4	79
Uttar Pradesh	20.7	16.0	77

4.2 A comparison of male and female mortality rates at the national level (Statement 23) shows very little difference between the two. In the urban areas, the male mortality is slightly higher than the female mortality.

## STATEMENT-23

Estimated death rates by sex and by  
rural/urban India, 1982

Sector	Male	Female
1	2	3
Rural	13.1	13.2
Urban	7.7	7.1
Total	11.9	11.9

4.3 Statewise male and female death rates in Statement 24 show higher male mortality in respect of Andhra Pradesh, Gujarat, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Tamil Nadu and West Bengal although the margin of difference in respect of most of these states is very small or even negligible. Only in respect of Jammu & Kashmir and Kerala; the margin of difference is relatively high. For Assam, Bihar, Haryana, Rajasthan and Uttar Pradesh; female mortality is found to be higher than male mortality. In this case also, the margin of difference is generally small or even negligible.

## STATEMENT-24

Estimated death rates by sex,  
major states, 1982

States	Male	Female
1	2	3
Andhra Pradesh	11.2	10.1
Assam	12.4	12.5
Bihar	13.9	14.3
Gujarat	11.8	11.5
Haryana	9.1	9.4
Himachal Pradesh	9.8	9.1
Jammu & Kashmir	9.0	7.8
Karnataka	9.8	8.5
Kerala	7.5	5.8
Madhya Pradesh	15.0	14.8
Maharashtra	9.1	8.5
Orissa	13.1	12.9
Punjab	8.7	8.1
Rajasthan	12.1	12.2
Tamil Nadu	11.8	10.7
Uttar Pradesh	14.1	16.2
West Bengal	10.5	10.3



4.4 Mortality during infancy is still very high. It may be seen from Statement 25 that the infant mortality rate for India for 1982 is 105 per thousand live births. The rural rate (114) is nearly double the urban rate (65). Among the major states, the lowest rate is 30 for Kerala. The highest rate 147 for Uttar Pradesh is about 5 times the lowest rate. Madhya Pradesh (134) and Orissa (132) have also very high infant death rates. The rural rates are considerably higher than the urban rates in respect of all states. The rates for rural and urban combined for different states fall in the following ranges.

<u>Infant death rates</u>	<u>States</u>
25-50	Kerala
50-75	Himachal Pradesh, Jammu & Kashmir Karnataka and Maharashtra
75-100	Andhra Pradesh, Haryana, Punjab, Rajasthan, Tamil Nadu and West Bengal
100-125	Assam, Bihar and Gujarat
125-150	Madhya Pradesh, Orissa and Uttar Pradesh

## STATEMENT-25

Estimated infant death rates by rural/  
urban, India and major states, 1982

<u>India/States</u>	<u>Rural</u>	<u>Urban</u>	<u>Total</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
INDIA	114	65	105
Andhra Pradesh	86	50	79
Assam	103	72	102
Bihar	116	60	112
Gujarat	120	89	111
Haryana	100	62	93
Himachal Pradesh	70	42	68
Jammu & Kashmir	74	43	68
Karnataka	71	47	65
Kerala	32	24	30
Madhya Pradesh	145	79	134
Maharashtra	77	55	70
Orissa	139	64	132
Punjab	82	53	75
Rajasthan	105	60	97
Tamil Nadu	97	51	83
Uttar Pradesh	156	99	147
West Bengal	93	52	86

4.5 In some of the states, male infant death rates are higher than female infant death rates; while in many other states, reverse is the case (Statement 26). As a result, there is very little difference between the male and female infant death rates at the national level. The states with higher male infant death rates are Andhra Pradesh, Assam, Gujarat, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab and West Bengal. In the remaining states male infant death rates are lower than female infant death rates.

## STATEMENT-26

Infant death rates by sex, India  
and major states, 1982

India/States	Male	Female
1	2	3
INDIA	106	104
Andhra Pradesh	84	75
Assam	106	96
Bihar	107	118
Gujarat	113	110
Haryana	92	95
Himachal Pradesh	67	70
Jammu & Kashmir	70	66
Karnataka	73	56
Kerala	32	28
Madhya Pradesh	142	126
Maharashtra	71	69
Orissa	140	124
Punjab	78	73
Rajasthan	96	98
Tamil Nadu	82	83
Uttar Pradesh	142	152
West Bengal	90	81

4.6 The contribution of infant deaths to total deaths is about 30 percent at the national level (Statement 27). The rural-urban differential is quite high. The percentage for rural areas is 31 as against 25 for urban areas. Among major states, Kerala is having the lowest percentages (12) of infant deaths to total deaths, while Uttar Pradesh is having the highest percentage (38), Bihar (30), Gujarat (33), Haryana (37), Madhya Pradesh (35), Orissa (34) and Rajasthan (30) have also very high percentages. The urban percentages are smaller than the rural percentages. The lowest urban percentage is 9 for Kerala and the highest is 34 for Uttar Pradesh. The percentages for rural and urban combined for different states fall in the following ranges:

<u>Percentages of infant deaths</u>	<u>States</u>
10-15	Kerala
15-20	Karnataka
20-25	Andhra Pradesh, Himachal Pradesh, Jammu & Kashmir, Maharashtra and Tamil Nadu
25-30	Assam, Bihar, Punjab and West Bengal
30-35	Gujarat, Madhya Pradesh, Orissa and Rajasthan
35-40	Haryana and Uttar Pradesh

## STATEMENT-27

Percentages of infant deaths to total deaths by rural/urban, India and major states, 1982

India/States	Rural	Urban	Total
1	2	3	4
INDIA	30.62	24.55	29.78
Andhra Pradesh	23.47	21.53	23.21
Assam	28.26	21.92	28.00
Bihar	29.85	26.81	29.70
Gujarat	32.50	32.22	32.70
Haryana	37.78	32.95	37.15
Himachal Pradesh	23.54	21.41	23.47
Jammu & Kashmir	26.95	15.20	24.75
Karnataka	20.00	18.85	19.79
Kerala	12.59	9.13	11.99
Madhya Pradesh	35.48	28.37	34.65
Maharashtra	24.31	21.64	23.59
Orissa	34.56	25.00	34.00
Punjab	27.79	24.11	27.11
Rajasthan	31.21	25.46	30.43
Tamil Nadu	21.25	17.30	20.33
Uttar Pradesh	38.08	34.14	37.65
West Bengal	28.57	16.90	26.56

4.7 There has been some decline in the level of infant mortality over the past few years as indicated by Statement 28. The average infant mortality rates for the period 1980-82 are found to be lower than those for the period 1975-77. In case of Jammu & Kashmir, the rate for the latter period is found to be higher than that for the earlier period which may be due to variation in the field work. The extent of decline is found to be very high (more than 25 percent) in respect of Andhra Pradesh, Himachal Pradesh, Kerala and Rajasthan.

## STATEMENT-28

Average estimated infant mortality rates, India and major states, 1975-77 and 1980-82

India/States	1975-77	1980-82	Index with 1975-77=100
1	2	3	4
INDIA	133.0	109.7	82
Andhra Pradesh	123.3	85.7	70
Assam	127.7	103.7	81
Gujarat	146.0	113.3	78
Haryana	113.0	99.0	88
Himachal Pradesh	114.3	75.3	66
Jammu & Kashmir	66.0	70.7	107
Karnataka	84.0	68.3	81
Kerala	52.3	35.7	68
Madhya Pradesh	145.7	139.3	96
Maharashtra	94.3	74.7	79
Orissa	141.0	136.7	97
Punjab	103.7	81.7	79
Rajasthan	146.3	103.3	71
Tamil Nadu	108.3	89.0	82
Uttar Pradesh	181.3	152.0	84

4.8 Among infant deaths, neo-natal deaths are generally very high. Statement 29 shows neo-natal mortality rates for India for the year 1982. Post-natal mortality rates are also shown alongwith. It may be seen that neo-natal mortality rates are much higher than post-natal mortality rates in respect of both rural as well as urban areas. Also the neo-natal mortality rates as well as the post natal mortality rates for rural areas are much higher than the corresponding rates for urban areas.

## STATEMENT-29

Neo-natal and post-natal mortality rates by rural/urban India, 1982

Sector	Neo-natal mortality	Post-natal mortality
1	2	3
Rural	72.9	40.8
Urban	38.8	26.4
Total	66.7	38.1

4.9 Among major states, the highest neo-natal mortality rate is 94.3 for Uttar Pradesh (Statement 30). The lowest rate is 21.7 for Kerala. The highest post-natal mortality rate is 59.7 for Madhya Pradesh and the lowest is 8.6 for Kerala. The distribution of states on the basis of neo-natal and post natal mortality rates is as follows.

Neo-natal mortality rate	Post-natal mortality rate		
	Below 20	20-40	40-60
1	2	3	4
Below 20	-	-	-
20-40	Kerala	Himachal Pradesh	
40-60	Karnataka	Andhra Pradesh, Jammu & Kashmir, Haryana, Mahara- shtra, Punjab, Rajasthan, Tamil Nadu, West Bengal	
60-80	-	-	Madhya Pradesh and Orissa
80-100	-	-	Uttar Pradesh

## STATEMENT-30

Neo-natal and post-natal mortality  
rates for major states, 1982

States	Neo-natal	Post-natal
1	2	3
Andhra Pradesh	56.4	22.8
Assam	64.4	37.1
Bihar	71.0	41.0
Gujarat	71.6	39.9
Haryana	58.0	35.4
Himachal Pradesh	38.9	29.5
Jammu & Kashmir	41.8	26.3
Karnataka	45.6	19.4
Kerala	21.7	8.7
Madhya Pradesh	74.6	59.7
Maharashtra	49.2	21.1
Orissa	76.4	55.9
Punjab	45.3	30.0
Rajasthan	57.7	39.4
Tamil Nadu	54.9	27.6
Uttar Pradesh	94.3	52.9
West Bengal	58.9	26.6

4.10 While neo-natal deaths account for 64 percent of infant deaths at national level, post natal deaths account for only 36 percent of infant deaths. Statewise figures given in Statement 31 indicate that neo-natal deaths account for roughly about 2/3rd of the infant deaths in most of the states. Correspondingly the post-natal deaths are roughly around 1/3rd of the total infant deaths.

## STATEMENT-31.

Percentages of neo-natal and post-natal deaths to total infant deaths, India and major states, 1982.

India/States	Neo-natal deaths	Post-natal deaths
1	2	3
INDIA	63.6	36.4
Andhra Pradesh	71.2	28.8
Assam	63.5	36.5
Bihar	63.4	36.6
Gujarat	64.2	35.8
Haryana	62.1	37.9
Himachal Pradesh	56.9	43.1
Jammu & Kashmir	61.4	38.6
Karnataka	70.2	29.8
Kerala	71.6	28.4
Madhya Pradesh	55.6	44.4
Maharashtra	70.0	30.0
Orissa	57.7	42.8
Punjab	60.2	39.8
Rajasthan	59.4	40.6
Tamil Nadu	66.5	33.5
Uttar Pradesh	64.1	35.9
West Bengal	68.9	31.1

4.11 Peri-natal mortality includes infant deaths within 7 days after live birth and still births. Peri-natal mortality rate indicates the number of infant deaths within 7 days after live birth together with the number of still births per thousand births (live births plus still births). Statement 32 shows peri-natal mortality rates for rural and urban areas of India for 1982 along with corresponding still birth rates. The peri-natal mortality rate for rural areas is found to be nearly twice



the rate for urban areas. For rural and urban combined the peri-natal mortality rate is found to be 53.2. The still birth-rate is found to be 8.9. The difference between the two is 44.3 which gives the number of infant deaths within first week after live birth per thousand of births (live births and still births). The difference for rural and urban areas are 47.9 and 27.9 respectively.

