Annual Health Survey 2010-11

BIHAR

District	CBR Total	CBR Rural	CBR Urban	CDR Total Total	CDR Total Male	CDR Total Female	CDR Rural Total	CDR Rural Male	CDR Rural Female	CDR Urban Total	CDR Urban Male	CDR Urban Female	Natural Growth Rate Total	Natural Growth Rate Rural	Natural Growth Rate Urban
BIHAR	**26.7**	**27.5**	**21.2**	**7.2**	**7.4**	**7.0**	**7.4**	**7.7**	**7.2**	**5.7**	**5.9**	**5.5**	**19.5**	**20.1**	**15.4**
1 Pashchim Champaran	28.6	29.3	21.2	8.9	8.8	9.1	8.7	8.6	8.9	11.1	10.4	11.8	19.7	20.6	10.1
2 Purba Champaran	30.4	31.0	24.6	8.1	8.0	8.2	8.1	8.1	8.1	7.9	6.8	9.1	22.3	22.9	16.7
3 Sheohar	31.2	31.1	33.2	7.6	7.4	7.8	7.6	7.5	7.8	6.7	5.9	7.6	23.6	23.4	26.5
4 Sitamarhi	28.0	28.3	24.4	9.6	9.7	9.4	9.8	9.9	9.8	6.7	7.6	5.7	18.4	18.5	17.7
5 Madhubani	24.7	24.7	22.5	7.4	7.2	7.6	7.4	7.2	7.6	9.0	8.9	9.1	17.3	17.4	13.5
6 Supaul	28.5	28.7	26.2	6.5	6.6	6.4	6.7	6.7	6.6	4.7	5.5	3.7	22.0	22.0	21.5
7 Araria	30.9	31.2	27.4	7.8	7.4	8.2	7.8	7.4	8.3	7.2	7.4	6.9	23.1	23.3	20.2
8 Kishanganj	30.5	31.5	23.8	6.5	7.3	5.7	6.7	7.5	5.9	4.9	6.1	3.8	24.1	24.8	18.8
9 Purnia	27.6	28.8	21.7	7.2	7.2	7.2	7.6	7.6	7.5	5.5	5.5	5.6	20.4	21.2	16.1
10 Katihar	28.8	29.3	21.7	6.5	7.1	5.9	6.5	7.1	5.9	6.9	7.2	6.6	22.3	22.8	14.7
11 Madhepura	30.1	30.5	20.7	7.5	7.3	7.6	7.4	7.3	7.5	8.5	7.5	9.6	22.7	23.1	12.3
12 Saharsa	32.1	33.6	23.3	7.8	7.4	8.3	8.3	7.8	8.8	5.2	4.8	5.7	24.2	25.3	18.1
13 Darbhanga	26.5	26.8	21.4	8.8	8.9	8.6	8.7	8.9	8.6	9.0	9.8	8.0	17.7	18.1	12.5
14 Muzaffarpur	25.5	26.3	17.4	8.6	8.4	8.7	8.9	8.7	9.1	5.4	5.6	5.1	16.9	17.4	12.0
15 Gopalganj	25.7	25.8	24.7	6.5	6.8	6.3	6.6	6.9	6.3	5.4	4.6	6.2	19.2	19.2	19.3
16 Siwan	26.1	26.8	21.4	7.5	8.2	6.8	7.6	8.3	6.9	6.8	7.8	5.6	18.6	19.2	14.6
17 Saran	24.5	24.5	23.8	7.7	8.8	6.7	7.9	8.9	6.8	7.0	8.0	5.9	16.7	16.7	16.8
18 Vaishali	27.3	27.8	18.6	7.6	8.0	7.2	7.7	8.1	7.4	-	-	-	19.7	20.0	-
19 Samastipur	28.7	29.3	18.6	6.9	6.7	7.1	7.0	6.8	7.2	4.9	4.8	5.0	21.8	22.3	13.7
20 Begusarai	26.6	27.1	21.6	6.5	7.1	5.9	6.6	7.1	6.1	5.8	7.6	3.8	20.1	20.5	15.9
21 Khagaria	30.7	31.2	23.3	9.4	9.1	9.7	9.5	9.3	9.8	7.0	6.2	7.9	21.3	21.7	16.3
22 Bhagalpur	26.3	26.9	24.2	5.5	5.6	5.3	5.5	5.7	5.3	5.2	5.1	5.4	20.9	21.4	19.0
23 Banka	25.8	25.9	23.9	6.1	6.7	5.5	6.1	6.7	5.5	6.0	6.7	5.2	19.7	19.8	17.8
24 Munger	25.0	26.0	22.9	6.7	6.9	6.5	6.7	6.7	6.6	6.7	7.2	6.2	18.3	19.3	16.2
25 Lakhisarai	24.0	24.5	20.5	6.5	6.6	6.4	6.5	6.5	6.5	6.6	7.0	6.3	17.5	18.0	13.9
26 Sheikhpura	28.9	30.1	22.6	8.1	8.8	7.5	8.3	9.1	7.5	7.4	7.2	7.6	20.8	21.8	15.2
27 Nalanda	26.3	26.9	23.1	8.0	8.9	7.2	8.1	8.8	7.3	7.9	9.3	6.5	18.2	18.8	15.2
28 Patna	21.8	25.8	18.0	5.2	5.3	5.1	6.6	6.9	6.3	3.9	3.9	3.8	16.6	19.2	14.1
29 Bhojpur	24.6	25.2	20.6	5.8	6.2	5.4	6.0	6.3	5.7	4.3	5.1	3.3	18.8	19.2	16.3
30 Buxar	25.1	25.3	22.6	6.8	7.2	6.3	7.0	7.5	6.5	4.8	4.7	4.8	18.3	18.3	17.9
31 Kaimur (Bhabua)	25.0	25.2	19.4	6.0	6.2	5.8	6.0	6.2	5.8	5.5	6.3	4.5	19.0	19.2	13.9
32 Rohtas	25.9	26.4	22.6	7.0	7.6	6.4	7.1	7.7	6.4	6.6	6.9	6.3	18.9	19.3	16.0
33 Jehanabad	24.9	25.1	22.9	6.2	6.2	6.2	6.2	6.3	6.2	5.8	5.4	6.1	18.7	18.9	17.1
34 Aurangabad	25.6	25.9	23.4	6.4	6.6	6.1	6.4	6.7	6.1	6.0	6.3	5.8	19.3	19.5	17.3
35 Gaya	24.9	26.1	20.6	7.4	8.0	6.8	7.7	8.4	7.0	6.4	6.6	6.1	17.5	18.5	14.2
36 Nawada	25.0	25.4	21.3	5.9	6.5	5.4	6.0	6.6	5.4	5.7	5.7	5.7	19.0	19.4	15.6
37 Jamui	26.4	26.7	22.8	6.7	6.9	6.4	6.7	7.0	6.4	6.4	6.7	6.1	19.7	20.0	16.4

