



सत्यमेव जयते

# ANNUAL HEALTH SURVEY BULLETIN 2011-12



BIHAR



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## Foreword

Availability of district-level vital rates has always been an impediment in health planning at the micro level. The Annual Health Survey was conceived to fill this gap by providing estimates at the District level. State-wise bulletins of the baseline were released last year. The present datasets relate to the first updation round of the Annual Health Survey (AHS). A comparative picture on nine vital parameters - Crude Birth Rate, Crude Death Rate, Infant Mortality Rate etc for each of the nine states at the district level would enable data users to effectively plan and implement health care interventions based on empirical data.

Implementing the Annual Health Survey, which is the largest sample survey in the world covering more than 40 lakh households and 20 million persons residing in 20,000 sampling units spread across 284 districts in 9 States of the country has indeed been a challenging task. That this exercise has been completed successfully and in time is commendable.

The Annual Health Survey is a collaborative effort cutting across the Ministries of the Central and State Governments on the one hand, and the public and private sector on the other. This pioneering approach opens up vast possibilities for similar ventures in the future. Congratulations are due to all the officers and agencies involved in this task.

I would like to place on record my appreciation to Dr. R.C. Sethi, and Dr. Vijay P. Goel, the former and present Project Directors who led the team. Similarly, the efforts of Shri. Bhaskar Mishra and Shri. Rohit Bhardwaj, the former and present Deputy Registrar Generals in charge of the AHS need special mention. Without their personal effort, it would not have been possible to accomplish this task.

I am sure this publication would be of tremendous value to all data users.

**Dr. C. Chandramouli**  
Registrar General and  
Census Commissioner, India

## Preface

Annual Health Survey has been envisaged as a panel survey to provide benchmarks for health and vital indicators at district level of 9 States namely Bihar, Jharkhand, Odisha, Rajasthan, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Uttarakhand & Assam which have high fertility and mortality rates. AHS is to happen in three rounds starting with baseline survey and followed by two updation rounds. The data in AHS is to be disseminated in two stages. In the first stage, the state-wise bulletin covering nine parameters gets released followed by state-wise fact sheets with host of other indicators.

The data collection for 2nd round of AHS has been undertaken through interview of 4.28 million households spread in 284 districts of nine States where AHS has been operational. The vastness of these states along with different social/geographical conditions made the work difficult for enumerator and officers. Despite the above constraints, field work was completed successfully as per schedule. A lot of effort has gone in data entering and cleaning of 20 million records before the bulletin stage arrived.

The present bulletin is the second in the series of three bulletins to be released. The bulletin has information on each of the districts for important vital rates like crude birth rate, crude death rate, IMR etc. The booklet also contains 95% confidence interval for each of these important estimates along with district-wise sample population and sampling units. Lot of pictorial representation in terms of charts and graphs has been provided to give a better understanding of data to the user. In order to present instant comparative picture, the base line data of the corresponding estimate has also been provided side by side. The format of the bulletin has been changed to a booklet in order to make it user friendly.

I put on record my appreciation for all concerned involved in AHS from Office of the Registrar General, India, and specially to Shri Rohit Bhardwaj, DRG in-charge who despite being new to the job gave his personal attention to this survey. As a result, this highly informative bulletin has come out. I also thank the Registrar General, India, for continuous guidance provided to me and my team without which this task would not have been completed. I hope all the users will find the bulletin informative and useful for their purpose.

**Dr. Vijay P. Goel**  
Deputy Director General &  
Project Director

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### Introduction

1. Decentralized district-based health planning is essential in India because of the large inter-district variations. In the absence of vital data at the district level, the State level estimates are being used for formulating district level plans as well as setting the milestones thereof. In the process, the hotspots (districts requiring special attention) very often get masked by the State average. This statistical fallacy compounds the problems of the districts acutely, more so in the health sector. At present, none of the Surveys provides estimates of core vital indicators on fertility and mortality at district level. The District Level Household Survey (DLHS) conducted with periodicity of five years mainly focuses on indicators pertaining to maternal health and child welfare programmes. There has, therefore, been a surge in demand from various quarters, in recent years, to generate timely and reliable statistics at the district level for informed decision making in the health sector.

### Genesis

2. The Annual Health Survey (AHS) was conceived during a meeting of the National Commission of Population held in 2005 under the Chairmanship of the Prime Minister wherein it was decided that “there should be an Annual Health Survey of all districts which could be published / monitored and compared against benchmarks”. The objective was to monitor the performance and outcome of various health interventions of the Government including those under National Rural Health Mission (NRHM) at closer intervals through these benchmark indicators. The AHS has been made an integral part of the NRHM, Ministry of Health & Family Welfare. The responsibility of the project has been entrusted to the Office of the Registrar General, India on behalf of the Ministry of Health & Family Welfare keeping in view its expertise in handling the Sample Registration System, one of the largest demographic surveys in the world.

### Objective

3. Realizing the need for preparing a comprehensive district health profile on key parameters based on a community set up, the AHS has been designed to yield benchmarks of core vital and health indicators at the district level on fertility and mortality; prevalence of disabilities, injuries, acute and chronic illness and access to health care for these morbidities; and access to maternal, child health and family planning services. By virtue of being a panel survey, it has the unique ability to map the rate of change in these indicators on a yearly basis. AHS would, thus, enable better capturing of the health seeking behaviour of the public as compared to other periodic cross-sectional surveys and also help needed corrections in the strategies.

### Coverage

4. The sample size at the district level has been derived taking Infant Mortality Rate as the decisive indicator and host of other practical issues related to execution of the survey. Keeping in view the mammoth size of the sample, it was a conscious decision of the Government to initially confine the survey to the 284 districts (as per 2001 Census) of the 8 Empowered Action Group States (Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Odisha and Rajasthan) and Assam for a three year period starting from 2010-11. These 9 high focus States with relatively high fertility and mortality account for about 48 percent of the total population in the country. A representative sample of 20,694 statistically selected Primary Sample Units (PSUs - Census Enumeration Blocks in case of urban areas and villages or a segment thereof in case of larger villages in rural areas) based on 2001 Census has been drawn from these AHS States which would cover about 18 million population and 3.6 million households each year. However, during the Base-line Survey, a total of 20.1 million population and 4.14 million households have actually been covered. Subsequently during the first updation survey a total of 20.61 million population and 4.28 million households have been covered. Despite being restricted to 9 States, the AHS is the largest demographic survey in the world and covers two and a half times that of the Sample Registration System (SRS).

### Fieldwork Strategy

5. The project is being implemented as a hybrid model wherein the actual field work has been outsourced to seven selected Survey Agencies. For smooth and effective execution of the survey, the AHS States have been divided into 18 mutually exclusive and exhaustive zones, each having a group of contiguous districts. The co-ordination, supervision and monitoring of the fieldwork in the States are being carried out by dedicated staff posted at various levels in the respective Directorate of Census Operations (DCOs). The responsibility for overall co-ordination, supervision and monitoring across the nine AHS States rests with the concerned division of ORGI.

### Technical Consultation

6. The outline of the survey such as approach, periodicity, coverage, sampling strategy, sample size, permissible levels of relative standard errors, and levels of aggregation, was finalized after a series of deliberations with the representatives from Ministry of Health & Family Welfare, National Sample Survey Office (NSSO), Central Statistics Office (CSO), Ministry of Woman & Child Development, Indian Council of Medical Research, Planning Commission, International Institute for Population Sciences and other subject experts. Based on these recommendations, various technical details including preparation of sample design, derivation of sample size etc. were worked out and vetted by the Technical Advisory Group (TAG) constituted for the purpose.

### Sample Design

7. The Sample design adopted for Annual Health Survey is a uni-stage stratified simple random sample without replacement except in case of larger villages in rural areas (population more than or equal to 2000 as per 2001 Census), wherein a two stage stratified sampling has been applied. The sample units are Census Enumeration Blocks (CEBs) in urban areas and villages in rural areas. In rural areas, the villages have been divided into two strata. Stratum I comprises villages with population less than 2000 and Stratum II contains villages with population 2000 or more. Smaller villages with population less than 200 were excluded from the sampling frame in such a manner that the total population of villages so excluded did not exceed 2 per cent of the total population of the district. In case of Stratum I, the entire village is the sample unit. In case of Stratum II, the village has been divided into mutually exclusive (non-overlapping) and geographically contiguous units comprising group of EBs called segments of more or less equal size and population not exceeding 2000 in any case. One segment from the frame of segments thus prepared was selected in a random manner to represent the selected village at the second stage of sampling.

8. The number of sample villages in each district was allocated between the two strata proportionally to their size (population). The villages within each size stratum were further ordered by the female literacy rate based on the Census 2001 data, and three disjoint and equal size substrata were established. The sample villages within each substratum were selected by simple random sampling without replacement. Similarly, in urban areas, the Census Enumeration Blocks within a district were ordered by the female literacy rate based on the Census 2001 data, and three disjoint and equal size substrata were established. The sample Census Enumeration Blocks within each substratum were selected by simple random sampling without replacement. Thus, female literacy which has a direct bearing on the fertility behaviour was used for implicit stratification. Further, the process of selection ensured equal representation across three substrata both in rural as well as in urban areas of a district besides rendering the sample design as self-weighting.

### Sample Size

9. Generating robust estimates of Infant Mortality Rate at the district level has become an utmost necessity as reduction in Infant Mortality constitutes one of the key targets in the Reproductive & Child Health Programme (RCH) under the umbrella of NRHM. This would also facilitate effective tracking of the Millennium Development Goal 4 on Child Mortality. The Infant Mortality Rate has therefore been taken as the decisive



indicator for estimation of sample size at the district level. The permissible level of error has been taken as 10 percentage relative standard error (prse) at the district level. The sample size so worked out would yield relatively better estimates of Crude Birth Rate / Crude Death Rate and may also enable generation of rarer indicators like MMR (for a group of districts) with good precision. In the absence of district level estimates from any other reliable source, the district level derived estimates of IMR based on SRS pooled data have been used for estimation of sample size for each district.

### Sample Identification Work

10. One of the essential prerequisites for the commencement of the survey was to uniquely identify the sample units on ground. This was done in all the sample units across the nine AHS States by the regular staff of ORGI. The work involved firming up of the boundary of the selected villages / Enumeration Blocks; resorting to segmentation in case of villages exceeding the population 2000, random selection of segment thereof and drawing of appropriate notional maps of the sample units to serve as the base map for the survey work.

### Survey Tools

11. The baseline Survey and the first updation survey in all the nine AHS States was carried out during July 2010 to March 2011 and October 2011 to April 2012 respectively and four Schedules, in all, were administered. These are: (i) House-listing Schedule, (ii) Household Schedule, (iii) Woman Schedule and (iv) Mortality Schedule. In the House-listing Schedule, besides the mapping and listing of all the houses and households in a sample unit, some key particulars relating to the housing characteristics (type and ownership), basic amenities available to the household and assets possessed by them were collected during the baseline survey. In the first updation survey, these mapping and listing details were updated for the existing houses and households and recorded afresh for the new houses and households.

12. In the Household Schedule, during the baseline survey, all the Usual Residents as on 01.01.2010 were listed and for each listed member, information on background characteristics like Name, Sex, Relationship to Head, Date of Birth, Age, Religion, Social Group, Marital Status, Date at first Marriage, Education and Occupation/Activity Status was captured. Besides, information in respect of Disability, Morbidity (Injuries, Acute Illness, and Chronic Illness) and Personal Habits (like Chewing, Smoking and Consumption of Alcohol) was also collected (wherever applicable) in the baseline survey. During the first updation survey, all the Usual Residents as on 01.01.2011 were listed in the Household Schedule wherein the information on a few back ground characteristics viz. Name, Sex, Identification Code, Date of Birth and Date at first Marriage were copied from the baseline Household Schedule for the Usual Residents of baseline survey. For the new Usual Residents, these details along with all the other information were recorded afresh except the personal habits, the details of which were not to be captured in the subsequent rounds. The information on access to health insurance/scheme is collected in the Household Schedule in the first updation survey.

13. Woman Schedule comprised two sections. Section-I was administered to all Ever Married Women (EMW) aged 15-49 years and information relating to the outcome of pregnancy(s) (live birth/still birth/abortion); birth history; type of medical attention at delivery; details of maternal health care(ante-natal/natal/post-natal); immunization of children; breast feeding practices including supplements; occurrence of child diseases (Pneumonia, Diarrhoea and fever); registration of births, etc. taken place during the reference period( i.e. 01.01.2007 to 31.12.2009 for baseline and 01.01.2010 to 31.12.2010 for first updation survey) was collected. Section-II focused on information on pregnancy; use, sources and practices of family planning methods; details relating to future use of contraceptives and unmet need; awareness about RTI/STI, HIV/AIDS, administration of HAF/ORT/ORS during diarrhoea and danger signs of ARI/Pneumonia; and these details were collected from all Currently Married Women aged 15-49 years. During the first updation round, a few new information relating the Ever Married Women (EMW) was collected. These include the conception details, usage of NPT kit, registration of pregnancy, health problems and subsequent treatments during ante-natal/natal/post-natal period, cost incurred by the woman during delivery etc.

14. Through the Mortality Schedule, details relating to death occurred to usual residents of sample household during the reference period (i.e. 01.01.2007 to 31.12.2009 for baseline and 01.01.2010 to 31.12.2010 for first updation survey) were captured and it included information on name & sex of deceased, date of death, age at death, registration of death and source of medical attention received before death. For infant deaths, a question on symptoms preceding death was also probed. In case of deaths associated with pregnancy, information on a variety of questions on factors leading/contributing to death, symptoms preceding death, time between onset of complications and death, etc. were asked to yield data on various determinants of maternal mortality.

#### **Supervision and Third Party Audit**

15. In addition to the multilayer supervision mechanism adopted by the Survey Agencies, regular inspections were carried out by the officers/officials of respective DCOs and those from ORGI headquarters to ensure the data quality. The inspections were a judicious mix of concurrent as well as post survey audit. Over and above, a component of Third Party Audit (TPA) was included to verify and authenticate the surveyed data through an independent mechanism. In the first updation survey, the coverage of TPA has been extended to all the households in the 20 randomly selected AHS units in each of the districts in order to make effective comparison with the Survey Agency data and thereby ensuring the quality of data at the highest level.

#### **Dissemination of Results**

16. In view of the large volume of data collected under AHS and significant time required for validation and processing, dissemination of AHS results is done in two phases. The first set of data in the form of State level bulletins contains the district level data on crude birth rate, crude death rate, natural growth rate, infant mortality rate, neo-natal and post neonatal mortality rates, under 5 mortality rate, sex ratio at birth, sex ratio (0-4 years) and overall sex ratio. In the second phase, the State level fact sheets containing the district level data on all parameters covered under AHS like Acute and Chronic illnesses, Family planning practices Ante-natal/natal/post-natal care for Ever married women, fertility, Janani Suraksha Yojana, Immunization particulars of children, Childhood diseases etc. are released.

17. The baseline bulletins were released in August 2011 followed by the baseline fact sheets in July 2012. Though the sample size has been calculated for the district as a whole, the rural and urban estimates at the district level has been published as a by-product. Users are advised to keep the above fact into consideration while using the rural/urban estimates of a district. In addition, the Maternal Mortality Ratio (MMR), Maternal Mortality Rate and life time risk were released for a group of districts. In order to facilitate direct intervention, the maternal mortality indicators were combined and released for a group of districts on the basis of existing administrative divisions in the respective AHS States.

18. This Bulletin of the first updation survey pertains to the State of Bihar. The field work for the AHS has been carried out by M/s. Development & Research Services Pvt. Ltd., New Delhi and M/s. TNS India Pvt. Ltd., Gurgaon in the allotted zones. The third party audit work in the State has been done by M/s. Research and Development Initiative Pvt. Ltd., New Delhi. The district level fact sheets of the first updation survey with data on all the parameters would be released in the next phase.