## STATEMENT-32

Estimated peri-natal mortality rate  
and still birth rate by rural/urban  
India, 1982

Sector	Peri-natal mortality rate	Still birth rate	Difference between peri-natal mortality rate and still birth rate
1	2	3	4
Rural	57.7	9.8	47.9
Urban	33.1	5.2	27.9
Total	53.2	8.9	44.3

4.12 Among major states, the highest peri-natal mortality rate is 75.1 for Uttar Pradesh (Statement 33). Gujarat (65.5) and Madhya Pradesh (61.3) have also very high rates. Kerala has the lowest rate (22.1). The difference between the peri-natal mortality rate and still birth rate is also lowest for Kerala (16.4) and is highest for Uttar Pradesh (61.3). The corresponding values for Gujarat (56.7) and Madhya Pradesh (54.6) are also very high. The ranges in which the state-wise differences fall are indicated as follows:

Difference between peri-natal  
mortality and still birth rates

States

Below 20	Jammu & Kashmir and Kerala
20-30	Himachal Pradesh and Punjab
30-40	Andhra Pradesh, Assam, Haryana, Karnataka, Maha- rashtra, Rajasthan and Tamil Nadu
40-50	Bihar, Orissa and West Bengal
50 & above	Gujarat, Madhya Pradesh and Uttar Pradesh

STATEMENT-33

Estimated peri-natal mortality  
rates and still birth rates,  
major states, 1982

States	Peri-natal mortality rate	Still birth rate	Differences between peri-natal mortality & still birth rates
1	2	3	4
Andhra Pradesh	49.7	12.9	36.8
Assam	46.3	12.7	33.6
Bihar	50.2	5.5	44.7
Gujarat	65.5	8.8	56.7
Haryana	42.4	9.4	33.0
Himachal Pradesh	28.4	4.2	24.2
Jammu & Kashmir	25.1	6.0	19.1
Karnataka	39.2	7.7	31.5
Kerala	22.1	5.7	16.4
Madhya Pradesh	61.3	6.7	54.6
Maharashtra	41.5	9.5	32.0
Orissa	53.2	7.0	46.2
Punjab	34.2	4.9	29.3
Rajasthan	45.8	7.8	38.0
Tamil Nadu	44.1	6.5	37.6
Uttar Pradesh	75.1	13.8	61.3
West Bengal	48.2	6.8	41.4

4.13 The level of mortality among children aged 0-4 years is very high. Statement 34 shows that the child death rate for India for 1982 is 39 per thousand, child population aged 0-4 years. The rural rates (43.9) is more than twice the urban rate (20.9). In rural areas, female death rate is higher than the male death rate.

## STATEMENT-34

Estimated death rates for children aged 0-4 years by rural/urban and by sex, India, 1982

Sector	Male	Female	Person
1	2	3	4
Rural	42.2	45.7	43.9
Urban	21.2	20.5	20.9
Total	37.9	40.5	39.7

4.14 State-wise comparison of estimated death rates among children aged 0-4 years shows wide variations (Statement 35). The lowest rate is found to be 10.8 for Kerala, while the highest is found to be 55.9 for Uttar Pradesh. Equally high rate (54.1) is observed for Madhya Pradesh, Bihar (46.1), Orissa (41.5) and Rajasthan (41.7) have also very high rates. The rural rates are much higher than the urban rates in all states. However, in respect of Kerala, the rural-urban difference is very small. The rural rates range from 10.9 to 60.6 while the urban rates range from 9.8 to 31.6. The distribution of states according to rural and urban rates is as follows.

Rural rates	Urban rates			
	Below 15	15-30	30-45	45 & above
1	2	3	4	5
Below 15	Kerala	-	-	-
15-30	Himachal Pradesh, Punjab	Jammu & Kashmir, Karnataka, Maharashtra	-	-
30-45	Andhra Pradesh	Assam, Haryana, Orissa, Tamil Nadu and West Bengal	-	-
45 & above	-	Bihar, Gujarat, Madhya Pradesh, & Rajasthan	Uttar Pradesh	-

## STATEMENT-35

Estimated death rates for children aged 0-4 years by rural/urban, major states, 1982

States	Rural	Urban	Total
1	2	3	4
Andhra Pradesh	30.3	14.3	26.7
Assam	40.9	23.4	39.9
Bihar	48.6	19.0	46.1
Gujarat	45.8	27.8	40.4
Haryana	33.8	16.6	30.4
Himachal Pradesh	26.5	9.8	25.6
Jammu & Kashmir	25.8	15.9	23.8
Karnataka	27.6	15.8	24.5
Kerala	10.9	10.2	10.8
Madhya Pradesh	59.7	28.9	54.1
Maharashtra	26.9	17.8	23.8
Orissa	43.6	21.3	41.5
Punjab	26.5	14.6	23.5
Rajasthan	46.6	22.2	41.7
Tamil Nadu	39.4	17.5	31.6
Uttar Pradesh	60.6	31.6	55.9
West Bengal	38.2	16.1	33.2

4.15 Deaths to children aged 0-4 years comprise 43 percent of the total deaths at the national level (Statement 36). There is considerable difference between the rural and urban percentages. The rural percentage (45) is much higher than the urban percentage (34). State-wise percentages vary between 18 and 54. While Kerala is having the lowest percentage, Uttar Pradesh is having the highest percentage. Madhya Pradesh has also a very high percentage (52) of child deaths. Bihar, Gujarat, Haryana and Rajasthan have percentages in the range of 45 to 47. The rural percentages are higher than the urban percentages. The rural-urban differences are generally very high. The percentages for rural and urban combined for different states fall in the following ranges.

<u>Percentages of deaths among children aged 0-4 years</u>	<u>States</u>
Below 20	Kerala
20-30	-
30-40	Andhra Pradesh, Himachal Pradesh, Jammu & Kashmir, Karnataka, Maharashtra, Punjab and Tamil Nadu.
40-50	Assam, Bihar, Gujarat, Haryana, Orissa, Rajasthan and West Bengal
50-60	Madhya Pradesh and Uttar Pradesh

## STATEMENT-36

Percentage of deaths among children aged 0-4 years to total deaths by rural/Urban, India and major states, 1982

States	Rural	Urban	Total
1	2	3	4
INDIA	44.7	34.3	43.3
Andhra Pradesh	31.2	28.0	30.8
Assam	42.0	30.7	41.5
Bihar	46.3	34.3	45.7
Gujarat	45.6	42.5	44.9
Haryana	47.7	38.7	46.5
Himachal Pradesh	34.7	24.6	34.4
Jammu & Kashmir	37.9	26.3	35.7
Karnataka	33.1	29.8	32.5
Kerala	18.2	16.5	17.9
Madhya Pradesh	52.7	42.9	51.6
Maharashtra	34.1	31.2	33.3
Orissa	43.4	34.2	42.9
Punjab	34.4	28.1	33.3
Rajasthan	48.8	37.8	47.3
Tamil Nadu	33.9	27.1	32.3
Uttar Pradesh	54.8	45.0	53.7
West Bengal	43.7	25.8	40.6

4.16 In contrast to the very high level of mortality during infancy and early childhood mortality during latter childhood period (5-14 years) is very low. From Statement 37, it may be seen that death rate among children aged 5-14 years at the national level is only around 2.5 per thousand population. Urban areas have a much lower value of 1.2 per thousand population. Female death rate is found to be higher than male death rate.

## STATEMENT--37

Estimated death rate for  
children aged 5-14 years  
by rural/urban and by sex;  
India, 1982

Sector	Male	Female	Person
1	2	3	4
Rural	1.77	3.09	2.85
Urban	1.08	1.36	1.21
Total	2.30	2.72	2.49

4.17 Among major states the estimated death rates for children aged 5-14 years are found to be in the range of 0.90 to 3.69 (Statement 38). Bihar has the highest rate. Assam, Madhya Pradesh, Uttar Pradesh are also found to have relatively high rates. Himachal Pradesh and Kerala have relatively very low rates. The urban rates are generally much lower than the rural rates. The highest urban rate is found to be 2.41 as against 3.92 for rural areas. The rates for rural and urban combined for different states in the following ranged:

<u>Rates</u>	<u>States</u>
Below 1.00	Kerala
1.00-2.00	Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Maharashtra and Punjab.
2.00-3.00	Andhra Pradesh, Gujarat, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal
3.00-4.00	Assam, Bihar and Madhya Pradesh

## STATEMENT-39

Estimated death rates for children  
aged 5-14 years by rural/urban major  
states, 1982

States	Rural	Urban	Total
1	2	3	4
Andhra Pradesh	2.41	0.86	2.08
Assam	3.25	2.41	3.20
Bihar	3.92	1.36	3.69
Gujarat	2.82	0.81	2.23
Haryana	1.83	1.05	1.67
Himachal Pradesh	1.78	0.33	1.70
Jammu & Kashmir	1.48	1.05	1.37
Karnataka	2.25	1.04	1.87
Kerala	0.90	0.91	0.90
Mahhya Pradesh	3.49	0.93	3.00
Maharashtra	1.87	1.27	1.67
Orissa	2.65	0.77	2.35
Punjab	0.98	1.28	1.05
Rajasthan	2.90	1.15	2.53
Tamil Nadu	2.96	1.49	2.44
Uttar Pradesh	3.21	1.51	2.90
West Bengal	2.89	1.39	2.52

4.18 The level of mortality continues to be low in the age-group 15-34 years with a marginal increase as compared to age-group 5-14 years. Statement 39 shows that the death rate for the age-group 15-34 years at national level is nearly 3 per thousand population. Female death rates are higher than male death rates in both rural and urban areas; Also the rural death rates are higher than the urban death rate in respect of both males and females.

## Statement-39

Estimated death rates for age-group  
15-34 years by rural/urban and by sex  
India, 1982

Sector	Male	Female	Person
1	2	3	4
Rural	2.68	3.41	3.04
Urban	1.73	2.07	1.89
Total	1.82	3.10	2.76



4.19 State-wise death rates for the age-group 15-34 years show variation in the range of 1.4 to 3.8 (Statement 40). The lowest rate is observed for Kerala, while the highest is observed for Bihar. Most of the remaining states have rates in the range of 2.5 to 3.5. The rural rates are generally higher than urban rates.

## STATEMENT-40

Estimated death rates for age-group 15-34 years by rural/urban, major states, 1982

States	Rural	Urban	Total
1	2	3	4
Andhra Pradesh	3.15	1.53	2.77
Assam	3.58	2.06	3.45
Bihar	3.89	2.49	3.75
Gujarat	3.13	2.70	2.99
Haryana	2.70	1.12	2.36
Himachal Pradesh	2.35	0.78	2.24
Jammu & Kashmir	2.22	1.47	2.02
Karnataka	2.58	0.15	2.27
Kerala	1.32	1.62	1.37
Madhya Pradesh	3.39	2.62	3.23
Maharashtra	2.32	1.64	2.06
Orissa	3.28	2.16	3.17
Punjab	2.09	1.42	1.92
Rajasthan	2.68	2.08	2.55
Tamil Nadu	4.09	1.93	3.27
Uttar Pradesh	3.10	2.53	2.99
West Bengal	2.80	1.26	2.33

4.20 The level of mortality in the age-groups 35-49 years is found to be considerably higher as compared to the age-group 15-34 years. Statement 41 shows that the death rate for the age-group 35-49 years is 5.9 which is more than twice the death rate for the age-group 15-34 years. Also unlike in the case of age-groups <sup>15-34 years,</sup> the male death rate in the age-group 35-49 years is found to be higher than female death rate for

rural as well as urban areas. A comparison of rural and urban death rates shows higher rural death rates than urban death rates.