District	IMR Total Total	IMR Total Male	IMR Total Female	IMR Rural Total	IMR Rural Male	IMR Rural Female	IMR Urban Total	IMR Urban Male	IMR Urban Female	Neo-natal Mortality Rate Total	Neo-natal Rural	Neo-natal Urban	Post Neo-natal Mortality Rate Total	Post Neo-natal Rural	Post Neo-natal Urban
BIHAR	**55**	**53**	**56**	**56**	**54**	**58**	**44**	**43**	**46**	**35**	**36**	**27**	**19**	**19**	**17**
1 Pashchim Champaran	57	54	60	55	51	59	82	92	72	37	36	50	20	19	31
2 Purba Champaran	57	54	60	55	52	57	77	66	90	37	35	53	20	20	24
3 Sheohar	50	45	56	51	45	57	35	32	37	31	32	25	19	19	10
4 Sitamarhi	67	66	69	70	69	72	-	-	-	43	46	-	24	25	-
5 Madhubani	54	50	58	54	50	58	-	-	-	32	33	-	21	21	-
6 Supaul	64	64	65	67	66	67	-	-	-	45	47	-	19	19	-
7 Araria	61	59	63	62	60	64	-	-	-	45	46	-	16	16	-
8 Kishanganj	61	62	61	63	62	64	45	57	31	47	48	31	15	15	14
9 Purnia	62	60	63	62	58	67	58	74	40	44	46	35	17	17	23
10 Katihar	59	58	59	59	59	60	-	-	-	42	42	-	16	17	-
11 Madhepura	71	71	71	72	72	72	59	65	53	49	50	46	22	22	13
12 Saharsa	62	60	64	62	61	63	61	48	76	41	42	31	21	20	31
13 Darbhanga	51	51	51	50	51	49	66	48	83	31	31	30	20	19	36
14 Muzaffarpur	60	55	65	62	57	68	-	-	-	40	42	-	19	21	-
15 Gopalganj	51	48	54	52	51	54	36	18	59	38	39	30	13	13	7
16 Siwan	49	48	50	50	48	52	-	-	-	36	37	-	13	13	-
17 Saran	52	51	54	52	50	53	57	57	57	38	38	44	14	14	13
18 Vaishali	50	48	52	50	48	52	-	-	-	35	35	-	14	14	-
19 Samastipur	54	50	60	56	51	61	-	-	-	38	39	-	17	17	-
20 Begusarai	46	45	47	46	46	47	39	35	45	25	26	20	20	20	20
21 Khagaria	66	65	66	67	66	67	-	-	-	48	48	-	18	19	-
22 Bhagalpur	54	54	55	56	56	56	48	46	49	34	35	27	21	21	20
23 Banka	48	49	48	49	50	48	-	-	-	30	30	-	19	19	-
24 Munger	51	49	52	52	50	54	47	46	48	31	32	28	20	20	19
25 Lakhisarai	53	51	54	54	53	55	43	41	45	29	30	24	23	24	18
26 Sheikhpura	58	54	62	59	56	63	49	41	57	31	31	32	26	28	17
27 Nalanda	52	52	52	53	54	53	44	42	46	27	28	25	25	26	19
28 Patna	39	39	40	46	45	46	30	29	31	22	25	17	17	21	13
29 Bhojpur	48	47	48	49	48	50	38	39	38	27	28	23	20	21	16
30 Buxar	55	55	55	56	56	56	42	36	48	32	33	21	23	24	21
31 Kaimur (Bhabua)	56	53	59	56	54	59	36	29	48	31	31	27	25	26	9
32 Rohtas	52	51	52	52	51	52	50	47	53	29	29	29	22	22	21
33 Jehanabad	53	52	54	54	53	55	43	42	44	31	32	28	21	22	15
34 Aurangabad	48	47	48	47	47	48	52	47	57	29	30	29	18	18	23
35 Gaya	55	53	57	57	56	57	48	42	53	31	33	25	24	24	23
36 Nawada	49	50	49	49	49	48	-	-	-	31	31	-	18	18	-
37 Jamui	57	57	57	58	59	57	52	43	63	33	34	29	24	24	23

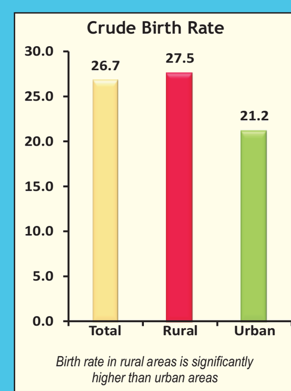
District	U5MR Total Total	U5MR Total Male	U5MR Total Female	U5MR Rural Total	U5MR Rural Male	U5MR Rural Female	U5MR Urban Total	U5MR Urban Male	U5MR Urban Female	Sex Ratio at Birth Total	Sex Ratio at Birth Rural	Sex Ratio at Birth Urban	Sex Ratio (0-4 Years) Total	Sex Ratio (0-4 Years) Rural	Sex Ratio (0-4 Years) Urban	Sex Ratio (All Ages) Total	Sex Ratio (All Ages) Rural	Sex Ratio (All Ages) Urban
BIHAR	**77**	**74**	**81**	**80**	**76**	**83**	**57**	**53**	**60**	**919**	**919**	**915**	**931**	**933**	**916**	**950**	**958**	**894**
1 Pashchim Champaran	81	78	85	81	76	85	98	107	90	987	980	1094	996	991	1058	889	893	858
2 Purba Champaran	75	71	79	72	70	75	100	79	124	896	900	850	924	926	909	898	901	871
3 Sheohar	87	77	98	89	79	100	51	32	72	927	917	1126	914	908	1026	947	950	903
4 Sitamarhi	106	97	115	111	103	120	-	-	-	869	869	865	877	882	813	948	951	917
5 Madhubani	73	67	80	73	67	81	-	-	-	900	897	1027	914	909	1191	924	925	859
6 Supaul	89	87	91	92	91	93	-	-	-	968	970	941	965	967	949	941	950	834
7 Araria	87	82	92	90	84	96	-	-	-	906	907	891	939	934	1019	932	931	936
8 Kishanganj	90	96	85	94	100	89	55	67	41	968	984	821	986	998	871	1056	1065	987
9 Purnia	102	104	99	104	104	105	87	107	65	874	869	912	900	905	874	940	942	929
10 Katihar	85	86	84	87	88	86	-	-	-	917	911	1031	943	936	1078	971	976	913
11 Madhepura	101	97	106	103	98	107	64	65	64	924	923	974	942	943	914	916	919	842
12 Saharsa	91	84	98	92	86	98	83	66	103	924	931	868	914	917	894	928	933	896
13 Darbhanga	85	79	92	86	80	92	79	65	93	870	863	1012	908	904	979	917	920	870
14 Muzaffarpur	89	76	102	94	80	109	-	-	-	880	885	813	902	912	789	910	913	885
15 Gopalganj	66	60	72	68	63	73	36	18	59	892	897	826	918	919	905	951	951	953
16 Siwan	73	72	73	75	74	77	-	-	-	937	942	890	947	952	902	966	972	916
17 Saran	70	67	72	69	67	71	75	72	78	924	938	825	922	928	880	1010	1016	962
18 Vaishali	70	64	76	70	64	76	-	-	-	891	894	828	909	911	875	958	964	864
19 Samastipur	77	70	84	79	72	87	-	-	-	877	876	918	875	875	873	930	932	895
20 Begusarai	65	62	68	67	64	70	47	42	53	954	969	771	948	950	924	972	977	921
21 Khagaria	103	99	107	106	102	109	-	-	-	908	910	871	930	929	952	895	896	879
22 Bhagalpur	69	69	69	71	72	71	60	58	63	956	961	932	924	946	830	901	911	863
23 Banka	63	63	63	63	64	63	-	-	-	978	976	1010	988	991	914	982	988	862
24 Munger	63	59	68	68	64	73	54	49	58	926	927	925	897	917	852	920	929	903
25 Lakhisarai	70	66	76	72	68	78	55	50	61	927	918	1003	914	909	945	943	947	916
26 Sheikhpura	76	70	83	78	73	83	62	49	78	898	901	880	914	927	831	1011	1033	905
27 Nalanda	80	78	82	81	78	83	75	76	74	928	942	842	963	976	883	1015	1022	974
28 Patna	53	51	55	66	64	68	37	35	39	912	903	925	917	915	918	909	977	846
29 Bhojpur	61	57	64	63	60	66	42	39	46	917	920	896	929	936	875	997	1013	900
30 Buxar	74	72	77	78	76	79	45	36	53	989	986	1016	967	963	1012	980	985	936
31 Kaimur (Bhabua)	73	69	77	73	70	77	43	43	48	873	882	618	899	908	613	946	948	893
32 Rohtas	65	66	65	67	67	66	55	54	57	912	915	884	926	929	907	985	990	956
33 Jehanabad	67	63	72	68	63	73	55	54	56	935	932	955	930	923	995	995	994	999
34 Aurangabad	61	57	65	61	57	65	62	57	67	981	976	1034	968	969	961	999	1005	948
35 Gaya	70	69	71	72	73	72	62	54	70	964	951	1022	979	965	1043	1032	1063	931
36 Nawada	61	58	63	61	58	62	-	-	-	905	900	958	949	947	967	1037	1048	950
37 Jamui	78	76	81	80	78	82	61	51	72	950	957	849	953	955	923	986	987	970