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## **TABLES**

Table-1 : Number of Sample Units & Sample Population

District		Number of Sample Units			Population (in '000')		
		Total	Rural	Urban	Total	Rural	Urban
<b>BIHAR</b>		<b>2356</b>	<b>1981</b>	<b>375</b>	<b>3171 (3090)</b>	<b>2939 (2859)</b>	<b>232 (231)</b>
01	Pashchim Champaran	35	29	6	50 (47)	47 (44)	3 (3)
02	Purba Champaran	47	42	5	88 (85)	83 (80)	5 (5)
03	Sheohar	41	38	3	70 (65)	68 (63)	2 (2)
04	Sitamarhi	49	44	5	70 (68)	66 (64)	4 (4)
05	Madhubani	82	77	5	124 (120)	123 (119)	1 (1)
06	Supaul	64	59	5	90 (92)	87 (89)	3 (3)
07	Araria	48	43	5	79 (76)	76 (72)	3 (4)
08	Kishanganj	38	32	6	60 (55)	55 (51)	5 (4)
09	Purnia	36	31	5	48 (47)	44 (43)	4 (4)
10	Katihar	53	46	7	87 (85)	83 (82)	4 (3)
11	Madhepura	50	46	4	100 (98)	98 (95)	2 (3)
12	Saharsa	43	37	6	68 (67)	62 (61)	6 (6)
13	Darbhanga	55	48	7	80 (79)	77 (76)	3 (3)
14	Muzaffarpur	72	62	10	107 (102)	103 (98)	4 (4)
15	Gopalganj	72	65	7	92 (90)	88 (86)	4 (4)
16	Siwan	101	92	9	146 (141)	135 (131)	11 (10)
17	Saran	65	56	9	81 (80)	75 (74)	6 (6)
18	Vaishali	68	61	7	95 (91)	92 (88)	3 (3)
19	Samastipur	65	61	4	83 (80)	81 (78)	2 (2)

NUMBER OF SAMPLE UNITS

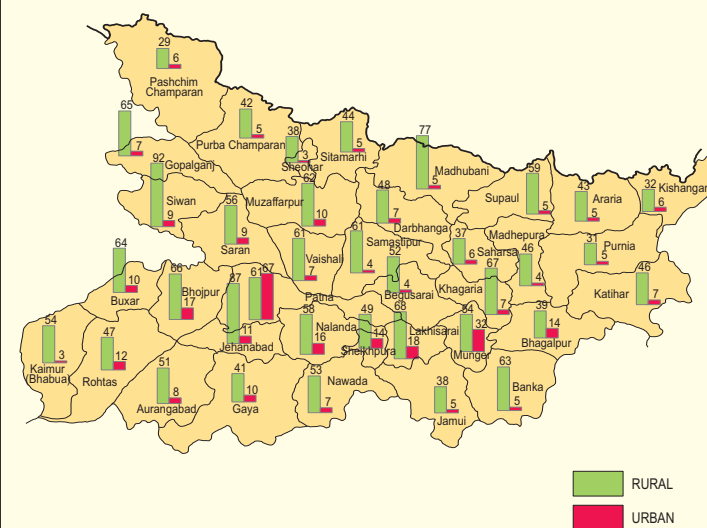
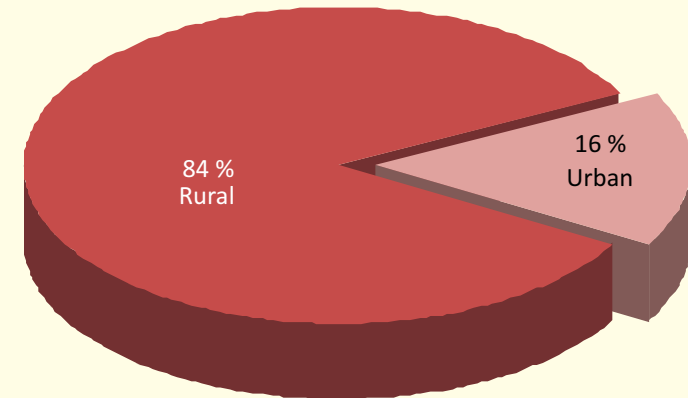


Table-1 : Number of Sample Units &amp; Sample Population

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<b>BIHAR</b>		<b>2356</b>	<b>1981</b>	<b>375</b>	<b>3171 (3090)</b>	<b>2939 (2859)</b>	<b>232 (231)</b>
20	Begusarai	56	52	4	88 (85)	85 (82)	3 (3)
21	Khagaria	74	67	7	132 (128)	128 (124)	4 (4)
22	Bhagalpur	53	39	14	76 (74)	67 (66)	9 (8)
23	Banka	68	63	5	80 (78)	77 (75)	3 (3)
24	Munger	86	54	32	94 (91)	77 (73)	17 (18)
25	Lakhisarai	86	68	18	118 (114)	109 (106)	9 (8)
26	Sheikhpura	63	49	14	67 (64)	61 (58)	6 (6)
27	Nalanda	74	58	16	82 (83)	74 (75)	8 (8)
28	Patna	128	61	67	140 (136)	92 (86)	48 (50)
29	Bhojpur	83	66	17	98 (95)	89 (88)	9 (7)
30	Buxar	74	64	10	97 (95)	92 (90)	5 (5)
31	Kaimur(Bhabua)	57	54	3	62 (59)	60 (57)	2 (2)
32	Rohtas	59	47	12	71 (70)	64 (63)	7 (7)
33	Jehanabad	98	87	11	116 (115)	109 (108)	7 (7)
34	Aurangabad	59	51	8	62 (62)	57 (57)	5 (5)
35	Gaya	51	41	10	49 (49)	41 (41)	8 (8)
36	Nawada	60	53	7	71 (75)	67 (70)	4 (5)
37	Jamui	43	38	5	50 (49)	47 (46)	3 (3)

Distribution of Sample Units



Distribution of Sample Population

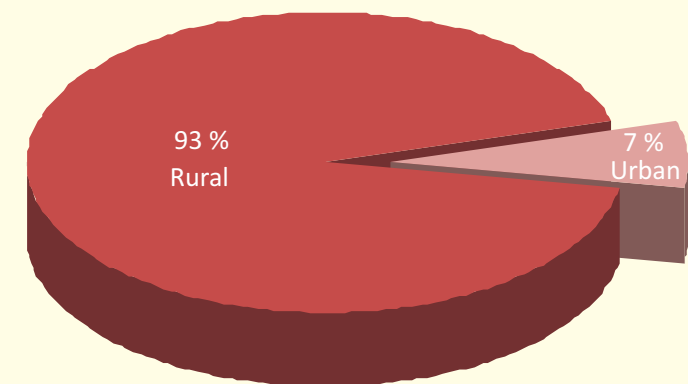


Table-2 : Crude Birth Rate &amp; 95% Confidence Interval for Crude Birth Rate

District		Crude Birth Rate			95% Confidence Interval for Crude Birth Rate					
					Total		Rural		Urban	
		Total	Rural	Urban	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>26.3 (26.7)</b>	<b>27.1 (27.5)</b>	<b>20.7 (21.2)</b>	<b>26.1 (26.4)</b>	<b>26.6 (27.0)</b>	<b>26.9 (27.3)</b>	<b>27.4 (27.8)</b>	<b>20.0 (20.3)</b>	<b>21.4 (22.0)</b>
01	Pashchim Champaran	28.1 (28.6)	28.7 (29.3)	20.9 (21.2)	25.4 (25.9)	30.8 (31.3)	25.9 (26.5)	31.6 (32.1)	14.6 (15.3)	27.2 (27.1)
02	Purba Champaran	29.6 (30.4)	30.3 (31.0)	23.9 (24.6)	28.0 (29.0)	31.3 (31.7)	28.5 (29.7)	32.0 (32.4)	20.0 (19.4)	27.8 (29.8)
03	Sheohar	30.8 (31.2)	30.7 (31.1)	32.8 (33.2)	28.9 (29.3)	32.7 (33.1)	28.7 (29.2)	32.7 (33.0)	31.1 (28.9)	34.5 (37.5)
04	Sitamarhi	27.8 (28.0)	28.1 (28.3)	24.1 (24.4)	26.2 (26.3)	29.3 (29.7)	26.6 (26.7)	29.6 (30.0)	16.2 (14.6)	32.1 (34.2)
05	Madhubani	24.3 (24.7)	24.4 (24.7)	22.0 (22.5)	23.3 (23.7)	25.4 (25.7)	23.3 (19.9)	25.4 (29.6)	18.1 (16.7)	25.8 (28.3)
06	Supaul	28.1 (28.5)	28.3 (28.7)	25.7 (26.2)	26.8 (27.5)	29.4 (29.5)	26.9 (27.6)	29.7 (29.7)	24.0 (23.5)	27.5 (28.9)
07	Araria	30.7 (30.9)	31.0 (31.2)	26.9 (27.4)	28.8 (29.2)	32.5 (32.6)	29.0 (29.4)	32.9 (32.9)	22.5 (20.4)	31.3 (34.3)
08	Kishanganj	30.2 (30.5)	31.1 (31.5)	23.4 (23.8)	27.8 (28.2)	32.5 (32.9)	28.5 (28.9)	33.7 (34.1)	18.9 (19.6)	28.0 (27.9)
09	Purnia	27.2 (27.6)	28.3 (28.8)	21.5 (21.7)	25.2 (25.3)	29.1 (29.9)	25.9 (28.0)	30.6 (29.6)	18.7 (16.9)	24.2 (26.4)
10	Katihar	28.4 (28.8)	29.0 (29.3)	20.8 (21.7)	26.9 (27.2)	30.0 (30.4)	27.4 (27.6)	30.7 (31.0)	15.8 (15.4)	25.9 (27.9)
11	Madhepura	29.7 (30.1)	30.1 (30.5)	20.4 (20.7)	28.4 (28.8)	31.1 (31.4)	28.7 (29.2)	31.5 (31.8)	16.3 (11.5)	24.5 (30.0)
12	Saharsa	31.5 (32.1)	32.9 (33.6)	22.9 (23.3)	28.4 (28.3)	34.7 (35.9)	29.9 (30.3)	35.9 (36.8)	15.2 (11.1)	30.6 (35.4)
13	Darbhanga	26.3 (26.5)	26.7 (26.8)	21.0 (21.4)	25.2 (25.2)	27.4 (27.8)	25.5 (25.5)	27.9 (28.1)	18.2 (16.1)	23.7 (26.7)
14	Muzaffarpur	25.3 (25.5)	26.1 (26.3)	17.3 (17.4)	24.1 (24.3)	26.5 (26.7)	24.9 (25.1)	27.3 (27.6)	14.5 (14.3)	20.0 (20.5)
15	Gopalganj	25.3 (25.7)	25.4 (25.8)	24.2 (24.7)	24.3 (24.5)	26.2 (26.9)	24.3 (24.7)	26.4 (27.0)	20.5 (17.6)	27.8 (31.9)
16	Siwan	25.8 (26.1)	26.4 (26.8)	21.2 (21.4)	24.9 (25.0)	26.7 (27.2)	25.4 (25.6)	27.3 (27.9)	19.3 (18.4)	23.1 (24.3)
17	Saran	24.2 (24.5)	24.3 (24.5)	23.7 (23.8)	23.2 (23.5)	25.3 (25.4)	23.2 (23.6)	25.4 (25.5)	21.0 (20.2)	26.4 (27.4)
18	Vaishali	26.7 (27.3)	27.2 (27.8)	18.2 (18.6)	25.5 (25.8)	27.8 (28.7)	26.0 (26.3)	28.5 (29.3)	15.5 (17.0)	20.9 (20.1)
19	Samastipur	28.3 (28.7)	28.9 (29.3)	18.4 (18.6)	27.0 (27.0)	29.7 (30.4)	27.4 (27.5)	30.3 (31.1)	14.7 (12.3)	22.0 (24.8)

**Table-2 : Crude Birth Rate & 95% Confidence Interval for Crude Birth Rate**

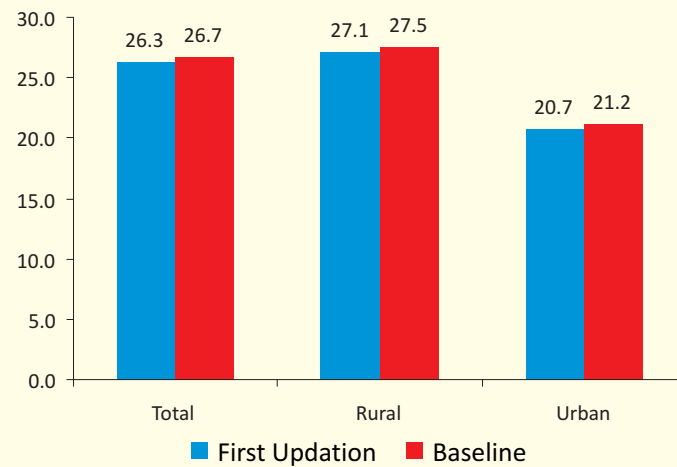
**BIHAR**

District		Crude Birth Rate			95% Confidence Interval for Crude Birth Rate					
					Total		Rural		Urban	
		Total	Rural	Urban	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>26.3 (26.7)</b>	<b>27.1 (27.5)</b>	<b>20.7 (21.2)</b>	<b>26.1 (26.4)</b>	<b>26.6 (27.0)</b>	<b>26.9 (27.3)</b>	<b>27.4 (27.8)</b>	<b>20.0 (20.3)</b>	<b>21.4 (22.0)</b>
20	Begusarai	26.2 (26.6)	26.7 (27.1)	21.3 (21.6)	25.1 (25.3)	27.4 (28.0)	25.5 (25.7)	27.8 (28.5)	16.6 (17.6)	26.0 (25.7)
21	Khagaria	30.4 (30.7)	30.9 (31.2)	23.1 (23.3)	29.2 (29.4)	31.5 (32.0)	29.8 (29.9)	32.0 (32.5)	16.7 (18.6)	29.4 (28.0)
22	Bhagalpur	25.9 (26.3)	26.5 (26.9)	23.8 (24.2)	24.2 (24.8)	27.7 (27.8)	24.9 (25.4)	28.0 (28.3)	17.3 (19.1)	30.3 (29.3)
23	Banka	25.3 (25.8)	25.4 (25.9)	24.2 (23.9)	24.1 (24.5)	26.5 (27.2)	24.1 (24.6)	26.6 (27.3)	19.0 (16.3)	29.3 (31.5)
24	Munger	24.7 (25.0)	25.5 (26.0)	22.7 (22.9)	23.3 (23.7)	26.0 (26.2)	23.9 (24.4)	27.1 (27.6)	20.4 (21.0)	25.0 (24.7)
25	Lakhisarai	23.5 (24.0)	24.0 (24.5)	20.1 (20.5)	22.7 (23.0)	24.3 (25.0)	23.2 (23.4)	24.9 (25.5)	17.5 (17.9)	22.6 (23.1)
26	Sheikhpura	28.5 (28.9)	29.7 (30.1)	21.9 (22.6)	27.4 (27.6)	29.6 (30.2)	28.6 (28.7)	30.8 (31.6)	19.1 (19.8)	24.7 (25.5)
27	Nalanda	25.9 (26.3)	26.4 (26.9)	23.0 (23.1)	24.8 (25.2)	27.0 (27.4)	25.2 (25.7)	27.7 (28.1)	20.9 (20.6)	25.2 (25.7)
28	Patna	21.4 (21.8)	25.4 (25.8)	17.2 (18.0)	20.4 (20.7)	22.5 (23.0)	24.2 (24.4)	26.5 (27.3)	15.7 (16.6)	18.6 (19.3)
29	Bhojpur	24.0 (24.6)	24.7 (25.2)	19.8 (20.6)	22.9 (23.6)	25.0 (25.6)	23.8 (24.1)	25.7 (26.2)	16.8 (18.0)	22.9 (23.2)
30	Buxar	24.6 (25.1)	24.9 (25.3)	22.1 (22.6)	23.3 (23.9)	26.0 (26.2)	23.7 (24.1)	26.1 (26.5)	15.4 (18.8)	28.9 (26.4)
31	Kaimur(Bhabua)	24.5 (25.0)	24.7 (25.2)	18.8 (19.4)	23.5 (23.7)	25.6 (26.3)	23.6 (23.8)	25.8 (26.5)	14.3 (14.1)	23.3 (24.8)
32	Rohtas	25.6 (25.9)	26.0 (26.4)	22.5 (22.6)	24.3 (24.5)	26.9 (27.3)	24.7 (24.9)	27.3 (27.9)	18.9 (19.4)	26.1 (25.7)
33	Jehanabad	24.4 (24.9)	24.6 (25.1)	22.6 (22.9)	23.5 (23.8)	25.3 (26.0)	23.6 (24.0)	25.5 (26.3)	19.0 (19.6)	26.3 (26.2)
34	Aurangabad	25.2 (25.6)	25.4 (25.9)	23.3 (23.4)	24.1 (24.5)	26.3 (26.8)	24.2 (24.7)	26.5 (27.1)	20.1 (20.2)	26.4 (26.6)
35	Gaya	24.4 (24.9)	25.7 (26.1)	19.9 (20.6)	23.2 (23.4)	25.6 (26.4)	24.4 (24.6)	27.1 (27.7)	18.1 (16.9)	21.7 (24.2)
36	Nawada	24.5 (25.0)	24.9 (25.4)	20.9 (21.3)	23.5 (24.0)	25.5 (26.0)	23.8 (24.3)	26.0 (26.5)	17.7 (19.1)	24.2 (23.4)
37	Jamui	26.1 (26.4)	26.4 (26.7)	22.5 (22.8)	25.0 (24.7)	27.2 (28.1)	25.2 (24.9)	27.5 (28.5)	20.8 (20.5)	24.2 (25.2)

CRUDE BIRTH RATE



Crude Birth Rate



Birth rate in rural areas is significantly higher than urban areas

$$\text{Crude Birth Rate} = (\text{Number of Live Births in reference period} / \text{Mid-year population}) \times 1000$$