## STATEMENT-41

Estimated death rates for age group  
35-49 years by rural/urban and by  
sex, India, 1982

Sector	Male	Female	Person
1	2	3	4
Rural	6.89	5.72	6.32
Urban	4.96	3.57	4.32
Total	6.43	5.26	5.86

4.21 Among major states, the lowest death rate for the age-group 35-49 years is found to be 3.72 for Kerala (Statement 42). the highest death rate is found to be 8.33 for Assam. For most of the states, rural rates are higher than urban rates.

## STATEMENT-42

Estimated death rates for age-group 35-49  
years by rural/urban, major states, 1982

States	Rural	Urban	Total
I	2	3	4
Andhra Pradesh	6.72	4.18	6.20
Assam	8.53	6.24	8.33
Bihar	6.69	4.60	6.49
Gujarat	5.17	4.49	4.96
Haryana	4.79	4.38	4.70
Himachal Pradesh	5.96	2.02	5.66
Jammu & Kashmir	5.42	4.92	5.30
Karnataka	6.61	3.59	5.81
Kerala	3.65	4.02	3.72
Madhya Pradesh	6.97	3.96	6.40
Maharashtra	5.35	3.97	4.85
Orissa	6.65	5.35	6.52
Punjab	4.59	5.34	4.78
Rajasthan	6.06	4.73	5.79
Tamil Nadu	7.31	4.45	6.34
Uttar Pradesh	6.28	5.01	6.06
West Bengal	6.69	3.83	5.74

4.22 The estimated death rate for persons aged 50 years & above at the national level is found to be 34 per thousand (Statement 43). Male death rate is higher than female death rate in respect of rural as well as urban areas. Also, the rural rates are higher than the urban death rates.

## STATEMENT-43

Estimated death rates for age 50 years  
and above by rural/urban and by sex, India 1982

Sector	Male	Female	Person
1	2	3	4
Rural	37.57	32.68	35.21
Urban	30.59	26.13	28.49
Total	36.15	31.41	33.87

4.23 A comparison of state-wise figures (Statement 44) shows variations in the range of 25-42. Haryana and Punjab have very low values. Assam has the highest value. Rural rates are generally higher than urban rates.

## STATEMENT-44

Estimated death rates for age 50 years  
& above by rural/urban, major states, 1982

States	Rural	Urban	Total
1	2	3	4
Andhra Pradesh	37.52	30.20	36.27
Assam	42.85	29.62	41.76
Bihar	35.82	28.52	35.31
Gujarat	38.49	26.81	35.12
Haryana	26.09	19.96	24.94
Himachal Pradesh	31.30	23.76	30.89
Jammu & Kashmir	31.44	32.08	31.58
Karnataka	34.27	29.33	33.11
Kerala	29.85	29.38	29.77
Madhya Pradesh	37.47	31.55	36.45
Maharashtra	31.81	28.84	30.94
Orissa	38.57	35.70	38.35
Punjab	27.22	22.43	26.21
Rajasthan	35.59	27.95	34.04
Tamil Nadu	36.89	29.60	34.64
Uttar Pradesh	34.85	28.31	33.86
West Bengal	34.41	26.09	33.38

4.24 Information about type of medical attention before death is recorded in respect of all deaths. Such information is classified as (i) institutional (ii) attended by qualified medical practitioners, (iii) attended by unqualified medical practitioners, (iv) attended by others not included in the aforesaid categories. From Statement 45, it is observed that number of deaths under the category "attended by unqualified medical practitioners and others" is still very high (62 percent) at the national level. Institutional deaths comprise only about 9 percent of the total deaths while deaths included under the category "attended by qualified medical practitioners" comprise 29 percent of total deaths. In respect of rural areas, institutional deaths comprise only 6 percent, as against 24 percent for urban areas. Deaths included under the category "attended by qualified medical practitioners" are also very high in urban areas as compared to rural areas.

## STATEMENT -45

Percent distribution of deaths by type  
of medical attention before death, India 1982

Sector	Institutional	Attended by qualified medical practitioners	Attended by unqualified medical practitioners and others
1	2	3	4
Rural	6.2	26.7	67.1
Urban	23.9	45.2	30.9
Total	8.7	29.4	61.9

4.25 Among major states. Kerala has the highest percentage (29) of institutional deaths in rural areas (Statement 46). The percentages of deaths attended by qualified medical practitioners is also very high (40) in Kerala and as a result the percentage of deaths attended by unqualified medical practitioners and others

is the lowest (31) among all states. Uttar Pradesh is found to have the lowest percentage (1.9) of institutional deaths. However, the percentages of deaths under the category "attended by qualified medical practitioners" is very high (45.4), so that the percentage of deaths under the category "attended by unqualified medical practitioners and others" is a little over 50, which is a relatively lower figures as compared to most of the other states. In general, the percentages of institutional deaths are very low for most of the states. The percentages of deaths under the category "attended by qualified medical practitioners" are in the range of 12 to 45. Consequently the percentages of deaths attended by unqualified medical practitioners and others are generally above 50. The highest percentage is found to the 84 for Gujarat. Orissa has also almost equally high percentage (82). Besides, Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu have also very high percentages in the range of 76 to 82.

## STATEMENT-46

Percent distribution of deaths by type of medical attention before death for rural areas of major states, 1982

States	Institutional	Attended by qualified medical practitioners	Attended by unqualified medical practitioners and others
1	2	3	4
Andhra Pradesh	6.2	13.2	80.6
Assam	5.1	37.2	57.7
Bihar	9.0	15.0	76.0
Gujarat	3.2	12.6	84.2
Haryana	7.0	40.9	52.1
Himachal Pradesh	4.9	43.3	51.8
Jammu & Kashmir	2.6	43.2	54.2
Karnataka	9.5	24.0	66.5
Kerala	28.6	40.0	31.4
Madhya Pradesh	2.3	21.0	76.7
Maharashtra	11.4	26.7	61.9
Orissa	3.6	14.5	81.9
Punjab	4.3	45.0	50.7
Rajasthan	2.0	18.6	79.4
Tamil Nadu	7.6	11.5	80.9
Uttar Pradesh	1.9	45.4	52.7
West Bengal	8.9	30.8	60.3

4.26 In the urban areas, institutional deaths are generally high (Statement 47). The highest percentage of institutional deaths is found to be 43.3 for Kerala. Very high percentages of institutional deaths are also observed for Bihar (36.1), Maharashtra (39.7), West Bengal (33.2), Andhra Pradesh (23.7), Gujarat (21.6), Karnataka (26.4), Madhya Pradesh (21.6) and Tamil Nadu (25.5) have also relatively high percentages. Less than 10 percent institutional deaths are observed for Punjab and Uttar Pradesh. Attention by unqualified medical practitioners and others relate to only 2 percent of the total deaths recorded in Maharashtra, 10 percent in Kerala and 11 percent in West Bengal. The corresponding percentages are also found to be low (30 & below) for Assam, Bihar, Himachal Pradesh, Jammu & Kashmir and Uttar Pradesh.

## STATEMENT 47-17

Percent Distribution of Deaths by type of medical attention before death, for urban areas of major states, 1972

States	Institutional	Attention by qualified medical practitioners	Attention by unqualified medical practitioners and others
1	2	3	4
Andhra Pradesh	23.7	23.9	35.4
Assam	12.5	31.3	26.1
Bihar	36.1	36.9	28.0
Gujarat	21.6	20.5	43.7
Haryana	12.4	43.3	44.3
Himachal Pradesh	17.9	31.9	30.3
Jammu & Kashmir	10.1	32.5	25.4
Karnataka	26.4	27.6	46.0
Kerala	43.3	45.9	10.1
Madhya Pradesh	21.6	23.2	40.1
Maharashtra	39.7	34.3	6.0
Orissa	11.3	21.3	57.2
Punjab	2.0	36.9	50.3
Rajasthan	10.5	45.1	43.1
Tamil Nadu	25.5	32.4	42.1
Uttar Pradesh	6.3	70.4	23.0
West Bengal	33.2	50.9	11.2

4.27 For rural and urban combined institutional deaths comprise highest percentage (32.2) of total deaths in respect of Kerala and lowest (2.5) in respect of Uttar Pradesh (percent 48). In the remaining states except Bihar, Karnataka, Maharashtra, Tamil Nadu and West Bengal; institutional deaths comprise less than 10 percent of total deaths. Cases attended by qualified medical practitioners vary from 14 to 48 percent of the total deaths and cases attended by unqualified medical practitioners and others vary in the range of 26 to 81 percent of total deaths. The highest percentage of cases attended by unqualified medical practitioners and others is observed for Orissa and the lowest for Kerala. Except for Jammu & Kashmir, Kerala and Uttar Pradesh; the percentages of cases attended by unqualified medical practitioners and others are more than 50 percent.

## STATEMENT-48

Percent distribution of deaths by type of medical attention before death for rural and urban combined, major states, 1982.

States	Institutional	Attended by qualified medical practitioners	Attended by unqualified medical practitioners
1	2	3	4
Andhra Pradesh	9.4	18.0	72.6
Assam	6.1	40.5	53.4
Bihar	11.4	16.9	71.7
Gujarat	5.4	14.4	80.2
Haryana	7.6	41.2	51.2
Himachal Pradesh	5.8	43.9	50.3
Jammu & Kashmir	5.9	46.9	47.2
Karnataka	12.2	24.5	63.3
Kerala	32.2	41.7	26.1
Madhya Pradesh	4.4	22.9	72.7
Maharashtra	17.4	32.5	50.1
Orissa	4.3	15.1	80.6
Punjab	4.0	43.5	52.5
Rajasthan	3.2	22.3	74.5
Tamil Nadu	10.6	15.0	74.4
Uttar Pradesh	2.5	48.3	49.2
West Bengal	13.4	33.8	52.8

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DETAILED TABLES

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**Table 1**  
Percent distribution of estimated population  
by age-groups and sex, 1981

INDIA

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	13.38	13.43	13.41	11.93	12.59	12.20	13.06	13.23	13.14
5-9	13.06	12.76	12.92	12.39	12.31	12.35	12.87	12.70	12.79
10-14	13.08	12.26	12.68	12.26	12.06	12.16	12.86	12.26	12.57
15-19	10.72	10.37	10.55	10.62	10.70	10.66	10.69	10.44	10.57
20-24	8.73	9.04	8.88	9.69	10.36	10.00	8.97	9.30	9.13
25-29	7.18	7.28	7.23	8.54	8.80	8.66	7.51	7.59	7.55
30-34	6.04	6.40	6.20	7.08	6.98	7.04	6.27	6.50	6.38
35-39	5.35	5.74	5.54	6.17	6.04	6.11	5.55	5.79	5.67
40-44	5.05	5.26	5.15	5.48	4.96	5.23	5.16	5.18	5.17
45-49	4.39	4.45	4.42	4.49	4.10	4.30	4.43	4.36	4.39
50-54	3.88	3.74	3.81	3.71	3.28	3.51	3.83	3.65	3.74
55-59	2.94	2.84	2.89	2.52	2.33	2.43	2.84	2.74	2.79
60-64	2.50	2.52	2.51	2.14	2.21	2.18	2.41	2.46	2.44
65-69	1.70	1.76	1.72	1.28	1.42	1.35	1.60	1.69	1.64
70 & Over	2.03	2.15	2.09	1.70	1.95	1.82	1.95	2.11	2.03
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**  
Estimated age-specific fertility rates  
and other fertility indicators, 1981