95% Confidence Interval

District	CBR Total Lower	CBR Total Upper	CBR Rural Lower	CBR Rural Upper	CBR Urban Lower	CBR Urban Upper	CDR Total Lower	CDR Total Upper	CDR Rural Lower	CDR Rural Upper	CDR Urban Lower	CDR Urban Upper	IMR Total Lower	IMR Total Upper	IMR Rural Lower	IMR Rural Upper	IMR Urban Lower	IMR Urban Upper	U5MR Total Lower	U5MR Total Upper	U5MR Rural Lower	U5MR Rural Upper	U5MR Urban Lower	U5MR Urban Upper	SRB Total Lower	SRB Total Upper	SRB Rural Lower	SRB Rural Upper	SRB Urban Lower	SRB Urban Upper
BIHAR	**26.4**	**27.0**	**27.3**	**27.8**	**20.3**	**22.0**	**7.1**	**7.3**	**7.3**	**7.5**	**5.5**	**6.1**	**53**	**56**	**54**	**57**	**40**	**49**	**76**	**78**	**79**	**81**	**53**	**60**	**911**	**926**	**911**	**927**	**885**	**945**
1 Pashchim Champaran	25.9	31.3	26.5	32.1	15.3	27.1	7.8	10.1	7.6	9.9	6.7	15.4	41	73	38	72	44	120	73	90	72	89	51	144	927	1051	919	1045	801	1500
2 Purba Champaran	29.0	31.7	29.7	32.4	19.4	29.8	7.6	8.6	7.6	8.6	6.6	9.1	48	65	47	63	35	119	69	81	66	78	68	132	856	937	859	943	685	1052
3 Sheohar	29.3	33.1	29.2	33.0	28.9	37.5	6.8	8.4	6.8	8.5	4.0	9.5	42	58	43	59	21	48	80	94	82	96	21	82	881	975	871	966	855	1491
4 Sitamarhi	26.3	29.7	26.7	30.0	14.6	34.2	8.7	10.4	9.0	10.6	2.4	11.0	58	76	61	80	-	-	98	114	103	120	-	-	824	916	823	918	680	1095
5 Madhubani	23.7	25.7	19.9	29.6	16.7	28.3	7.0	7.8	5.5	9.2	7.4	10.6	46	62	38	70	-	-	68	79	68	79	-	-	862	938	860	936	-	-
6 Supaul	27.5	29.5	27.6	29.7	23.5	28.9	6.0	7.0	6.2	7.1	2.9	6.5	56	73	58	75	-	-	83	95	85	99	-	-	925	1012	926	1015	726	1216
7 Araria	29.2	32.6	29.4	32.9	20.4	34.3	7.1	8.4	7.2	8.5	5.0	9.3	52	69	53	71	-	-	80	94	83	97	-	-	864	950	864	952	702	1127
8 Kishanganj	28.2	32.9	28.9	34.1	19.6	27.9	5.6	7.4	5.7	7.7	2.7	7.2	47	76	48	78	23	67	82	98	86	103	29	82	915	1023	929	1042	648	1034
9 Purnia	25.3	29.9	28.0	29.6	16.9	26.4	6.3	8.1	7.2	7.9	3.1	7.9	54	69	59	66	31	85	92	111	94	115	53	122	821	932	814	928	713	1164
10 Katihar	27.2	30.4	27.6	31.0	15.4	27.9	5.8	7.3	5.7	7.3	4.4	9.4	51	66	51	67	-	-	79	92	80	93	-	-	875	960	869	955	787	1351
11 Madhepura	28.8	31.4	29.2	31.8	11.5	30.0	6.9	8.0	6.8	8.0	5.1	11.9	64	79	64	79	28	90	95	108	96	109	25	103	886	965	884	964	706	1341
12 Saharsa	28.3	35.9	30.3	36.8	11.1	35.4	6.9	8.7	7.5	9.0	2.3	8.1	55	69	55	69	26	96	84	98	85	99	57	109	879	971	884	979	716	1049
13 Darbhanga	25.2	27.8	25.5	28.1	16.1	26.7	8.0	9.5	8.0	9.5	7.2	10.8	42	60	41	59	40	92	78	92	79	93	38	120	827	914	820	908	746	1374
14 Muzaffarpur	24.3	26.7	25.1	27.6	14.3	20.5	7.9	9.3	8.1	9.7	3.3	7.5	51	68	53	71	-	-	82	95	87	100	-	-	842	921	846	926	621	1056
15 Gopalganj	24.5	26.9	24.7	27.0	17.6	31.9	6.1	6.9	6.2	7.0	3.4	7.4	44	59	44	60	23	49	60	72	62	74	15	58	850	936	854	942	656	1035
16 Siwan	25.0	27.2	25.6	27.9	18.4	24.3	7.0	8.0	7.1	8.1	5.6	7.9	44	54	45	55	-	-	68	78	70	81	-	-	902	973	906	979	762	1037
17 Saran	23.5	25.4	23.6	25.5	20.2	27.4	7.1	8.4	7.1	8.6	5.5	8.4	44	61	43	61	38	76	63	76	62	76	48	101	877	974	889	990	673	1007
18 Vaishali	25.8	28.7	26.3	29.3	17.0	20.1	7.1	8.1	7.2	8.3	-	-	45	54	45	54	-	-	64	76	64	76	-	-	851	934	853	937	601	1129
19 Samastipur	27.0	30.4	27.5	31.1	12.3	24.8	6.3	7.4	6.4	7.6	4.2	5.7	47	62	48	63	-	-	71	83	73	86	-	-	836	920	835	919	634	1321
20 Begusarai	25.3	28.0	25.7	28.5	17.6	25.7	6.0	7.1	6.0	7.2	3.7	7.8	41	50	42	51	28	51	59	71	61	73	18	76	909	1001	923	1018	580	1014
21 Khagaria	29.4	32.0	29.9	32.5	18.6	28.0	8.8	10.0	8.9	10.2	4.2	9.7	59	72	60	73	-	-	97	108	100	111	-	-	875	942	876	944	689	1096
22 Bhagalpur	24.8	27.8	25.4	28.3	19.1	29.3	4.7	6.2	4.7	6.3	3.3	7.2	45	63	45	67	34	61	63	76	64	78	41	80	907	1007	910	1015	792	1095
23 Banka	24.5	27.2	24.6	27.3	16.3	31.5	5.5	6.7	5.5	6.7	3.0	9.1	42	55	42	56	-	-	57	69	57	70	-	-	929	1029	927	1028	763	1337
24 Munger	23.7	26.2	24.4	27.6	21.0	24.7	6.2	7.2	6.1	7.2	5.8	7.7	45	56	46	58	38	57	57	69	61	74	41	66	883	972	879	977	826	1036
25 Lakhisarai	23.0	25.0	23.4	25.5	17.9	23.1	6.1	7.0	6.0	7.0	5.1	8.2	46	59	47	61	30	56	65	76	67	78	35	75	887	968	877	960	840	1197
26 Sheikhpura	27.6	30.2	28.7	31.6	19.8	25.5	7.7	8.6	7.8	8.7	6.2	8.6	52	64	52	66	39	58	69	83	71	86	39	86	852	947	852	951	724	1067
27 Nalanda	25.2	27.4	25.7	28.1	20.6	25.7	7.5	8.6	7.5	8.6	6.1	9.7	44	60	45	62	25	62	73	87	74	88	53	98	883	974	895	991	708	998
28 Patna	20.7	23.0	24.4	27.3	16.6	19.3	4.8	5.6	6.0	7.2	3.5	4.2	35	44	40	52	24	36	48	58	60	72	30	44	875	950	860	948	857	999
29 Bhojpur	23.6	25.6	24.1	26.2	18.0	23.2	5.3	6.3	5.5	6.5	2.7	5.9	43	52	44	54	26	51	55	66	57	69	23	61	875	962	876	966	742	1079
30 Buxar	23.9	26.2	24.1	26.5	18.8	26.4	6.3	7.2	6.5	7.5	3.3	6.2	48	62	49	63	19	65	68	81	71	84	23	67	943	1037	939	1035	819	1261
31 Kaimur (Bhabua)	23.7	26.3	23.8	26.5	14.1	24.8	5.4	6.5	5.5	6.6	2.6	8.4	48	63	48	64	28	45	65	80	65	81	5	81	822	927	830	937	410	896
32 Rohtas	24.5	27.3	24.9	27.9	19.4	25.7	6.6	7.4	6.6	7.5	5.4	7.8	46	57	46	58	35	65	59	72	60	74	35	76	864	962	865	968	738	1057
33 Jehanabad	23.8	26.0	24.0	26.3	19.6	26.2	5.7	6.7	5.7	6.8	4.1	7.4	46	59	47	60	19	67	62	72	63	74	34	75	895	975	892	974	795	1145
34 Aurangabad	24.5	26.8	24.7	27.1	20.2	26.6	5.8	6.9	5.8	7.0	4.1	8.0	42	54	41	53	32	71	54	68	54	68	37	87	926	1040	919	1036	838	1278
35 Gaya	23.4	26.4	24.6	27.7	16.9	24.2	6.8	8.0	7.0	8.4	5.0	7.8	47	63	47	66	28	68	62	78	63	81	40	83	903	1029	887	1020	854	1223
36 Nawada	24.0	26.0	24.3	26.5	19.1	23.4	5.3	6.6	5.3	6.6	3.2	8.1	43	56	43	55	-	-	55	67	54	67	-	-	858	955	852	951	760	1206
37 Jamui	24.7	28.1	24.9	28.5	20.5	25.2	5.6	7.7	5.5	7.8	3.4	9.5	50	65	50	66	23	80	70	87	71	89	25	96	890	1013	896	1023	627	1143