**Table-3 : Crude Death Rate & 95% Confidence Interval for Crude Death Rate**

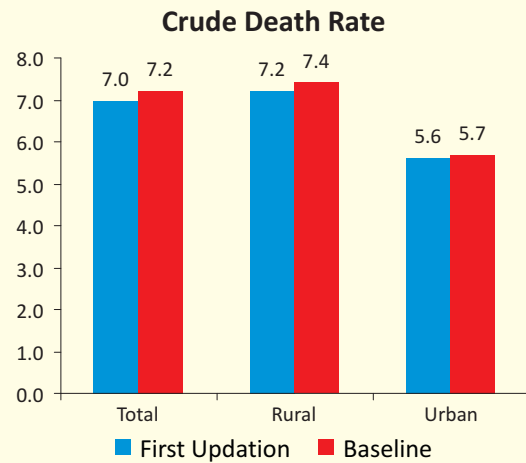
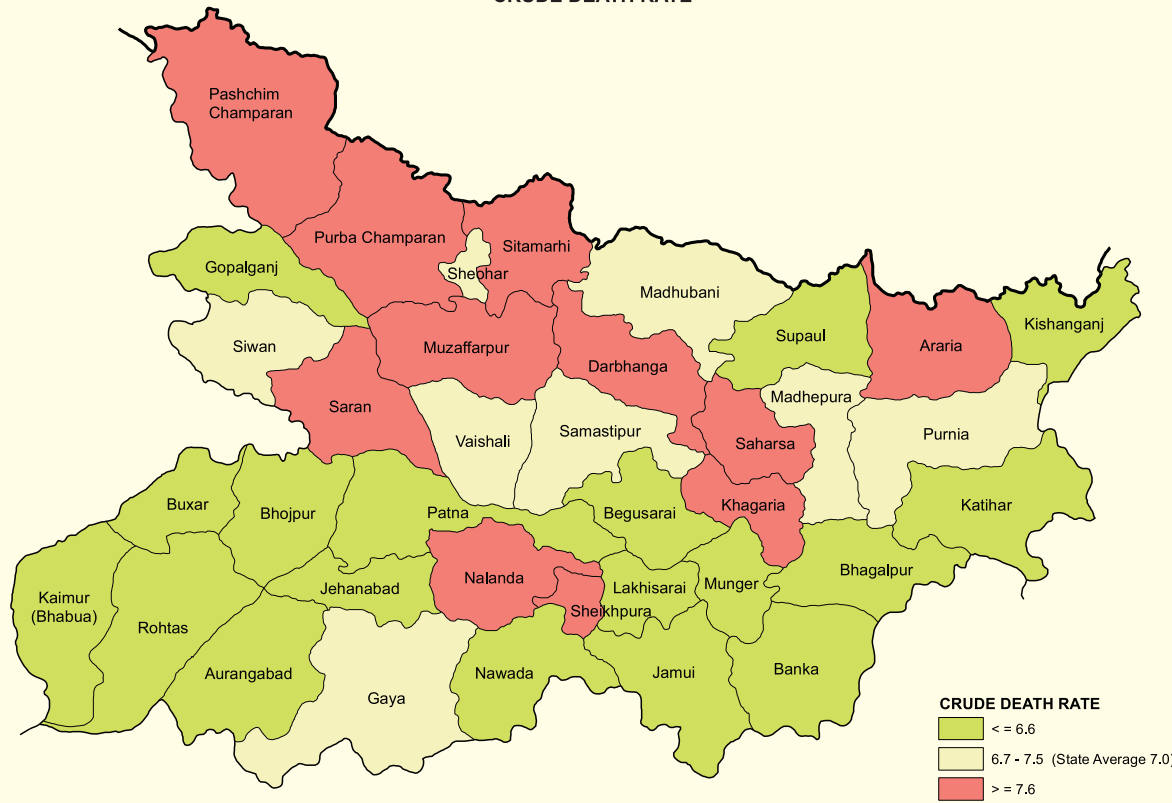
**BIHAR**

District		Crude Death Rate									95% Confidence Interval for Crude Death Rate					
		Total			Rural			Urban			Total		Rural		Urban	
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>7.0 (7.2)</b>	<b>7.1 (7.4)</b>	<b>6.9 (7.0)</b>	<b>7.2 (7.4)</b>	<b>7.3 (7.7)</b>	<b>7.1 (7.2)</b>	<b>5.6 (5.7)</b>	<b>5.8 (5.9)</b>	<b>5.4 (5.5)</b>	<b>6.9 (7.1)</b>	<b>7.1 (7.3)</b>	<b>7.1 (7.3)</b>	<b>7.3 (7.5)</b>	<b>5.3 (5.5)</b>	<b>5.9 (6.1)</b>
01	Pashchim Champaran	8.7 (8.9)	8.4 (8.8)	9.0 (9.1)	8.5 (8.7)	8.2 (8.6)	8.8 (8.9)	10.8 (11.1)	10.8 (10.4)	10.8 (11.8)	7.9 (7.8)	9.5 (10.1)	7.7 (7.6)	9.3 (9.9)	6.7 (6.7)	14.8 (15.4)
02	Purba Champaran	7.8 (8.1)	7.7 (8.0)	8.0 (8.2)	7.9 (8.1)	7.8 (8.1)	7.9 (8.1)	7.8 (7.9)	6.3 (6.8)	9.4 (9.1)	7.4 (7.6)	8.3 (8.6)	7.4 (7.6)	8.3 (8.6)	6.0 (6.6)	9.6 (9.1)
03	Sheohar	7.5 (7.6)	7.1 (7.4)	8.0 (7.8)	7.6 (7.6)	7.1 (7.5)	8.1 (7.8)	6.7 (6.7)	5.9 (5.9)	7.5 (7.6)	6.9 (6.8)	8.2 (8.4)	6.9 (6.8)	8.2 (8.5)	4.2 (4.0)	9.1 (9.5)
04	Sitamarhi	9.3 (9.6)	9.4 (9.7)	9.2 (9.4)	9.6 (9.8)	9.7 (9.9)	9.5 (9.8)	- (6.7)	- (7.6)	- (5.7)	8.5 (8.7)	10.1 (10.4)	8.9 (9.0)	10.3 (10.6)	- (2.4)	- (11.0)
05	Madhubani	7.2 (7.4)	7.1 (7.2)	7.3 (7.6)	7.2 (7.4)	7.1 (7.2)	7.3 (7.6)	8.6 (9.0)	9.5 (8.9)	7.5 (9.1)	6.9 (7.0)	7.6 (7.8)	6.9 (5.5)	7.6 (9.2)	7.6 (7.4)	9.6 (10.6)
06	Supaul	6.4 (6.5)	6.7 (6.6)	6.0 (6.4)	6.5 (6.7)	6.8 (6.7)	6.2 (6.6)	4.9 (4.7)	6.1 (5.5)	3.4 (3.7)	6.0 (6.0)	6.8 (7.0)	6.1 (6.2)	6.9 (7.1)	3.1 (2.9)	6.7 (6.5)
07	Araria	7.6 (7.8)	7.4 (7.4)	7.8 (8.2)	7.6 (7.8)	7.4 (7.4)	7.9 (8.3)	6.8 (7.2)	6.7 (7.4)	6.8 (6.9)	7.0 (7.1)	8.1 (8.4)	7.0 (7.2)	8.2 (8.5)	4.7 (5.0)	8.8 (9.3)
08	Kishanganj	6.4 (6.5)	6.8 (7.3)	6.0 (5.7)	6.6 (6.7)	7.0 (7.5)	6.2 (5.9)	4.9 (4.9)	5.3 (6.1)	4.6 (3.8)	5.7 (5.6)	7.0 (7.4)	5.9 (5.7)	7.2 (7.7)	2.8 (2.7)	7.1 (7.2)
09	Purnia	7.1 (7.2)	7.1 (7.2)	7.1 (7.2)	7.3 (7.6)	7.1 (7.6)	7.5 (7.5)	6.2 (5.5)	7.4 (5.5)	5.0 (5.6)	6.5 (6.3)	7.7 (8.1)	6.6 (7.2)	8.0 (7.9)	4.3 (3.1)	8.2 (7.9)
10	Katihar	6.4 (6.5)	6.8 (7.1)	6.0 (5.9)	6.4 (6.5)	6.8 (7.1)	6.0 (5.9)	6.9 (6.9)	7.1 (7.2)	6.6 (6.6)	5.8 (5.8)	7.0 (7.3)	5.8 (5.7)	7.0 (7.3)	4.5 (4.4)	9.3 (9.4)
11	Madhepura	7.2 (7.5)	7.0 (7.3)	7.5 (7.6)	7.2 (7.4)	7.0 (7.3)	7.4 (7.5)	8.3 (8.5)	6.8 (7.5)	10.1 (9.6)	6.7 (6.9)	7.7 (8.0)	6.7 (6.8)	7.7 (8.0)	6.1 (5.1)	10.5 (11.9)
12	Saharsa	7.6 (7.8)	7.1 (7.4)	8.0 (8.3)	8.0 (8.3)	7.5 (7.8)	8.5 (8.8)	4.9 (5.2)	5.0 (4.8)	4.7 (5.7)	6.7 (6.9)	8.4 (8.7)	7.2 (7.5)	8.7 (9.0)	2.4 (2.3)	7.4 (8.1)
13	Darbhanga	8.6 (8.8)	8.4 (8.9)	8.7 (8.6)	8.5 (8.7)	8.4 (8.9)	8.7 (8.6)	8.9 (9.0)	9.3 (9.8)	8.5 (8.0)	8.0 (8.0)	9.2 (9.5)	7.9 (8.0)	9.2 (9.5)	6.6 (7.2)	11.2 (10.8)
14	Muzaffarpur	8.6 (8.6)	8.3 (8.4)	9.0 (8.7)	8.9 (8.9)	8.5 (8.7)	9.4 (9.1)	5.2 (5.4)	5.8 (5.6)	4.4 (5.1)	8.1 (7.9)	9.0 (9.3)	8.5 (8.1)	9.4 (9.7)	3.6 (3.3)	6.7 (7.5)
15	Gopalganj	6.3 (6.5)	6.5 (6.8)	6.1 (6.3)	6.4 (6.6)	6.7 (6.9)	6.1 (6.3)	5.3 (5.4)	4.5 (4.6)	6.1 (6.2)	5.9 (6.1)	6.7 (6.9)	5.9 (6.2)	6.8 (7.0)	4.6 (3.4)	6.0 (7.4)
16	Siwan	7.3 (7.5)	7.7 (8.2)	6.9 (6.8)	7.4 (7.6)	7.9 (8.3)	7.0 (6.9)	6.5 (6.8)	6.9 (7.8)	6.1 (5.6)	6.9 (7.0)	7.7 (8.0)	7.0 (7.1)	7.8 (8.1)	5.3 (5.6)	7.7 (7.9)
17	Saran	7.6 (7.7)	7.9 (8.8)	7.2 (6.7)	7.7 (7.9)	8.0 (8.9)	7.3 (6.8)	6.6 (7.0)	6.8 (8.0)	6.4 (5.9)	7.0 (7.1)	8.1 (8.4)	7.1 (7.1)	8.3 (8.6)	5.6 (5.5)	7.7 (8.4)
18	Vaishali	7.4 (7.6)	7.5 (8.0)	7.3 (7.2)	7.5 (7.7)	7.5 (8.1)	7.4 (7.4)	6.5 (-)	7.7 (-)	5.1 (-)	6.9 (7.1)	7.9 (8.1)	7.0 (7.2)	7.9 (8.3)	4.0 (-)	9.1 (-)
19	Samastipur	6.7 (6.9)	6.6 (6.7)	6.8 (7.1)	6.8 (7.0)	6.8 (6.8)	6.9 (7.2)	4.5 (4.9)	4.4 (4.8)	4.6 (5.0)	6.3 (6.3)	7.1 (7.4)	6.4 (6.4)	7.2 (7.6)	3.0 (4.2)	6.0 (5.7)

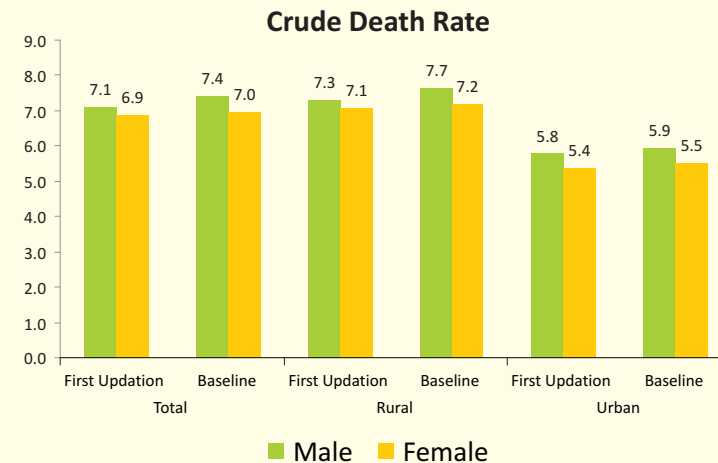
Table-3 : Crude Death Rate &amp; 95% Confidence Interval for Crude Death Rate

District		Crude Death Rate									95% Confidence Interval for Crude Death Rate					
		Total			Rural			Urban			Total		Rural		Urban	
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>7.0 (7.2)</b>	<b>7.1 (7.4)</b>	<b>6.9 (7.0)</b>	<b>7.2 (7.4)</b>	<b>7.3 (7.7)</b>	<b>7.1 (7.2)</b>	<b>5.6 (5.7)</b>	<b>5.8 (5.9)</b>	<b>5.4 (5.5)</b>	<b>6.9 (7.1)</b>	<b>7.1 (7.3)</b>	<b>7.1 (7.3)</b>	<b>7.3 (7.5)</b>	<b>5.3 (5.5)</b>	<b>5.9 (6.1)</b>
20	Begusarai	6.2 (6.5)	6.5 (7.1)	5.9 (5.9)	6.3 (6.6)	6.6 (7.1)	6.1 (6.1)	5.2 (5.8)	6.3 (7.6)	4.0 (3.8)	5.9 (6.0)	6.6 (7.1)	6.0 (6.0)	6.7 (7.2)	4.1 (3.7)	6.3 (7.8)
21	Khagaria	9.3 (9.4)	8.9 (9.1)	9.6 (9.7)	9.4 (9.5)	9.1 (9.3)	9.8 (9.8)	6.8 (7.0)	6.4 (6.2)	7.1 (7.9)	8.7 (8.8)	9.8 (10.0)	8.9 (8.9)	10.0 (10.2)	4.1 (4.2)	9.5 (9.7)
22	Bhagalpur	5.2 (5.5)	5.2 (5.6)	5.1 (5.3)	5.2 (5.5)	5.2 (5.7)	5.2 (5.3)	4.9 (5.2)	4.9 (5.1)	4.9 (5.4)	4.7 (4.7)	5.6 (6.2)	4.7 (4.7)	5.7 (6.3)	3.6 (3.3)	6.2 (7.2)
23	Banka	5.7 (6.1)	6.1 (6.7)	5.4 (5.5)	5.7 (6.1)	6.1 (6.7)	5.3 (5.5)	5.9 (6.0)	6.3 (6.7)	5.5 (5.2)	5.3 (5.5)	6.2 (6.7)	5.3 (5.5)	6.2 (6.7)	2.7 (3.0)	9.2 (9.1)
24	Munger	6.4 (6.7)	6.6 (6.9)	6.3 (6.5)	6.4 (6.7)	6.5 (6.7)	6.3 (6.6)	6.4 (6.7)	6.8 (7.2)	6.1 (6.2)	6.0 (6.2)	6.9 (7.2)	6.0 (6.1)	6.9 (7.2)	5.7 (5.8)	7.2 (7.7)
25	Lakhisarai	6.2 (6.5)	6.3 (6.6)	6.2 (6.4)	6.2 (6.5)	6.2 (6.5)	6.2 (6.5)	6.3 (6.6)	6.8 (7.0)	5.8 (6.3)	5.9 (6.1)	6.6 (7.0)	5.9 (6.0)	6.6 (7.0)	5.4 (5.1)	7.3 (8.2)
26	Sheikhpura	7.8 (8.1)	8.2 (8.8)	7.5 (7.5)	7.9 (8.3)	8.3 (9.1)	7.6 (7.5)	7.2 (7.4)	7.8 (7.2)	6.6 (7.6)	7.5 (7.7)	8.2 (8.6)	7.5 (7.8)	8.4 (8.7)	6.6 (6.2)	7.8 (8.6)
27	Nalanda	7.7 (8.0)	8.3 (8.9)	7.1 (7.2)	7.7 (8.1)	8.2 (8.8)	7.3 (7.3)	7.5 (7.9)	8.9 (9.3)	6.1 (6.5)	7.2 (7.5)	8.2 (8.6)	7.2 (7.5)	8.3 (8.6)	6.0 (6.1)	9.1 (9.7)
28	Patna	5.0 (5.2)	5.0 (5.3)	5.0 (5.1)	6.2 (6.6)	6.3 (6.9)	6.1 (6.3)	3.7 (3.9)	3.7 (3.9)	3.7 (3.8)	4.6 (4.8)	5.4 (5.6)	5.7 (6.0)	6.7 (7.2)	3.2 (3.5)	4.1 (4.2)
29	Bhojpur	5.5 (5.8)	5.8 (6.2)	5.2 (5.4)	5.7 (6.0)	5.9 (6.3)	5.5 (5.7)	4.2 (4.3)	5.0 (5.1)	3.4 (3.3)	5.1 (5.3)	5.9 (6.3)	5.3 (5.5)	6.1 (6.5)	3.0 (2.7)	5.4 (5.9)
30	Buxar	6.4 (6.8)	6.5 (7.2)	6.3 (6.3)	6.6 (7.0)	6.8 (7.5)	6.4 (6.5)	4.5 (4.8)	4.1 (4.7)	4.9 (4.8)	6.0 (6.3)	6.8 (7.2)	6.2 (6.5)	7.0 (7.5)	3.5 (3.3)	5.4 (6.2)
31	Kaimur(Bhabua)	5.5 (6.0)	5.4 (6.2)	5.5 (5.8)	5.5 (6.0)	5.4 (6.2)	5.5 (5.8)	5.4 (5.5)	6.6 (6.3)	4.1 (4.5)	4.9 (5.4)	6.0 (6.5)	4.9 (5.5)	6.0 (6.6)	2.9 (2.6)	7.9 (8.4)
32	Rohtas	6.6 (7.0)	7.0 (7.6)	6.2 (6.4)	6.6 (7.1)	7.0 (7.7)	6.2 (6.4)	6.2 (6.6)	6.4 (6.9)	6.1 (6.3)	6.1 (6.6)	7.1 (7.4)	6.1 (6.6)	7.2 (7.5)	5.1 (5.4)	7.3 (7.8)
33	Jehanabad	5.8 (6.2)	5.8 (6.2)	5.7 (6.2)	5.8 (6.2)	6.0 (6.3)	5.7 (6.2)	5.4 (5.8)	4.8 (5.4)	5.9 (6.1)	5.5 (5.7)	6.1 (6.7)	5.5 (5.7)	6.2 (6.8)	3.7 (4.1)	7.0 (7.4)
34	Aurangabad	6.0 (6.4)	6.2 (6.6)	5.9 (6.1)	6.1 (6.4)	6.2 (6.7)	5.9 (6.1)	5.8 (6.0)	5.6 (6.3)	6.0 (5.8)	5.5 (5.8)	6.6 (6.9)	5.5 (5.8)	6.6 (7.0)	3.7 (4.1)	7.9 (8.0)
35	Gaya	7.0 (7.4)	7.7 (8.0)	6.4 (6.8)	7.3 (7.7)	8.0 (8.4)	6.6 (7.0)	6.2 (6.4)	6.8 (6.6)	5.6 (6.1)	6.5 (6.8)	7.6 (8.0)	6.7 (7.0)	7.9 (8.4)	4.7 (5.0)	7.8 (7.8)
36	Nawada	5.7 (5.9)	6.3 (6.5)	5.1 (5.4)	5.7 (6.0)	6.4 (6.6)	5.1 (5.4)	5.4 (5.7)	5.7 (5.7)	5.1 (5.7)	5.2 (5.3)	6.2 (6.6)	5.2 (5.3)	6.2 (6.6)	3.2 (3.2)	7.7 (8.1)
37	Jamui	6.2 (6.7)	6.5 (6.9)	5.9 (6.4)	6.2 (6.7)	6.5 (7.0)	5.9 (6.4)	6.2 (6.4)	6.8 (6.7)	5.7 (6.1)	5.5 (5.6)	6.9 (7.7)	5.5 (5.5)	6.9 (7.8)	3.5 (3.4)	8.9 (9.5)