INDIA

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	96.4	62.7	88.9
20-24	258.2	207.6	245.9
25-29	245.5	193.0	232.2
30-34	180.0	117.9	165.5
35-39	112.4	62.3	101.0
40-44	53.9	26.3	48.1
45-49	25.8	12.0	23.0
Crude birth rate	35.5	27.6	33.8
General fertility rate	150.8	113.6	142.2
Total fertility rate	4.9	3.4	4.5
Gross reproduction rate	2.3	1.6	2.2

**Table 3**  
Mortality Indicators, 1982

Indicators	INDIA		
	Rural	Urban	Combined
	2	3	4
Crude Death rate	13.1	7.4	11.9
Infant Mortality rate	113.7	65.2	104.8
Neo-natal mortality rate	72.9	38.8	66.7
Post-natal mortality rate	40.8	26.4	38.1
Peri-natal mortality rate	57.7	33.1	53.2
Still birth rate	9.8	5.2	8.9

**Table 4**  
Estimated age-specific death rates  
by sex, 1982

Age-group	INDIA								
	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	42.2	45.7	43.9	21.2	20.5	20.9	37.9	40.5	39.1
5-9	3.4	4.3	3.8	1.4	1.8	1.5	3.0	3.7	3.3
10-14	1.9	1.9	1.9	0.8	1.0	0.9	1.6	1.7	1.7
15-19	2.1	2.7	2.4	1.1	1.6	1.3	1.8	2.4	2.1
20-24	2.5	3.8	3.1	1.6	2.4	2.0	2.3	3.5	2.9
25-29	3.0	3.5	3.2	2.2	2.2	2.2	2.8	3.2	3.0
30-34	3.7	3.9	3.8	2.4	2.2	2.3	3.4	3.5	3.4
35-39	4.8	4.5	4.6	2.8	2.5	2.6	4.3	4.0	4.2
40-44	6.7	5.5	6.1	5.0	4.0	4.5	6.3	5.2	5.7
45-49	9.7	7.6	8.7	8.0	4.6	6.5	9.3	7.0	8.2
50-54	14.7	12.1	13.5	12.9	8.4	10.9	14.4	11.3	12.9
55-59	21.7	16.5	19.2	16.8	11.5	14.4	20.7	15.5	18.3
60-64	34.6	27.6	31.2	28.2	21.2	25.1	33.4	26.4	30.0
65-69	49.4	39.6	44.6	42.7	36.3	39.5	48.3	38.9	43.6
70 & Over	98.1	90.2	94.2	83.4	71.2	77.2	95.5	86.1	90.8
All ages	13.1	13.2	13.1	7.7	7.1	7.4	11.9	11.9	11.9

**Table 5**

Percent distribution of sample births by type of medical attention at birth, 1982

INDIA

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	11.1	15.7	53.3	19.9
Urban	41.5	27.2	23.3	8.0
Combined	16.6	17.7	47.9	17.8

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
 T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
 U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
 O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of medical attention at death, 1982

INDIA

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	6.2	26.7	25.6	41.5
Urban	23.9	45.2	8.5	22.4
Combined	8.7	29.4	23.2	38.7

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
 M : If the death occurred at home but was attended by a qualified practitioner.  
 U : If the death occurred at home and was attended by an unqualified practitioner.  
 N : No professional doctor/hakim/vaidya attended.

**Table 1**

Percent distribution of estimated population  
by age-groups and sex, 1981

ANDHRA PRADESH

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	12.16	12.08	12.12	12.73	12.70	12.71	12.28	12.22	12.25
5-9	12.48	12.52	12.50	12.75	12.75	12.75	12.53	12.57	12.55
10-14	12.36	11.97	12.17	11.87	11.78	11.83	12.26	11.93	12.09
15-19	10.16	10.22	10.19	10.09	10.80	10.44	10.15	10.34	10.24
20-24	8.74	8.67	8.70	9.74	10.63	10.18	8.95	9.08	9.02
25-29	7.30	7.14	7.23	8.89	8.88	8.89	7.65	7.52	7.58
30-34	6.44	6.48	6.46	7.38	6.56	6.98	6.64	6.50	6.57
35-39	5.54	6.02	5.78	6.22	5.90	6.06	5.68	5.99	5.84
40-44	5.70	5.68	5.69	5.48	4.71	5.10	5.65	5.47	5.56
45-49	4.87	4.76	4.82	4.58	4.00	4.29	4.82	4.60	4.71
50-54	4.46	4.40	4.43	3.56	3.53	3.54	4.26	4.21	4.24
55-59	3.18	3.05	3.11	2.18	2.17	2.18	2.96	2.86	2.91
60-64	2.89	2.91	2.90	2.14	2.53	2.33	2.73	2.83	2.78
65-69	1.71	1.78	1.74	1.03	1.22	1.13	1.56	1.66	1.62
70 & Over	2.01	2.32	2.16	1.36	1.84	1.59	1.88	2.22	2.04
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**

Estimated age-specific fertility rates  
and other fertility indicators, 1981

ANDHRA PRADESH

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	127.6	98.7	121.1
20-24	245.6	206.4	235.8
25-29	212.5	172.0	202.0
30-34	132.8	89.8	123.5
35-39	70.8	42.3	64.8
40-44	33.2	11.7	29.2
45-49	10.0	1.4	8.4
Crude birth rate	32.0	28.0	31.2
General fertility rate	132.2	110.5	127.3
Total fertility rate	4.2	3.1	3.9
Gross reproduction rate	2.1	1.5	1.9

**Table 3**  
Mortality Indicators, 1982      ANDHRA PRADESH

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	11.8	6.5	10.6
Infant Mortality rate	86.2	49.8	79.2
Neo-natal mortality rate	62.7	30.1	56.4
Post-natal mortality rate	23.5	19.7	22.8
Peri-natal mortality rate	54.8	28.0	49.7
Still birth rate	14.4	6.7	12.9

**Table 4**  
Estimated age-specific death rates  
by sex, 1982      ANDHRA PRADESH

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	29.5	31.0	30.3	16.4	12.1	14.3	26.6	26.8	26.7
5-9	3.4	3.2	3.3	1.4	1.1	1.2	3.0	2.8	2.8
10-14	1.4	1.6	1.5	0.2	0.8	0.5	1.1	1.5	1.3
15-19	2.4	3.2	2.8	0.4	1.5	1.0	2.0	2.8	2.4
20-24	3.1	3.1	3.1	0.7	3.4	2.1	2.6	3.2	2.9
25-29	3.1	3.1	3.1	1.5	2.3	1.9	2.7	2.9	2.8
30-34	4.1	3.5	3.8	1.2	1.0	1.1	3.4	2.9	3.2
35-39	6.4	3.7	5.0	2.1	0.8	1.5	5.4	3.1	4.2
40-44	7.7	4.6	6.2	6.0	4.3	5.2	7.4	4.5	6.0
45-49	8.7	10.2	9.4	9.1	4.0	6.7	8.8	9.0	8.9
50-54	16.8	12.2	14.6	13.6	8.3	11.0	16.2	11.6	13.9
55-59	20.0	15.9	18.0	18.1	18.8	18.4	19.7	16.4	18.1
60-64	41.2	29.7	35.4	31.8	20.6	25.2	39.6	27.9	33.7
65-69	51.0	42.8	46.9	46.8	40.6	43.5	50.4	42.5	46.4
70 & Over	125.2	92.2	107.7	95.4	78.8	86.0	120.5	89.8	104.1
All ages	12.4	11.2	11.8	6.8	6.1	6.5	11.2	10.1	10.6

**Table 5**

Percent distribution of sample births by type of  
medical attention at birth, 1982

ANDHRA PRADESH

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	9.6	15.7	60.8	13.9
Urban	58.8	20.0	20.7	0.5
Combined	19.0	16.5	53.1	11.4

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
 T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
 U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
 O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of  
medical attention at death, 1982

ANDHRA PRADESH

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	6.2	13.2	38.9	41.7
Urban	23.7	39.9	6.0	30.4
Combined	9.4	18.0	32.9	39.7

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
 M : If the death occurred at home but was attended by a qualified practitioner.  
 U : If the death occurred at home and was attended by an unqualified practitioner.  
 N : No professional doctor/hakim/vaidya attended.

Table 1

Percent distribution of estimated population  
by age-groups and sex, 1981

ASSAM

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	12.80	13.49	13.13	9.83	10.77	10.27	12.57	13.29	12.91
5-9	12.80	13.12	12.96	10.65	11.31	10.96	12.63	12.99	12.80
10-14	13.58	13.65	13.60	11.20	12.11	11.62	13.39	13.53	13.46
15-19	12.20	12.92	12.55	11.25	12.35	11.77	12.13	12.88	12.49
20-24	9.90	10.78	10.32	10.41	11.78	11.05	9.94	10.85	10.38
25-29	7.29	7.65	7.46	9.12	9.78	9.43	7.43	7.80	7.62
30-34	6.34	6.34	6.34	8.30	7.35	7.86	6.49	6.41	6.45
35-39	5.33	5.30	5.32	7.27	6.26	6.79	5.48	5.37	5.43
40-44	5.17	4.76	4.98	6.14	4.89	5.56	5.25	4.77	5.02
45-49	4.24	3.58	3.92	5.18	3.85	4.56	4.31	3.60	3.97
50-54	3.45	2.75	3.11	3.59	2.78	3.21	3.46	2.76	3.12
55-59	2.53	2.09	2.32	2.69	2.20	2.46	2.55	2.10	2.33
60-64	1.79	1.45	1.63	1.79	1.78	1.78	1.79	1.47	1.64
65-69	1.20	1.03	1.12	1.23	1.11	1.17	1.20	1.04	1.12
70 & Over	1.38	1.09	1.24	1.35	1.68	1.51	1.38	1.14	1.26
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 2

Estimated age-specific fertility rates  
and other fertility indicators, 1982

ASSAM

Age-group	Rural		Urban	Combined
	1	2	3	4
15-19		95.2	49.5	91.9
20-24		217.4	152.6	212.1
25-29		226.1	159.3	219.9
30-34		174.8	102.7	168.6
35-39		107.1	49.2	102.1
40-44		44.7	16.4	42.6
45-49		12.8	3.3	12.1
Crude birth rate		35.1	23.9	34.2
General fertility rate		141.0	91.1	137.0
Total fertility rate		4.4	2.7	4.2
Gross reproduction rate		2.1	1.3	2.1

Table 3  
Mortality Indicators, 1982

ASSAM

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	12.8	7.8	12.4
Infant Mortality rate	103.2	71.7	101.5
Neo-natal mortality rate	65.3	48.9	64.4
Post-natal mortality rate	37.9	22.8	37.1
Peri-natal mortality rate	46.1	50.3	46.3
Still birth rate	13.1	4.1	12.7

Table 4  
Estimated age-specific death rates  
by sex, 1982

ASSAM

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	40.9	41.0	40.9	22.1	24.7	23.4	39.7	40.0	39.9
5-9	4.2	4.7	4.4	4.3	3.7	4.0	4.2	4.6	4.4
10-14	1.9	2.3	2.1	1.2	0.6	0.9	1.9	2.2	2.0
15-19	2.0	3.3	2.7	1.2	2.1	1.6	2.0	3.2	2.6
20-24	2.9	4.8	3.8	0.9	1.9	1.4	2.8	4.5	3.6
25-29	2.1	4.3	3.2	1.8	2.3	2.0	2.1	4.1	3.1
30-34	4.1	6.6	5.3	3.6	3.6	3.6	4.0	6.4	5.2
35-39	4.0	7.7	5.8	1.8	4.8	3.1	3.8	7.5	5.5
40-44	8.0	9.1	8.5	7.0	6.2	6.6	7.9	8.8	8.3
45-49	13.6	10.6	12.3	7.0	15.6	10.4	13.0	11.0	12.1
50-54	20.9	20.8	20.9	13.8	6.7	10.9	20.3	19.8	20.1
55-59	29.7	28.0	29.0	13.5	8.5	11.4	28.3	26.5	27.5
60-64	44.1	41.7	43.1	38.7	31.7	35.4	43.6	40.8	42.4
65-69	66.1	47.7	57.9	32.3	44.1	37.5	63.4	47.4	56.2
70 & Over	110.2	109.8	110.1	97.2	76.0	86.2	109.2	106.1	107.9
All ages	12.8	12.8	12.8	7.6	8.0	7.8	12.4	12.5	12.4



**Table 5**

Percent distribution of sample births by type of  
medical attention at birth, 1982

ASSAM

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	9.1	5.5	10.4	75.0
Urban	41.2	10.1	16.0	32.7
Combined	13.9	6.1	11.3	68.7

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
 T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
 U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
 O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of  
medical attention at death, 1982

ASSAM

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	5.1	37.2	6.6	51.1
Urban	12.6	61.3	3.0	23.1
Combined	6.1	40.5	6.1	47.3

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
 M : If the death occurred at home but was attended by a qualified practitioner.  
 U : If the death occurred at home and was attended by an unqualified practitioner.  
 N : No professional doctor/hakim/vaidya attended.

