# CHAPTER - 3

# ESTIMATES OF FERTILITY INDICATORS

Since inception, SRS has been providing data for estimating various fertility measures. The fertility indicators considered in this chapter are Crude Birth Rate, General Fertility Rate, Age Specific/Marital Fertility Rates, Total /Marital Fertility Rates and Gross Reproduction Rate. Apart from this, the chapter includes sex ratio at birth. To examine the changes in the levels of fertility during the last decade, the average values of these fertility indicators for the years 2014-16 are compared with that for 2004-06.

**3.2** The crude birth rate (CBR) at all India level had declined from 36.9 in 1971 to 33.9 in 1981, registering a fall of about 8 per cent. During 1991-2016, the decline has been about 31 percent, from 29.5 to 20.4. The rural-urban differential has also narrowed over these years. However, the CBR has continued to be higher in rural areas compared to urban areas in the last three decades. The total fertility rate (TFR) has declined from 5.2 to 4.5 during 1971 to 1981 and from 3.6 to 2.3 during 1991 to 2016. The TFR in rural areas has declined from 5.4 to 2.5 from 1971 to 2016 whereas the corresponding decline in urban areas has been from 4.1 to 1.8 during the same period. In 2016, around 80.8 percent of the deliveries were institutional which includes Government as well as private hospitals. The percentage of institutional deliveries in urban areas is 94.2 as against about 76.1 percent recorded in rural areas.

**3.3** The data on most of the fertility indicators has been presented by age, sex and residence for all India and bigger States/UTs. This chapter also includes data on fertility by level of education, order of birth, birth interval and medical attention at birth.

**3.4** Apart from the fertility indicators at State and National levels, the SRS report 2016 also provides estimates of birth rates at sub-State, viz. NSS Natural Division Level. NSS natural divisions have been formed taking into consideration the geography of the State and by grouping contiguous districts having similar topography, population density, cropping pattern and rainfall etc. The Table 11 of this report contains data on birth rate besides death and infant mortality rate for 71 Natural Divisions of 22 bigger States/UTs.

**3.5** Statement 14 below provides the Crude Birth Rate (CBR) by residence for India and bigger States/UTs for the year 2016. The CBR at national level is 20.4 varying from 22.1 in rural to17.0 in urban areas. Andhra Pradesh, Delhi, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Odisha, Punjab, Tamil Nadu, Telangana, Uttarakhand and West Bengal are the States having birth rate below 20 both in rural and urban areas. On the other hand, Bihar has the highest birth rate in rural areas (27.7) and Uttar Pradesh has the highest birth rate in urban areas (22.8) areas, followed by Uttar Pradesh (27.3) and Rajasthan (21.6) in rural and urban areas respectively. The lowest CBR was recorded in rural areas of Kerala (14.3) and in urban areas of Himachal Pradesh (10.5). Based on the figures in the Statement 14 given below, the graphical representation of birth rate of bigger States/UTs by residence is depicted in Chart 26. Chart 27 gives the distribution of bigger States/UTs by values of birth rate for rural and urban areas.

**Statement 14**

**CBR (Crude Birth Rate) by residence, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Total | Rural | Urban |
|---|---|---|---|
| **India** | **20.4** | **22.1** | **17.0** |
| Andhra Pradesh | 16.4 | 16.7 | 15.8 |
| Assam | 21.7 | 22.8 | 15.0 |
| Bihar | 26.8 | 27.7 | 21.1 |
| Chhattisgarh | 22.8 | 24.3 | 18.1 |
| Delhi | 15.5 | 17.0 | 15.5 |
| Gujarat | 20.1 | 22.0 | 17.7 |
| Haryana | 20.7 | 22.0 | 18.3 |
| Himachal Pradesh | 16.0 | 16.5 | 10.5 |
| Jammu & Kashmir | 15.7 | 17.4 | 11.9 |
| Jharkhand | 22.9 | 24.5 | 18.4 |
| Karnataka | 17.6 | 18.5 | 16.2 |
| Kerala | 14.3 | 14.3 | 14.4 |
| Madhya Pradesh | 25.1 | 27.1 | 19.5 |
| Maharashtra | 15.9 | 16.3 | 15.5 |
| Odisha | 18.6 | 19.6 | 13.7 |
| Punjab | 14.9 | 15.6 | 14.1 |
| Rajasthan | 24.3 | 25.2 | 21.6 |
| Tamil Nadu | 15.0 | 15.1 | 15.0 |
| Telangana | 17.5 | 17.8 | 17.0 |
| Uttar Pradesh | 26.2 | 27.3 | 22.8 |
| Uttarakhand | 16.6 | 16.8 | 16.0 |
| West Bengal | 15.4 | 16.9 | 11.8 |

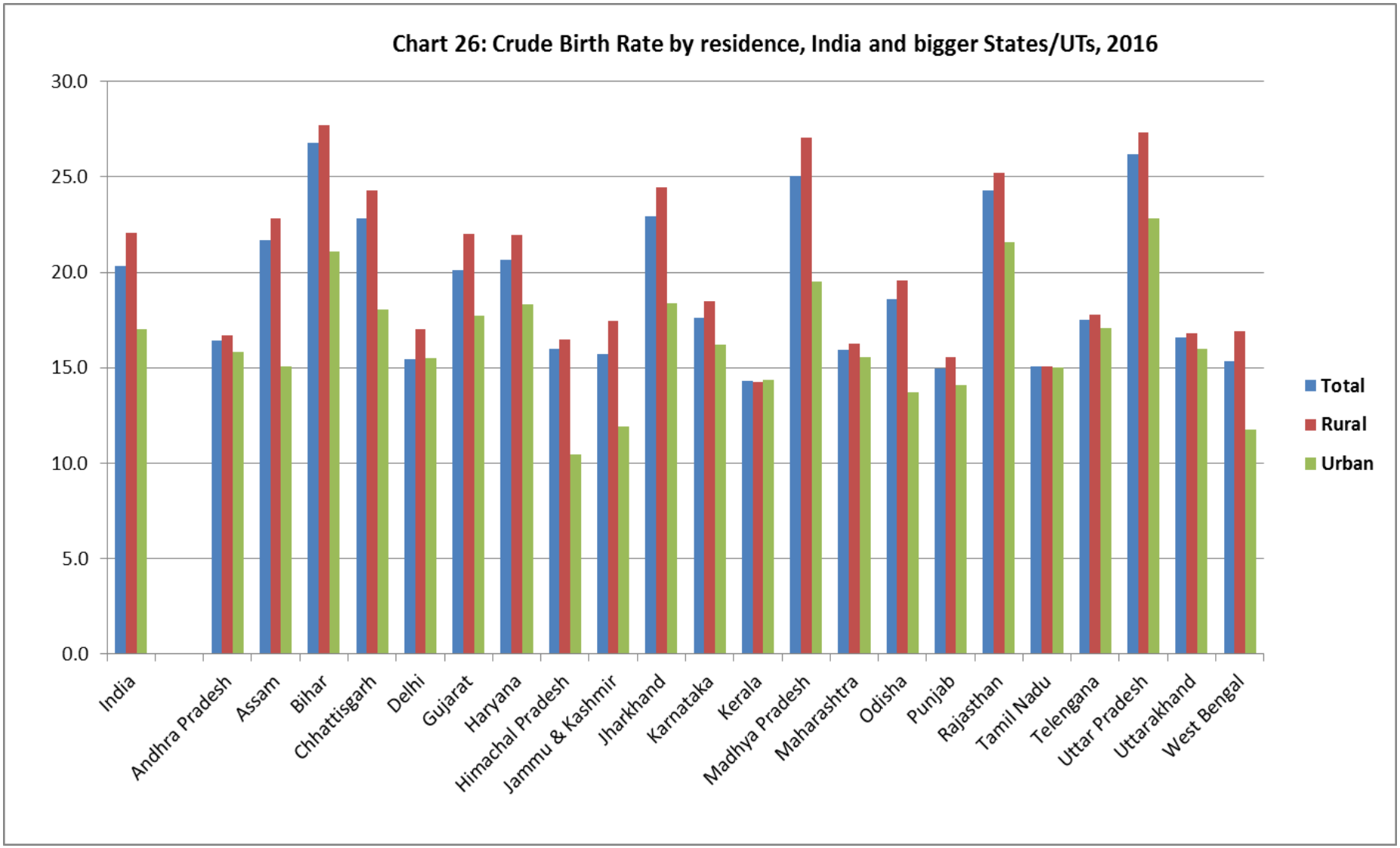
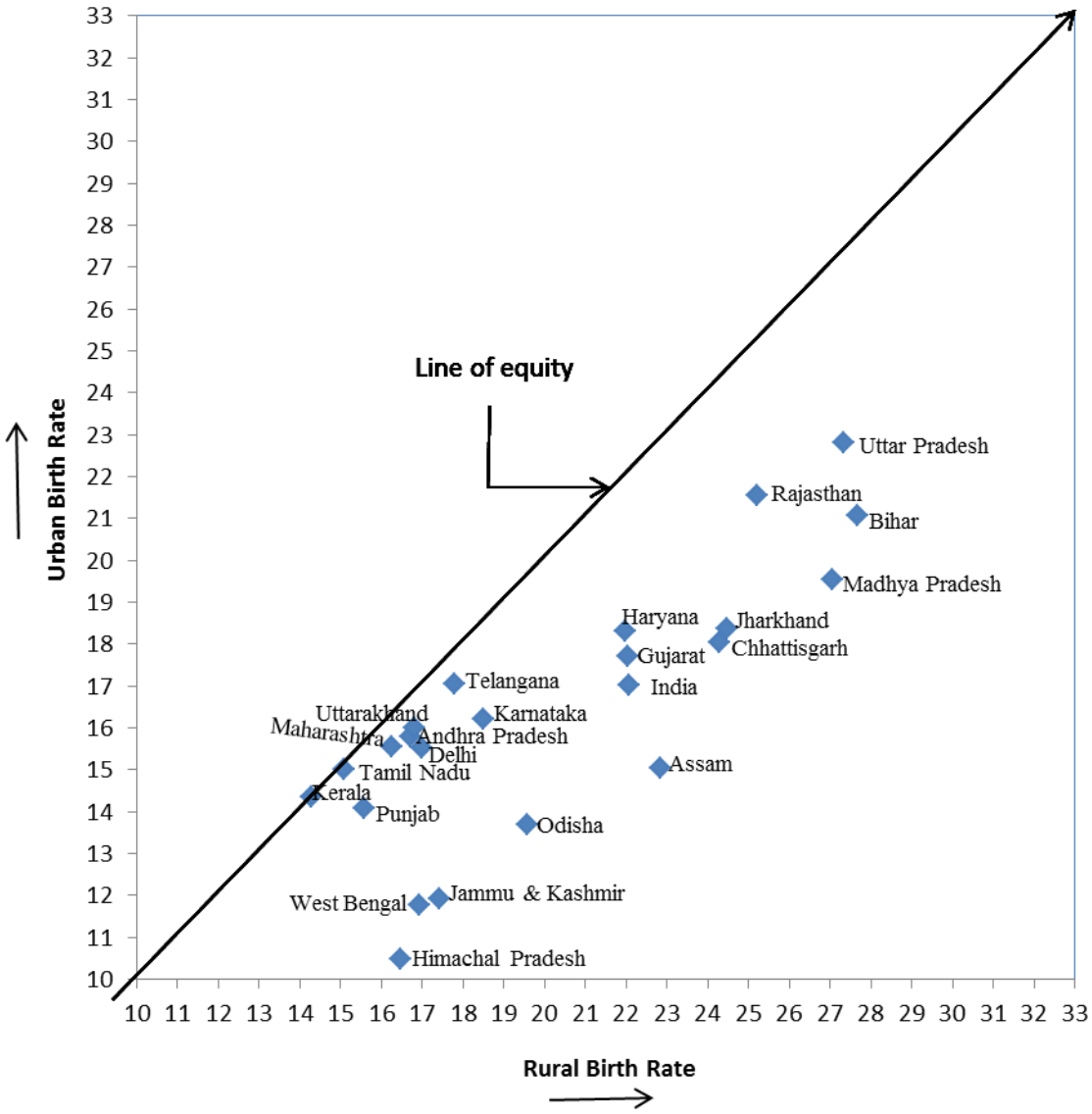


Chart 26: Crude Birth Rate by residence, India and bigger States/UTs, 2016
30.0
25.0
20.0
15.0
10.0
5.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telengana
Uttar Pradesh
Uttarakhand
West Bengal
Total
Rural
Urban

**Chart 27: Distribution of bigger States/UTs by values of Birth Rate for rural and urban areas, 2016**



**3.6** Statement 15 below provides the percentage change in average crude birth rate between the periods 2004-06 and 2014-16 for India and bigger States/UTs separately for rural and urban areas. At the national level, the rate of decline in birth rate is 13.0 percent. The rate of decline in average birth rate varies from 17.6 percent in West Bengal to 2.0 percent in Kerala. Such decline in rural areas is from 18.9 percent in West Bengal to 3.3 percent in Kerala. In Andhra Pradesh, Assam, Jharkhand, Kerala and Uttarakhand, the 3-year average crude birth rate in urban areas has increased in by 1.8 percent, 2.0 percent. 2.2 percent, 0.7 percent and 0.6 percent respectively. The 3-year average crude birth rate of Kerala and Tamil Nadu is nearly same in rural and urban areas during 2014-16. Charts 28, 29 and 30 depict the average birth rate between 2004-06 and 2014-16 of India and bigger States/UTs for Total, Rural and Urban areas respectively. Chart 31 shows the percentage change in average birth rate between 2004-06 and 2014-16 by residence for India and bigger States/UTs.