CRUDE DEATH RATE



Mortality rate in rural areas is 1.6 points higher than urban areas as per the First Updation round

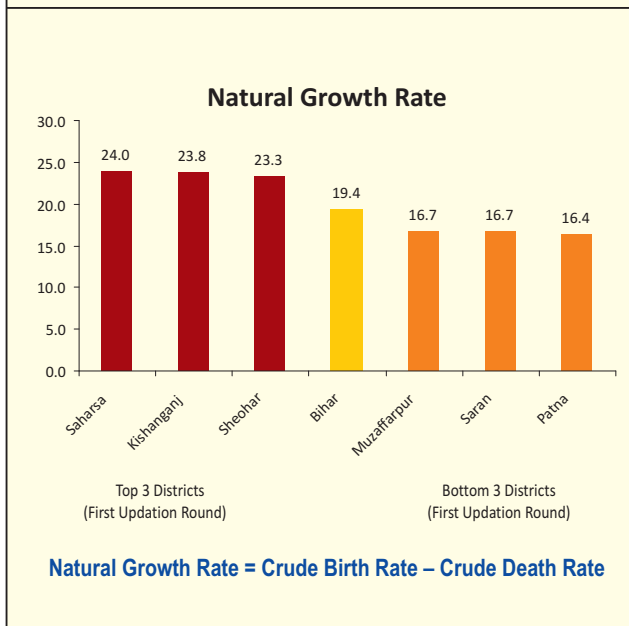
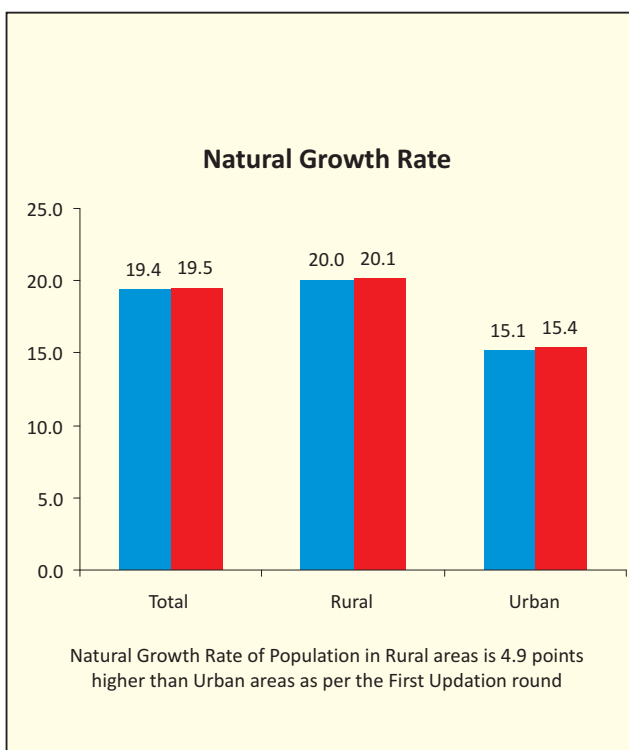


In both urban as well as rural areas death rates are higher among men than women

$$\text{Crude Death Rate} = \left( \frac{\text{Number of Deaths in reference period}}{\text{Mid-year population}} \right) \times 1000$$

Table-4 : Natural Growth Rate

District		Natural Growth Rate		
		Total	Rural	Urban
<b>BIHAR</b>		<b>19.4 (19.5)</b>	<b>20.0 (20.1)</b>	<b>15.1 (15.4)</b>
01	Pashchim Champaran	19.4 (19.7)	20.2 (20.6)	10.1 (10.1)
02	Purba Champaran	21.8 (22.3)	22.4 (22.9)	16.1 (16.7)
03	Sheohar	23.3 (23.6)	23.1 (23.4)	26.1 (26.5)
04	Sitamarhi	18.4 (18.4)	18.5 (18.5)	- (17.7)
05	Madhubani	17.1 (17.3)	17.2 (17.4)	13.4 (13.5)
06	Supaul	21.7 (22.0)	21.8 (22.0)	20.9 (21.5)
07	Araria	23.1 (23.1)	23.3 (23.3)	20.2 (20.2)
08	Kishanganj	23.8 (24.1)	24.5 (24.8)	18.5 (18.8)
09	Purnia	20.1 (20.4)	21.0 (21.2)	15.2 (16.1)
10	Katihar	22.0 (22.3)	22.6 (22.8)	13.9 (14.7)
11	Madhepura	22.5 (22.7)	22.9 (23.1)	12.1 (12.3)
12	Saharsa	24.0 (24.2)	24.9 (25.3)	18.0 (18.1)
13	Darbhanga	17.7 (17.7)	18.1 (18.1)	12.0 (12.5)
14	Muzaffarpur	16.7 (16.9)	17.2 (17.4)	12.1 (12.0)
15	Gopalganj	19.0 (19.2)	19.0 (19.2)	18.9 (19.3)
16	Siwan	18.5 (18.6)	18.9 (19.2)	14.7 (14.6)
17	Saran	16.7 (16.7)	16.6 (16.7)	17.1 (16.8)
18	Vaishali	19.3 (19.7)	19.8 (20.0)	11.7 (-)



District		Natural Growth Rate		
		Total	Rural	Urban
19	Samastipur	21.6 (21.8)	22.1 (22.3)	13.9 (13.7)
20	Begusarai	20.0 (20.1)	20.4 (20.5)	16.1 (15.9)
21	Khagaria	21.1 (21.3)	21.5 (21.7)	16.3 (16.3)
22	Bhagalpur	20.8 (20.9)	21.3 (21.4)	18.9 (19.0)
23	Banka	19.6 (19.7)	19.7 (19.8)	18.2 (17.8)
24	Munger	18.2 (18.3)	19.1 (19.3)	16.3 (16.2)
25	Lakhisarai	17.3 (17.5)	17.8 (18.0)	13.7 (13.9)
26	Sheikhpura	20.7 (20.8)	21.7 (21.8)	14.7 (15.2)
27	Nalanda	18.2 (18.2)	18.7 (18.8)	15.5 (15.2)
28	Patna	16.4 (16.6)	19.1 (19.2)	13.5 (14.1)
29	Bhojpur	18.5 (18.8)	19.0 (19.2)	15.6 (16.3)
30	Buxar	18.2 (18.3)	18.3 (18.3)	17.7 (17.9)
31	Kaimur(Bhabua)	19.1 (19.0)	19.3 (19.2)	13.4 (13.9)
32	Rohtas	19.0 (18.9)	19.4 (19.3)	16.3 (16.0)
33	Jehanabad	18.6 (18.7)	18.7 (18.9)	17.3 (17.1)
34	Aurangabad	19.1 (19.3)	19.3 (19.5)	17.5 (17.3)
35	Gaya	17.4 (17.5)	18.5 (18.5)	13.6 (14.2)
36	Nawada	18.8 (19.0)	19.2 (19.4)	15.5 (15.6)
37	Jamui	19.8 (19.7)	20.1 (20.0)	16.3 (16.4)

**Table-5 : Infant Mortality Rate & 95% Confidence Interval for Infant Mortality Rate**

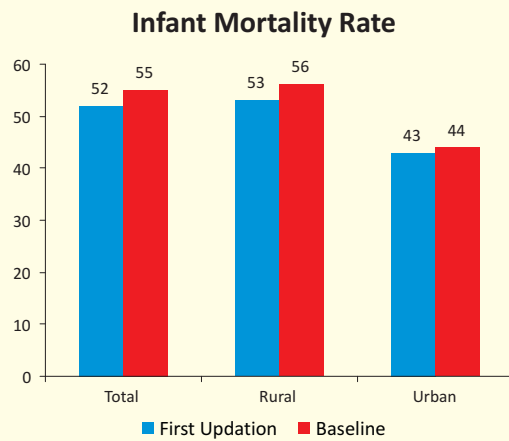
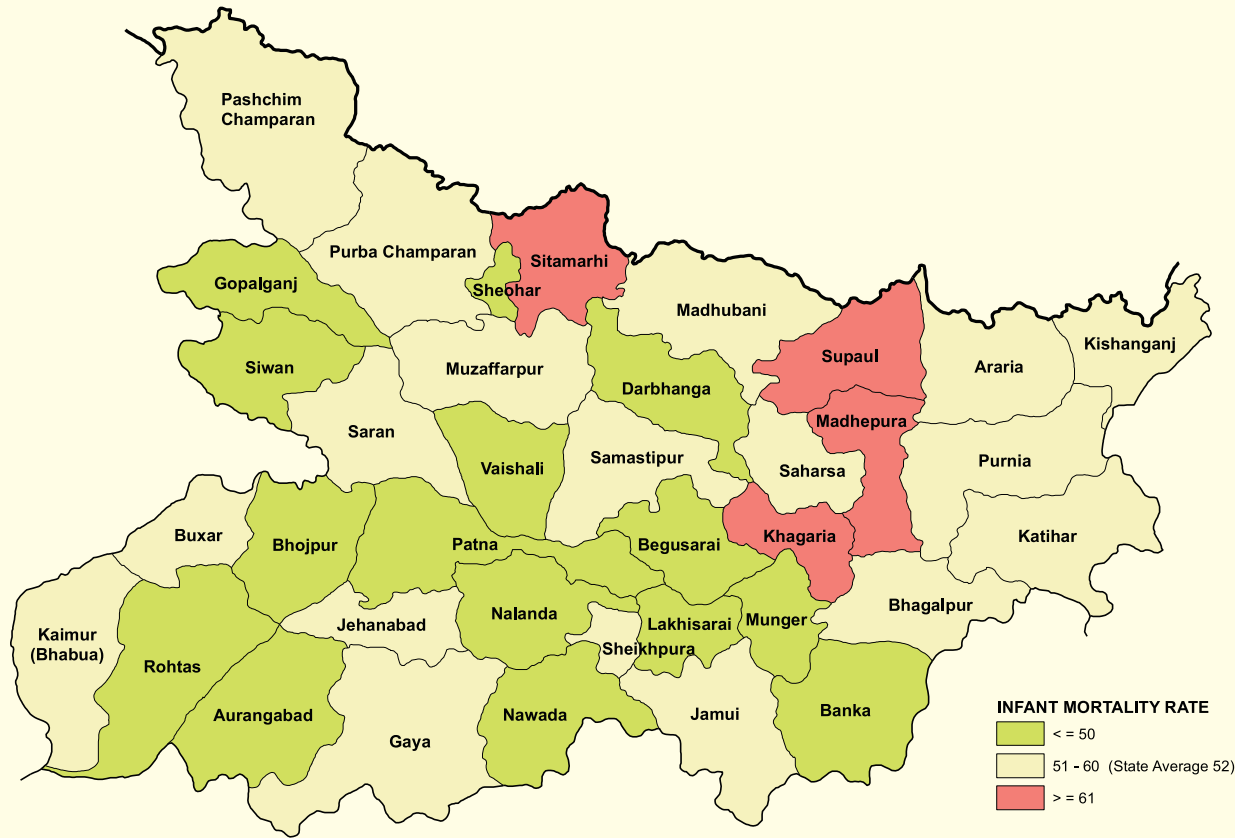
**BIHAR**