**Table 1**

Percent distribution of estimated population  
by age-groups and sex, 1981

BIHAR

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	13.80	14.34	14.06	12.67	13.56	13.08	13.69	14.27	13.97
5-9	14.51	14.54	14.53	13.39	14.60	13.94	14.41	14.55	14.47
10-14	13.64	12.26	12.98	13.53	13.44	13.49	13.63	12.37	13.02
15-19	9.36	9.37	8.88	10.73	10.03	10.41	9.49	8.51	9.02
20-24	7.60	8.18	7.88	8.48	8.53	8.50	7.68	8.21	7.94
25-29	6.80	7.15	6.96	7.34	7.40	7.36	6.85	7.17	7.00
30-34	6.32	6.97	6.63	6.65	7.09	6.85	6.35	6.98	6.65
35-39	5.80	5.83	5.81	5.98	6.53	6.23	5.82	5.89	5.85
40-44	5.11	5.03	5.07	6.23	5.30	5.81	5.22	5.05	5.14
45-49	4.23	4.06	4.15	4.89	4.08	4.52	4.30	4.06	4.19
50-54	3.65	3.45	3.56	3.84	2.80	3.36	3.67	3.40	3.54
55-59	2.54	2.79	2.66	2.16	1.94	2.06	2.50	2.72	2.61
60-64	2.81	3.07	2.94	1.79	1.90	1.84	2.72	2.97	2.84
65-69	1.71	1.77	1.74	0.88	1.19	1.03	1.62	1.71	1.67
70 & Over	2.12	2.19	2.15	1.44	1.61	1.52	2.05	2.14	2.09
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**

Estimated age-specific fertility rates  
and other fertility indicators, 1981

BIHAR

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	101.7	72.2	98.6
20-24	241.9	235.9	241.4
25-29	264.3	252.9	263.3
30-34	220.2	172.1	216.0
35-39	154.0	120.3	150.7
40-44	93.8	63.6	91.1
45-49	58.8	29.7	56.2
Crude birth rate	37.8	32.5	37.3
General fertility rate	172.5	144.4	169.8
Total fertility rate	5.7	4.7	5.6
Gross reproduction rate	2.7	2.2	2.7

**Table 3**  
Mortality Indicators, 1982

BIHAR

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	14.8	7.2	14.1
Infant Mortality rate	116.5	59.9	112.0
Neo-natal mortality rate	73.8	38.6	71.0
Post-natal mortality rate	42.7	21.3	41.0
Peri-natal mortality rate	51.8	31.2	50.2
Still birth rate	5.7	3.4	5.5

**Table 4**  
Estimated age-specific death rates  
by sex, 1982

BIHAR

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	49.5	47.7	48.6	18.8	19.3	19.0	46.8	45.4	46.1
5-9	4.7	6.2	5.4	1.5	2.3	1.9	4.4	5.9	5.1
10-14	2.3	2.1	2.2	0.8	0.8	0.8	2.2	2.0	2.1
15-19	3.2	3.3	3.3	0.8	3.7	2.1	3.0	3.4	3.1
20-24	3.5	5.1	4.3	1.7	3.2	2.4	3.3	4.9	4.1
25-29	3.5	3.6	3.6	2.7	2.9	2.8	3.5	3.5	3.5
30-34	3.9	5.3	4.6	2.2	3.8	3.0	3.7	5.2	4.4
35-39	5.3	5.0	5.1	4.3	1.6	3.0	5.2	4.7	4.9
40-44	7.0	5.7	6.4	4.2	2.6	3.5	6.7	5.4	6.1
45-49	8.5	10.0	9.2	7.6	9.1	8.3	8.4	10.0	9.1
50-54	14.3	15.0	14.6	10.5	3.6	7.9	13.9	14.2	14.0
55-59	23.2	20.4	21.8	21.2	19.2	20.4	23.0	20.3	21.7
60-64	27.3	24.0	25.7	28.9	24.9	27.0	27.4	24.1	25.8
65-69	44.3	44.9	44.6	48.8	31.3	39.4	44.5	44.1	44.3
70 & Over	97.0	92.9	95.0	33.5	75.8	79.8	96.1	91.7	94.0
All ages	14.6	15.0	14.8	7.2	7.3	7.2	13.9	14.3	14.1

**Table 5**

Percent distribution of sample births by type of medical attention at birth, 1982

BIHAR

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	6.0	9.1	76.9	8.0
Urban	37.2	8.8	52.3	1.7
Combined	10.1	9.0	73.7	7.2

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
 T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
 U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
 O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of medical attention at death, 1982

BIHAR

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	9.0	15.0	35.6	40.4
Urban	36.1	35.9	3.3	24.7
Combined	11.4	16.9	32.7	39.0

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
 M : If the death occurred at home but was attended by a qualified practitioner.  
 U : If the death occurred at home and was attended by an unqualified practitioner.  
 N : No professional doctor/hakim/vaidya attended.

Table 1

Percent distribution of estimated population  
by age-groups and sex, 1981

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	13.06	13.15	13.11	12.71	12.75	12.73	12.95	13.04	12.99
5-9	12.76	12.69	12.73	12.42	12.33	12.38	12.65	12.53	12.62
10-14	13.09	12.27	12.69	12.01	11.72	11.87	12.76	12.10	12.44
15-19	11.98	10.37	10.74	10.39	10.17	10.54	11.02	10.31	10.68
20-24	9.62	10.06	9.33	10.26	10.35	10.55	9.32	10.30	10.05
25-29	7.91	7.42	7.63	9.07	3.90	3.93	3.27	7.33	3.03
30-34	6.14	6.37	6.25	7.22	6.79	7.02	6.47	6.50	6.43
35-39	5.43	5.60	5.51	5.91	5.96	5.89	5.53	5.63	5.63
40-44	5.03	5.25	5.14	5.33	5.06	5.20	5.12	5.20	5.16
45-49	4.35	4.47	4.40	4.02	3.81	3.92	4.25	4.27	4.26
50-54	3.64	3.46	3.55	3.44	3.24	3.34	3.53	3.39	3.49
55-59	2.53	2.72	2.64	2.21	2.47	2.33	2.46	2.64	2.55
60-64	2.13	2.50	2.31	1.90	2.39	2.14	2.06	2.47	2.26
65-69	1.50	1.63	1.59	1.17	1.51	1.33	1.40	1.61	1.50
70 & Over	1.53	1.93	1.33	1.44	2.14	1.73	1.60	2.03	1.31
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 2  
Estimated age-specific fertility rates  
and other fertility indicators, 1981

GUJARAT

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	55.9	47.1	53.2
20-24	314.4	271.8	300.7
25-29	261.0	207.9	242.7
30-34	157.6	114.3	143.9
35-39	77.9	48.9	63.3
40-44	30.2	23.2	28.1
45-49	12.6	10.3	12.0
Crude birth rate	35.6	31.2	34.3
General fertility rate	143.1	126.4	141.3
Total fertility rate	4.6	3.6	4.2
Gross reproduction rate	2.2	1.7	2.0

**Table 3**  
Mortality Indicators, 1982

GUJARAT

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	13.2	8.3	11.7
Infant Mortality rate	120.3	88.8	111.5
Neo-natal mortality rate	80.4	49.0	71.6
Post-natal mortality rate	39.9	39.8	39.9
Peri-natal mortality rate	57.8	59.5	65.5
Still birth rate	9.7	6.2	8.8

**Table 4**  
Estimated age-specific death rates  
by sex, 1982

GUJARAT

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	44.2	47.4	45.8	30.7	24.8	27.8	40.1	40.6	40.4
5-9	3.3	3.8	3.6	0.8	1.9	1.3	2.6	3.2	2.9
10-14	2.1	2.1	2.1	0.3	0.3	0.3	1.6	1.6	1.6
15-19	2.4	3.7	3.0	0.6	3.0	1.7	1.8	3.5	2.6
20-24	2.3	4.0	3.4	1.2	2.2	1.7	2.3	3.5	2.9
25-29	2.6	2.4	2.5	4.2	4.2	4.2	3.2	3.0	3.1
30-34	3.8	3.5	3.6	4.4	3.0	3.8	4.0	3.3	3.7
35-39	3.5	3.0	3.3	3.2	1.2	2.2	3.4	2.4	3.0
40-44	5.3	6.0	5.6	7.7	4.7	6.3	6.0	5.6	5.8
45-49	9.4	4.6	7.0	8.7	1.3	5.5	9.2	3.8	6.6
50-54	16.1	16.4	16.2	16.6	8.4	12.8	16.2	14.1	15.2
55-59	25.2	13.4	21.8	12.9	12.5	12.7	21.8	16.7	19.3
60-64	37.2	29.8	33.3	33.3	20.0	26.1	36.1	26.9	31.2
65-69	55.0	33.9	44.2	29.9	34.2	32.2	48.5	34.0	40.9
70 & Over	114.7	101.2	107.6	81.1	59.3	68.5	105.4	87.7	95.8
All ages	13.1	13.2	13.2	8.9	7.8	8.4	11.8	11.6	11.7

**Table 5**

Percent distribution of sample births by type of  
medical attention at birth, 1982

GUJARAT

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	11.4	30.7	35.9	22.0
Urban	46.3	16.5	28.1	9.1
Combined	16.6	28.6		20.1

I : Institutions like hospitals, maternity/nursing homes, health centres, etc.

T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.

U : Delivery conducted at home by untrained village dai or other untrained professional functionary.

O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of  
medical attention at death, 1982

GUJARAT

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	3.2	12.6	18.0	66.2
Urban	21.8	28.6	20.4	29.2
Combined	5.4	14.4	18.3	61.9

I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.

M : If the death occurred at home but was attended by a qualified practitioner.

U : If the death occurred at home and was attended by an unqualified practitioner.

N : No professional doctor/hakim/vaidya attended.