**Statement 15**

**Percentage change in average Crude Birth Rate between 2004-06 and 2014-16 by residence, India and bigger States/UTs**

| India and bigger States/UTs | Total | | | Rural | | | Urban | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change |
| **India** | **23.8** | **20.7** | **-13.0** | **25.6** | **22.4** | **-12.5** | **19.0** | **17.2** | **-9.5** |
| Andhra Pradesh* | 19.0 | 17.2 | -9.5 | 20.1 | 17.5 | -12.9 | 16.4 | 16.7 | 1.8 |
| Assam | 24.9 | 22.0 | -11.6 | 26.6 | 23.2 | -12.8 | 15.0 | 15.3 | 2.0 |
| Bihar | 30.2 | 26.3 | -12.9 | 31.0 | 27.2 | -12.3 | 23.3 | 20.5 | -12.0 |
| Chhattisgarh | 27.2 | 23.2 | -14.7 | 28.9 | 24.7 | -14.5 | 19.8 | 18.3 | -7.6 |
| Delhi | 18.5 | 16.2 | -12.4 | 19.0 | 17.6 | -7.4 | 18.4 | 16.2 | -12.0 |
| Gujarat | 23.8 | 20.4 | -14.3 | 25.6 | 22.3 | -12.9 | 21.1 | 18.0 | -14.7 |
| Haryana | 24.4 | 20.9 | -14.3 | 25.8 | 22.3 | -13.6 | 21.1 | 18.5 | -12.3 |
| Himachal Pradesh | 19.3 | 16.2 | -16.1 | 20.0 | 16.7 | -16.5 | 12.8 | 10.6 | -17.2 |
| Jammu & Kashmir | 18.8 | 16.2 | -13.8 | 20.1 | 18.1 | -10.0 | 14.0 | 11.7 | -16.4 |
| Jharkhand | 26.4 | 23.4 | -11.4 | 28.3 | 24.9 | -12.0 | 18.6 | 19.0 | 2.2 |
| Karnataka | 20.5 | 17.9 | -12.7 | 22.0 | 18.8 | -14.5 | 17.8 | 16.4 | -7.9 |
| Kerala | 15.0 | 14.7 | -2.0 | 15.2 | 14.7 | -3.3 | 14.6 | 14.7 | 0.7 |
| Madhya Pradesh | 29.4 | 25.4 | -13.6 | 31.6 | 27.5 | -13.0 | 22.2 | 19.7 | -11.3 |
| Maharashtra | 18.9 | 16.2 | -14.3 | 19.6 | 16.5 | -15.8 | 17.9 | 15.8 | -11.7 |
| Odisha | 22.3 | 19.1 | -14.3 | 23.2 | 20.1 | -13.4 | 16.6 | 14.0 | -15.7 |
| Punjab | 18.2 | 15.2 | -16.5 | 18.8 | 15.9 | -15.4 | 17.2 | 14.3 | -16.9 |
| Rajasthan | 28.6 | 24.7 | -13.6 | 30.2 | 25.6 | -15.2 | 23.8 | 21.9 | -8.0 |
| Tamil Nadu | 16.6 | 15.2 | -8.4 | 17.1 | 15.3 | -10.5 | 16.0 | 15.2 | -5.0 |
| Uttar Pradesh | 30.4 | 26.6 | -12.5 | 31.4 | 27.8 | -11.5 | 26.2 | 23.0 | -12.2 |
| Uttarakhand | 20.8 | 17.5 | -15.9 | 21.9 | 17.8 | -18.7 | 16.7 | 16.8 | 0.6 |
| West Bengal | 18.8 | 15.5 | -17.6 | 21.2 | 17.2 | -18.9 | 12.6 | 11.5 | -8.7 |

***** Andhra Pradesh includes Telangana.

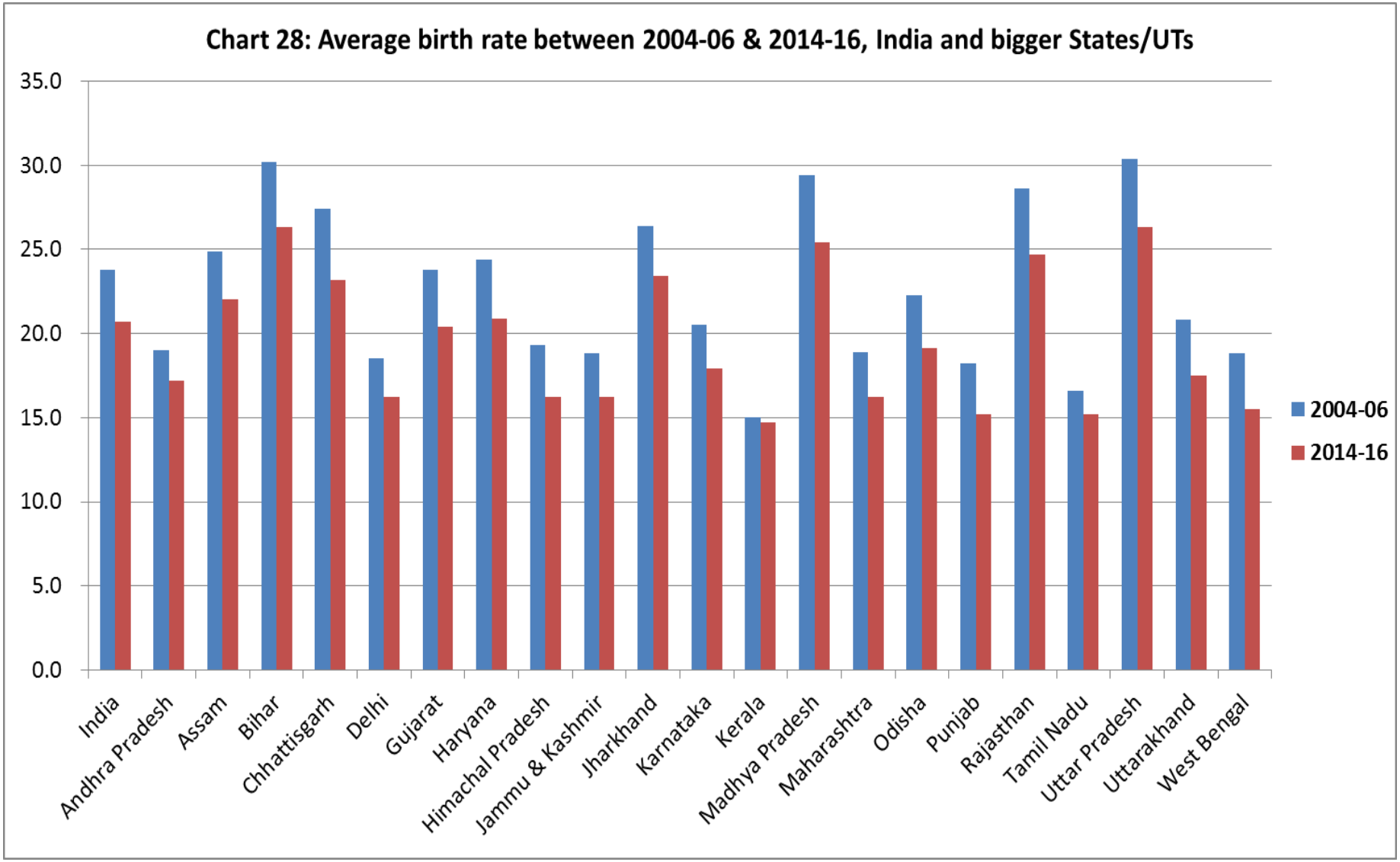


Chart 28: Average birth rate between 2004-06 & 2014-16, India and bigger States/UTs
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
Uttarakhand
West Bengal
2004-06
2014-16

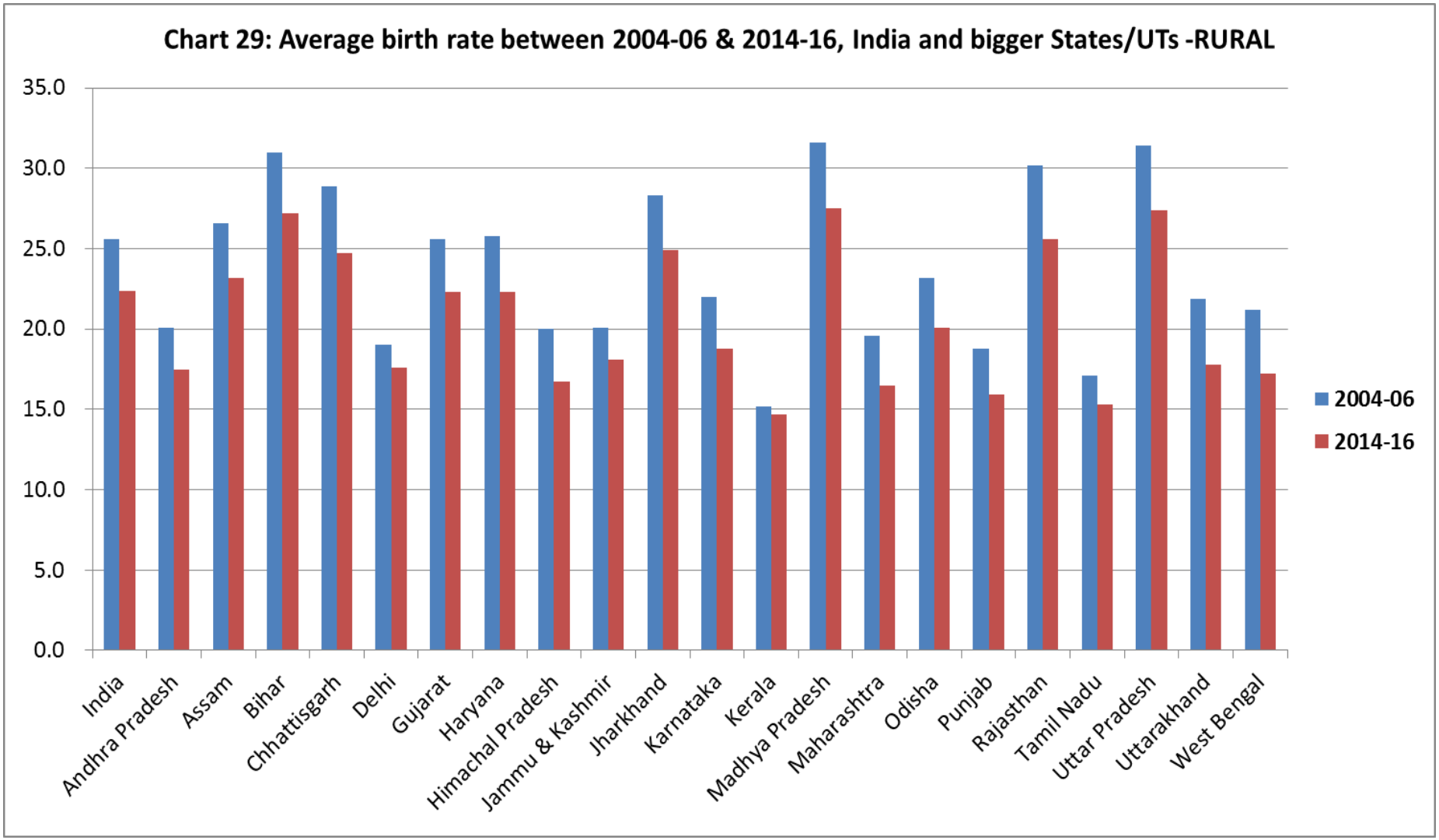


Chart 29: Average birth rate between 2004-06 & 2014-16, India and bigger States/UTs -RURAL
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
Uttarakhand
West Bengal
2004-06
2014-16

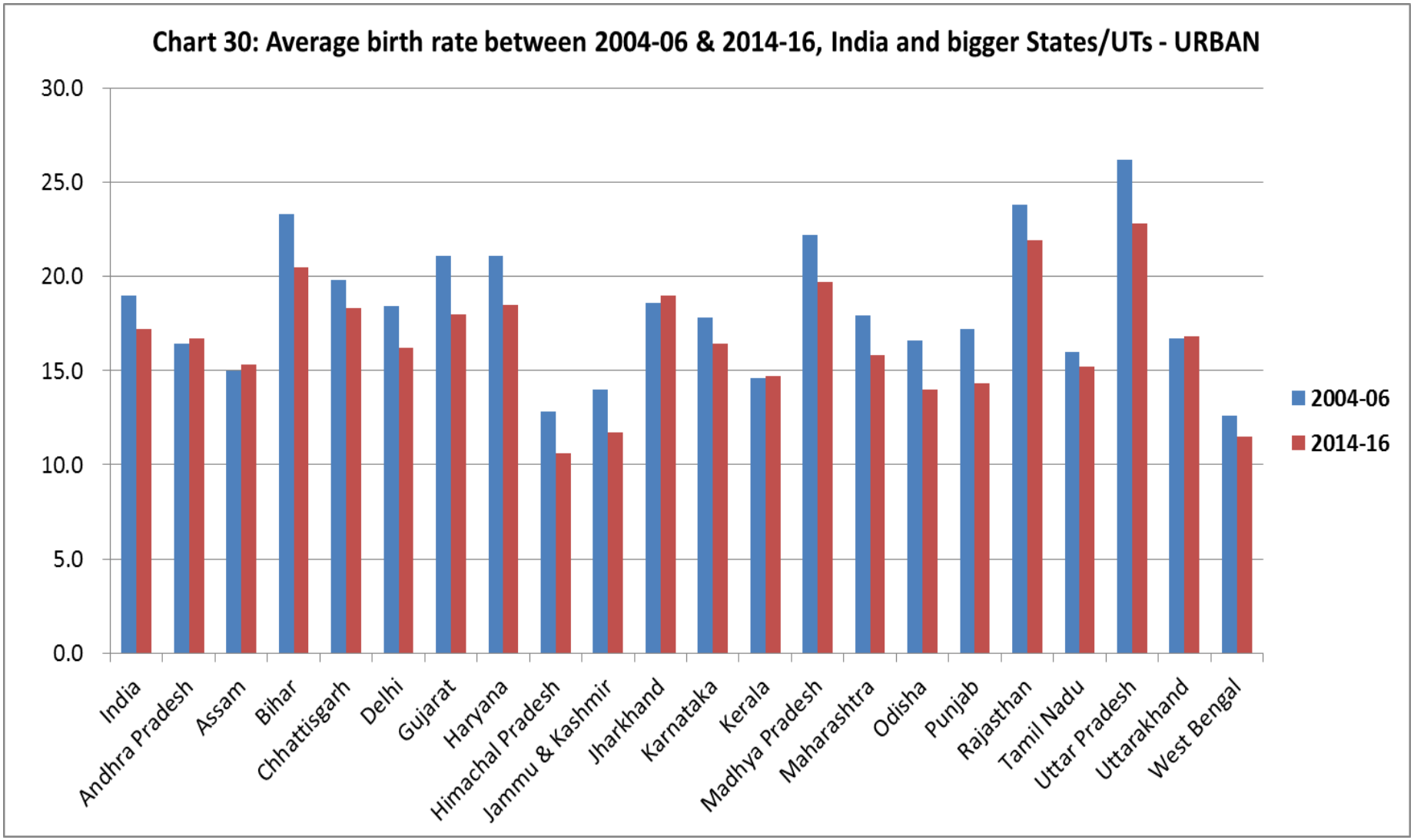
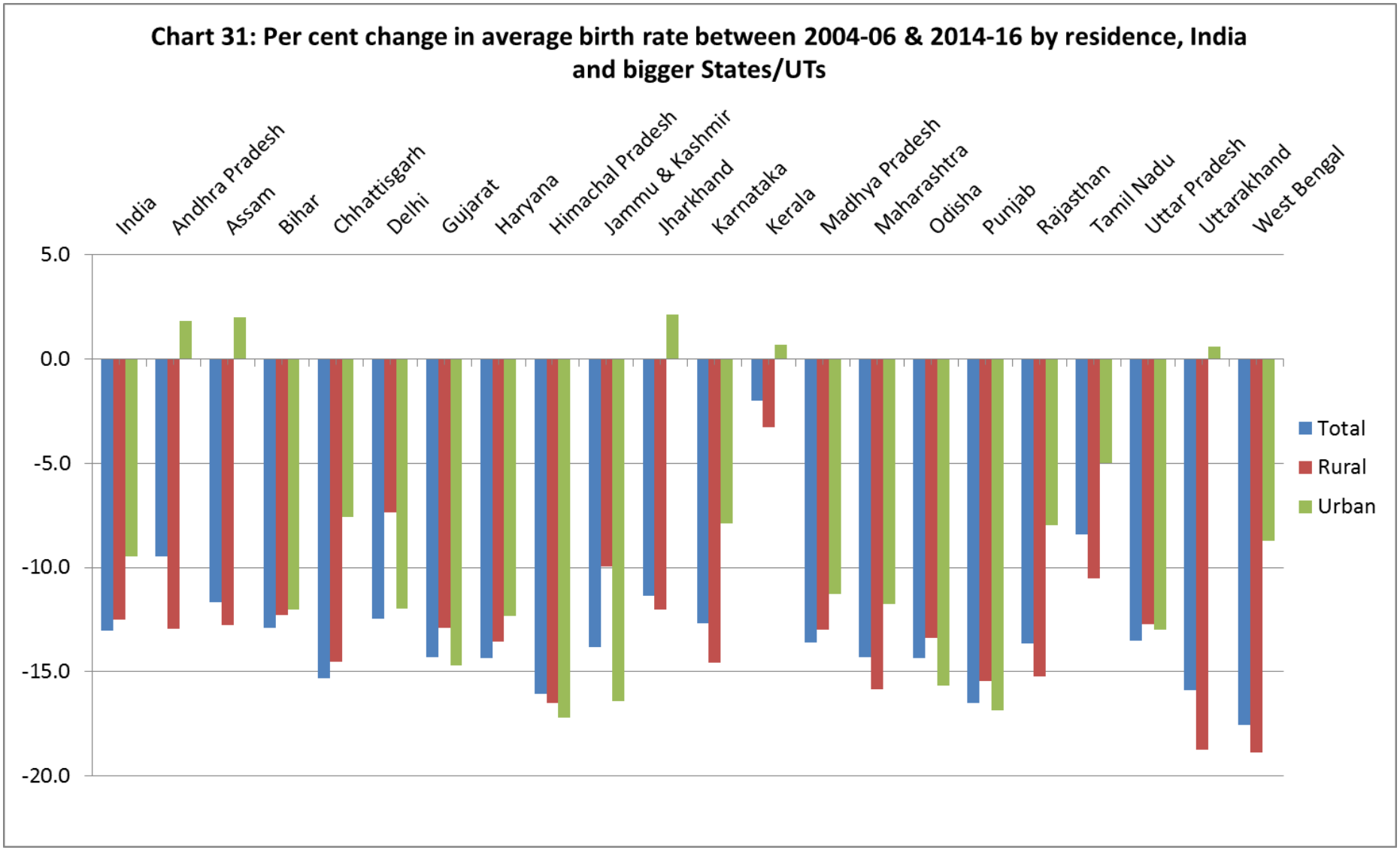