District		Infant Mortality Rate									95% Confidence Interval for Infant Mortality Rate					
		Total			Rural			Urban			Total		Rural		Urban	
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>52 (55)</b>	<b>50 (53)</b>	<b>53 (56)</b>	<b>53 (56)</b>	<b>51 (54)</b>	<b>54 (58)</b>	<b>43 (44)</b>	<b>41 (43)</b>	<b>45 (46)</b>	<b>50 (53)</b>	<b>53 (56)</b>	<b>51 (54)</b>	<b>54 (57)</b>	<b>38 (40)</b>	<b>48 (49)</b>
01	Pashchim Champaran	53 (57)	48 (54)	57 (60)	51 (55)	46 (51)	57 (59)	- (82)	- (92)	- (72)	39 (41)	66 (73)	37 (38)	66 (72)	- (44)	- (120)
02	Purba Champaran	53 (57)	53 (54)	53 (60)	51 (55)	52 (52)	50 (57)	75 (77)	64 (66)	89 (90)	45 (48)	60 (65)	43 (47)	58 (63)	49 (35)	101 (119)
03	Sheohar	47 (50)	40 (45)	55 (56)	48 (51)	40 (45)	56 (57)	- (35)	- (32)	- (37)	41 (42)	53 (58)	41 (43)	54 (59)	- (21)	- (48)
04	Sitamarhi	64 (67)	64 (66)	63 (69)	66 (70)	67 (69)	66 (72)	- (-)	- (-)	- (-)	55 (58)	72 (76)	57 (61)	75 (80)	- (-)	- (-)
05	Madhubani	52 (54)	46 (50)	59 (58)	52 (54)	46 (50)	59 (58)	- (-)	- (-)	- (-)	46 (46)	59 (62)	46 (38)	59 (70)	- (-)	- (-)
06	Supaul	61 (64)	61 (64)	61 (65)	63 (67)	63 (66)	63 (67)	- (-)	- (-)	- (-)	54 (56)	69 (73)	55 (58)	71 (75)	- (-)	- (-)
07	Araria	56 (61)	53 (59)	58 (63)	57 (62)	54 (60)	60 (64)	41 (-)	42 (-)	39 (-)	49 (52)	63 (69)	50 (53)	64 (71)	24 (-)	57 (-)
08	Kishanganj	58 (61)	57 (62)	59 (61)	60 (63)	58 (62)	62 (64)	- (45)	- (57)	- (31)	46 (47)	71 (76)	47 (48)	73 (78)	- (23)	- (67)
09	Purnia	58 (62)	56 (60)	61 (63)	56 (62)	52 (58)	61 (67)	- (58)	- (74)	- (40)	48 (54)	69 (69)	47 (59)	65 (66)	- (31)	- (85)
10	Katihar	55 (59)	57 (58)	54 (59)	56 (59)	57 (59)	54 (60)	- (-)	- (-)	- (-)	47 (51)	64 (66)	48 (51)	64 (67)	- (-)	- (-)
11	Madhepura	68 (71)	66 (71)	69 (71)	68 (72)	67 (72)	69 (72)	- (59)	- (65)	- (53)	61 (64)	74 (79)	62 (64)	74 (79)	- (28)	- (90)
12	Saharsa	59 (62)	58 (60)	60 (64)	59 (62)	60 (61)	58 (63)	- (61)	- (48)	- (76)	51 (55)	67 (69)	52 (55)	66 (69)	- (26)	- (96)
13	Darbhanga	48 (51)	47 (51)	48 (51)	47 (50)	47 (51)	47 (49)	63 (66)	45 (48)	80 (83)	41 (42)	54 (60)	40 (41)	54 (59)	32 (40)	93 (92)
14	Muzaffarpur	57 (60)	54 (55)	61 (65)	60 (62)	55 (57)	64 (68)	- (-)	- (-)	- (-)	51 (51)	64 (68)	52 (53)	67 (71)	- (-)	- (-)
15	Gopalganj	48 (51)	46 (48)	50 (54)	49 (52)	49 (51)	49 (54)	37 (36)	18 (18)	58 (59)	41 (44)	55 (59)	41 (44)	57 (60)	17 (23)	56 (49)
16	Siwan	46 (49)	46 (48)	45 (50)	47 (50)	47 (48)	47 (52)	- (-)	- (-)	- (-)	41 (44)	50 (54)	42 (45)	51 (55)	- (-)	- (-)
17	Saran	51 (52)	48 (51)	55 (54)	51 (52)	47 (50)	55 (53)	53 (57)	51 (57)	56 (57)	44 (44)	59 (61)	43 (43)	59 (61)	33 (38)	74 (76)
18	Vaishali	47 (50)	45 (48)	49 (52)	44 (50)	43 (48)	45 (52)	102 (-)	74 (-)	134 (-)	42 (45)	51 (54)	40 (45)	48 (54)	56 (-)	149 (-)
19	Samastipur	52 (54)	47 (50)	58 (60)	53 (56)	48 (51)	60 (61)	- (-)	- (-)	- (-)	44 (47)	60 (62)	45 (48)	61 (63)	- (-)	- (-)

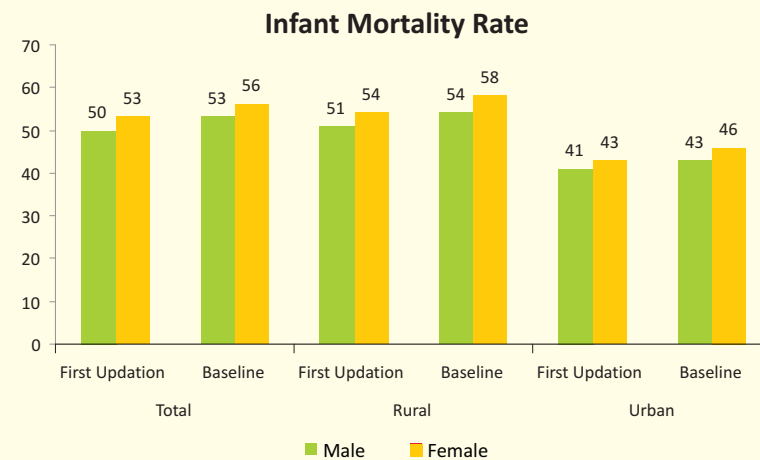
Table-5 : Infant Mortality Rate &amp; 95% Confidence Interval for Infant Mortality Rate

District		Infant Mortality Rate									95% Confidence Interval for Infant Mortality Rate					
		Total			Rural			Urban			Total		Rural		Urban	
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>52 (55)</b>	<b>50 (53)</b>	<b>53 (56)</b>	<b>53 (56)</b>	<b>51 (54)</b>	<b>54 (58)</b>	<b>43 (44)</b>	<b>41 (43)</b>	<b>45 (46)</b>	<b>50 (53)</b>	<b>53 (56)</b>	<b>51 (54)</b>	<b>54 (57)</b>	<b>38 (40)</b>	<b>48 (49)</b>
20	Begusarai	43 (46)	42 (45)	44 (47)	44 (46)	44 (46)	44 (47)	- (39)	- (35)	- (45)	38 (41)	48 (50)	39 (42)	48 (51)	- (28)	- (51)
21	Khagaria	63 (66)	63 (65)	63 (66)	64 (67)	64 (66)	64 (67)	- (-)	- (-)	- (-)	58 (59)	68 (72)	59 (60)	69 (73)	- (-)	- (-)
22	Bhagalpur	51 (54)	53 (54)	50 (55)	53 (56)	55 (56)	52 (56)	43 (48)	43 (46)	42 (49)	45 (45)	58 (63)	45 (45)	61 (67)	32 (34)	53 (61)
23	Banka	45 (48)	46 (49)	44 (48)	45 (49)	47 (50)	44 (48)	- (-)	- (-)	- (-)	40 (42)	51 (55)	40 (42)	51 (56)	- (-)	- (-)
24	Munger	48 (51)	46 (49)	51 (52)	50 (52)	47 (50)	52 (54)	44 (47)	42 (46)	47 (48)	42 (45)	54 (56)	44 (46)	55 (58)	29 (38)	59 (57)
25	Lakhisarai	50 (53)	48 (51)	53 (54)	52 (54)	49 (53)	54 (55)	38 (43)	36 (41)	40 (45)	44 (46)	56 (59)	45 (47)	58 (61)	18 (30)	57 (56)
26	Sheikhpura	56 (58)	53 (54)	60 (62)	57 (59)	55 (56)	61 (63)	45 (49)	38 (41)	53 (57)	50 (52)	62 (64)	51 (52)	64 (66)	21 (39)	69 (58)
27	Nalanda	49 (52)	49 (52)	49 (52)	50 (53)	51 (54)	50 (53)	42 (44)	42 (42)	41 (46)	42 (44)	56 (60)	43 (45)	58 (62)	20 (25)	63 (62)
28	Patna	37 (39)	36 (39)	38 (40)	43 (46)	42 (45)	44 (46)	27 (30)	25 (29)	29 (31)	33 (35)	41 (44)	38 (40)	49 (52)	19 (24)	34 (36)
29	Bhojpur	44 (48)	42 (47)	47 (48)	46 (49)	42 (48)	49 (50)	36 (38)	38 (39)	33 (38)	39 (43)	50 (52)	40 (44)	51 (54)	17 (26)	54 (51)
30	Buxar	53 (55)	52 (55)	53 (55)	54 (56)	54 (56)	54 (56)	38 (42)	33 (36)	43 (48)	47 (48)	58 (62)	48 (49)	60 (63)	18 (19)	57 (65)
31	Kaimur(Bhabua)	53 (56)	52 (53)	54 (59)	53 (56)	53 (54)	54 (59)	46 (36)	45 (29)	49 (48)	45 (48)	61 (63)	45 (48)	61 (64)	24 (28)	69 (45)
32	Rohtas	49 (52)	46 (51)	51 (52)	49 (52)	47 (51)	51 (52)	44 (50)	40 (47)	50 (53)	43 (46)	54 (57)	44 (46)	54 (58)	21 (35)	68 (65)
33	Jehanabad	51 (53)	50 (52)	52 (54)	52 (54)	51 (53)	53 (55)	39 (43)	38 (42)	40 (44)	45 (46)	57 (59)	46 (47)	58 (60)	16 (19)	63 (67)
34	Aurangabad	44 (48)	44 (47)	43 (48)	43 (47)	44 (47)	42 (48)	- (52)	- (47)	- (57)	37 (42)	50 (54)	36 (41)	50 (53)	- (32)	- (71)
35	Gaya	52 (55)	51 (53)	54 (57)	54 (57)	53 (56)	55 (57)	46 (48)	42 (42)	50 (53)	44 (47)	61 (63)	45 (47)	63 (66)	24 (28)	68 (68)
36	Nawada	47 (49)	48 (50)	45 (49)	46 (49)	47 (49)	46 (48)	- (-)	- (-)	- (-)	40 (43)	54 (56)	40 (43)	53 (55)	- (-)	- (-)
37	Jamui	54 (57)	52 (57)	55 (57)	54 (58)	52 (59)	56 (57)	45 (52)	42 (43)	49 (63)	45 (50)	62 (65)	45 (50)	63 (66)	18 (23)	72 (80)

INFANT MORTALITY RATE



Infant Mortality rate in rural areas is 10 points higher than urban areas as per the First Updation round

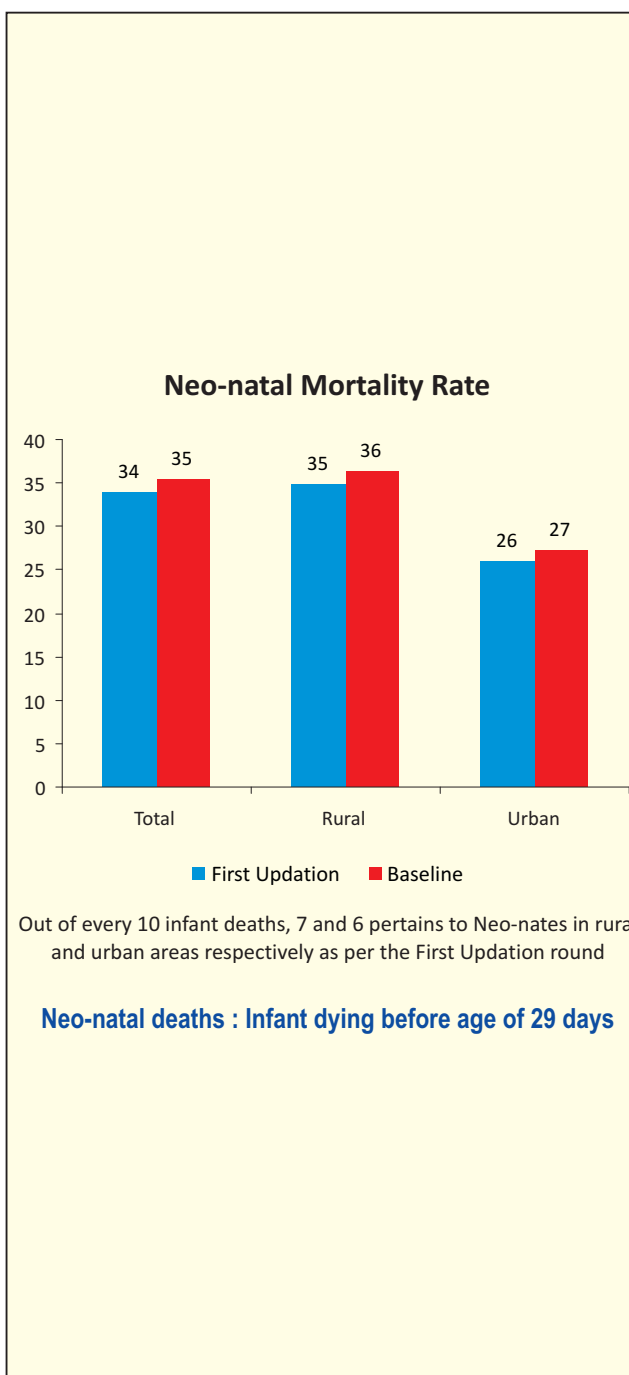


Female infants experience higher mortality than males in rural as well as urban areas

$$\text{Infant Mortality Rate} = \left( \frac{\text{Number of Infant Deaths (less than 1 year of age)}}{\text{Number of live births during reference period}} \right) \times 1000$$

Table-6 : Neo-natal Mortality Rate

District		Neo-natal Mortality Rate		
		Total	Rural	Urban
<b>BIHAR</b>		<b>34 (35)</b>	<b>35 (36)</b>	<b>26 (27)</b>
01	Pashchim Champaran	34 (37)	34 (36)	- (50)
02	Purba Champaran	35 (37)	33 (35)	53 (53)
03	Sheohar	30 (31)	30 (32)	- (25)
04	Sitamarhi	42 (43)	44 (46)	- (-)
05	Madhubani	32 (32)	32 (33)	- (-)
06	Supaul	44 (45)	46 (47)	- (-)
07	Araria	42 (45)	43 (46)	30 (-)
08	Kishanganj	45 (47)	47 (48)	- (31)
09	Purnia	42 (44)	42 (46)	- (35)
10	Katihar	40 (42)	40 (42)	- (-)
11	Madhepura	48 (49)	48 (50)	- (46)
12	Saharsa	40 (41)	41 (42)	- (31)
13	Darbhanga	30 (31)	30 (31)	28 (30)
14	Muzaffarpur	38 (40)	39 (42)	- (-)
15	Gopalganj	38 (38)	38 (39)	30 (30)
16	Siwan	34 (36)	35 (37)	- (-)
17	Saran	38 (38)	37 (38)	43 (44)
18	Vaishali	32 (35)	31 (35)	45 (-)

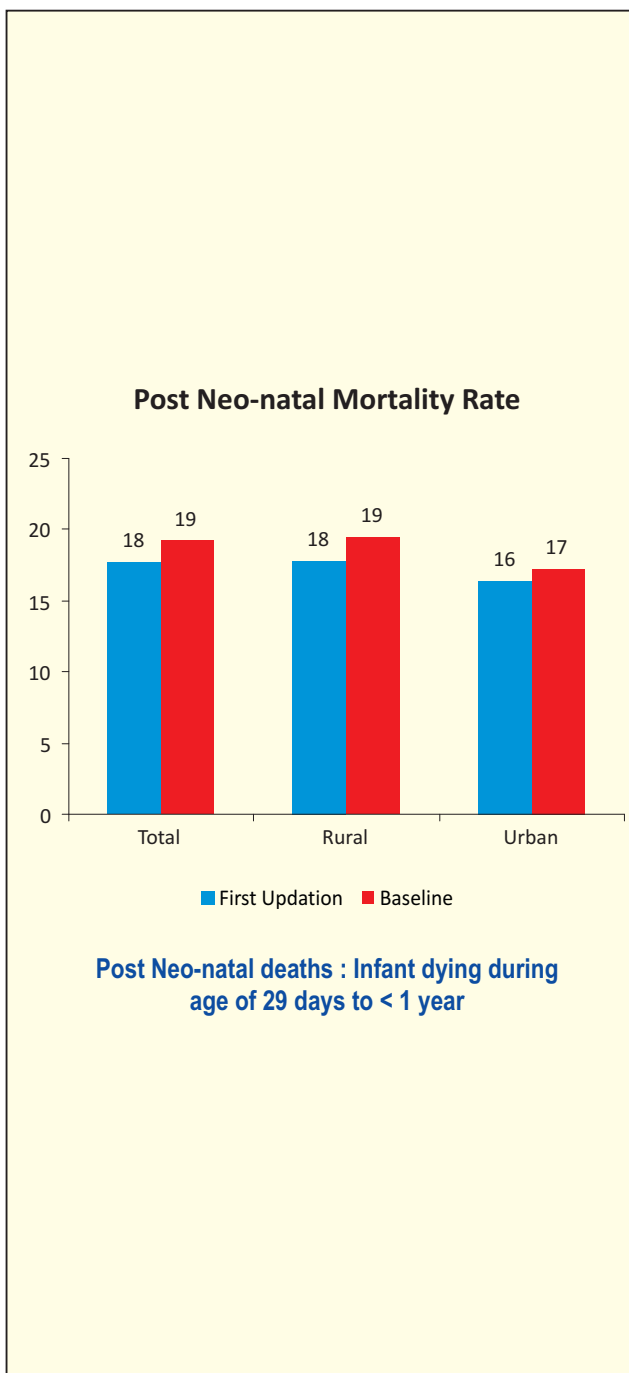


District		Neo-natal Mortality Rate		
		Total	Rural	Urban
19	Samastipur	36 (38)	37 (39)	- (-)
20	Begusarai	25 (25)	25 (26)	- (20)
21	Khagaria	47 (48)	47 (48)	- (-)
22	Bhagalpur	31 (34)	33 (35)	26 (27)
23	Banka	29 (30)	29 (30)	- (-)
24	Munger	29 (31)	30 (32)	26 (28)
25	Lakhisarai	27 (29)	28 (30)	22 (24)
26	Sheikhpura	30 (31)	30 (31)	28 (32)
27	Nalanda	26 (27)	26 (28)	25 (25)
28	Patna	21 (22)	24 (25)	15 (17)
29	Bhojpur	26 (27)	26 (28)	22 (23)
30	Buxar	31 (32)	32 (33)	19 (21)
31	Kaimur(Bhabua)	29 (31)	29 (31)	28 (27)
32	Rohtas	28 (29)	28 (29)	28 (29)
33	Jehanabad	31 (31)	31 (32)	26 (28)
34	Aurangabad	28 (29)	28 (30)	- (29)
35	Gaya	30 (31)	32 (33)	23 (25)
36	Nawada	30 (31)	30 (31)	- (-)
37	Jamui	31 (33)	31 (34)	28 (29)