**Table 1**

Percent distribution of estimated population  
by age-groups and sex, 1981

HARYANA

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	14.21	14.48	14.34	12.95	13.69	13.29	13.95	14.31	14.11
5-9	12.57	12.37	12.48	13.28	12.32	12.84	12.72	12.36	12.55
10-14	12.68	12.53	12.61	11.92	12.65	12.25	12.51	12.56	12.53
15-19	11.84	11.45	11.66	10.45	10.18	10.33	11.55	11.19	11.38
20-24	10.28	10.13	10.21	10.26	10.89	10.55	10.28	10.29	10.28
25-29	7.47	7.36	7.42	9.19	8.82	9.02	7.83	7.66	7.76
30-34	5.61	5.98	5.79	6.68	6.58	6.64	5.84	6.11	5.96
35-39	4.59	4.86	4.71	5.91	5.33	5.64	4.87	4.95	4.91
40-44	3.99	4.56	4.25	4.53	4.56	4.54	4.10	4.56	4.32
45-49	3.83	4.03	3.92	3.88	3.89	3.89	3.84	4.00	3.92
50-54	3.39	3.54	3.46	3.13	3.38	3.24	3.34	3.51	3.42
55-59	2.99	2.97	2.98	2.23	2.47	2.34	2.83	2.86	2.85
60-64	2.37	2.22	2.30	2.31	2.08	2.21	2.36	2.20	2.28
65-69	1.91	1.68	1.80	1.28	1.29	1.28	1.77	1.60	1.69
70 & Over	2.27	1.84	2.07	2.00	1.87	1.94	2.21	1.84	2.04
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**

Estimated age-specific fertility rates  
and other fertility indicators, 1981

HARYANA

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	80.7	36.5	72.3
20-24	317.6	238.0	300.2
25-29	286.5	241.3	275.8
30-34	190.4	156.4	182.8
35-39	109.0	56.6	97.3
40-44	47.6	19.3	41.9
45-49	19.2	5.5	16.4
Crude birth rate	38.4	30.1	36.7
General fertility rate	169.8	130.1	161.3
Total fertility rate	5.2	3.8	4.9
Gross reproduction rate	2.5	1.8	2.3



**Table 3**  
Mortality Indicators, 1982

HARYANA

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	10.2	5.7	9.2
Infant Mortality rate	99.9	62.3	93.4
Neo-natal mortality rate	61.8	39.8	58.0
Post-natal mortality rate	38.1	22.5	35.4
Peri-natal mortality rate	45.4	28.1	42.4
Still birth rate	10.8	2.4	9.4

**Table 4**  
Estimated age-specific death rates  
by sex, 1982

HARYANA

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	30.4	37.6	33.8	16.4	16.8	16.6	27.6	33.5	30.4
5-9	2.7	2.5	2.6	0.8	1.6	1.1	2.3	2.3	2.3
10-14	1.4	0.7	1.1	0.9	1.0	1.0	1.3	0.8	1.1
15-19	1.5	2.1	1.8	0.5	0.6	0.6	1.3	1.9	1.6
20-24	2.5	3.0	2.7	-	2.3	1.1	2.0	2.9	2.4
25-29	2.4	4.4	3.3	1.2	-	0.6	2.1	3.3	2.6
30-34	3.1	4.4	3.7	3.3	1.9	2.6	3.2	3.8	3.5
35-39	3.8	3.5	3.7	0.9	2.4	1.6	3.1	3.2	3.2
40-44	4.7	3.7	4.2	13.2	2.8	8.4	6.7	3.5	5.1
45-49	7.0	6.5	6.8	4.2	3.3	3.8	6.4	5.8	6.2
50-54	10.0	8.7	9.3	8.7	5.7	7.2	9.7	8.1	8.9
55-59	16.2	11.9	14.2	7.3	5.2	6.3	14.8	10.7	12.9
60-64	21.6	15.2	18.7	18.8	12.2	15.9	21.0	14.6	18.2
65-69	26.2	26.6	26.4	63.3	24.7	45.7	32.0	26.3	29.5
70 & Over	76.8	82.7	79.3	51.7	37.4	45.4	72.0	73.2	72.5
All ages	9.8	10.5	10.2	6.2	5.0	5.7	9.1	9.4	9.2

**Table 5**

Percent distribution of sample births by type of medical attention at birth, 1982

HARYANA

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	12.0	58.5	24.8	4.7
Urban	16.1	59.9	22.8	1.2
Combined	12.8	58.7	24.5	4.0

I : Institutions like hospitals, maternity/nursing homes, health centres, etc.

T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.

U : Delivery conducted at home by untrained village dai or other untrained professional functionary.

O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of medical attention at death, 1982

HARYANA

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	7.0	40.9	2.9	49.2
Urban	12.4	43.3	2.0	42.3
Combined	7.6	41.2	2.8	48.4

I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.

M : If the death occurred at home but was attended by a qualified practitioner.

U : If the death occurred at home and was attended by an unqualified practitioner.

N : No professional doctor/hakim/vaidya attended.

**Table 1**

Percent distribution of estimated population  
by age-groups and sex, 1981

HIMACHAL PRADESH

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	13.07	12.55	12.81	10.21	12.92	11.42	12.87	12.57	12.72
5-9	13.44	13.33	13.38	10.19	12.12	11.05	13.21	13.26	13.23
10-14	13.20	12.29	12.75	11.08	11.01	11.05	13.05	12.22	12.64
15-19	10.70	10.78	10.74	9.63	9.86	9.73	10.62	10.72	10.67
20-24	7.78	9.17	8.48	9.58	10.46	9.97	7.91	9.25	8.57
25-29	6.68	7.86	7.27	9.54	10.27	9.86	6.88	8.00	7.43
30-34	5.66	6.33	5.99	7.66	7.57	7.62	5.80	6.40	6.10
35-39	5.66	5.83	5.74	7.54	6.65	7.14	5.79	5.88	5.83
40-44	4.84	4.96	4.90	6.72	4.88	5.90	4.98	4.96	4.97
45-49	4.47	4.01	4.24	5.43	4.42	4.98	4.53	4.04	4.29
50-54	4.01	3.45	3.73	4.10	2.80	3.52	4.02	3.41	3.72
55-59	2.92	2.55	2.74	2.88	1.94	2.46	2.92	2.52	2.72
60-64	2.80	2.66	2.73	1.96	2.05	2.01	2.74	2.62	2.68
65-69	1.81	1.70	1.75	1.39	1.50	1.44	1.78	1.68	1.74
70 & Over	2.96	2.53	2.75	2.09	1.55	1.85	2.90	2.47	2.69
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**

Estimated age-specific fertility rates  
and other fertility indicators, 1982

HIMACHAL PRADESH

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	57.3	28.4	55.7
20-24	293.1	212.4	287.8
25-29	236.4	170.7	231.5
30-34	144.4	83.1	140.2
35-39	73.4	28.0	70.4
40-44	23.9	9.4	23.0
45-49	6.6	3.4	6.4
Crude birth rate	33.2	22.9	32.5
General fertility rate	135.9	94.8	133.2
Total fertility rate	4.2	2.7	4.1
Gross reproduction rate	2.1	1.4	2.0

**Table 3**  
Mortality Indicators, 1982 HIMACHAL PRADESH

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	9.8	4.5	9.5
Infant Mortality rate	69.6	42.3	68.4
Neo-natal mortality rate	39.5	25.3	38.9
Post-natal mortality rate	30.1	17.0	29.5
Peri-natal mortality rate	29.3	9.7	28.4
Still birth rate	4.3	1.2	4.2

**Table 4**  
Estimated age-specific death rates  
by sex, 1982 HIMACHAL PRADESH

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	24.2	29.0	26.5	18.4	1.3	9.8	23.8	27.4	25.6
5-9	1.4	2.7	2.0	-	-	-	1.3	2.5	1.9
10-14	1.8	1.1	1.5	-	1.5	0.7	1.7	1.1	1.4
15-19	1.8	1.3	1.5	1.4	-	0.8	1.8	1.2	1.5
20-24	1.8	4.8	3.4	-	1.6	0.7	1.6	4.6	3.2
25-29	2.0	3.1	2.6	-	1.6	0.7	1.8	3.0	2.5
30-34	1.4	2.6	2.0	-	2.2	1.0	1.3	2.6	2.0
35-39	4.8	3.3	4.0	-	-	-	4.4	3.1	3.7
40-44	8.4	3.9	6.1	2.0	3.4	2.5	7.8	3.8	5.9
45-49	5.5	11.6	8.4	4.8	3.7	4.4	5.4	11.1	8.1
50-54	8.1	11.1	9.5	3.0	23.4	10.2	7.8	11.7	9.6
55-59	18.6	10.7	15.0	18.2	-	11.8	18.6	10.2	14.8
60-64	25.3	17.5	21.5	26.5	8.0	18.0	25.3	17.1	21.3
65-69	37.5	32.3	35.0	46.8	32.7	40.3	38.0	32.3	35.3
70 & Over	93.7	73.7	84.5	62.5	52.2	58.7	92.1	72.9	83.4
All ages	10.1	9.5	9.8	5.5	3.3	4.5	9.8	9.1	9.5

**Table 5**

Percent distribution of sample births by type of  
medical attention at birth, 1982

HIMACHAL PRADESH

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	16.2	9.3	71.0	3.5
Urban	40.2	35.2	22.5	2.1
Combined	18.8	12.2	65.7	3.3

I : Institutions like hospitals, maternity/nursing homes, health centres, etc.

T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.

U : Delivery conducted at home by untrained village dai or other untrained professional functionary.

O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type  
of medical attention at death, 1982

HIMACHAL PRADESH

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	4.9	43.3	2.6	49.2
Urban	17.9	51.8	-	30.3
Combined	5.8	43.9	2.5	47.8

I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.

M : If the death occurred at home but was attended by a qualified practitioner.

U : If the death occurred at home and was attended by an unqualified practitioner.

N : No professional doctor/hakim/vaidya attended.

**Table 1**  
Percent distribution of estimated population  
by age-groups and sex, 1981

JAMMU & KASHMIR

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	13.07	13.56	13.30	10.74	10.88	10.81	12.50	12.91	12.69
5-9	13.56	14.11	13.82	12.97	13.68	13.30	13.41	14.01	13.69
10-14	12.96	13.23	13.09	13.30	13.83	13.55	13.05	13.38	13.21
15-19	10.53	10.72	10.62	11.68	12.03	11.85	10.82	11.04	10.92
20-24	9.10	9.27	9.18	9.91	9.85	9.88	9.30	9.41	9.35
25-29	7.32	7.31	7.32	8.18	8.58	8.37	7.53	7.62	7.58
30-34	5.80	5.95	5.87	6.28	6.35	6.31	5.92	6.05	5.98
35-39	5.34	5.77	5.54	6.02	6.20	6.10	5.51	5.87	5.68
40-44	4.92	5.14	5.02	5.27	4.98	5.14	5.00	5.10	5.05
45-49	4.50	4.58	4.54	4.71	4.71	4.71	4.55	4.61	4.58
50-54	4.20	3.40	3.82	3.87	3.19	3.55	4.12	3.35	3.75
55-59	2.67	2.29	2.49	2.25	1.82	2.05	2.56	2.17	2.38
60-64	2.58	2.04	2.33	2.35	1.81	2.09	2.53	1.99	2.27
65-69	1.32	0.94	1.14	0.98	0.88	0.93	1.23	0.92	1.09
70 & Over	2.13	1.69	1.92	1.49	1.21	1.36	1.97	1.57	1.78
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**  
Estimated age-specific fertility rates  
and other fertility indicators, 1981

JAMMU & KASHMIR

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	60.1	43.7	55.8
20-24	219.6	155.1	203.3
25-29	258.8	185.9	239.0
30-34	203.5	106.9	179.1
35-39	129.6	57.3	111.2
40-44	67.0	25.0	57.1
45-49	29.4	14.5	25.7
Crude birth rate	33.2	22.8	30.7
General fertility rate	143.8	92.5	130.7
Total fertility rate	4.8	2.9	4.4
Gross reproduction rate	2.3	1.4	2.1