Chart 30: Average birth rate between 2004-06 & 2014-16, India and bigger States/UTs - URBAN
30.0
25.0
20.0
15.0
10.0
5.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
Uttarakhand
West Bengal
2004-06
2014-16

**Chart 31: Per cent change in average birth rate between 2004-06 & 2014-16 by residence, India and bigger States/UTs**



**3.7** The Statement 16 below presents sex ratio at birth during the period 2014-16. The sex ratio at birth for the country for the period 2014-16 (3-years average) has been estimated at 898. At National level, it is 902 in rural areas and 888 in urban areas. Among the bigger States/UTs, the sex ratio at birth varies from 963 in Chhattisgarh to 832 in Haryana. In the rural areas, the highest and the lowest sex ratio at birth are in the States of Chhattisgarh (995) and Haryana (835) respectively. The sex ratio in urban areas varies from 957 in Madhya Pradesh to 820 in Gujarat. Chart 32 depicts the variation in sex ratio by residence among bigger States/UTs in the country.

**Statement 16**

**Sex ratio (female per 1000 male) at birth by residence, India and bigger States/UTs, 2014-2016**

| India and bigger States/UTs | Total | Rural | Urban |
|---|---|---|---|
| **India** | **898** | **902** | **888** |
| Andhra Pradesh | 913 | 923 | 888 |
| Assam | 896 | 898 | 880 |
| Bihar | 908 | 912 | 871 |
| Chhattisgarh | 963 | 995 | 833 |
| Delhi | 857 | 917 | 856 |
| Gujarat | 848 | 867 | 820 |
| Haryana | 832 | 835 | 824 |
| Himachal Pradesh | 917 | 921 | 852 |
| Jammu & Kashmir | 906 | 903 | 919 |
| Jharkhand | 918 | 927 | 882 |
| Karnataka | 935 | 965 | 883 |
| Kerala | 959 | 972 | 946 |
| Madhya Pradesh | 922 | 913 | 957 |
| Maharashtra | 876 | 872 | 882 |
| Odisha | 948 | 959 | 871 |
| Punjab | 893 | 876 | 921 |
| Rajasthan | 857 | 862 | 838 |
| Tamil Nadu | 915 | 926 | 903 |
| Telangana | 901 | 940 | 841 |
| Uttar Pradesh | 882 | 871 | 923 |
| Uttarakhand | 850 | 857 | 832 |
| West Bengal | 937 | 938 | 932 |

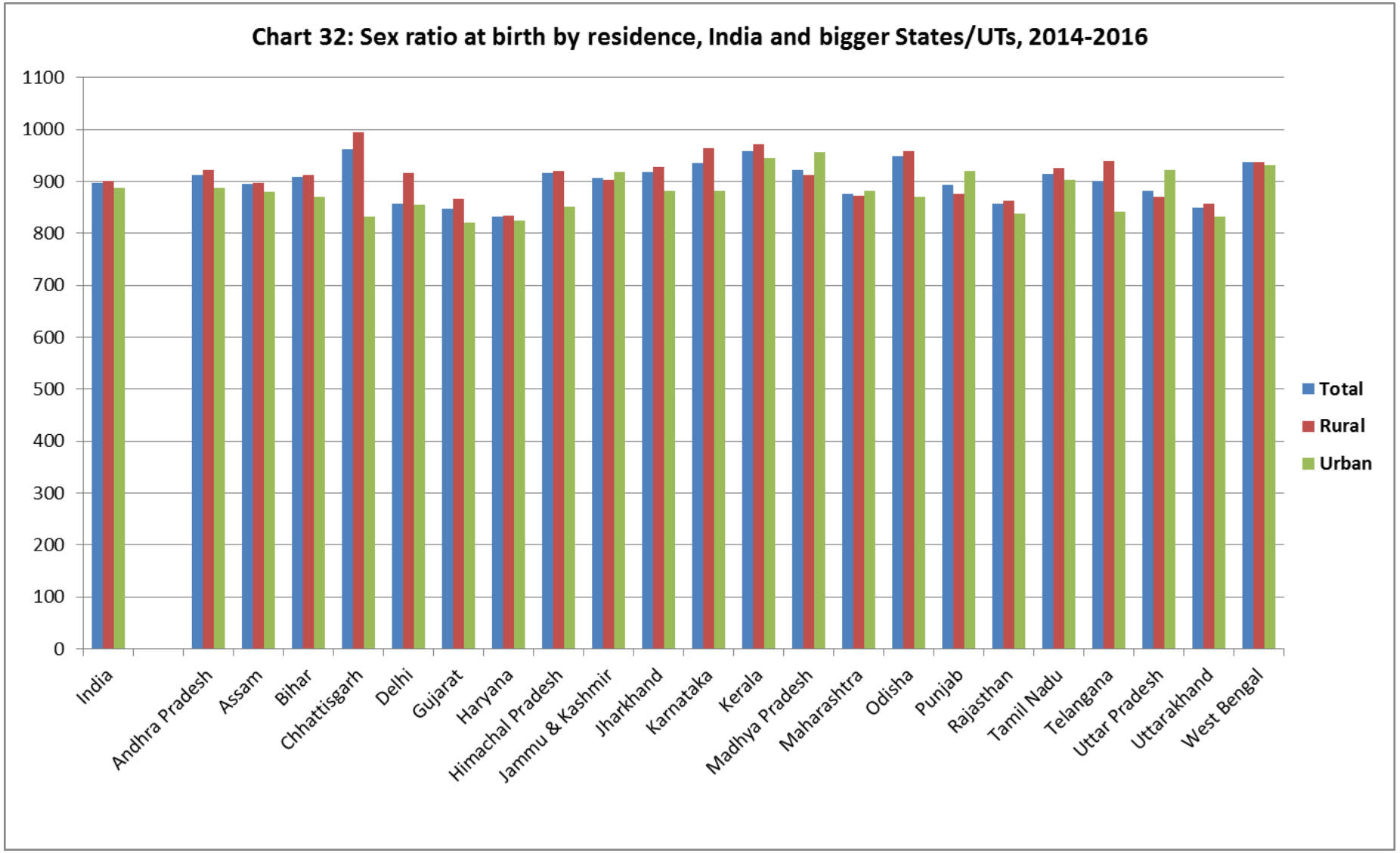


Chart 32: Sex ratio at birth by residence, India and bigger States/UTs, 2014-2016
1100
1000
900
800
700
600
500
400
300
200
100
0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
Total
Rural
Urban

**3.9** Estimates of General Fertility Rate (GFR), a refined measure of fertility, being defined as the number of live births per thousand women in the reproductive age group 15-49 years, is a useful tool for measuring fertility. The GFR for all-India and bigger States/UTs are given below in Statement 17 separately for rural and urban areas. At the national level, 74.4 children were born to every thousand women aged 15-49 years. This number varies from 59.5 in urban areas to 81.8 in rural areas. Among the bigger States/UTs, GFR varies from 51.1 in Kerala to 105.6 in Bihar. Chart 33 gives a pictorial comparison of bigger States/UTs by level of GFR. It can be seen that GFR in rural areas of Kerala is just higher than urban areas with a difference of 0.8. Chart 34 gives the distribution of bigger States/UTs by values of GFR for rural and urban areas.

**Statement 17**

**GFR (General Fertility Rate) by residence, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Total | Rural | Urban |
|---|---|---|---|
| **India** | **74.4** | **81.8** | **59.5** |
| Andhra Pradesh | 56.4 | 58.2 | 52.3 |
| Assam | 78.2 | 82.9 | 52.4 |
| Bihar | 105.6 | 109.4 | 81.8 |
| Chhattisgarh | 81.8 | 88.6 | 61.1 |
| Delhi | 55.2 | 64.0 | 55.0 |
| Gujarat | 74.0 | 82.8 | 63.4 |
| Haryana | 77.5 | 83.5 | 67.2 |
| Himachal Pradesh | 56.2 | 57.9 | 36.1 |
| Jammu & Kashmir | 53.5 | 60.1 | 39.3 |
| Jharkhand | 84.6 | 91.0 | 66.0 |
| Karnataka | 61.4 | 65.2 | 55.5 |
| Kerala | 51.1 | 51.5 | 50.7 |
| Madhya Pradesh | 94.2 | 103.7 | 69.9 |
| Maharashtra | 58.5 | 62.9 | 53.5 |
| Odisha | 66.3 | 70.5 | 46.7 |
| Punjab | 55.2 | 58.0 | 51.3 |
| Rajasthan | 89.7 | 94.6 | 76.4 |
| Tamil Nadu | 53.4 | 54.9 | 52.0 |
| Telangana | 58.8 | 60.9 | 55.7 |
| Uttar Pradesh | 97.3 | 103.3 | 80.0 |
| Uttarakhand | 62.9 | 64.4 | 59.0 |
| West Bengal | 53.4 | 58.7 | 41.1 |