Table-7 : Post Neo-natal Mortality Rate

District		Post Neo-natal Mortality Rate		
		Total	Rural	Urban
<b>BIHAR</b>		<b>18 (19)</b>	<b>18 (19)</b>	<b>16 (17)</b>
01	Pashchim Champaran	18 (20)	18 (19)	- (31)
02	Purba Champaran	18 (20)	18 (20)	22 (24)
03	Sheohar	17 (19)	18 (19)	- (10)
04	Sitamarhi	22 (24)	22 (25)	- (-)
05	Madhubani	20 (21)	20 (21)	- (-)
06	Supaul	18 (19)	17 (19)	- (-)
07	Araria	13 (16)	13 (16)	11 (-)
08	Kishanganj	13 (15)	13 (15)	- (14)
09	Purnia	15 (17)	14 (17)	- (23)
10	Katihar	15 (16)	16 (17)	- (-)
11	Madhepura	20 (22)	20 (22)	- (13)
12	Saharsa	19 (21)	18 (20)	- (31)
13	Darbhanga	18 (20)	17 (19)	34 (36)
14	Muzaffarpur	20 (19)	20 (21)	- (-)
15	Gopalganj	10 (13)	11 (13)	7 (7)
16	Siwan	11 (13)	12 (13)	- (-)
17	Saran	14 (14)	14 (14)	13 (13)
18	Vaishali	14 (14)	13 (14)	34 (-)



District		Post Neo-natal Mortality Rate		
		Total	Rural	Urban
19	Samastipur	16 (17)	16 (17)	- (-)
20	Begusarai	19 (20)	19 (20)	- (20)
21	Khagaria	16 (18)	17 (19)	- (-)
22	Bhagalpur	20 (21)	21 (21)	17 (20)
23	Banka	17 (19)	17 (19)	- (-)
24	Munger	19 (20)	20 (20)	18 (19)
25	Lakhisarai	23 (23)	24 (24)	16 (18)
26	Sheikhpura	26 (26)	28 (28)	18 (17)
27	Nalanda	23 (25)	24 (26)	17 (19)
28	Patna	16 (17)	19 (21)	12 (13)
29	Bhojpur	19 (20)	19 (21)	14 (16)
30	Buxar	22 (23)	22 (24)	19 (21)
31	Kaimur(Bhabua)	24 (25)	25 (26)	19 (9)
32	Rohtas	21 (22)	21 (22)	17 (21)
33	Jehanabad	20 (21)	21 (22)	13 (15)
34	Aurangabad	16 (18)	15 (18)	- (23)
35	Gaya	22 (24)	22 (24)	23 (23)
36	Nawada	17 (18)	17 (18)	- (-)
37	Jamui	22 (24)	23 (24)	17 (23)

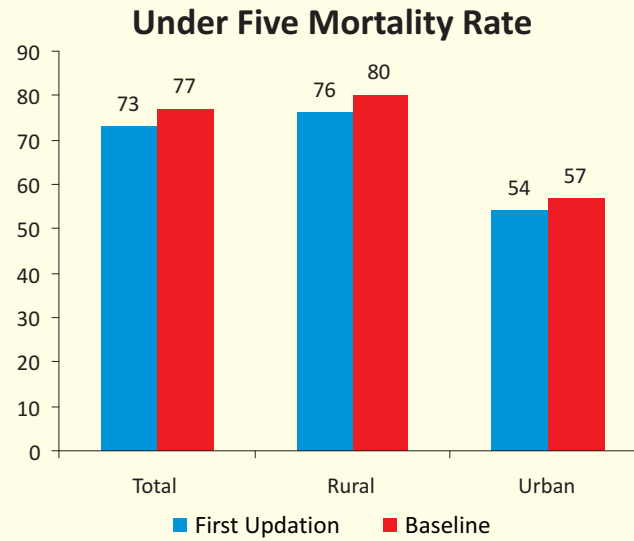
Table-8 : Under Five Mortality Rate (U5MR) &amp; 95% Confidence Interval for Under Five Mortality Rate

District		Under Five Mortality Rate (U5MR)									95% Confidence Interval for Under Five Mortality Rate					
		Total			Rural			Urban			Total		Rural		Urban	
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>73 (77)</b>	<b>70 (74)</b>	<b>77 (81)</b>	<b>76 (80)</b>	<b>72 (76)</b>	<b>80 (83)</b>	<b>54 (57)</b>	<b>51 (53)</b>	<b>58 (60)</b>	<b>72 (76)</b>	<b>74 (78)</b>	<b>75 (79)</b>	<b>77 (81)</b>	<b>51 (53)</b>	<b>58 (60)</b>
01	Pashchim Champaran	77 (81)	70 (78)	84 (85)	76 (81)	68 (76)	84 (85)	- (98)	- (107)	- (90)	69 (73)	85 (90)	67 (72)	84 (89)	- (51)	- (144)
02	Purba Champaran	69 (75)	66 (71)	74 (79)	67 (72)	65 (70)	69 (75)	96 (100)	73 (79)	123 (124)	64 (69)	75 (81)	61 (66)	73 (78)	64 (68)	129 (132)
03	Sheohar	83 (87)	71 (77)	96 (98)	85 (89)	73 (79)	98 (100)	- (51)	- (32)	- (72)	76 (80)	90 (94)	78 (82)	92 (96)	- (21)	- (82)
04	Sitamarhi	101 (106)	96 (97)	107 (115)	106 (111)	101 (103)	112 (120)	- (-)	- (-)	- (-)	93 (98)	109 (114)	98 (103)	115 (120)	- (-)	- (-)
05	Madhubani	70 (73)	63 (67)	78 (80)	70 (73)	62 (67)	78 (81)	- (-)	- (-)	- (-)	65 (68)	75 (79)	64 (68)	75 (79)	- (-)	- (-)
06	Supaul	86 (89)	86 (87)	86 (91)	88 (92)	88 (91)	88 (93)	- (-)	- (-)	- (-)	79 (83)	92 (95)	81 (85)	95 (99)	- (-)	- (-)
07	Araria	80 (87)	75 (82)	85 (92)	82 (90)	77 (84)	87 (96)	47 (-)	48 (-)	46 (-)	73 (80)	86 (94)	76 (83)	89 (97)	22 (-)	72 (-)
08	Kishanganj	85 (90)	87 (96)	84 (85)	89 (94)	91 (100)	88 (89)	- (55)	- (67)	- (41)	78 (82)	93 (98)	82 (86)	97 (103)	- (29)	- (82)
09	Purnia	97 (102)	96 (104)	99 (99)	98 (104)	93 (104)	104 (105)	- (87)	- (107)	- (65)	88 (92)	107 (111)	89 (94)	108 (115)	- (53)	- (122)
10	Katihar	83 (85)	83 (86)	82 (84)	84 (87)	86 (88)	83 (86)	- (-)	- (-)	- (-)	76 (79)	89 (92)	78 (80)	91 (93)	- (-)	- (-)
11	Madhepura	96 (101)	89 (97)	103 (106)	97 (103)	90 (98)	105 (107)	- (64)	- (65)	- (64)	90 (95)	102 (108)	91 (96)	103 (109)	- (25)	- (103)
12	Saharsa	86 (91)	80 (84)	94 (98)	87 (92)	82 (86)	93 (98)	- (83)	- (66)	- (103)	79 (84)	93 (98)	80 (85)	95 (99)	- (57)	- (109)
13	Darbhanga	81 (85)	74 (79)	88 (92)	81 (86)	75 (80)	88 (92)	75 (79)	61 (65)	88 (93)	74 (78)	88 (92)	74 (79)	88 (93)	36 (38)	114 (120)
14	Muzaffarpur	86 (89)	77 (76)	97 (102)	91 (94)	80 (80)	103 (109)	- (-)	- (-)	- (-)	80 (82)	92 (95)	84 (87)	97 (100)	- (-)	- (-)
15	Gopalganj	62 (66)	58 (60)	66 (72)	63 (68)	60 (63)	67 (73)	40 (36)	25 (18)	58 (59)	56 (60)	68 (72)	58 (62)	69 (74)	18 (15)	62 (58)
16	Siwan	68 (73)	68 (72)	68 (73)	71 (75)	71 (74)	72 (77)	- (-)	- (-)	- (-)	64 (68)	73 (78)	66 (70)	76 (81)	- (-)	- (-)
17	Saran	66 (70)	62 (67)	71 (72)	66 (69)	61 (67)	72 (71)	66 (75)	66 (72)	66 (78)	60 (63)	73 (76)	60 (62)	73 (76)	41 (48)	90 (101)
18	Vaishali	67 (70)	59 (64)	75 (76)	65 (70)	58 (64)	72 (76)	121 (-)	89 (-)	157 (-)	61 (64)	73 (76)	59 (64)	70 (76)	73 (-)	169 (-)
19	Samastipur	74 (77)	67 (70)	82 (84)	76 (79)	68 (72)	85 (87)	- (-)	- (-)	- (-)	68 (71)	80 (83)	70 (73)	82 (86)	- (-)	- (-)

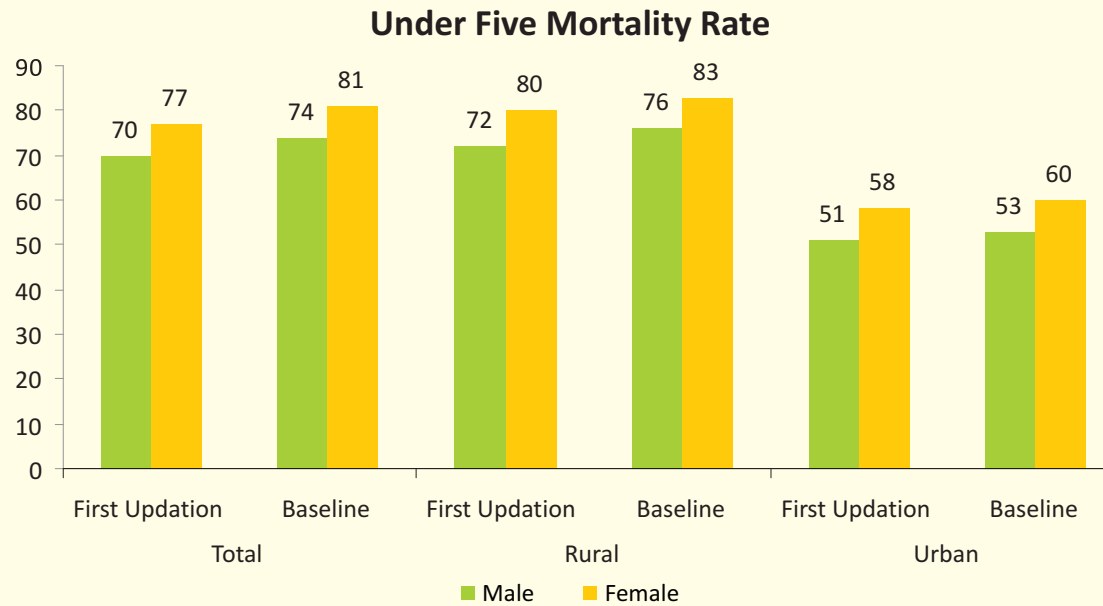
Table-8 : Under Five Mortality Rate (U5MR) &amp; 95% Confidence Interval for Under Five Mortality Rate

BIHAR

District		Under Five Mortality Rate (U5MR)									95% Confidence Interval for Under Five Mortality Rate					
		Total			Rural			Urban			Total		Rural		Urban	
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>73 (77)</b>	<b>70 (74)</b>	<b>77 (81)</b>	<b>76 (80)</b>	<b>72 (76)</b>	<b>80 (83)</b>	<b>54 (57)</b>	<b>51 (53)</b>	<b>58 (60)</b>	<b>72 (76)</b>	<b>74 (78)</b>	<b>75 (79)</b>	<b>77 (81)</b>	<b>51 (53)</b>	<b>58 (60)</b>
20	Begusarai	64 (65)	61 (62)	67 (68)	66 (67)	63 (64)	68 (70)	- (47)	- (42)	- (53)	58 (59)	70 (71)	60 (61)	72 (73)	- (18)	- (76)
21	Khagaria	99 (103)	95 (99)	104 (107)	102 (106)	98 (102)	107 (109)	- (-)	- (-)	- (-)	94 (97)	105 (108)	96 (100)	108 (111)	- (-)	- (-)
22	Bhagalpur	67 (69)	67 (69)	66 (69)	70 (71)	70 (72)	69 (71)	54 (60)	52 (58)	56 (63)	60 (63)	73 (76)	63 (64)	77 (78)	35 (41)	72 (80)
23	Banka	60 (63)	61 (63)	59 (63)	61 (63)	62 (64)	60 (63)	- (-)	- (-)	- (-)	54 (57)	66 (69)	55 (57)	67 (70)	- (-)	- (-)
24	Munger	62 (63)	58 (59)	66 (68)	66 (68)	62 (64)	70 (73)	52 (54)	48 (49)	57 (58)	56 (57)	68 (69)	60 (61)	73 (74)	39 (41)	65 (66)
25	Lakhisarai	69 (70)	64 (66)	74 (76)	71 (72)	67 (68)	76 (78)	50 (55)	42 (50)	58 (61)	63 (65)	74 (76)	66 (67)	77 (78)	31 (35)	69 (75)
26	Sheikhpura	75 (76)	70 (70)	81 (83)	77 (78)	73 (73)	82 (83)	61 (62)	49 (49)	74 (78)	68 (69)	82 (83)	70 (71)	84 (86)	37 (39)	84 (86)
27	Nalanda	77 (80)	75 (78)	79 (82)	78 (81)	75 (78)	81 (83)	70 (75)	73 (76)	67 (74)	71 (73)	84 (87)	71 (74)	85 (88)	48 (53)	92 (98)
28	Patna	50 (53)	48 (51)	53 (55)	63 (66)	61 (64)	65 (68)	33 (37)	31 (35)	36 (39)	46 (48)	55 (58)	57 (60)	69 (72)	26 (30)	40 (44)
29	Bhojpur	57 (61)	53 (57)	62 (64)	60 (63)	56 (60)	65 (66)	40 (42)	38 (39)	43 (46)	52 (55)	63 (66)	54 (57)	66 (69)	23 (23)	57 (61)
30	Buxar	73 (74)	71 (72)	75 (77)	76 (78)	75 (76)	77 (79)	44 (45)	33 (36)	54 (53)	67 (68)	79 (81)	70 (71)	82 (84)	21 (23)	66 (67)
31	Kaimur(Bhabua)	69 (73)	67 (69)	71 (77)	69 (73)	67 (70)	72 (77)	53 (43)	57 (43)	49 (48)	61 (65)	76 (80)	62 (65)	77 (81)	11 (5)	95 (81)
32	Rohtas	62 (65)	61 (66)	63 (65)	64 (67)	63 (67)	65 (66)	50 (55)	47 (54)	54 (57)	56 (59)	69 (72)	57 (60)	71 (74)	30 (35)	70 (76)
33	Jehanabad	65 (67)	61 (63)	70 (72)	67 (68)	62 (63)	72 (73)	51 (55)	50 (54)	52 (56)	60 (62)	71 (72)	61 (63)	73 (74)	31 (34)	71 (75)
34	Aurangabad	56 (61)	52 (57)	59 (65)	55 (61)	52 (57)	58 (65)	- (62)	- (57)	- (67)	49 (54)	62 (68)	48 (54)	62 (68)	- (37)	- (87)
35	Gaya	67 (70)	67 (69)	67 (71)	69 (72)	70 (73)	68 (72)	58 (62)	54 (54)	62 (70)	59 (62)	75 (78)	60 (63)	78 (81)	37 (40)	79 (83)
36	Nawada	57 (61)	57 (58)	58 (63)	57 (61)	57 (58)	57 (62)	- (-)	- (-)	- (-)	51 (55)	64 (67)	50 (54)	64 (67)	- (-)	- (-)
37	Jamui	73 (78)	71 (76)	75 (81)	75 (80)	73 (78)	77 (82)	54 (61)	51 (51)	58 (72)	65 (70)	82 (87)	66 (71)	83 (89)	21 (25)	87 (96)



Under five Mortality rate in rural areas is 22 points higher than urban areas as per the First Updation round



More no. of females die before reaching age 5 years than males

The under-five mortality is the probability (5q0) that a child born in a specific year or time period will die before reaching the age of five, subject to current age specific mortality rates. It is expressed as a rate per 1,000 live births.