**Table 3**  
Mortality Indicators, 1982  
JAMMU & KASHMIR

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	9.1	6.5	8.4
Infant Mortality rate	73.5	43.4	68.1
Neo-natal mortality rate	43.9	32.5	41.8
Post-natal mortality rate	29.6	10.9	26.3
Peri-natal mortality rate	25.1	25.0	25.1
Still birth rate	6.6	3.3	6.0

**Table 4**  
Estimated age-specific death rates  
by sex, 1982  
JAMMU & KASHMIR

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	26.7	24.9	25.8	15.1	16.7	15.9	24.3	23.2	23.8
5-9	1.7	1.9	1.8	0.9	1.0	0.9	1.6	1.7	1.6
10-14	0.7	1.6	1.1	1.3	1.0	1.2	0.9	1.4	1.1
15-19	0.4	1.7	1.0	0.5	-	0.3	0.5	1.3	0.8
20-24	2.3	4.0	3.1	0.6	0.7	0.6	1.9	3.1	2.5
25-29	3.5	1.8	2.7	0.7	2.3	1.5	2.8	1.9	2.4
30-34	2.4	2.2	2.3	1.9	8.5	5.0	2.3	3.8	3.0
35-39	2.2	5.0	3.6	1.0	3.2	2.1	1.9	4.6	3.2
40-44	5.3	6.1	5.7	4.5	2.7	3.7	5.1	5.3	5.2
45-49	8.9	5.7	7.4	11.3	8.5	10.0	9.5	6.4	8.0
50-54	15.2	12.3	14.0	18.3	10.5	15.0	15.9	11.9	14.2
55-59	14.2	11.4	13.0	13.1	18.5	15.3	13.9	12.9	13.5
60-64	36.6	21.8	30.4	47.8	18.6	36.0	39.1	21.1	31.7
65-69	59.2	44.4	53.4	36.3	53.4	43.9	54.7	46.5	51.4
70 & Over	83.1	71.4	78.2	67.7	116.1	87.9	80.3	79.7	80.0
All ages	9.8	8.3	9.1	6.5	6.5	6.5	9.0	7.8	8.4

**Table 5**

Percent distribution of sample births by type of medical attention at birth, 1982

JAMMU & KASHMIR

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	3.1	17.8	73.1	6.0
Urban	8.9	46.3	40.0	4.8
Combined	4.5	24.6	65.2	5.7

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
 T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
 U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
 O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of medical attention at death, 1982

JAMMU & KASHMIR

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	2.6	43.2	34.9	19.3
Urban	16.1	58.5	15.2	10.2
Combined	5.9	46.9	30.1	17.1

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
 M : If the death occurred at home but was attended by a qualified practitioner.  
 U : If the death occurred at home and was attended by an unqualified practitioner.  
 N : No professional doctor/hakim/vaidya attended.



Table 1

Percent distribution of estimated population  
by age-groups and sex, 1982

KARNATAKA

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	12.39	12.14	12.26	11.78	12.11	11.94	12.22	12.13	12.18
5-9	12.65	12.63	12.64	13.17	13.45	13.31	12.79	12.85	12.82
10-14	13.16	12.93	13.05	12.55	12.86	12.70	12.99	12.91	12.95
15-19	11.12	11.06	11.09	10.66	11.03	10.83	10.99	11.05	11.02
20-24	9.29	9.49	9.39	9.86	10.83	10.33	9.45	9.85	9.64
25-29	7.60	7.33	7.46	8.81	8.69	8.76	7.93	7.70	7.82
30-34	6.14	6.38	6.26	7.33	6.88	7.11	6.47	6.51	6.49
35-39	5.39	5.56	5.48	6.00	5.38	5.70	5.56	5.51	5.54
40-44	5.05	5.15	5.10	5.19	4.47	4.84	5.09	4.97	5.03
45-49	4.49	4.35	4.42	4.01	3.64	3.83	4.36	4.16	4.26
50-54	3.98	3.80	3.90	3.40	3.09	3.25	3.82	3.62	3.72
55-59	2.83	2.77	2.80	2.24	2.04	2.14	2.67	2.57	2.62
60-64	2.40	2.50	2.45	2.02	2.13	2.07	2.30	2.40	2.35
65-69	1.57	1.73	1.65	1.20	1.32	1.26	1.47	1.62	1.54
70 & Over	1.94	2.18	2.05	1.78	2.08	1.93	1.89	2.15	2.02
All Ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 2

Estimated age-specific fertility rates  
and other fertility indicators, 1982

KARNATAKA

Age-group	Rural		Urban		Combined	
	1	2	3	4		
15-19		72.9	59.7	69.4		
20-24		198.0	181.1	193.1		
25-29		201.0	177.8	194.0		
30-34		140.1	104.6	130.0		
35-39		90.9	55.3	81.6		
40-44		39.3	18.5	34.3		
45-49		15.1	8.7	13.6		
Crude birth rate		28.8	25.7	27.9		
General fertility rate		118.2	104.0	114.3		
Total fertility rate		3.8	3.0	3.6		
Gross reproduction rate		1.8	1.5	1.7		

Table 3  
Mortality Indicators, 1982

KARNATAKA			
Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	10.2	6.3	9.2
Infant Mortality rate	71.1	46.6	65.0
Neo-natal mortality rate	52.2	25.9	45.6
Post-natal mortality rate	18.9	20.7	19.4
Peri-natal mortality rate	43.7	25.7	39.2
Still birth rate	7.9	7.0	7.7

Table 4  
Estimated age-specific death rates  
by sex, 1982

KARNATAKA									
Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	male	female	person
1	2	3	4	5	6	7	8	9	10
0-4	28.5	26.7	27.6	18.6	13.0	15.8	25.9	23.0	24.5
5-9	2.6	3.0	2.8	0.7	2.0	1.3	2.0	2.8	2.4
10-14	1.3	1.9	1.6	1.1	0.4	0.7	1.2	1.5	1.4
15-19	2.2	2.4	2.3	0.9	0.9	0.9	1.9	2.0	1.9
20-24	1.8	2.3	2.1	1.4	2.0	1.7	1.7	2.2	2.0
25-29	3.1	2.9	3.0	2.1	1.4	1.7	2.8	2.4	2.6
30-34	3.3	3.4	3.4	0.9	2.8	1.8	2.6	3.2	2.9
35-39	5.0	4.7	4.8	1.9	4.0	2.9	4.1	4.5	4.3
40-44	6.6	6.2	6.4	3.1	1.1	2.2	5.6	5.0	5.3
45-49	10.3	7.7	9.0	8.5	4.0	6.4	9.8	6.8	8.4
50-54	16.0	10.9	13.5	10.1	7.8	9.0	14.6	10.2	12.5
55-59	23.0	13.7	18.5	19.3	5.9	13.2	22.2	12.0	17.3
60-64	36.9	22.9	29.9	38.3	20.5	29.4	37.3	22.4	29.8
65-69	47.7	40.9	44.2	34.2	36.6	35.4	44.7	39.9	42.2
70 & Over	102.6	83.0	92.4	92.5	64.0	77.5	100.0	78.1	88.6
All ages	10.9	9.6	10.2	7.1	5.5	6.4	9.8	8.5	9.2

**Table 5**

Percent distribution of sample births by type of  
medical attention at birth, 1982

KARNATAKA

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	16.0	20.1	26.5	37.4
Urban	60.1	9.7	7.2	23.0
Combined	25.6	17.9	22.3	34.2

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
 T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
 U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
 O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of  
medical attention at death, 1982

KARNATAKA

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	9.5	24.0	15.9	50.6
Urban	26.4	27.0	5.6	41.0
Combined	12.2	24.5	14.2	49.1

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
 M : If the death occurred at home but was attended by a qualified practitioner.  
 U : If the death occurred at home and was attended by an unqualified practitioner.  
 N : No professional doctor/hakim/vaidya attended.

**Table 1**

Percent distribution of estimated population  
by age-groups and sex, 1981

KERALA

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	11.46	10.63	11.04	11.07	10.31	10.68	11.39	10.57	10.97
5-9	11.72	11.02	11.36	10.63	10.01	10.31	11.52	10.84	11.18
10-14	12.17	11.56	11.86	11.35	11.05	11.20	12.02	11.47	11.74
15-19	11.82	11.76	11.79	11.39	11.71	11.55	11.75	11.76	11.75
20-24	10.21	11.02	10.62	11.03	11.74	11.39	10.35	11.15	10.76
25-29	8.14	8.55	8.35	8.67	9.31	9.00	8.24	8.69	8.47
30-34	6.55	6.49	6.52	7.35	6.86	7.10	6.69	6.55	6.61
35-39	5.16	5.46	5.31	5.52	5.49	5.50	5.22	5.47	5.35
40-44	4.47	4.68	4.58	4.98	4.89	4.94	4.56	4.71	4.64
45-49	4.34	4.60	4.47	4.58	4.46	4.52	4.38	4.58	4.48
50-54	3.75	3.85	3.80	3.87	3.83	3.85	3.77	3.84	3.81
55-59	3.23	3.05	3.14	3.13	3.06	3.10	3.21	3.05	3.13
60-64	2.59	2.61	2.60	2.53	2.52	2.52	2.58	2.59	2.59
65-69	1.99	2.01	2.00	1.78	2.11	1.95	1.96	2.03	1.99
70 & Over	2.40	2.71	2.56	2.12	2.65	2.39	2.36	2.70	2.53
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**

Estimated age-specific fertility rates  
and other fertility indicators, 1982

KERALA

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	35.8	43.5	37.1
20-24	192.9	177.6	190.1
25-29	180.0	168.9	177.8
30-34	99.4	69.2	93.8
35-39	60.7	38.5	56.8
40-44	19.9	7.8	17.7
45-49	4.2	6.2	4.5
Crude birth rate	26.4	25.1	26.2
General fertility rate	98.4	90.3	97.0
Total fertility rate	3.0	2.6	2.9
Gross reproduction rate	1.4	1.2	1.4

Table 3  
Mortality Indicators, 1982 KERALA

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	6.6	6.6	6.6
Infant Mortality rate	31.7	24.0	30.4
Neo-natal mortality rate	23.0	15.3	21.7
Post-natal mortality rate	8.7	8.7	8.7
Peri-natal mortality rate	22.4	20.5	22.1
Still birth rate	4.9	9.9	5.7

Table 4  
Estimated age-specific death rates  
by sex, 1982

Age-group	KERALA								
	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	12.5	9.2	10.9	9.9	10.5	10.2	12.1	9.5	10.8
5-9	1.2	1.1	1.1	0.6	1.9	1.3	1.1	1.2	1.1
10-14	0.9	0.5	0.7	0.9	0.3	0.6	0.9	0.4	0.7
15-19	0.8	1.0	0.9	1.4	1.9	1.7	0.9	1.2	1.0
20-24	0.4	1.5	1.0	1.8	1.1	1.4	0.7	1.4	1.1
25-29	1.8	2.0	1.9	2.7	1.0	1.8	2.0	1.8	1.9
30-34	2.6	1.2	1.9	1.4	1.9	1.6	2.3	1.3	1.8
35-39	3.1	2.0	2.5	2.4	1.2	1.8	2.9	1.8	2.4
40-44	5.8	2.1	3.9	5.3	2.0	3.6	5.7	2.1	3.3
45-49	7.0	2.8	4.8	10.1	4.3	7.2	7.6	3.1	5.2
50-54	12.9	6.2	9.4	8.5	7.5	8.0	12.1	6.4	9.2
55-59	20.6	9.2	15.0	22.2	11.4	16.8	20.9	9.6	15.3
60-64	27.0	17.8	22.3	18.4	24.0	21.2	25.5	18.9	22.1
65-69	38.5	24.8	31.4	50.2	18.1	32.5	40.3	23.5	31.6
70 & Over	90.2	80.0	84.7	79.6	91.3	86.2	88.6	82.0	85.0
All ages	7.6	5.7	6.6	6.9	6.3	6.6	7.5	5.8	6.6

**Table 5**

Percent distribution of sample births by type of  
medical attention at birth, 1982

KERALA

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	47.5	17.7	23.4	11.4
Urban	78.4	14.2	5.1	2.3
Combined	53.6	17.0	19.3	9.6

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of  
medical attention at death, 1982

KERALA

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	28.6	40.0	8.1	23.3
Urban	43.0	46.9	6.2	3.9
Combined	32.2	41.7	7.6	18.5

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
M : If the death occurred at home but was attended by a qualified practitioner.  
U : If the death occurred at home and was attended by an unqualified practitioner.  
N : No professional doctor/hakim/vaidya attended.