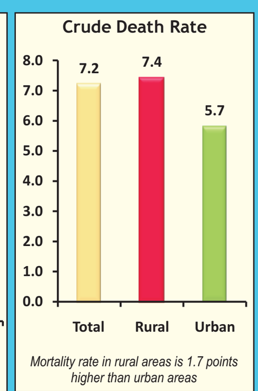
'–' denotes inadequate sample.

'Total' under Infant Mortality Rate may not add up to corresponding 'Total' of Neo-natal and Post Neo-natal Mortality Rates due to rounding.

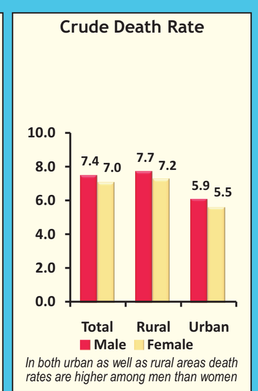


Birth rate in rural areas is significantly higher than urban areas

Crude Birth Rate = (Number of Live Births in reference period / Mid-year population) × 1000

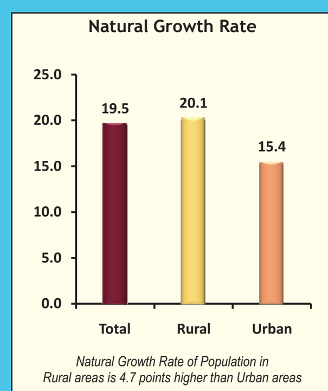


Mortality rate in rural areas is 1.7 points higher than urban areas

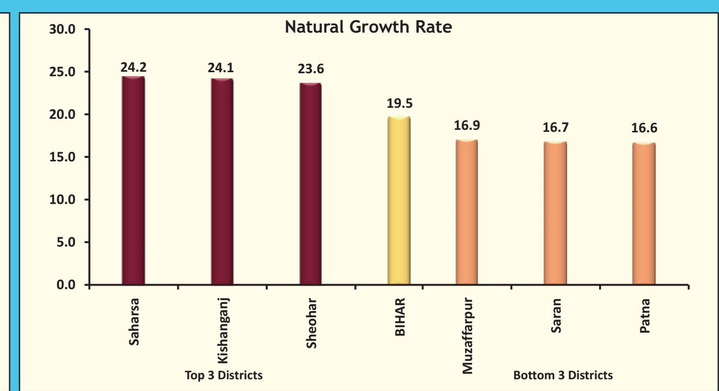


In both urban as well as rural areas death rates are higher among men than women

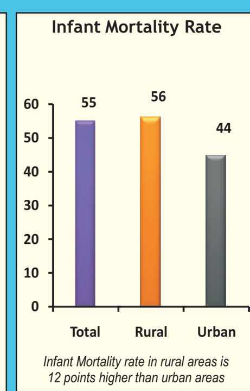
Crude Death Rate = (Number of Deaths in reference period / Mid-year population) × 1000



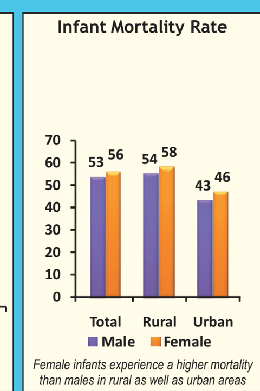
Natural Growth Rate of Population in Rural areas is 4.7 points higher than Urban areas