**Table-9 : Sex Ratio at Birth & 95% Confidence Interval for Sex Ratio at Birth**

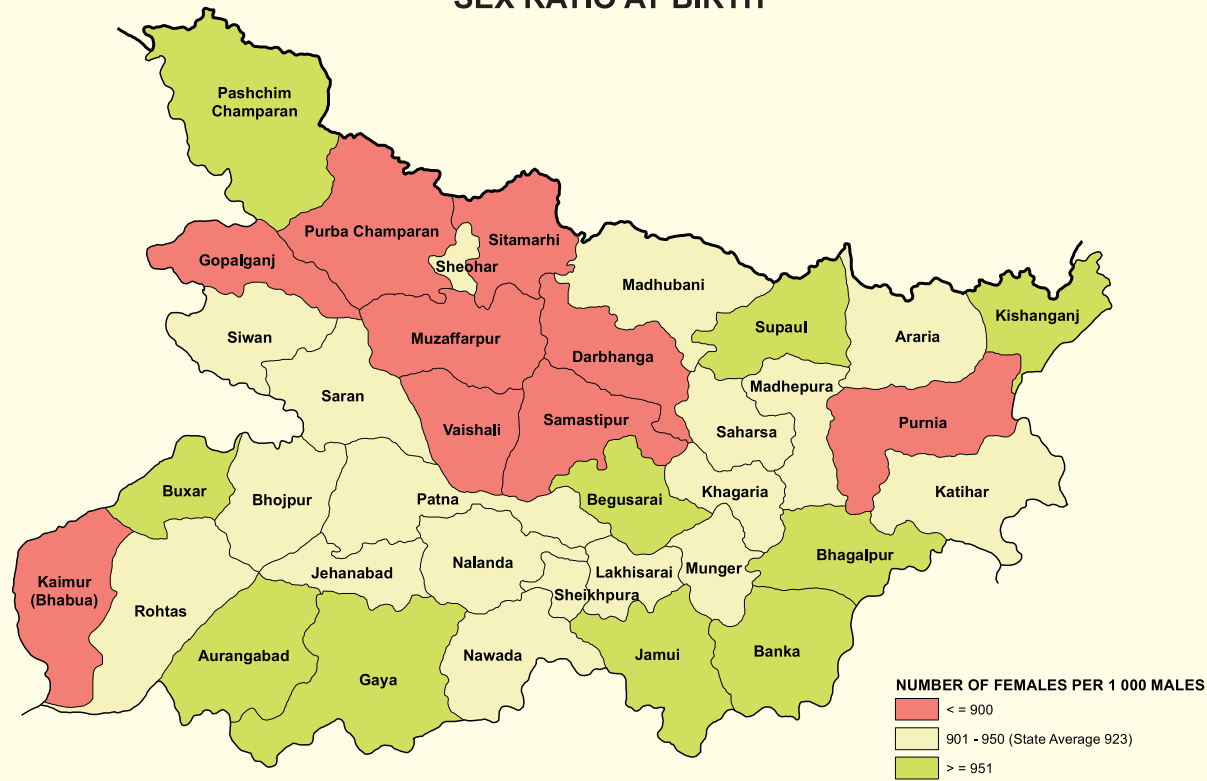
**BIHAR**

District		Sex Ratio at Birth			95% Confidence Interval for Sex Ratio at Birth					
					Total		Rural		Urban	
		Total	Rural	Urban	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>923 (919)</b>	<b>924 (919)</b>	<b>916 (915)</b>	<b>916 (911)</b>	<b>931 (926)</b>	<b>917 (911)</b>	<b>932 (927)</b>	<b>887 (885)</b>	<b>947 (945)</b>
01	Pashchim Champaran	971 (987)	963 (980)	1097 (1094)	912 (927)	1033 (1051)	904 (919)	1026 (1045)	797 (801)	1518 (1500)
02	Purba Champaran	896 (896)	900 (900)	844 (850)	856 (856)	937 (937)	860 (859)	943 (943)	675 (685)	1051 (1052)
03	Sheohar	937 (927)	928 (917)	1120 (1126)	892 (881)	985 (975)	882 (871)	976 (966)	856 (855)	1472 (1491)
04	Sitamarhi	882 (869)	883 (869)	877 (865)	837 (824)	930 (916)	837 (823)	932 (918)	694 (680)	1104 (1095)
05	Madhubani	910 (900)	908 (897)	1050 (1027)	873 (862)	949 (938)	871 (860)	947 (936)	- (-)	- (-)
06	Supaul	959 (968)	960 (970)	946 (941)	916 (925)	1004 (1012)	916 (926)	1006 (1015)	723 (726)	1236 (1216)
07	Araria	911 (906)	912 (907)	895 (891)	869 (864)	954 (950)	869 (864)	956 (952)	703 (702)	1136 (1127)
08	Kishanganj	984 (968)	1001 (984)	833 (821)	932 (915)	1038 (1023)	947 (929)	1058 (1042)	664 (648)	1041 (1034)
09	Purnia	878 (874)	873 (869)	911 (912)	824 (821)	935 (932)	817 (814)	932 (928)	712 (713)	1163 (1164)
10	Katihar	920 (917)	915 (911)	1019 (1031)	878 (875)	963 (960)	873 (869)	959 (955)	780 (787)	1331 (1351)
11	Madhepura	938 (924)	937 (923)	986 (974)	899 (886)	978 (965)	897 (884)	977 (964)	710 (706)	1369 (1341)
12	Saharsa	929 (924)	936 (931)	868 (868)	884 (879)	976 (971)	889 (884)	985 (979)	713 (716)	1053 (1049)
13	Darbhanga	886 (870)	880 (863)	1000 (1012)	843 (827)	931 (914)	837 (820)	926 (908)	743 (746)	1347 (1374)
14	Muzaffarpur	883 (880)	890 (885)	778 (813)	845 (842)	923 (921)	851 (846)	931 (926)	594 (621)	1010 (1056)
15	Gopalganj	899 (892)	903 (897)	835 (826)	857 (850)	942 (936)	860 (854)	949 (942)	664 (656)	1047 (1035)
16	Siwan	945 (937)	951 (942)	892 (890)	910 (902)	981 (973)	915 (906)	988 (979)	765 (762)	1038 (1037)
17	Saran	930 (924)	943 (938)	836 (825)	882 (877)	979 (974)	893 (889)	995 (990)	684 (673)	1019 (1007)
18	Vaishali	892 (891)	893 (894)	872 (828)	852 (851)	934 (934)	852 (853)	935 (937)	645 (601)	1172 (1129)
19	Samastipur	890 (877)	888 (876)	934 (918)	848 (836)	933 (920)	847 (835)	931 (919)	647 (634)	1343 (1321)

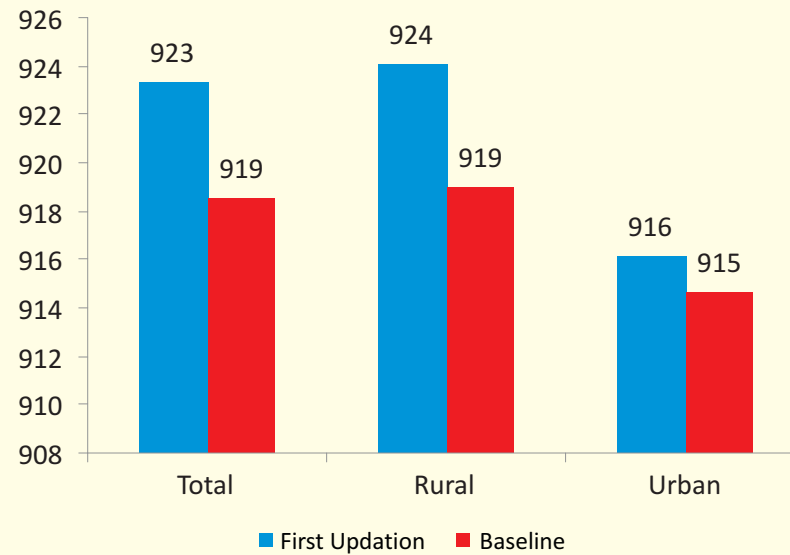
Table-9 : Sex Ratio at Birth &amp; 95% Confidence Interval for Sex Ratio at Birth

District		Sex Ratio at Birth			95% Confidence Interval for Sex Ratio at Birth					
					Total		Rural		Urban	
		Total	Rural	Urban	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
<b>BIHAR</b>		<b>923 (919)</b>	<b>924 (919)</b>	<b>916 (915)</b>	<b>916 (911)</b>	<b>931 (926)</b>	<b>917 (911)</b>	<b>932 (927)</b>	<b>887 (885)</b>	<b>947 (945)</b>
20	Begusarai	958 (954)	972 (969)	786 (771)	913 (909)	1005 (1001)	926 (923)	1020 (1018)	590 (580)	1036 (1014)
21	Khagaria	922 (908)	926 (910)	850 (871)	889 (875)	956 (942)	892 (876)	960 (944)	674 (689)	1067 (1096)
22	Bhagalpur	961 (956)	967 (961)	937 (932)	913 (907)	1013 (1007)	915 (910)	1021 (1015)	797 (792)	1102 (1095)
23	Banka	978 (978)	983 (976)	867 (1010)	930 (929)	1029 (1029)	934 (927)	1035 (1028)	651 (763)	1146 (1337)
24	Munger	930 (926)	931 (927)	928 (925)	887 (883)	975 (972)	884 (879)	980 (977)	827 (826)	1042 (1036)
25	Lakhisarai	930 (927)	921 (918)	1004 (1003)	891 (887)	972 (968)	881 (877)	964 (960)	843 (840)	1196 (1197)
26	Sheikhpura	901 (898)	905 (901)	878 (880)	856 (852)	950 (947)	857 (852)	955 (951)	720 (724)	1068 (1067)
27	Nalanda	933 (928)	947 (942)	850 (842)	888 (883)	981 (974)	899 (895)	998 (991)	715 (708)	1007 (998)
28	Patna	915 (912)	907 (903)	926 (925)	878 (875)	953 (950)	865 (860)	952 (948)	855 (857)	1003 (999)
29	Bhojpur	923 (917)	922 (920)	928 (896)	880 (875)	967 (962)	878 (876)	968 (966)	779 (742)	1104 (1079)
30	Buxar	997 (989)	991 (986)	1072 (1016)	951 (943)	1045 (1037)	944 (939)	1039 (1035)	860 (819)	1338 (1261)
31	Kaimur(Bhabua)	871 (873)	879 (882)	612 (618)	820 (822)	924 (927)	827 (830)	933 (937)	405 (410)	891 (896)
32	Rohtas	913 (912)	918 (915)	873 (884)	865 (864)	964 (962)	868 (865)	971 (968)	727 (738)	1045 (1057)
33	Jehanabad	936 (935)	934 (932)	953 (955)	896 (895)	977 (975)	894 (892)	977 (974)	793 (795)	1145 (1145)
34	Aurangabad	985 (981)	980 (976)	1032 (1034)	929 (926)	1045 (1040)	922 (919)	1042 (1036)	827 (838)	1290 (1278)
35	Gaya	970 (964)	957 (951)	1025 (1022)	908 (903)	1036 (1029)	892 (887)	1027 (1020)	857 (854)	1228 (1223)
36	Nawada	909 (905)	903 (900)	969 (958)	860 (858)	960 (955)	853 (852)	956 (951)	758 (760)	1238 (1206)
37	Jamui	956 (950)	963 (957)	863 (849)	897 (890)	1019 (1013)	902 (896)	1028 (1023)	639 (627)	1159 (1143)

SEX RATIO AT BIRTH



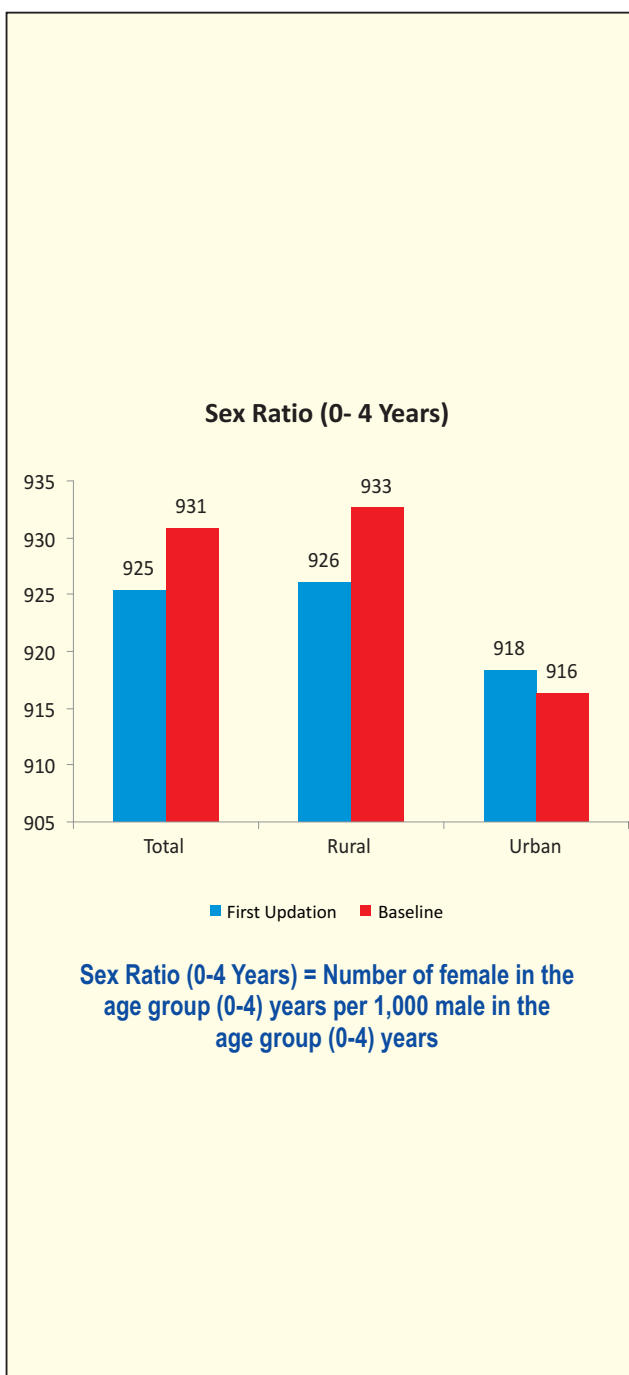
Sex Ratio at Birth



Sex Ratio at Birth = Number of female live births per 1,000 males live births

Table-10 : Sex Ratio (0-4 Years)

District		Sex Ratio (0-4 Years)		
		Total	Rural	Urban
<b>BIHAR</b>		<b>925 (931)</b>	<b>926 (933)</b>	<b>918 (916)</b>
01	Pashchim Champaran	985 (996)	980 (991)	1062 (1058)
02	Purba Champaran	908 (924)	908 (926)	908 (909)
03	Sheohar	917 (914)	911 (908)	1024 (1026)
04	Sitamarhi	872 (877)	877 (882)	815 (813)
05	Madhubani	901 (914)	896 (909)	1181 (1191)
06	Supaul	971 (965)	972 (967)	956 (949)
07	Araria	931 (939)	926 (934)	1005 (1019)
08	Kishanganj	988 (986)	1003 (998)	853 (871)
09	Purnia	878 (900)	878 (905)	878 (874)
10	Katihar	928 (943)	919 (936)	1081 (1078)
11	Madhepura	950 (942)	951 (943)	925 (914)
12	Saharsa	920 (914)	923 (917)	899 (894)
13	Darbhanga	893 (908)	888 (904)	966 (979)
14	Muzaffarpur	896 (902)	904 (912)	789 (789)
15	Gopalganj	902 (918)	901 (919)	908 (905)
16	Siwan	948 (947)	953 (952)	902 (902)
17	Saran	923 (922)	932 (928)	861 (880)
18	Vaishali	896 (909)	897 (911)	869 (875)