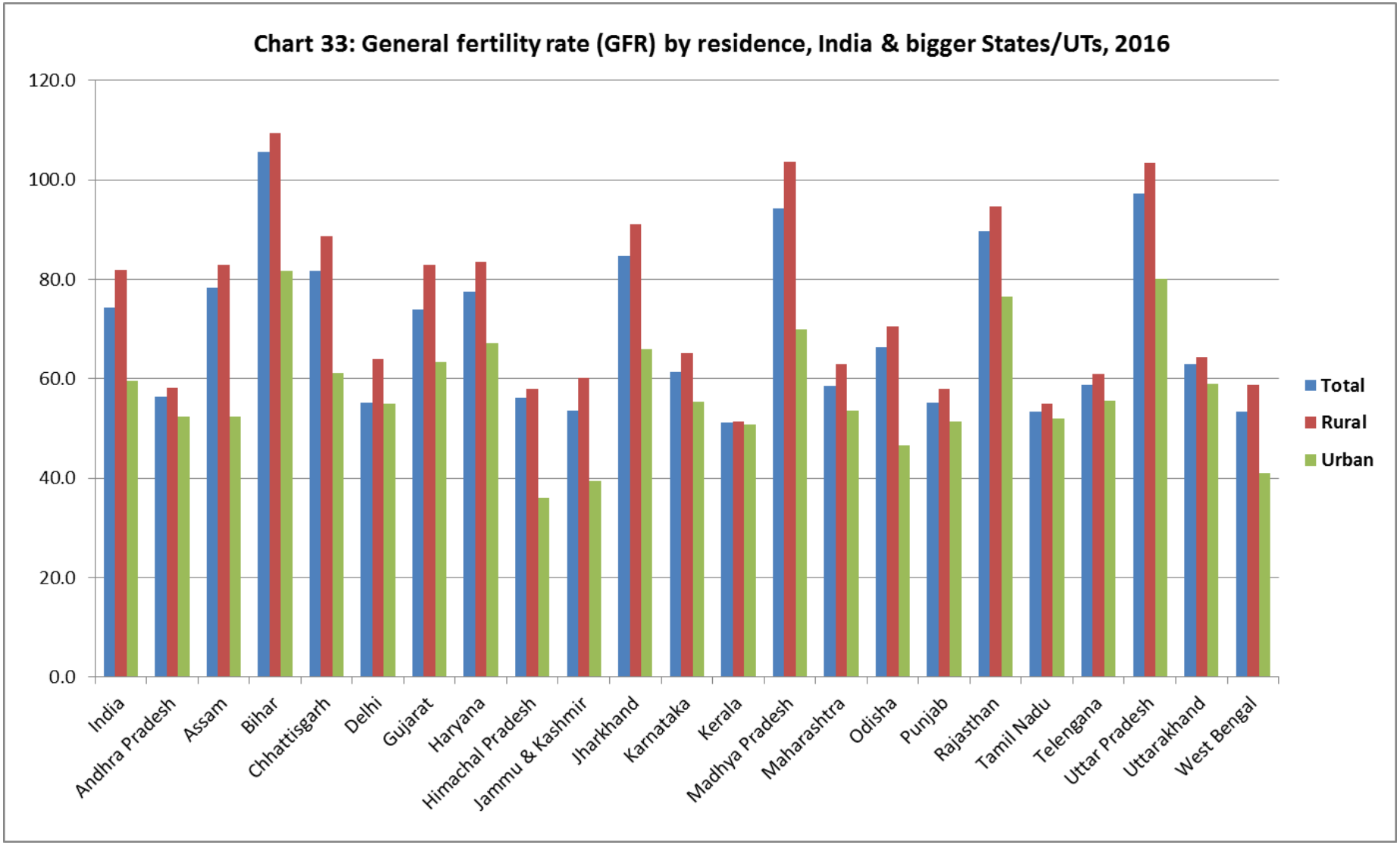
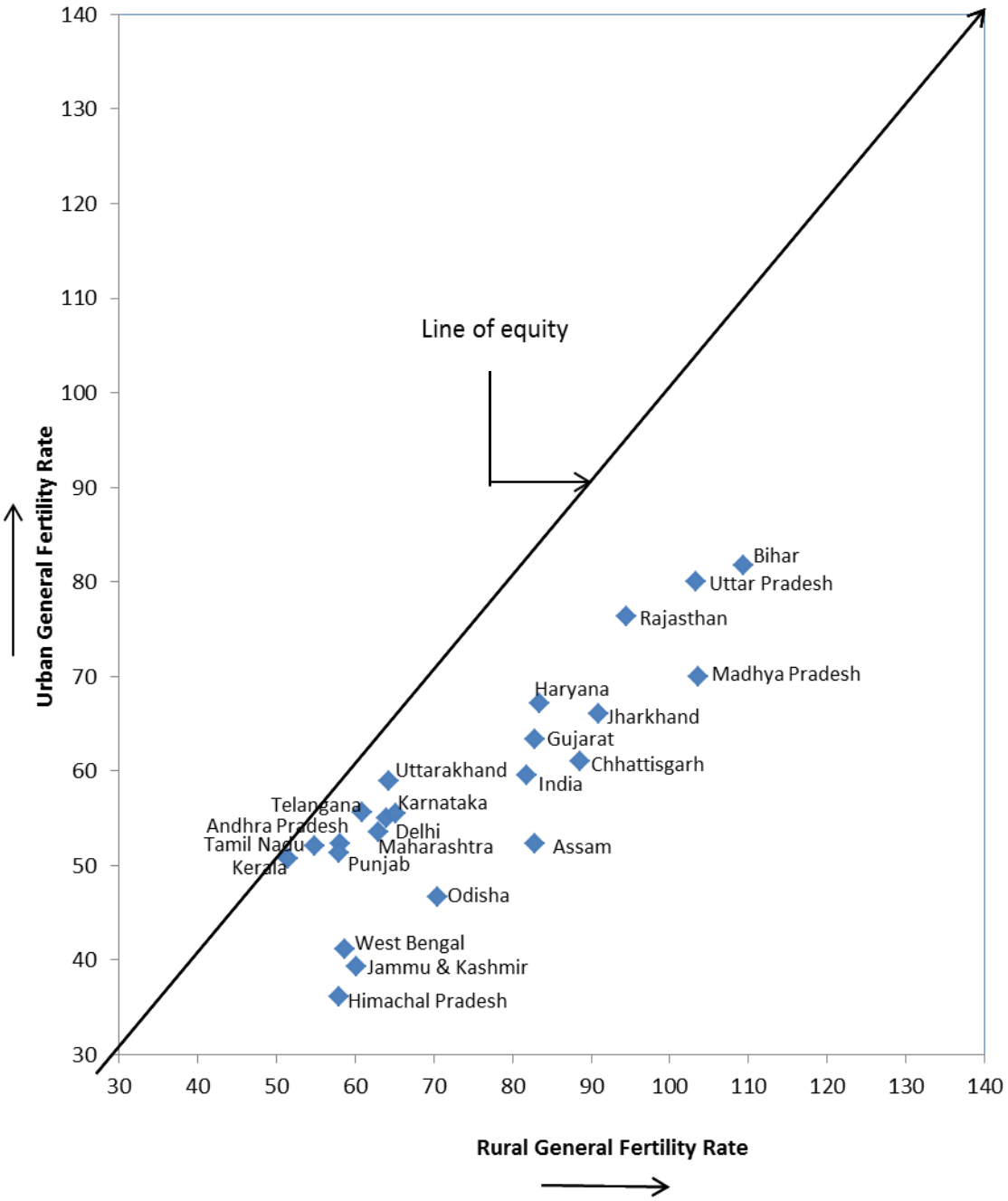


Chart 33: General fertility rate (GFR) by residence, India & bigger States/UTs, 2016
120.0
100.0
80.0
60.0
40.0
20.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telengana
Uttar Pradesh
Uttarakhand
West Bengal
Total
Rural
Urban

**Chart 34: Distribution of bigger States/UTs by values of General Fertility Rate(GFR) for rural and urban areas, 2016**



**3.10** Changes in the average level of General Fertility Rate (GFR) between 2004-06 and 2014-16 for India and bigger States/UTs are shown below in Statement 18. At the all India level, a decline of 20.6 percent in GFR has been registered during the decade and it varies from 21.3 percent in rural to 14.1 percent in urban areas. Among the bigger States/UTs, the percentage decline in GFR varies from 27.7 in Uttar Pradesh to 1.5 in Kerala. Charts 35, 36 and 37 depict the average GFR between 2004-06 and 2014-16 of India and bigger States/UTs for Total, Rural and Urban areas respectively. Chart 38 shows the percentage change in average GFR between 2004-06 and 2014-16 by residence for India and bigger States/UTs.

**Statement 18**

**Percent change in average GFR (General Fertility Rate) between 2004-06 and 2014-16 by residence, India and bigger States/UTs**

| India and bigger States/UTs | Total | | | Rural | | | Urban | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change |
| **India** | **95.9** | **76.1** | **-20.6** | **106.4** | **83.7** | **-21.3** | **70.7** | **60.7** | **-14.1** |
| Andhra Pradesh* | 70.2 | 58.9 | -16.1 | 75.8 | 60.9 | -19.7 | 57.6 | 55.2 | -4.2 |
| Assam | 97.6 | 80.1 | -17.9 | 106.3 | 85.3 | -19.8 | 52.7 | 52.8 | 0.2 |
| Bihar | 137.6 | 104.3 | -24.2 | 143.4 | 108.3 | -24.5 | 96.9 | 79.1 | -18.4 |
| Chhattisgarh | 108.9 | 83.5 | -23.3 | 118.5 | 90.8 | -23.4 | 72.3 | 61.9 | -14.4 |
| Delhi | 72.2 | 58.4 | -19.1 | 76.1 | 66.9 | -12.1 | 71.5 | 58.2 | -18.6 |
| Gujarat | 93.0 | 75.3 | -19.0 | 102.1 | 84.4 | -17.3 | 79.6 | 64.4 | -19.1 |
| Haryana | 98.0 | 78.5 | -19.9 | 106.2 | 85.0 | -20.0 | 80.3 | 67.7 | -15.7 |
| Himachal Pradesh | 70.5 | 57.5 | -18.4 | 73.4 | 59.3 | -19.2 | 44.4 | 36.9 | -16.9 |
| Jammu & Kashmir | 73.3 | 55.9 | -23.7 | 81.0 | 63.0 | -22.2 | 49.4 | 39.1 | -20.9 |
| Jharkhand | 113.8 | 86.6 | -23.9 | 124.7 | 92.8 | -25.6 | 74.4 | 68.2 | -8.3 |
| Karnataka | 75.8 | 62.8 | -17.2 | 83.7 | 66.6 | -20.4 | 62.5 | 56.9 | -9.0 |
| Kerala | 53.3 | 52.5 | -1.5 | 53.9 | 53.1 | -1.5 | 51.4 | 52.0 | 1.2 |
| Madhya Pradesh | 122.6 | 96.2 | -21.5 | 135.4 | 106.3 | -21.5 | 84.2 | 70.7 | -16.0 |
| Maharashtra | 73.6 | 60.2 | -18.2 | 80.0 | 64.6 | -19.3 | 65.7 | 54.8 | -16.6 |
| Odisha | 86.2 | 68.7 | -20.3 | 91.0 | 73.2 | -19.6 | 59.5 | 48.1 | -19.2 |
| Punjab | 71.4 | 56.5 | -20.9 | 75.3 | 59.6 | -20.8 | 65.2 | 52.4 | -19.6 |
| Rajasthan | 124.3 | 91.7 | -26.2 | 135.7 | 96.8 | -28.7 | 94.0 | 77.8 | -17.2 |
| Tamil Nadu | 59.5 | 54.6 | -8.2 | 62.8 | 56.2 | -10.5 | 55.2 | 53.1 | -3.8 |
| Uttar Pradesh* | 135.2 | 97.7 | -27.7 | 143.6 | 104.0 | -27.6 | 104.9 | 80.0 | -23.7 |
| West Bengal | 73.0 | 54.2 | -25.8 | 83.9 | 60.4 | -28.0 | 46.4 | 40.1 | -13.6 |

*: Andhra Pradesh and Uttar Pradesh include Telangana and Uttarakhand respectively

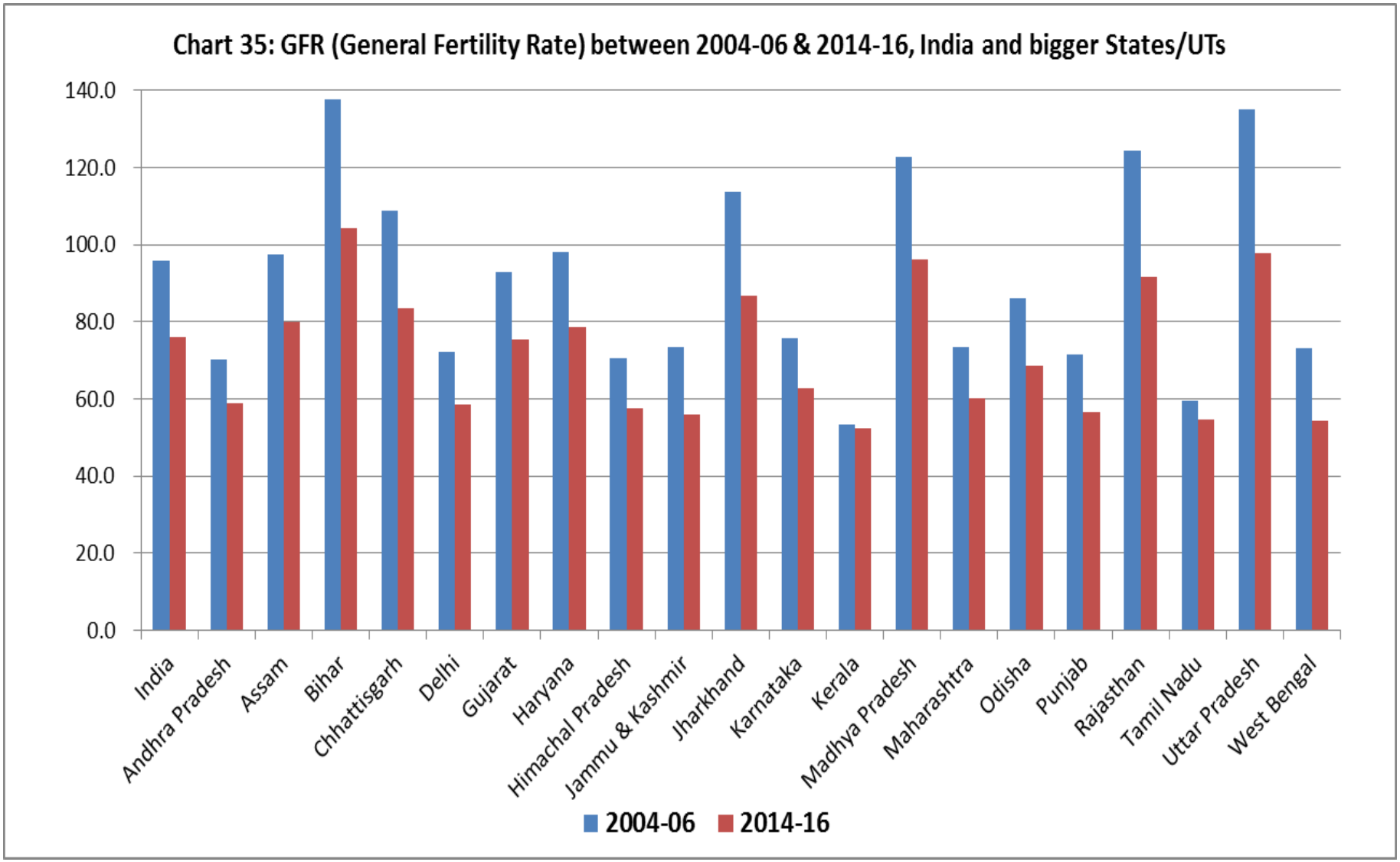


Chart 35: GFR (General Fertility Rate) between 2004-06 & 2014-16, India and bigger States/UTs
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