Natural Growth Rate = Crude Birth Rate – Crude Death Rate

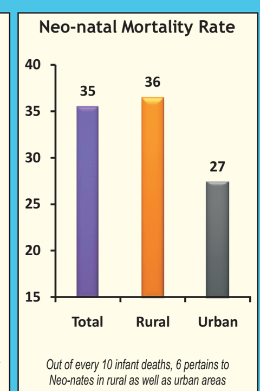


Infant Mortality rate in rural areas is 12 points higher than urban areas



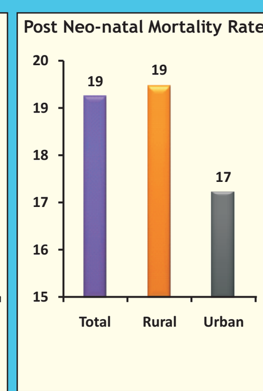
Female infants experience a higher mortality than males in rural as well as urban areas

Infant Mortality Rate = (Number of Infant Deaths (less than 1 year of age) / Number of live births during reference period) × 1000

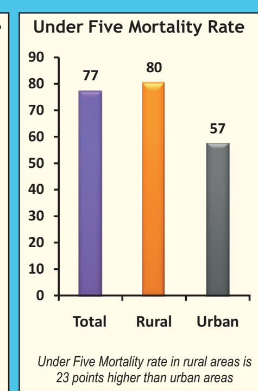


Out of every 10 infant deaths, 6 pertains to Neo-nates in rural as well as urban areas

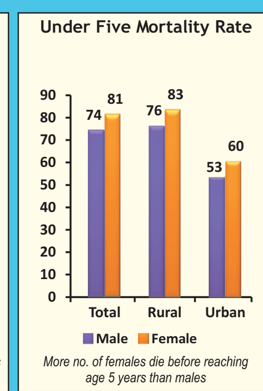
Neo-natal deaths : Infant dying before age of 29 days



Post Neo-natal deaths : Infant dying during age of 29 days to < 1 year

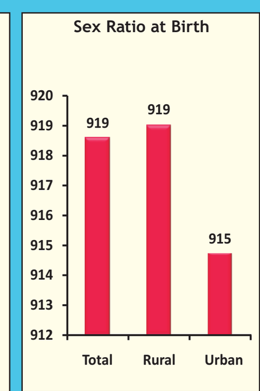


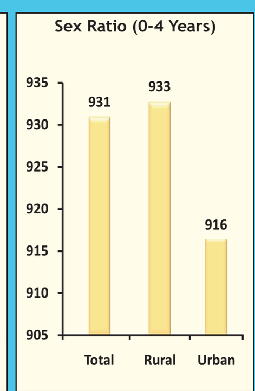
Under Five Mortality rate in rural areas is 23 points higher than urban areas

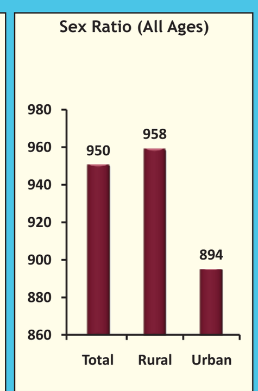


More no. of females die before reaching age 5 years than males

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.



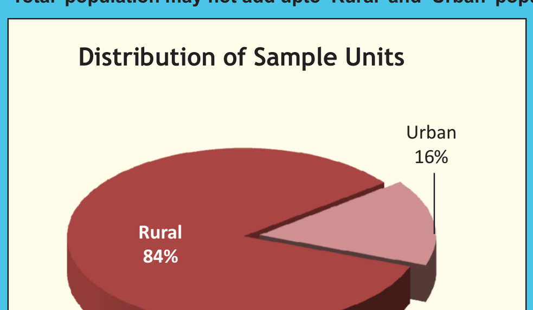


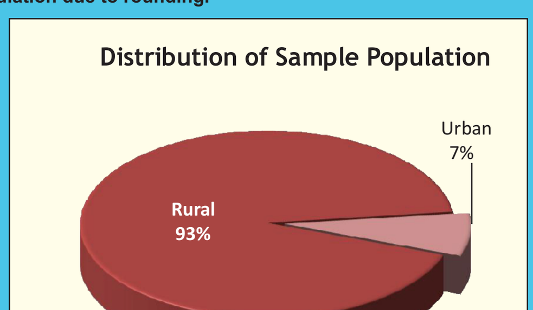


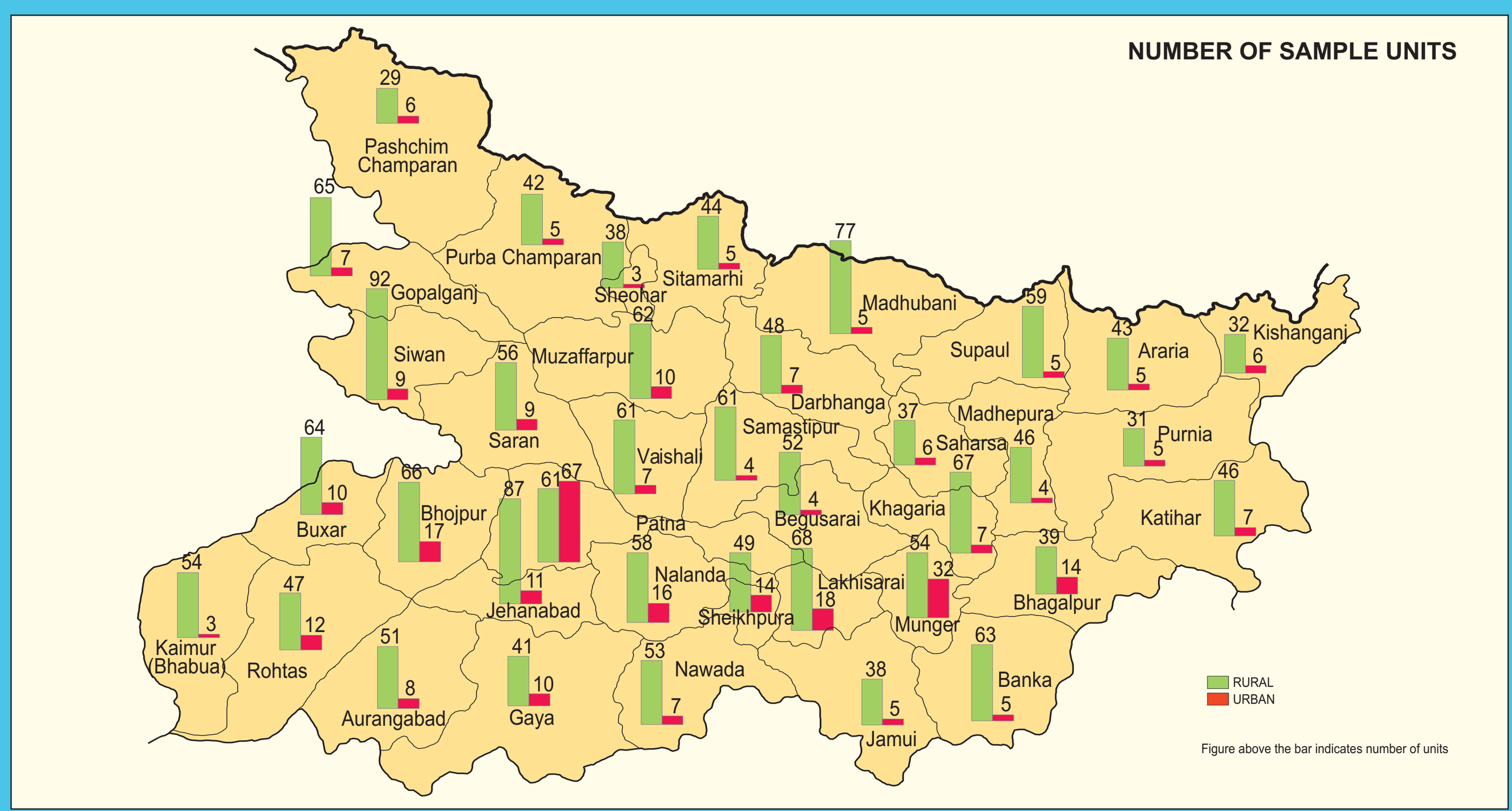
Sex Ratio = Number of females per 1,000 males