**Table 1**

Percent distribution of estimated population  
by age-groups and sex, 1982

MADHYA PRADESH

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	14.43	14.41	14.42	13.12	13.63	13.37	14.17	14.26	14.21
5-9	12.93	12.69	12.81	12.79	12.90	12.84	12.90	12.73	12.82
10-14	13.24	13.03	13.14	12.81	12.97	12.88	13.15	13.02	13.09
15-19	11.86	11.00	11.44	11.57	10.87	11.24	11.80	10.98	11.40
20-24	8.69	8.22	8.46	9.52	9.79	9.65	8.85	8.52	8.69
25-29	6.59	6.66	6.63	7.96	7.90	7.93	6.86	6.90	6.88
30-34	5.55	5.82	5.69	6.37	6.43	6.40	5.72	5.94	5.82
35-39	5.07	5.53	5.29	5.56	5.88	5.72	5.16	5.60	5.37
40-44	5.05	5.20	5.12	5.38	4.76	5.08	5.12	5.11	5.12
45-49	4.48	4.61	4.54	4.27	3.90	4.09	4.44	4.47	4.46
50-54	3.79	3.73	3.76	3.54	3.02	3.29	3.74	3.59	3.67
55-59	2.99	2.96	2.97	2.32	2.47	2.39	2.86	2.86	2.86
60-64	1.12	2.17	2.15	1.91	1.99	1.95	2.08	2.14	2.11
65-69	1.53	1.85	1.69	1.25	1.58	1.41	1.48	1.80	1.63
70 & Over	1.68	2.12	1.89	1.63	1.91	1.76	1.67	2.08	1.87
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**

Estimated age-specific fertility rates  
and other fertility indicators, 1982

MADHYA PRADESH

Age-group	Rural	Urban	Combined
1	2	3	4
15-19	145.4	79.7	133.1
20-24	320.5	265.4	308.5
25-29	273.4	222.3	262.3
30-34	202.4	132.6	188.1
35-39	113.8	85.0	108.1
40-44	50.3	32.4	47.2
45-49	18.4	14.0	17.7
Crude birth rate	39.9	32.4	38.5
General fertility rate	174.5	136.9	167.1
Total fertility rate	5.6	4.2	5.3
Gross reproduction rate	2.7	2.0	2.6

**Table 3**  
Mortality Indicators, 1982

MADHYA PRADESH

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	16.3	9.0	14.9
Infant Mortality rate	145.0	79.1	134.3
Neo-natal mortality rate	80.5	44.4	74.6
Post-natal mortality rate	64.5	34.7	59.7
Peri-natal mortality rate	65.9	37.7	61.3
Still birth rate	7.4	3.1	6.7

**Table 4**

Estimated age-specific death rates  
by sex, 1982

MADHYA PRADESH

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	59.6	59.8	59.7	27.6	30.3	28.9	53.8	54.4	54.1
5-9	3.9	4.9	4.4	1.1	0.9	1.0	3.4	4.1	3.7
10-14	2.2	3.1	2.6	0.6	1.2	0.9	1.9	2.7	2.3
15-19	2.6	2.5	2.5	1.8	1.8	1.8	2.4	2.4	2.4
20-24	3.1	5.6	4.3	2.2	2.8	2.5	2.9	5.0	3.9
25-29	2.5	3.9	3.2	2.2	4.4	3.2	2.4	4.0	3.2
30-34	4.6	3.4	4.0	3.9	3.0	3.4	4.4	3.4	3.9
35-39	6.1	5.1	5.6	1.3	2.6	1.9	5.1	4.6	4.8
40-44	8.0	5.0	6.5	3.3	6.5	4.7	7.0	5.2	6.2
45-49	11.1	7.1	9.1	9.1	2.0	5.8	10.7	6.2	8.5
50-54	16.0	12.3	14.2	12.0	7.7	10.1	15.3	11.6	13.5
55-59	21.9	17.2	19.7	30.4	10.9	20.8	23.3	16.2	19.8
60-64	37.2	28.8	33.1	42.4	27.1	34.9	38.2	28.5	33.4
65-69	56.2	45.6	50.6	42.4	51.3	47.2	53.9	46.6	50.0
70 & Over	116.8	95.0	104.9	80.0	60.6	70.0	109.8	89.0	98.6
All ages	16.5	16.1	16.3	9.1	9.0	9.0	15.0	14.8	14.9



**Table 5**

Percent distribution of sample births by type of medical attention at birth, 1982

MADHYA PRADESH

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	1.4	11.4	70.1	17.1
Urban	47.0	10.7	36.0	6.3
Combined	8.4	11.3	64.8	15.5

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
 T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
 U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
 O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of medical attention at death, 1982

MADHYA PRADESH

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	2.3	21.0	42.2	34.5
Urban	21.4	38.2	16.9	23.5
Combined	4.4	22.9	39.4	33.3

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
 M : If the death occurred at home but was attended by a qualified practitioner.  
 U : If the death occurred at home and was attended by an unqualified practitioner.  
 N : No professional doctor/hakim/vaidya attended.

**Table 1**  
Percent distribution of estimated population  
by age-groups and sex, 1981

Age-group	MAHARASHTRA								
	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	12.70	12.46	12.58	11.51	12.16	11.81	12.26	12.36	12.31
5-9	12.35	12.03	12.19	11.61	12.19	11.88	12.08	12.09	12.08
10-14	12.97	12.43	12.70	11.75	12.36	12.03	12.52	12.41	12.46
15-19	10.88	10.52	10.70	10.54	10.60	10.56	10.75	10.54	10.65
20-24	8.58	8.64	8.61	10.12	10.05	10.09	9.15	9.11	9.13
25-29	7.08	6.98	7.03	9.06	8.93	9.00	7.81	7.64	7.72
30-34	5.93	6.27	6.10	7.66	7.35	7.52	6.57	6.63	6.60
35-39	5.55	6.06	5.80	6.77	6.44	6.61	5.99	6.18	6.09
40-44	5.16	5.63	5.40	5.86	5.06	5.49	5.43	5.44	5.43
45-49	4.76	4.88	4.82	4.68	4.05	4.39	4.73	4.60	4.67
50-54	4.10	4.05	4.08	3.64	3.27	3.47	3.93	3.79	3.86
55-59	3.29	3.16	3.22	2.37	2.21	2.30	2.95	2.84	2.90
60-64	2.82	2.77	2.80	1.90	2.12	2.00	2.48	2.55	2.52
65-69	1.83	2.01	1.92	1.11	1.36	1.23	1.57	1.80	1.68
70 & Over	2.00	2.11	2.05	1.42	1.85	1.62	1.78	2.02	1.90
All ages	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Table 2**  
Estimated age-specific fertility rates  
and other fertility indicators, 1981

Age-group	MAHARASHTRA		
	Rural	Urban	Combined
1	2	3	4
15-19	94.8	70.2	86.5
20-24	262.7	212.6	244.0
25-29	230.6	180.2	210.6
30-34	128.0	103.9	119.0
35-39	73.2	45.5	63.4
40-44	25.3	17.8	22.9
45-49	10.8	6.0	9.4
Crude birth rate	31.3	26.3	29.8
General fertility rate	129.0	107.9	121.5
Total fertility rate	4.1	3.2	3.8
Gross reproduction rate	2.0	1.5	1.8

**Table 3**  
Mortality Indicators, 1982

MAHARASHTRA

Indicators	Rural	Urban	Combined
1	2	3	4
Crude Death rate	9.9	6.7	8.8
Infant Mortality rate	77.2	55.4	70.3
Neo-natal mortality rate	55.6	35.5	49.2
Post-natal mortality rate	21.6	19.9	21.1
Peri-natal mortality rate	48.5	26.2	41.5
Still birth rate	10.7	6.9	9.5

**Table 4**

Estimated age-specific death rates  
by sex, 1982

MAHARASHTRA

Age-group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
1	2	3	4	5	6	7	8	9	10
0-4	25.3	28.6	26.9	18.6	16.9	17.8	23.0	24.7	23.8
5-9	1.8	3.2	2.5	1.7	1.3	1.5	1.7	2.6	2.1
10-14	1.2	1.4	1.3	0.9	1.2	1.0	1.1	1.3	1.2
15-19	1.7	1.9	1.8	1.0	1.3	1.1	1.5	1.7	1.6
20-24	1.8	3.1	2.5	1.4	2.4	1.8	1.6	2.9	2.2
25-29	2.9	2.6	2.8	1.6	1.9	1.8	2.4	2.3	2.3
30-34	2.8	2.2	2.5	2.6	1.2	2.0	2.7	1.8	2.3
35-39	3.5	4.0	3.8	1.9	2.1	2.0	2.3	3.3	3.1
40-44	5.0	5.0	5.0	5.2	3.8	4.6	5.1	4.6	4.3
45-49	8.7	6.8	7.7	7.7	4.2	6.2	8.3	6.0	7.2
50-54	12.4	6.6	9.6	13.0	4.8	9.4	12.6	6.1	9.5
55-59	20.9	15.5	18.3	12.0	9.9	11.1	13.3	14.0	16.2
60-64	35.2	22.7	29.1	28.8	18.9	24.0	33.4	21.6	27.6
65-69	53.6	35.2	44.1	61.5	37.6	49.2	55.7	35.8	45.4
70 & Over	91.6	87.5	89.5	96.0	77.5	86.2	92.9	84.4	88.5
All ages	10.2	9.7	9.9	7.2	6.2	6.7	9.1	8.5	8.8

**Table 5**

Percent distribution of sample births by type of medical attention at birth, 1982

MAHARASHTRA

Sector	Type of medical attention at birth			
	I	T	U	O
1	2	3	4	5
Rural	13.9	9.5	44.5	32.1
Urban	70.7	12.4	5.7	11.2
Combined	28.3	10.2	34.6	26.9

- I : Institutions like hospitals, maternity/nursing homes, health centres, etc.  
 T : Delivery conducted at home by doctor, trained dai, trained mid-wife, trained nurses, etc.  
 U : Delivery conducted at home by untrained village dai or other untrained professional functionary.  
 O : Delivery conducted at home by relation and others excluding the above.

**Table 6**

Percent distribution of sample deaths by type of medical attention at death, 1982

MAHARASHTRA

Sector	Type of medical attention at death			
	I	M	U	N
1	2	3	4	5
Rural	11.4	26.7	18.8	43.1
Urban	39.7	54.3	0.9	5.1
Combined	17.4	32.5	15.1	35.0

- I : If the death occurred in a hospital, dispensary, health centre, other medical institutions, etc.  
 M : If the death occurred at home but was attended by a qualified practitioner.  
 U : If the death occurred at home and was attended by an unqualified practitioner.  
 N : No professional doctor/hakim/vaidya attended.