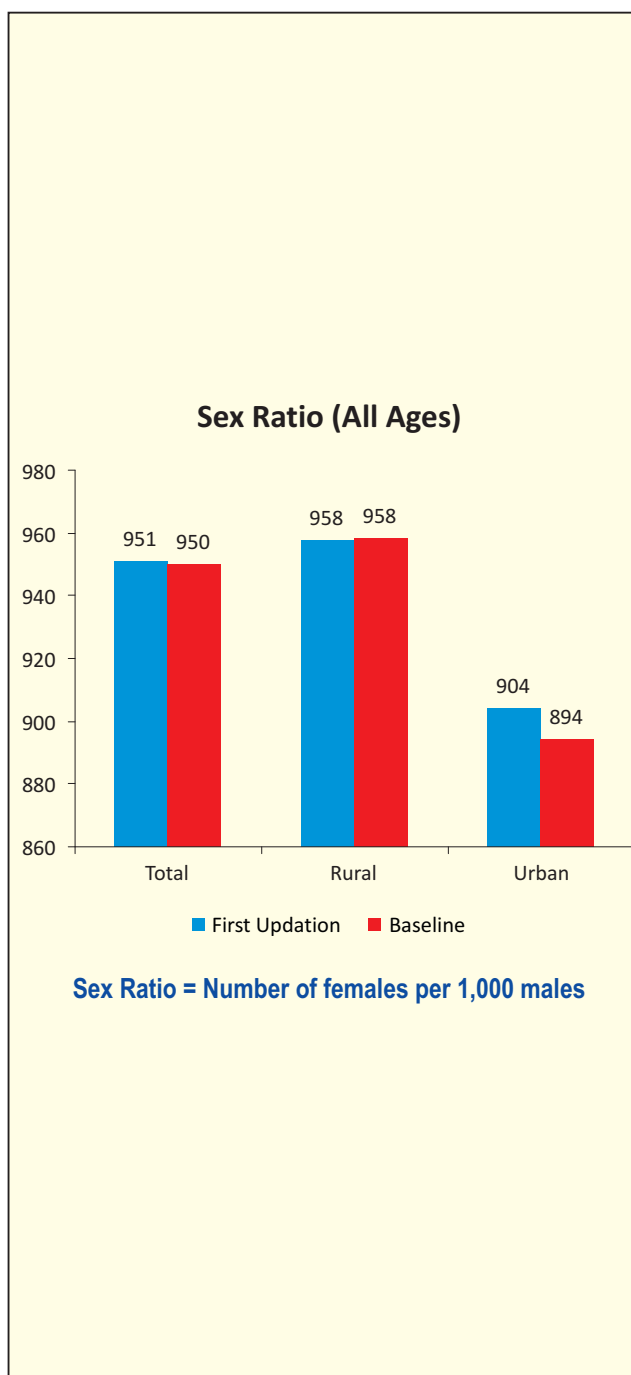


District		Sex Ratio (0-4 Years)		
		Total	Rural	Urban
19	Samastipur	884 (875)	884 (875)	871 (873)
20	Begusarai	953 (948)	958 (950)	886 (924)
21	Khagaria	938 (930)	938 (929)	936 (952)
22	Bhagalpur	919 (924)	931 (946)	858 (830)
23	Banka	982 (988)	982 (991)	978 (914)
24	Munger	917 (897)	936 (917)	866 (852)
25	Lakhisarai	909 (914)	907 (909)	923 (945)
26	Sheikhpura	930 (914)	934 (927)	904 (831)
27	Nalanda	945 (963)	955 (976)	886 (883)
28	Patna	921 (917)	917 (915)	929 (918)
29	Bhojpur	917 (929)	912 (936)	951 (875)
30	Buxar	960 (967)	959 (963)	977 (1012)
31	Kaimur(Bhabua)	908 (899)	913 (908)	750 (613)
32	Rohtas	917 (926)	928 (929)	840 (907)
33	Jehanabad	924 (930)	919 (923)	980 (995)
34	Aurangabad	968 (968)	965 (969)	1000 (961)
35	Gaya	973 (979)	965 (965)	1010 (1043)
36	Nawada	952 (949)	955 (947)	921 (967)
37	Jamui	952 (953)	954 (955)	910 (923)



Table-11 : Sex Ratio (All Ages)

District		Sex Ratio (All Ages)		
		Total	Rural	Urban
<b>BIHAR</b>		<b>951 (950)</b>	<b>958 (958)</b>	<b>904 (894)</b>
01	Pashchim Champaran	882 (889)	885 (893)	853 (858)
02	Purba Champaran	898 (898)	900 (901)	880 (871)
03	Sheohar	939 (947)	941 (950)	909 (903)
04	Sitamarhi	944 (948)	947 (951)	909 (917)
05	Madhubani	926 (924)	927 (925)	860 (859)
06	Supaul	950 (941)	959 (950)	840 (834)
07	Araria	927 (932)	926 (931)	938 (936)
08	Kishanganj	1060 (1056)	1070 (1065)	985 (987)
09	Purnia	938 (940)	940 (942)	931 (929)
10	Katihar	976 (971)	980 (976)	916 (913)
11	Madhepura	916 (916)	919 (919)	846 (842)
12	Saharsa	928 (928)	933 (933)	900 (896)
13	Darbhanga	923 (917)	927 (920)	867 (870)
14	Muzaffarpur	911 (910)	913 (913)	886 (885)
15	Gopalganj	948 (951)	949 (951)	945 (953)
16	Siwan	961 (966)	967 (972)	914 (916)
17	Saran	1005 (1010)	1012 (1016)	954 (962)
18	Vaishali	957 (958)	963 (964)	871 (864)



District		Sex Ratio (All Ages)		
		Total	Rural	Urban
19	Samastipur	924 (930)	926 (932)	894 (895)
20	Begusarai	975 (972)	981 (977)	913 (921)
21	Khagaria	897 (895)	898 (896)	882 (879)
22	Bhagalpur	904 (901)	911 (911)	878 (863)
23	Banka	979 (982)	983 (988)	891 (862)
24	Munger	920 (920)	930 (929)	899 (903)
25	Lakhisarai	946 (943)	950 (947)	918 (916)
26	Sheikhpura	1014 (1011)	1030 (1033)	926 (905)
27	Nalanda	1003 (1015)	1008 (1022)	974 (974)
28	Patna	925 (909)	979 (977)	870 (846)
29	Bhojpur	998 (997)	1016 (1013)	904 (900)
30	Buxar	983 (980)	987 (985)	948 (936)
31	Kaimur(Bhabua)	954 (946)	956 (948)	898 (893)
32	Rohtas	989 (985)	992 (990)	969 (956)
33	Jehanabad	1000 (995)	999 (994)	1005 (999)
34	Aurangabad	1001 (999)	1007 (1005)	948 (948)
35	Gaya	1034 (1032)	1061 (1063)	948 (931)
36	Nawada	1050 (1037)	1060 (1048)	964 (950)
37	Jamui	988 (986)	990 (987)	967 (970)

Table-12 : Maternal Mortality Ratio (MMR)

State/Commissionary/(Districts)	Sample Female Population	Sample Live Births	Maternal Deaths	MMR	95% Confidence Interval		Maternal Mortality Rate	Life Time Risk
					Lower Limit	Upper Limit		
<b>BIHAR</b>	741157 (702534)	244282 (241895)	717 (737)	294 (305)	272 (283)	315 (327)	32 (35)	1.12% (1.22%)
<b>TIRHUT</b> (Pashchim Champaran, Purba Champaran, Sheohar, Sitamarhi, Muzaffarpur, Vaishali)	109106 (102366)	38739 (37615)	117 (120)	302 (319)	247 (262)	357 (376)	36 (39)	1.24% (1.36%)
<b>PURNIA</b> Araria, Kishanganj, Purnia, Katihar	62030 (58385)	23391 (22825)	86 (86)	368 (377)	290 (297)	445 (456)	46 (49)	1.60% (1.70%)
<b>KOSI</b> Madhepura, Saharsa, Supaul	58037 (56729)	22166 (22360)	65 (64)	293 (286)	222 (216)	364 (356)	37 (38)	1.30% (1.31%)
<b>DHARBHANGA</b> Madhubani, Darbhanga, Samastipur	65889 (62451)	21781 (21551)	61 (62)	280 (288)	210 (216)	350 (359)	31 (33)	1.07% (1.15%)
<b>SARAN</b> Gopalganj, Siwan, Saran	77251 (72512)	23435 (23175)	69 (71)	294 (306)	225 (235)	364 (378)	30 (33)	1.04% (1.14%)
<b>BHAGALPUR</b> Bhagalpur, Banka	35565 (33416)	11685 (11543)	37 (37)	317 (321)	215 (217)	419 (424)	35 (37)	1.21% (1.28%)
<b>MUNGER</b> (Begusarai, Khagaria, Munger, Lakhisarai, Sheikhpura, Jamui)	126786 (119184)	42809 (41963)	121 (124)	283 (295)	232 (244)	333 (347)	32 (35)	1.11% (1.21%)
<b>PATNA</b> Nalanda, Patna, Bhojpur, Buxar, Kaimur (Bhabua), Rohtas	133627 (126626)	38986 (38830)	94 (100)	241 (258)	192 (207)	290 (308)	23 (26)	0.82% (0.92%)
<b>MAGADH (GAYA)</b> Jehanabad, Aurangabad, Gaya, Nawada	72866 (70865)	21290 (22033)	67 (73)	315 (331)	239 (255)	390 (407)	31 (34)	1.07% (1.19%)

### MATERNAL MORTALITY RATIO (MMR) (Administrative Division)

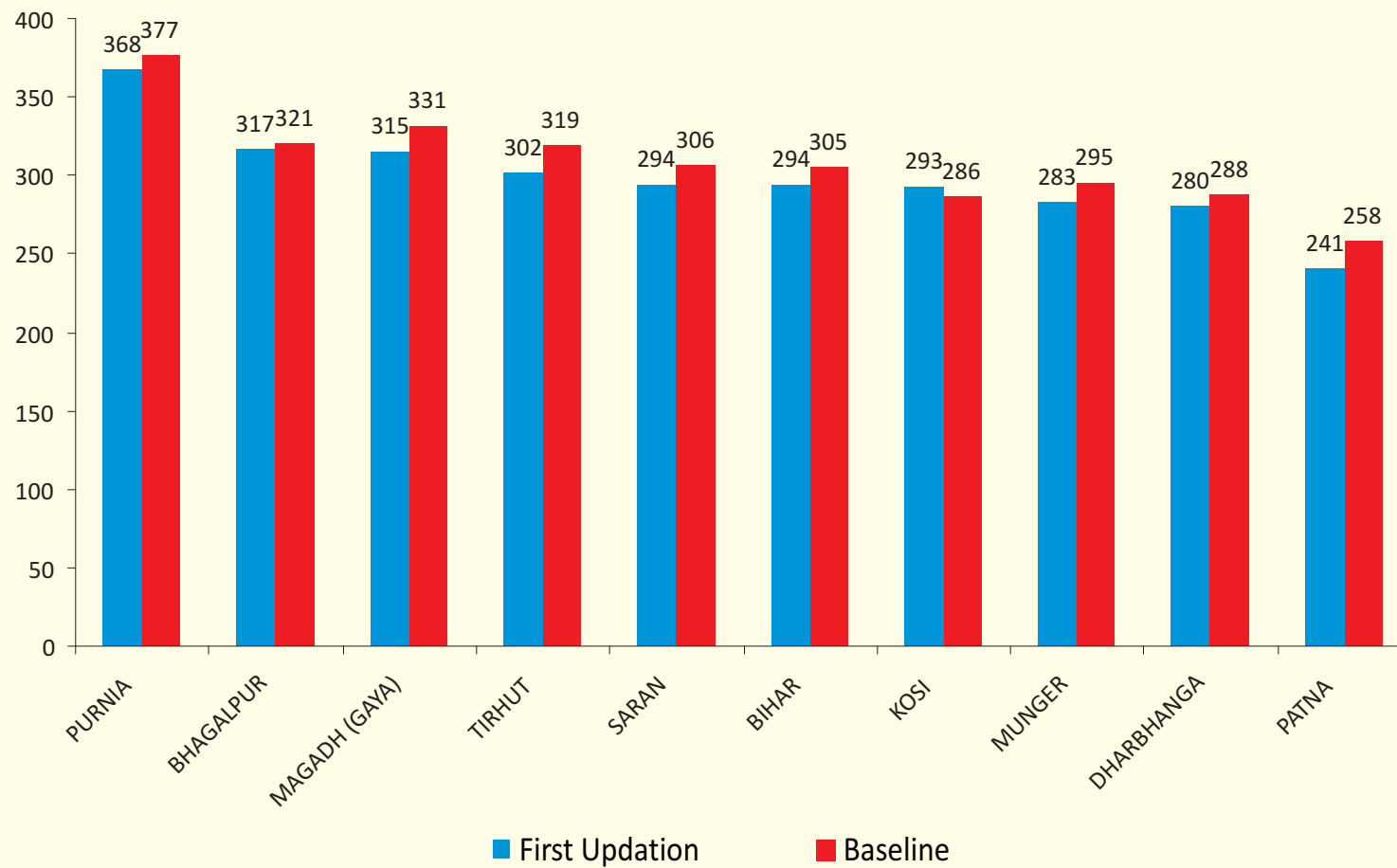


Table-13 : Age Distribution of Maternal &amp; Non Maternal Deaths

Age Group	Sample Female Deaths	Maternal Deaths	Proportion	95% Confidence Interval		Non Maternal Deaths	Proportion	95% Confidence Interval	
				Lower Limit	Upper Limit			Lower Limit	Upper Limit
15-19	582 (622)	100 (103)	14 (14)	11 (11)	16 (16)	482 (519)	13 (13)	12 (12)	14 (14)
20-24	643 (596)	195 (176)	27 (24)	24 (21)	30 (27)	448 (420)	12 (11)	11 (10)	13 (12)
25-29	668 (663)	163 (173)	23 (23)	20 (20)	26 (27)	505 (490)	13 (12)	12 (11)	14 (13)
30-34	607 (633)	100 (114)	14 (15)	11 (13)	16 (18)	507 (519)	13 (13)	12 (12)	14 (14)
35-39	710 (754)	98 (105)	14 (14)	11 (12)	16 (17)	612 (649)	16 (16)	15 (15)	17 (18)
40-44	634 (657)	36 (33)	5 (4)	3 (3)	7 (6)	598 (624)	16 (16)	14 (15)	17 (17)
45-49	710 (752)	25 (33)	3 (4)	2 (3)	5 (6)	685 (719)	18 (18)	17 (17)	19 (19)
Total	4554 (4677)	717 (737)	100 (100)			3837 (3940)	100 (100)		

• **Maternal Mortality Ratio** = Proportion of maternal deaths per 1,00,000 live births

• **Maternal Mortality Rate** = Proportion of maternal deaths per 1,00,000 women in the ages 15-49 years

• **Life Time Risk** =  $1 - \left(1 - \frac{\text{Maternal Mortality Rate}}{100000}\right)^{35}$

**Note :** In this Bulletin,

1. ' ' denotes inadequate sample.
2. Data within brackets ( ) pertain to the corresponding estimates of baseline survey.

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The responsibility for the correctness of internal details rests with the publisher.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

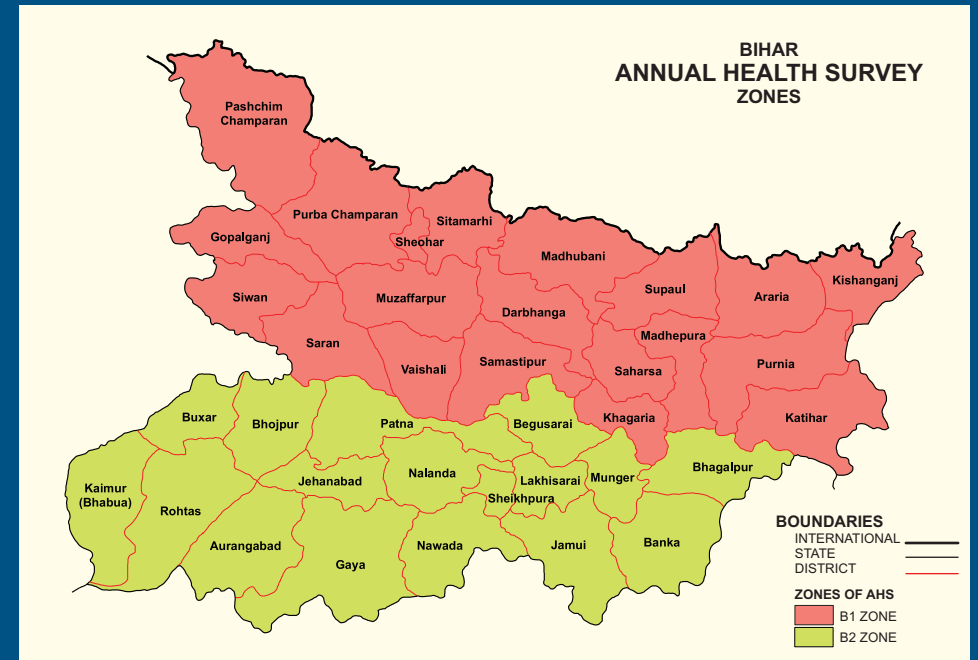
The external boundaries and coastlines of India agree with the Record/Master Copy certified by Survey of India.

The state boundaries between Uttarakhnad & Uttar Pradesh, Bihar & Jharkhand and Chattisgarh & Madhya Pradesh have not been verified by the Governments concerned.

The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.

The interstate boundaries amongst Arunachal Pradesh, Assam and Meghalaya shown on the map are as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but have yet to be verified.

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