District	Number of Sample Units Total	Number of Sample Units Rural	Number of Sample Units Urban	Population (in '000') Total	Population (in '000') Rural	Population (in '000') Urban
BIHAR	**2,356**	**1,981**	**375**	**3,090**	**2,859**	**231**
1 Pashchim Champaran	35	29	6	47	44	3
2 Purba Champaran	47	42	5	85	80	5
3 Sheohar	41	38	3	65	63	2
4 Sitamarhi	49	44	5	68	64	4
5 Madhubani	82	77	5	120	119	1
6 Supaul	64	59	5	92	89	3
7 Araria	48	43	5	76	72	4
8 Kishanganj	38	32	6	55	51	4
9 Purnia	36	31	5	47	43	4
10 Katihar	53	46	7	85	82	3
11 Madhepura	50	46	4	98	95	3
12 Saharsa	43	37	6	67	61	6
13 Darbhanga	55	48	7	79	76	3
14 Muzaffarpur	72	62	10	102	98	4
15 Gopalganj	72	65	7	90	86	4
16 Siwan	101	92	9	141	131	10
17 Saran	65	56	9	80	74	6
18 Vaishali	68	61	7	91	88	3
19 Samastipur	65	61	4	80	78	2
20 Begusarai	56	52	4	85	82	3
21 Khagaria	74	67	7	128	124	4
22 Bhagalpur	53	39	14	74	66	8
23 Banka	68	63	5	78	75	3
24 Munger	86	54	32	91	73	18
25 Lakhisarai	86	68	18	114	106	8
26 Sheikhpura	63	49	14	64	58	6
27 Nalanda	74	58	16	83	75	8
28 Patna	128	61	67	136	86	50
29 Bhojpur	83	66	17	95	88	7
30 Buxar	74	64	10	95	90	5
31 Kaimur (Bhabua)	57	54	3	59	57	2
32 Rohtas	59	47	12	70	63	7
33 Jehanabad	98	87	11	115	108	7
34 Aurangabad	59	51	8	62	57	5
35 Gaya	51	41	10	49	41	8
36 Nawada	60	53	7	75	70	5
37 Jamui	43	38	5	49	46	3

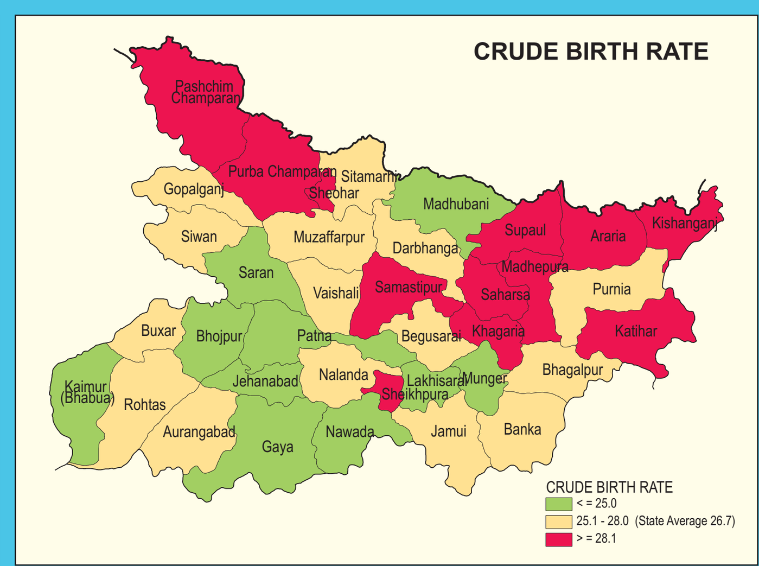
'Total' population may not add upto 'Rural' and 'Urban' population due to rounding.