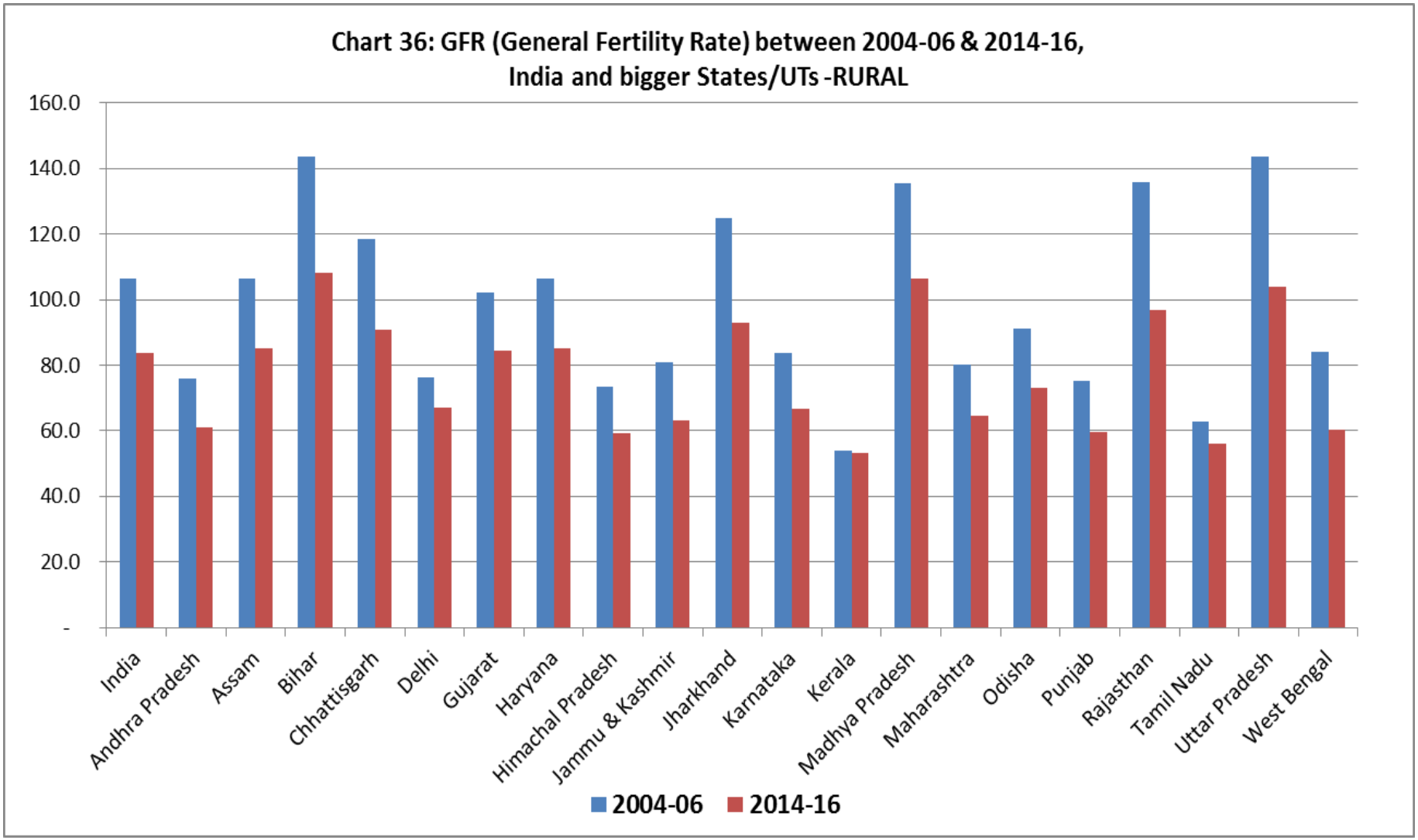


Chart 36: GFR (General Fertility Rate) between 2004-06 & 2014-16,
India and bigger States/UTs -RURAL
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
-
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

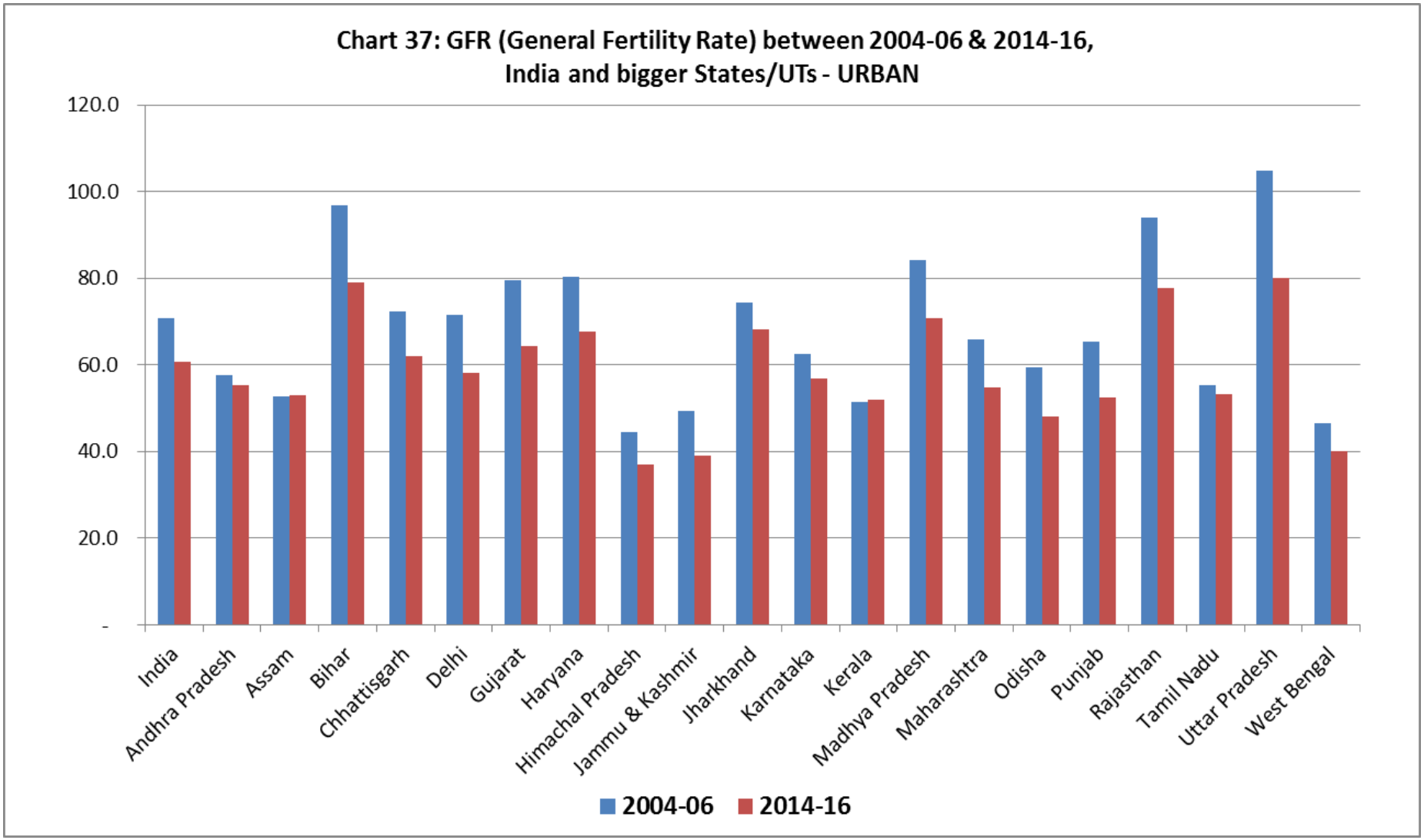
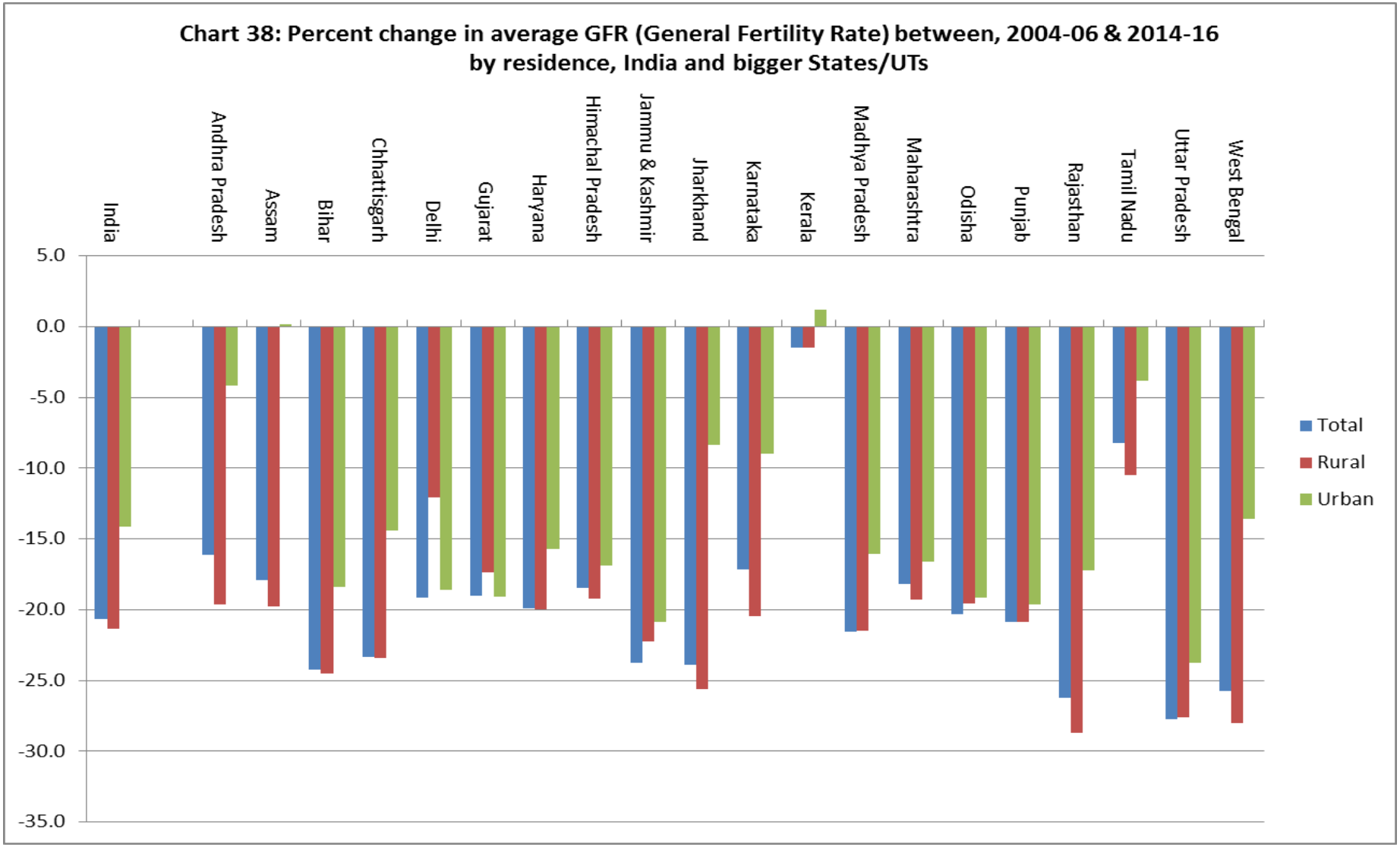


Chart 37: GFR (General Fertility Rate) between 2004-06 & 2014-16,
India and bigger States/UTs - URBAN
120.0
100.0
80.0
60.0
40.0
20.0
-
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

**Chart 38: Percent change in average GFR (General Fertility Rate) between, 2004-06 & 2014-16 by residence, India and bigger States/UTs**



**Fertility by age of women**

**3.11** Age of women is an important factor affecting the fertility levels. On the basis of data on births to women by specific age groups in the reproductive span 15-49 years as available from SRS, age specific fertility rates have been calculated. Statement 19 below presents the age specific fertility rates for India by residence.

**3.12** The data reveals that fertility in all the age groups is higher in rural areas than in urban areas. This distribution of age-specific fertility by residence is presented in chart 39. The fertility reaches the peak in the age group 25-29 and declines thereafter, irrespective of the place of residence. ASFR curve for urban areas falls under the ASFR curve of rural areas. Both Rural and Urban ASFR curves have declined very steeply after attaining peak for age 25-29.

**Statement 19**

**ASFRs (Age Specific Fertility Rates) by residence, India, 2016**

| Age Groups | Total | Rural | Urban |
|---|---|---|---|
| 15-19 | 10.7 | 12.3 | 6.7 |
| 20-24 | 135.4 | 152.3 | 98.2 |
| 25-29 | 166.0 | 180.2 | 139.1 |
| 30-34 | 91.7 | 100.3 | 76.5 |
| 35-39 | 32.7 | 35.6 | 27.2 |
| 40-44 | 11.3 | 12.8 | 8.4 |
| 45-49 | 4.1 | 5.0 | 2.5 |

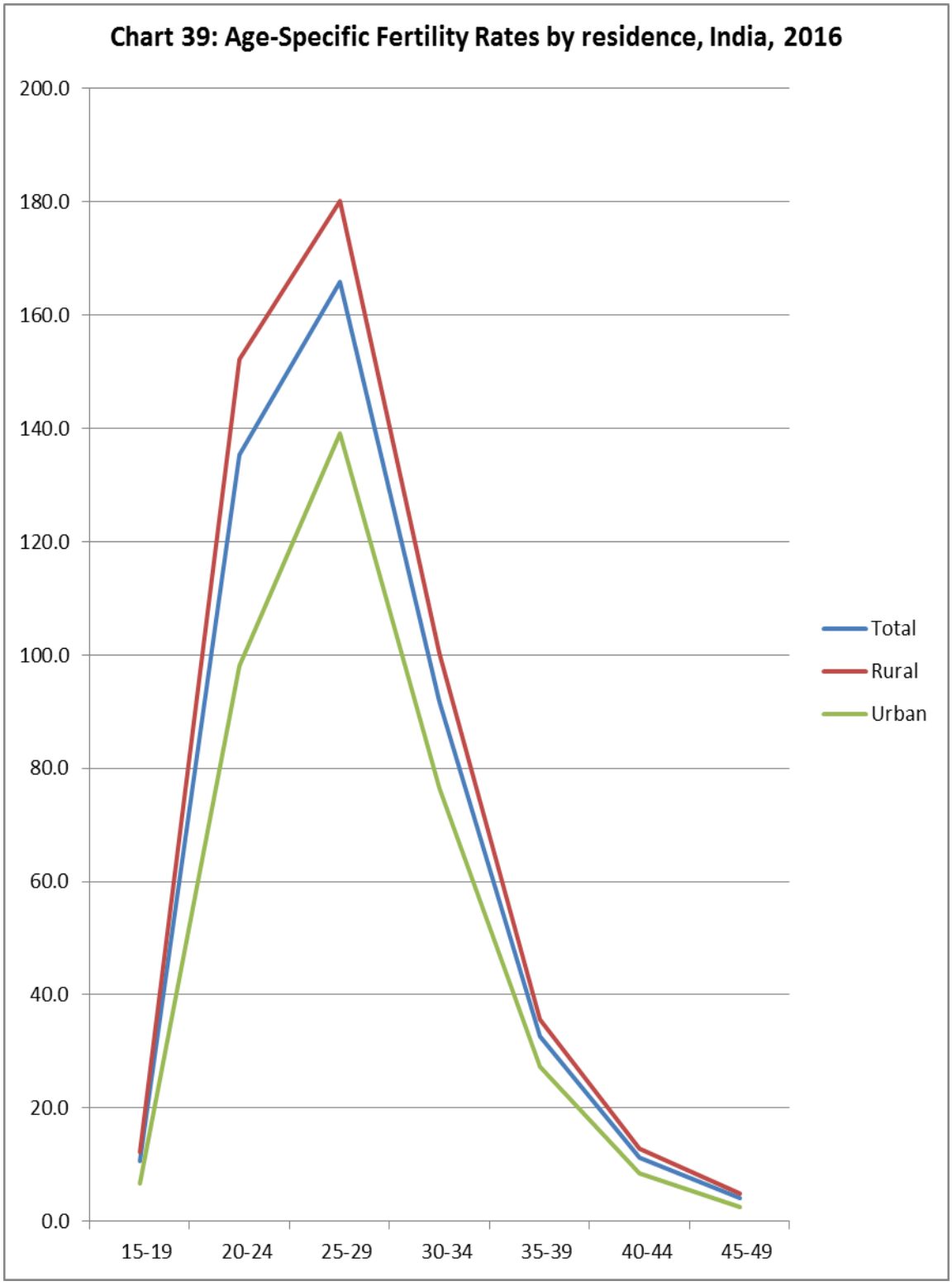


Chart 39: Age-Specific Fertility Rates by residence, India, 2016
200.0
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
15-19
20-24
25-29
30-34
35-39
40-44
45-49
Total
Rural
Urban

**3.13** The percentage change in age specific fertility rate during the last decade is presented below in Statement 20 separately for rural and urban areas. The data pertains to changes in the age specific fertility rates for the quinquennial age groups based on average value for three years period viz. 2004-06 and 2014-16 for all-India.