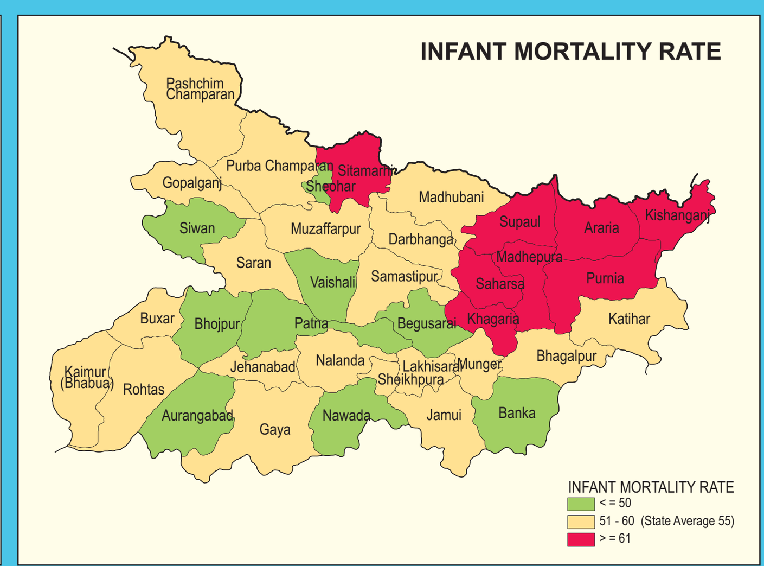


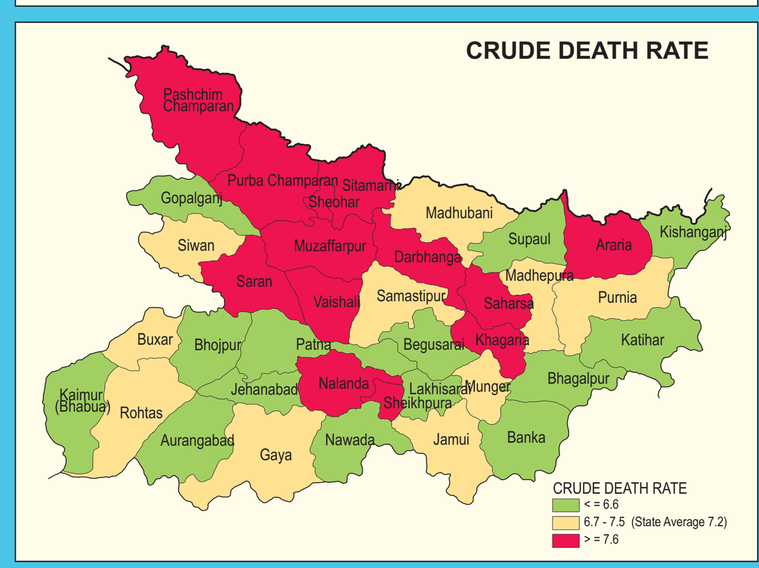


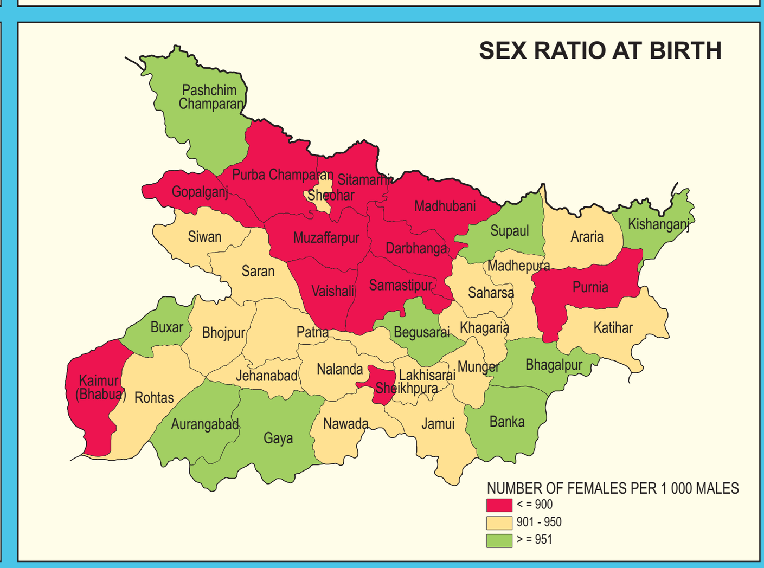


State/Commissionary/(Districts)	Sample Female Population	Sample Live Births	Maternal Deaths	MMR	95% Confidence Interval Lower Limit	95% Confidence Interval Upper Limit	Maternal Mortality Rate	Life Time Risk
BIHAR	702534	241895	737	305	283	327	35	1.22%
TIRHUT (Pashchim Champaran, Purba Champaran, Sheohar, Sitamarhi, Muzaffarpur, Vaishali)	102366	37615	120	319	262	376	39	1.36%
PURNIA (Araria, Kishanganj, Purnia, Katihar)	58385	22825	86	377	297	456	49	1.70%
KOSI (Madhepura, Saharsa, Supaul)	56729	22360	64	286	216	356	38	1.31%
DHARBHANGA (Madhubani, Darbhanga, Samastipur)	62451	21551	62	288	216	359	33	1.15%
SARAN (Gopalganj, Siwan, Saran)	72512	23175	71	306	235	378	33	1.14%
BHAGALPUR (Bhagalpur, Banka)	33416	11543	37	321	217	424	37	1.28%
MUNGER (Begusarai, Khagaria, Munger, Lakhisarai, Sheikhpura, Jamui)	119184	41963	124	295	244	347	35	1.21%
PATNA (Nalanda, Patna, Bhojpur, Buxar, Kaimur (Bhabua), Rohtas)	126626	38830	100	258	207	308	26	0.92%
MAGADH (GAYA) (Jehanabad, Aurangabad, Gaya, Nawada)	70865	22033	73	331	255	407	34	1.19%



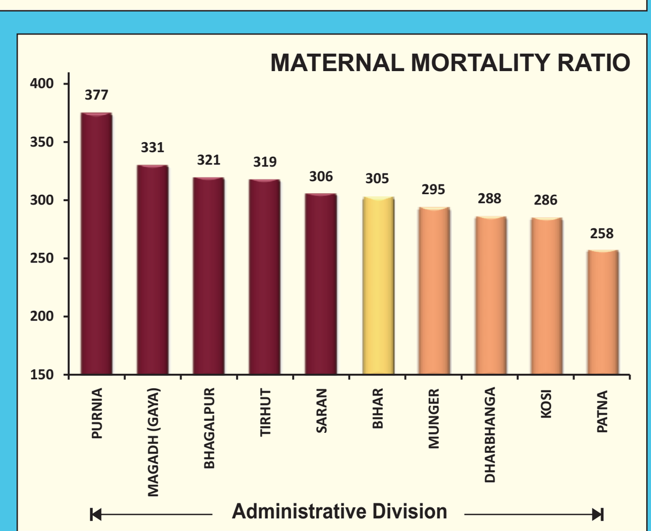






Age Group	Sample Female Deaths	Maternal Deaths	Proportion	95% Confidence Interval Lower Limit	95% Confidence Interval Upper Limit	Non Maternal Deaths	Proportion	95% Confidence Interval Lower Limit	95% Confidence Interval Upper Limit
15-19	622	103	14	11	16	519	13	12	14
20-24	596	176	24	21	27	420	11	10	12
25-29	663	173	23	20	27	490	12	11	13
30-34	633	114	15	13	18	519	13	12	14
35-39	754	105	14	12	17	649	16	15	18
40-44	657	33	4	3	6	624	16	15	17
45-49	752	33	4	3	6	719	18	17	19
Total	**4677**	**737**	**100**			**3940**	**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* = $1-\left(1-\frac{\text{Maternal Mortality Rate}}{100000}\right)^{35}$



Annual Health Survey Bulletin 2010-11

Introduction:

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 gets 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 conducted with periodicity of five years mainly focuses on maternal health and child welfare programmes. There has, therefore, been a surge in the demands 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 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 NRHM at closer intervals through these benchmark indicators. The AHS has been made an integral part of the National Rural Health Mission (NRHM), Ministry of Health & Family Welfare. The responsibility for the project has been entrusted to the Office of 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.

Coverage:

4. Keeping in view the mammoth sample size requirement as the sample size at the district level has been derived taking Infant Mortality Rate as the decisive indicator and host of other practical issues relating to execution, it was a considerate decision of the Government to undertake the survey, to begin with, in all the 284 districts (as per 2001 Census) in the 8 Empowered Action Group States (Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Orissa and Rajasthan) and Assam for a three year period during XI Five Year Plan period. These nine States, which account for about 48 percent of the total population in the country, are the high focus States in view of their relatively higher fertility and mortality indicators. A representative sample of 18 million population and 3.6 million households is covered in 20,694 statistically selected PSUs (Census Enumeration Blocks in case of urban areas and villages or a segment thereof in case of villages in rural areas) in these 9 AHS States every year. Even with the present coverage, the AHS is the largest demographic survey in the world and is two and half times that of the Sample Registration System.

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 on the pattern of National Family Health Survey (NFHS) and District Level Health Survey (DLHS). The supervision, monitoring and co-ordination of the fieldwork in the States are done by the dedicated staff posted at various levels in the respective Directorate of Census Operations (DCOs). The responsibility for overall supervision, monitoring and co-ordination across the 9 AHS States rests with the AHS Division at ORGI. 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 with more or less similar workload.