**3.14** The data reveals that decline in fertility rates is more in rural areas compared to urban areas except in the age groups 20-24. The decline is perceptible for the higher age groups 40-49 in rural areas. During the last decade, the fertility declined in the older age groups in rural areas while it increased for the corresponding age groups in urban areas. The decline in fertility is slower in the middle age groups 20-29 for both the areas. The minimum decline of 2.6 percent has been noticed in the age group 30-34 at National level. Charts 40, 41 and 42 depict the average Age-Specific Fertility Rates of India between 2004-06 and 2014-16 for Total, Rural and Urban areas respectively. Chart 43 shows the percentage change in average Age-Specific Fertility Rates between 2004-06 and 2014-16 by residence.

**Statement 20**

**Percent change in Age Specific Fertility Rates by residence between 2004-06 and 2014-16, India**

| Age group | Total | | | Rural | | | Urban | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change |
| 15-19 | 47.6 | 16.4 | -65.5 | 54.6 | 18.2 | -66.7 | 29.2 | 11.9 | -59.2 |
| 20-24 | 216.6 | 161.4 | -25.5 | 238.2 | 180.2 | -24.3 | 164.9 | 119.7 | -27.4 |
| 25-29 | 166.5 | 153.3 | -7.9 | 178.7 | 166.0 | -7.1 | 137.8 | 129.6 | -6.0 |
| 30-34 | 84.2 | 82.0 | -2.6 | 94.4 | 89.8 | -4.9 | 59.3 | 67.9 | 14.5 |
| 35-39 | 36.2 | 28.4 | -21.5 | 43.2 | 31.2 | -27.8 | 20.2 | 23.2 | 14.9 |
| 40-44 | 16.2 | 10.9 | -32.7 | 20.4 | 12.3 | -39.7 | 6.4 | 8.4 | 31.3 |
| 45-49 | 6.7 | 3.8 | -43.3 | 8.9 | 4.4 | -50.6 | 2.0 | 2.7 | 35.0 |

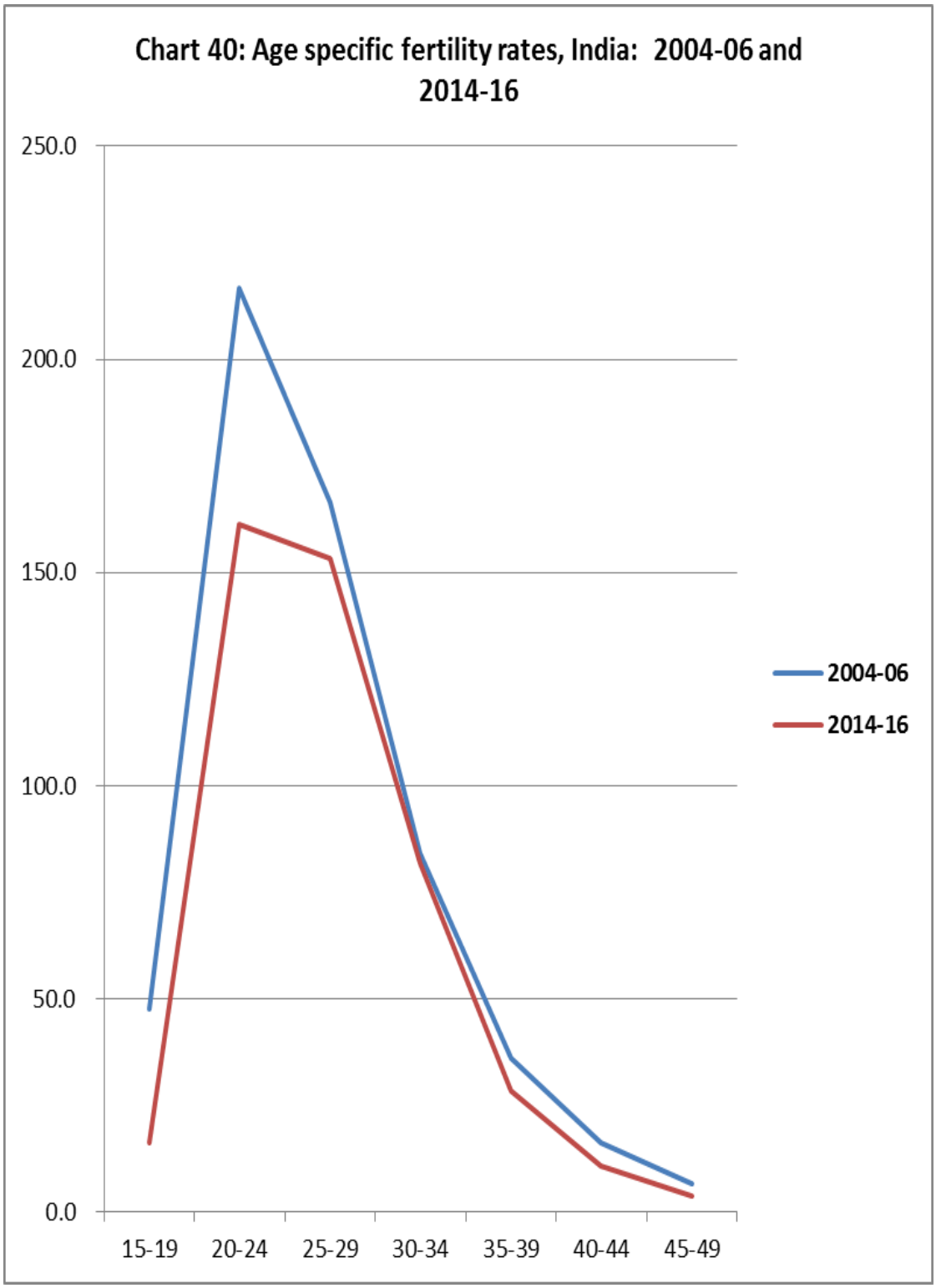


Chart 40: Age specific fertility rates, India: 2004-06 and 2014-16
250.0
200.0
150.0
100.0
50.0
0.0
15-19
20-24
25-29
30-34
35-39
40-44
45-49
2004-06
2014-16

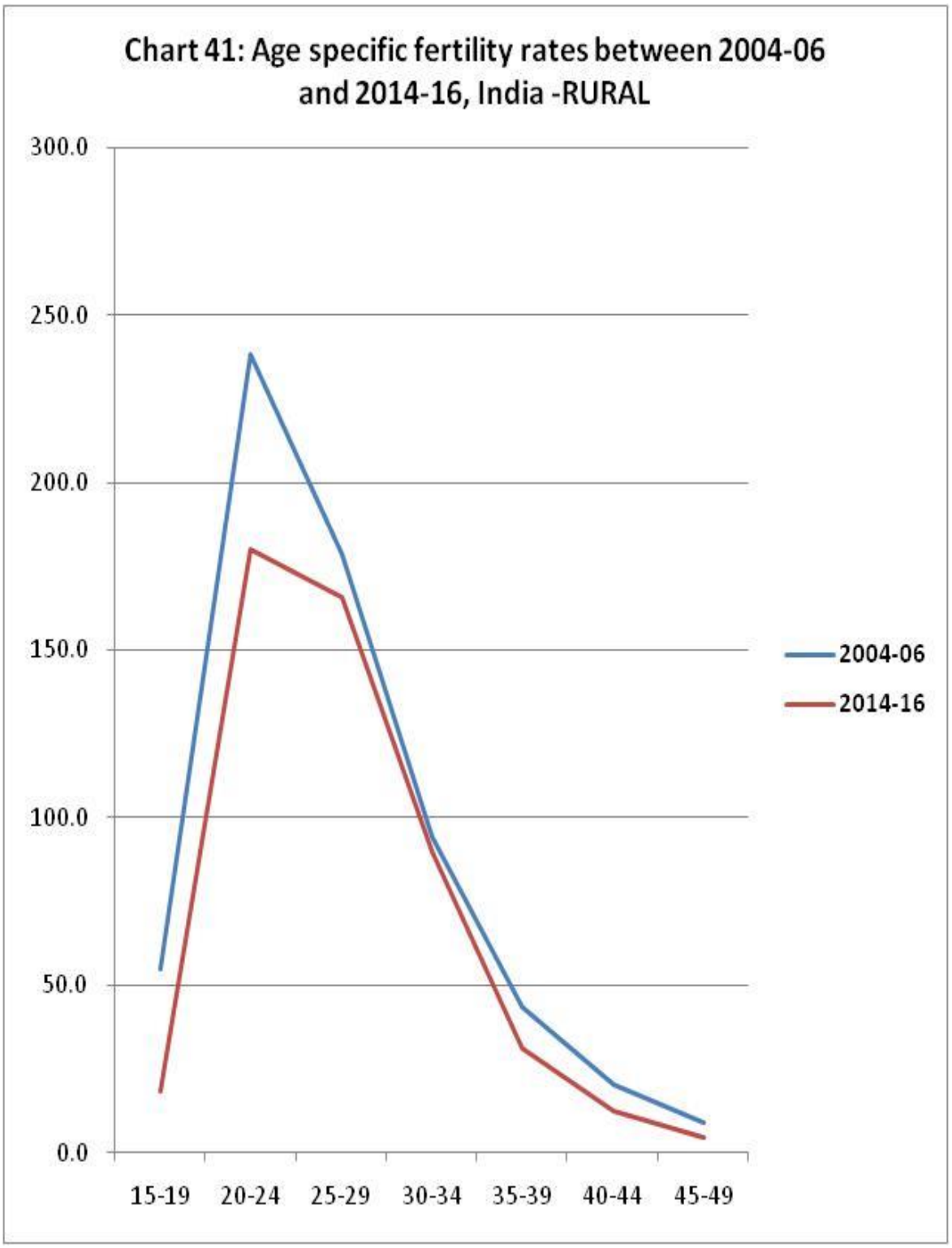


Chart 41: Age specific fertility rates between 2004-06 and 2014-16, India -RURAL
300.0
250.0
200.0
150.0
100.0
50.0
0.0
15-19
20-24
25-29
30-34
35-39
40-44
45-49
2004-06
2014-16

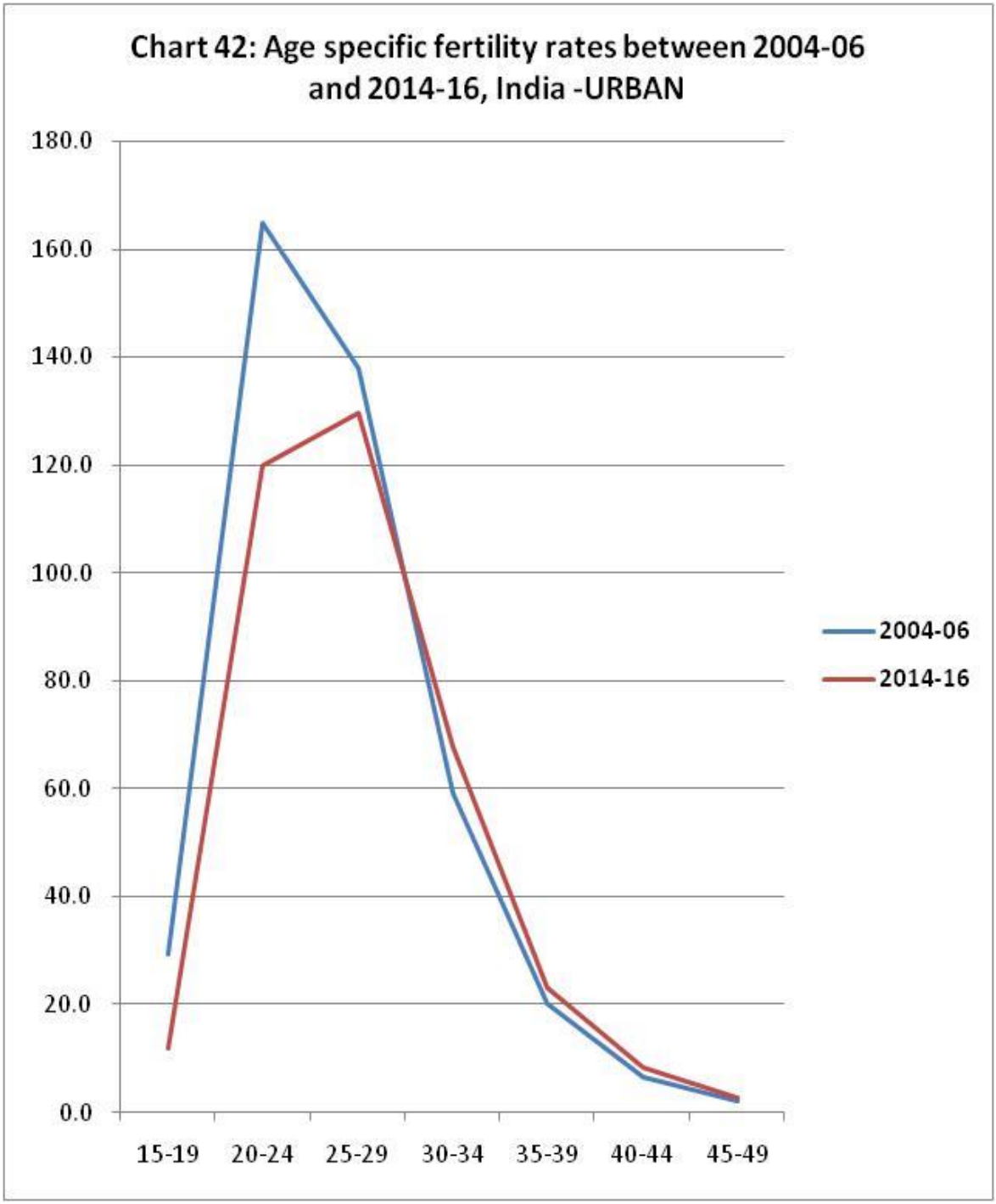


Chart 42: Age specific fertility rates between 2004-06 and 2014-16, India -URBAN
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
15-19
20-24
25-29
30-34
35-39
40-44
45-49
2004-06
2014-16

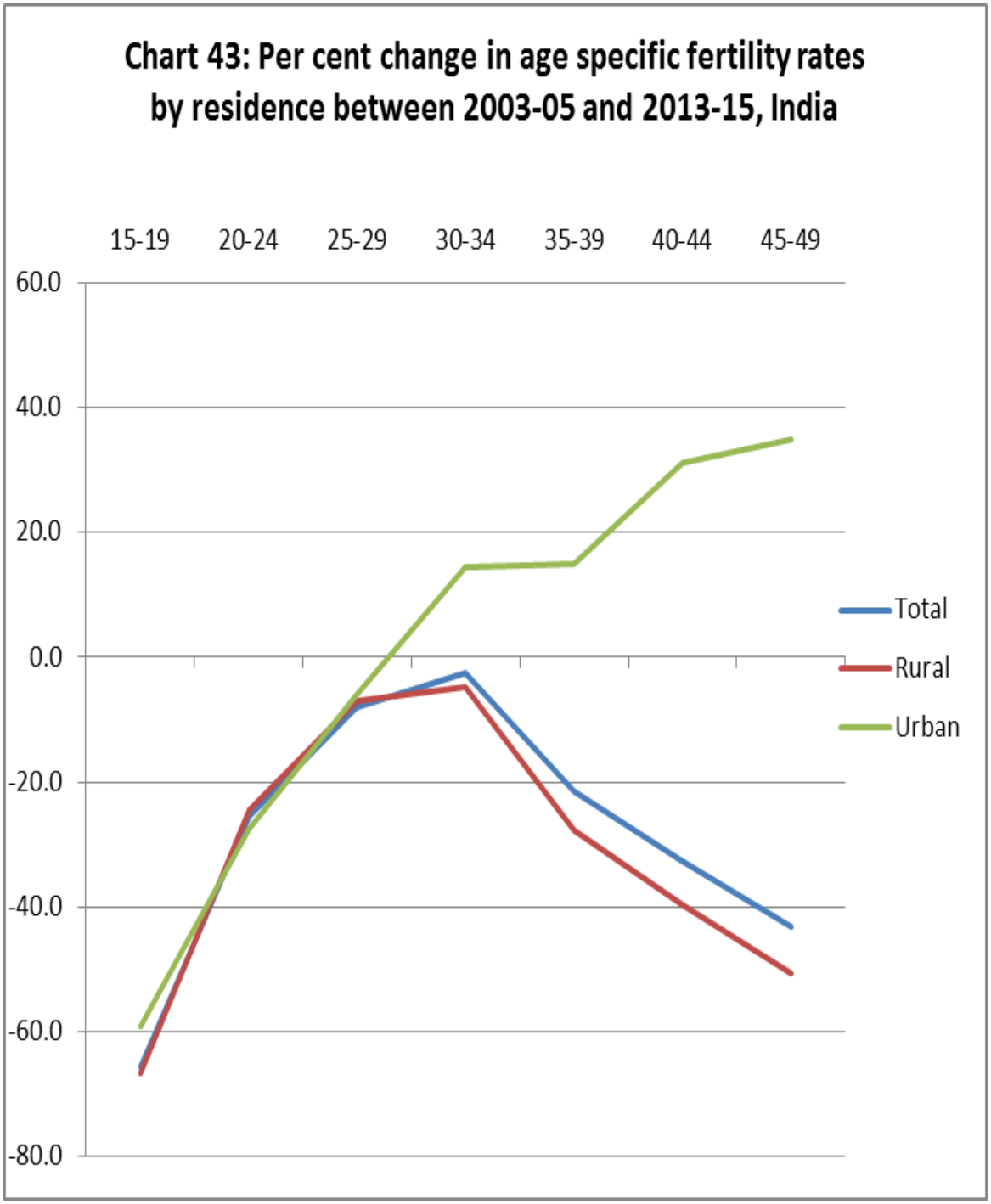


Chart 43: Per cent change in age specific fertility rates by residence between 2003-05 and 2013-15, India
15-19
20-24
25-29
30-34
35-39
40-44
45-49
60.0
40.0
20.0
0.0
-20.0
-40.0
-60.0
-80.0
Total
Rural
Urban

**3.15** The fertility pattern by age groups in different States is presented below in Statement 21. Except for Andhra Pradesh and West Bengal where fertility reached its peak in the age group 20-24, the highest fertility in all the other bigger States/UTs has been attained in the age group 25-29. Fertility, however, declines from age 30 in all the bigger States/UTs. The ASFR in the younger age group 15-19 varies from 2.4 in Uttarakhand to 24.9 in West Bengal. In the age group 30-34, the variation in the level of ASFR is from 41.8 in Andhra Pradesh to 166.2 in Bihar. The rural-urban levels in ASFR for bigger States/UTs are shown in Table 3.

**Statement 21**

**ASFRs (Age Specific Fertility Rates), India and bigger States/UTs, 2016**

| India and bigger States/UTs | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 |
|---|---|---|---|---|---|---|---|
| **India** | **10.7** | **135.4** | **166.0** | **91.7** | **32.7** | **11.3** | **4.1** |
| Andhra Pradesh | 11.1 | 136.8 | 123.5 | 41.8 | 12.6 | 4.5 | 3.2 |
| Assam | 19.5 | 138.0 | 167.2 | 90.3 | 39.3 | 6.2 | 4.2 |
| Bihar | 9.2 | 172.3 | 245.2 | 166.2 | 54.6 | 13.3 | 2.7 |
| Chhattisgarh | 15.3 | 174.1 | 181.7 | 83.4 | 31.1 | 7.1 | 2.7 |
| Delhi | 3.4 | 81.5 | 131.2 | 71.6 | 21.3 | 8.9 | 2.3 |
| Gujarat | 8.1 | 140.9 | 175.8 | 81.2 | 28.0 | 10.6 | 2.7 |
| Haryana | 7.7 | 138.7 | 194.0 | 89.5 | 15.0 | 7.7 | 3.3 |
| Himachal Pradesh | 10.4 | 96.7 | 128.4 | 64.2 | 27.1 | 6.9 | 1.7 |
| Jammu & Kashmir | 3.3 | 43.2 | 103.8 | 100.9 | 47.0 | 26.9 | 11.9 |
| Jharkhand | 10.7 | 154.5 | 174.8 | 113.5 | 47.1 | 19.7 | 5.8 |
| Karnataka | 6.9 | 112.1 | 145.1 | 68.5 | 19.5 | 4.8 | 2.1 |
| Kerala | 6.2 | 99.0 | 136.2 | 81.4 | 23.7 | 4.4 | 0.6 |
| Madhya Pradesh | 13.6 | 174.5 | 222.2 | 97.0 | 38.5 | 12.5 | 3.8 |
| Maharashtra | 8.4 | 118.3 | 137.0 | 62.8 | 20.3 | 5.5 | 3.7 |
| Odisha | 8.2 | 115.3 | 145.9 | 79.3 | 27.6 | 12.0 | 3.4 |
| Punjab | 5.2 | 82.8 | 125.1 | 74.5 | 28.0 | 12.1 | 5.8 |
| Rajasthan | 14.5 | 173.1 | 186.1 | 105.4 | 41.1 | 13.6 | 3.7 |
| Tamil Nadu | 6.5 | 100.1 | 129.0 | 66.4 | 17.1 | 3.4 | 1.3 |
| Telangana | 6.4 | 118.7 | 141.4 | 56.4 | 14.8 | 2.8 | 2.9 |
| Uttar Pradesh | 8.7 | 143.2 | 212.4 | 156.5 | 61.7 | 28.2 | 10.4 |
| Uttarakhand | 2.4 | 89.1 | 158.7 | 79.6 | 26.5 | 9.4 | 4.4 |
| West Bengal | 24.9 | 135.6 | 94.6 | 42.9 | 14.1 | 5.8 | 2.0 |

**3.16** The percentage distribution of cumulative fertility by woman's age is shown below in Statement 22 for India and bigger States/UTs for the year 2016. The cumulative fertility for a specific age group has been worked out by adding the ASFRs up to that age group. The percentage share of fertility by woman in the age group 15-19 varies from 0.7 in Uttarakhand to 7.4 in West Bengal. By the age 34, the percentage share of cumulative fertility varies from 82.0 in Jammu & Kashmir to 96.1 in Haryana. The percentage share in cumulative fertility for women by the age 39 years varies from 92.8 in Jammu & Kashmir to 99.0 in Tamil Nadu and Telangana. Chart 44 gives percentage cumulative age specific fertility rate for India by residence.

**Statement 22**

**Percentage distribution of cumulative fertility by age group, India and bigger States/UTs, 2016**

| India and bigger States/UTs | 15-19 | 15-24 | 15-29 | 15-34 | 15-39 | 15-44 | 15-49 |
|---|---|---|---|---|---|---|---|
| **India** | **2.5** | **36.5** | **74.9** | **92.3** | **97.9** | **99.5** | **100.0** |
| Andhra Pradesh | 2.7 | 44.4 | 84.0 | 95.3 | 98.5 | 99.4 | 100.0 |
| Assam | 4.2 | 38.5 | 75.0 | 92.5 | 98.7 | 99.5 | 100.0 |
| Bihar | 1.9 | 33.6 | 72.8 | 92.9 | 98.6 | 99.8 | 100.0 |
| Chhattisgarh | 3.2 | 43.6 | 80.3 | 93.8 | 98.7 | 99.7 | 100.0 |
| Delhi | 0.9 | 27.1 | 71.7 | 92.8 | 97.9 | 99.6 | 100.0 |
| Gujarat | 1.8 | 36.1 | 77.2 | 93.2 | 98.0 | 99.6 | 100.0 |
| Haryana | 1.6 | 37.6 | 80.6 | 96.1 | 98.5 | 99.6 | 100.0 |
| Himachal Pradesh | 2.5 | 33.1 | 73.6 | 90.9 | 98.3 | 99.7 | 100.0 |
| Jammu & Kashmir | 1.0 | 15.8 | 54.5 | 82.0 | 92.8 | 98.0 | 100.0 |
| Jharkhand | 2.5 | 36.9 | 72.1 | 90.3 | 97.1 | 99.4 | 100.0 |
| Karnataka | 1.6 | 35.5 | 78.2 | 94.7 | 98.7 | 99.7 | 100.0 |
| Kerala | 1.7 | 29.1 | 68.4 | 91.9 | 98.6 | 99.8 | 100.0 |
| Madhya Pradesh | 2.7 | 40.0 | 79.3 | 93.4 | 98.3 | 99.6 | 100.0 |
| Maharashtra | 2.3 | 37.8 | 77.8 | 93.7 | 98.3 | 99.4 | 100.0 |
| Odisha | 2.2 | 34.8 | 74.6 | 92.5 | 97.7 | 99.5 | 100.0 |
| Punjab | 1.3 | 27.9 | 69.4 | 89.9 | 96.4 | 98.9 | 100.0 |
| Rajasthan | 3.1 | 42.0 | 76.9 | 92.6 | 98.1 | 99.6 | 100.0 |
| Tamil Nadu | 1.6 | 32.8 | 75.3 | 94.4 | 99.0 | 99.7 | 100.0 |
| Telangana | 1.6 | 38.3 | 81.8 | 95.6 | 99.0 | 99.6 | 100.0 |
| Uttar Pradesh | 1.9 | 31.9 | 69.1 | 89.1 | 96.4 | 99.1 | 100.0 |
| Uttarakhand | 0.7 | 29.3 | 74.2 | 93.1 | 98.1 | 99.5 | 100.0 |
| West Bengal | 7.4 | 53.8 | 83.4 | 95.0 | 98.4 | 99.6 | 100.0 |

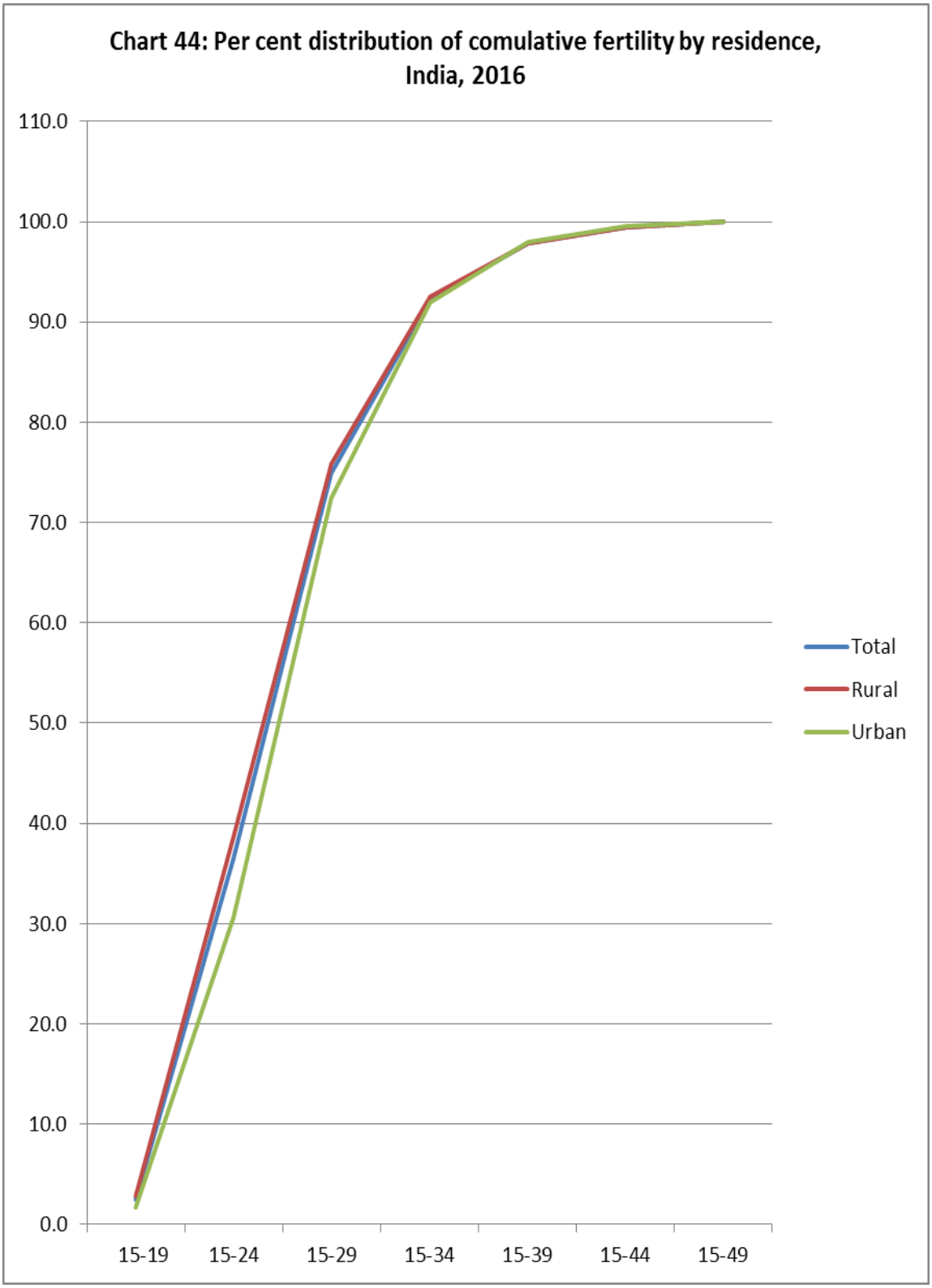


Chart 44: Per cent distribution of comulative fertility by residence, India, 2016
110.0
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
15-19
15-24
15-29
15-34
15-39
15-44
15-49
Total
Rural
Urban

**3.17** The difference in the pattern of child bearing can be measured in terms of the mean age of fertility, which describes the age pattern of fertility of synthetic cohort of hypothetical group of women viewed as having, in their lifetime, similar fertility experience recorded in a calendar year. The mean age of fertility has been calculated from the age specific fertility rates. The associated standard deviations are also shown. The States having lower values of standard deviation [obviously] recorded higher concentration of fertility about the mean age as compared to those with higher values. Statement 23 below shows the mean age of fertility for India and bigger States/UTs. At the National level, the mean age of fertility is 28.1 years and varies from 26.1 years in West Bengal to 31.6 years in Jammu & Kashmir with standard deviation 5.6, 5.5 and 6.4 respectively. Chart 45 shows the mean age of fertility of India and bigger States/UTs by residence.