Technical Consultation:

6. The outline of the survey such as approach, periodicity, coverage, sampling strategy, sample size, permissible levels of relative standard error, levels of aggregation, were finalized after a series of deliberations on the subject with the representatives from Ministry of Health & Family Welfare, National Sample Survey Organization, Central Statistical Organization, Ministry of Woman & Child Development, Indian Council of Medical Research, Planning Commission, Indian Institute of 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 of 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 comprise 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 called segments of more or less equal size, population not exceeding 2000 in any case. One segment was selected from the frame of segments thus prepared 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 equal size and disjoint substrata were established. The sample villages within each substratum were selected by simple random sampling without replacement. In urban areas, the Census Enumeration Blocks within a district were also ordered by the female literacy rate based on the Census 2001 data, and three equal size and disjoint substrata were established. The sample Census Enumeration Blocks within each substratum were selected by simple random sampling without replacement. This process of selection ensured equal representation across three sub-strata 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 estimate 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 TFR / MMR (for a group of districts) with good precision. In the absence of district level estimates from any other reliable source, the district level 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 before the commencement of the survey is to uniquely identify the sample unit on ground. This was done in all the sample units across the 9 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 in all the nine AHS States was carried out during July 2010 to March 2011 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 dwelling, basic amenities available to the household and assets possessed by them were also collected. In the Household Schedule, all 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 of first Marriage, Education and Occupation/Activity status was captured. Besides, information in respect of Disability, Morbidity (Injuries, Acute illness, Chronic illness) and Personal habits (like Chewing, Smoking and consumption of Alcohol) was also collected wherever applicable. Woman Schedule comprised two sections. Section-I was administered to each and every ever married woman 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 were collected. Section II focused on information on pregnancy; use, sources and practices of family planning methods; details relating to future and unmet need, awareness about RTI/STI, HIV/AIDS, administration of HAF/ORT/ORS during diarrhoea and danger signs of ARI/Pneumonia from Currently Married Woman.

12. Through the Mortality Schedule, details relating to death occurred to usual residents of sample unit during 01.01.2007 to 31.12.2009 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 before death. For infant deaths, a question on symptoms leading to death was also probed. Information on a variety of questions on factors leading/contributing to death, symptoms leading to death, time between onset of complications and death, etc. were asked in case of deaths associated with pregnancy to yield data on various determinants of maternal mortality. These schedules were finalized after a series of deliberations in the TAG and a pilot was also done to test them. The fieldwork in sample unit was carried out by a team of field enumerators which had at least one female. This was done to ensure that besides canvassing of woman schedule, questions on morbidity for female members in household schedule and questions relating to infant deaths as well as deaths associated with pregnancy in the mortality schedule are probed and recorded only by the female enumerator.

Training:

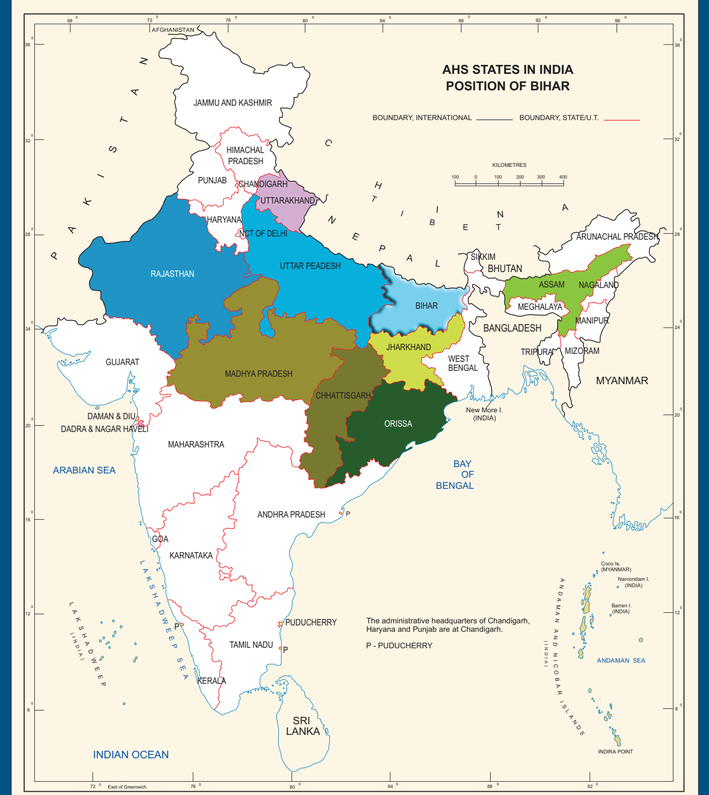
13. Since information on morbidity, disability, few specific details in case of infant and maternal deaths etc. were being collected at the district level in such a large survey setup for the first time, adequate emphasis was given on training. An exhaustive training manual for the field staff was prepared with inputs from various stakeholders and subject experts. A three day ' Training of Trainers' programme was organized at New Delhi prior to commencement of State/Zone level training sessions wherein experts imparted training on concepts, definitions and how best to collect data on different parameters. A pool of doctors was arranged with the help of National Institute of Health & Family Welfare (NIHFW) who imparted training to the field staff on disability and morbidity in the State/Zone level training programmes. A standardized Video training module was specially developed for the purpose. Officers from ORGI and DCOs were deputed to observe these training programmes.

Supervision and Third Party Audit:

14. 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 secure the quality of data. The inspections were a judicious mix of concurrent as well as post survey audit. Over and above, a component of third party audit has also been included to verify and authenticate the surveyed data through an independent mechanism. The third party audit work has been done in 20 randomly selected AHS units in a district covering every fourth household thereof by following a standard protocol prescribed by ORGI. A truncated version of household, women and mortality schedules were filled in afresh by the field staff of the third party audit agencies. The findings of the third party audit helped in improving the quality of data particularly netting of vital events.

Dissemination of Results:

15. In view of the huge volume of data collected under AHS and also the significant time required for validation and processing, the dissemination of AHS results is being done in two phases. The first set of data is being released in the form of a State-wise bulletin, which contains the district level data on crude birth rate, crude death rate, natural growth rate, infant mortality rate, neo-natal and post neo-natal mortality rate, under 5 mortality rate, sex ratio at birth, sex ratio (0-4 years) and overall sex ratio. Though the sample size has been calculated for the district as a whole, the rural and urban estimates at the district level has also 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, maternal mortality rate and life time risk have been published for a group of districts. In order to facilitate direct intervention, the grouping of districts has been done on the basis of existing administrative divisions in the respective AHS States. The data on all other parameters covered under AHS would be released subsequently in the form of district level factsheets.



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 Uttarakhand & 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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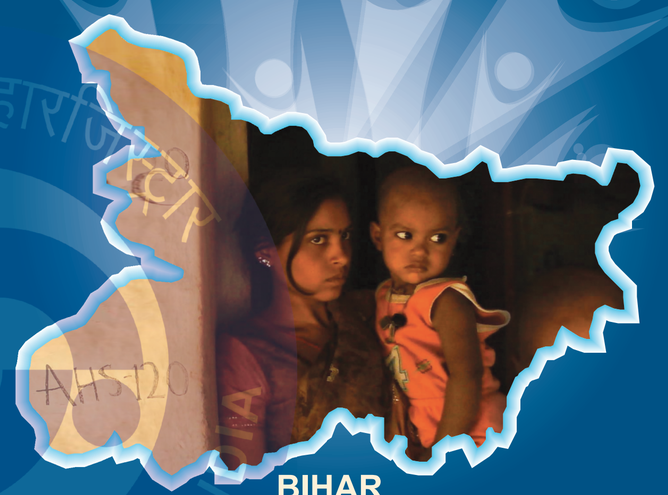

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