**Statement 23**

**Mean age of Fertility and associated Standard Deviation, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Mean age of fertility | | | Standard deviation | | |
|---|---|---|---|---|---|---|
| | Total | Rural | Urban | Total | Rural | Urban |
| **India** | **28.1** | **28.0** | **28.3** | **5.6** | **5.6** | **5.4** |
| Andhra Pradesh | 26.5 | 26.4 | 26.9 | 5.1 | 5.2 | 5.1 |
| Assam | 27.8 | 27.7 | 28.6 | 5.6 | 5.6 | 5.9 |
| Bihar | 28.5 | 28.5 | 28.5 | 5.2 | 5.2 | 5.4 |
| Chhattisgarh | 27.2 | 27.1 | 27.7 | 5.3 | 5.2 | 5.4 |
| Delhi | 28.5 | 29.1 | 28.5 | 5.3 | 6.3 | 5.3 |
| Gujarat | 27.8 | 27.6 | 28.1 | 5.3 | 5.5 | 4.9 |
| Haryana | 27.5 | 27.2 | 28.2 | 4.9 | 4.8 | 5.1 |
| Himachal Pradesh | 27.9 | 27.9 | 29.0 | 5.4 | 5.5 | 5.3 |
| Jammu & Kashmir | 31.6 | 31.6 | 31.7 | 6.4 | 6.5 | 6.4 |
| Jharkhand | 28.6 | 28.6 | 28.6 | 5.9 | 6.0 | 5.5 |
| Karnataka | 27.6 | 27.2 | 28.3 | 5.0 | 4.9 | 5.2 |
| Kerala | 28.0 | 27.9 | 28.0 | 5.0 | 5.1 | 4.8 |
| Madhya Pradesh | 27.7 | 27.5 | 28.5 | 5.4 | 5.4 | 5.4 |
| Maharashtra | 27.5 | 26.9 | 28.3 | 5.3 | 5.1 | 5.5 |
| Odisha | 28.2 | 28.2 | 28.1 | 5.6 | 5.6 | 5.6 |
| Punjab | 28.9 | 28.7 | 29.3 | 5.9 | 5.9 | 5.9 |
| Rajasthan | 27.9 | 27.8 | 28.1 | 5.6 | 5.7 | 5.2 |
| Tamil Nadu | 27.5 | 27.3 | 27.8 | 4.9 | 4.9 | 4.9 |
| Telangana | 27.1 | 26.7 | 27.9 | 4.9 | 4.6 | 5.2 |
| Uttar Pradesh | 29.5 | 29.6 | 29.2 | 6.0 | 6.1 | 5.7 |
| Uttarakhand | 28.6 | 28.4 | 29.3 | 5.3 | 5.1 | 5.9 |
| West Bengal | 26.1 | 25.9 | 26.8 | 5.5 | 5.4 | 5.8 |

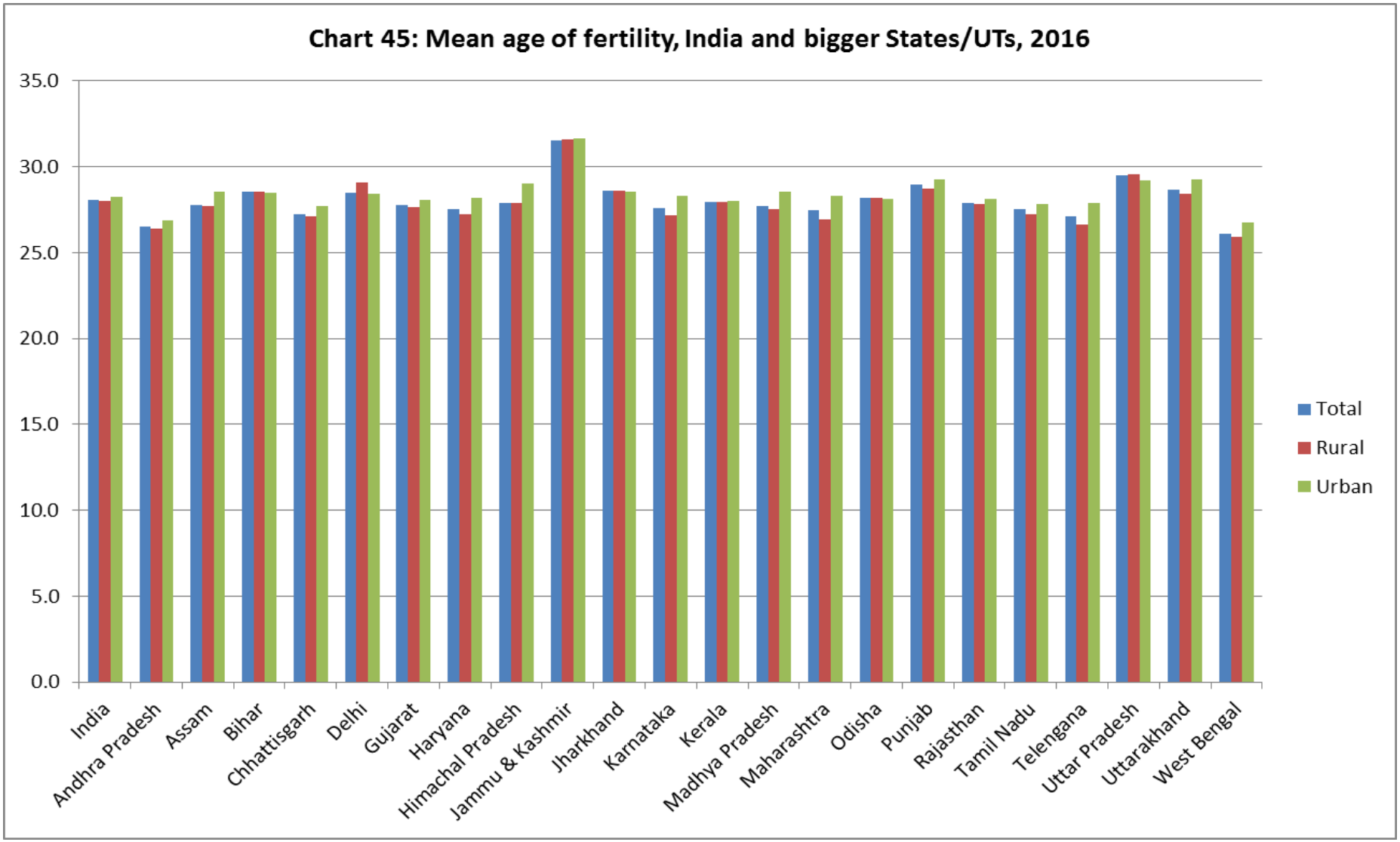


Chart 45: Mean age of fertility, India and bigger States/UTs, 2016
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telengana
Uttar Pradesh
Uttarakhand
West Bengal
Total
Rural
Urban

**3.18** The cumulative value of the age specific fertility rates at the end of the child bearing ages gives a measure of fertility known as Total Fertility Rate (TFR). TFR indicates the average number of children expected to be born per woman during her entire span of reproductive period assuming that the age specific fertility rates, to which she is exposed to, continue to be the same and that there is no mortality. The TFRs worked out on the basis of the ASFRs for the year 2016 are given below in Statement 24 for India and bigger States/UTs separately for rural and urban areas. The TFR for India in the year 2016 was 2.3 per woman and varies from 2.5 in rural areas to 1.8 in urban areas. Among the bigger States/UTs, it varies from 1.6 in Delhi, Tamil Nadu and West Bengal to 3.3 in Bihar. For rural areas, it varies from 1.7 in Andhra Pradesh, Himachal Pradesh, Punjab, Tamil Nadu and West Bengal to 3.4 in Uttar Pradesh and Bihar. For urban areas, such variation is from 1.2 in Himachal Pradesh and Jammu & Kashmir to 2.5 in Bihar. Chart 46 presents levels of TFR by residence for India and bigger States/UTs. Distribution of bigger States/UTs by values of TFR in rural and urban areas is shown in Chart 47.

**Statement 24**

**TFR (Total Fertility Rate) by residence, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Total | Rural | Urban |
|---|---|---|---|
| **India** | **2.3** | **2.5** | **1.8** |
| Andhra Pradesh | 1.7 | 1.7 | 1.5 |
| Assam | 2.3 | 2.4 | 1.6 |
| Bihar | 3.3 | 3.4 | 2.5 |
| Chhattisgarh | 2.5 | 2.7 | 1.9 |
| Delhi | 1.6 | 1.8 | 1.6 |
| Gujarat | 2.2 | 2.5 | 1.9 |
| Haryana | 2.3 | 2.4 | 2.0 |
| Himachal Pradesh | 1.7 | 1.7 | 1.2 |
| Jammu & Kashmir | 1.7 | 1.9 | 1.2 |
| Jharkhand | 2.6 | 2.9 | 2.0 |
| Karnataka | 1.8 | 1.9 | 1.6 |
| Kerala | 1.8 | 1.8 | 1.8 |
| Madhya Pradesh | 2.8 | 3.1 | 2.1 |
| Maharashtra | 1.8 | 1.9 | 1.6 |
| Odisha | 2.0 | 2.1 | 1.4 |
| Punjab | 1.7 | 1.7 | 1.6 |
| Rajasthan | 2.7 | 2.8 | 2.3 |
| Tamil Nadu | 1.6 | 1.7 | 1.6 |
| Telangana | 1.7 | 1.8 | 1.6 |
| Uttar Pradesh | 3.1 | 3.4 | 2.4 |
| Uttarakhand | 1.9 | 1.9 | 1.7 |
| West Bengal | 1.6 | 1.7 | 1.3 |

Note: Rounded off to one decimal point.

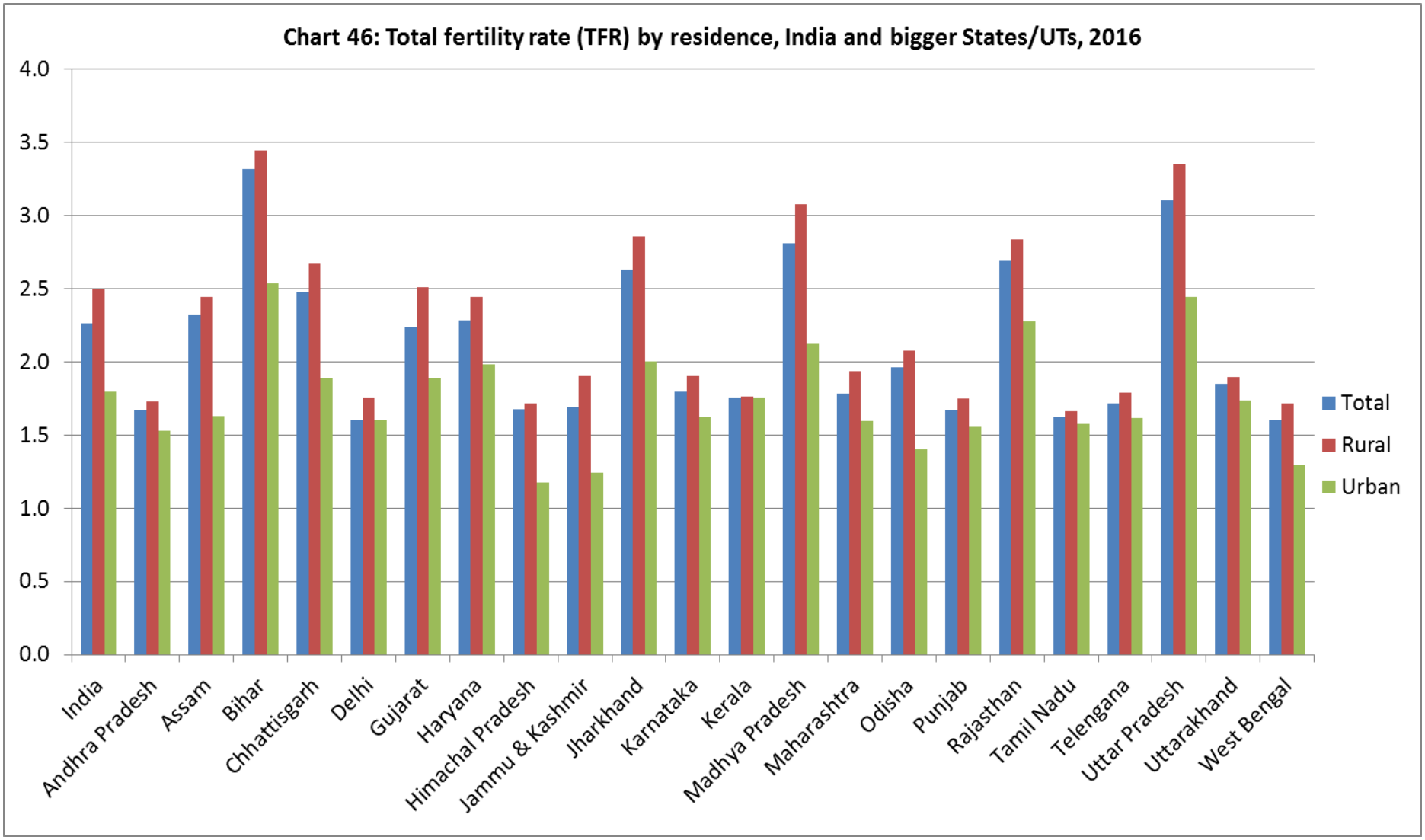
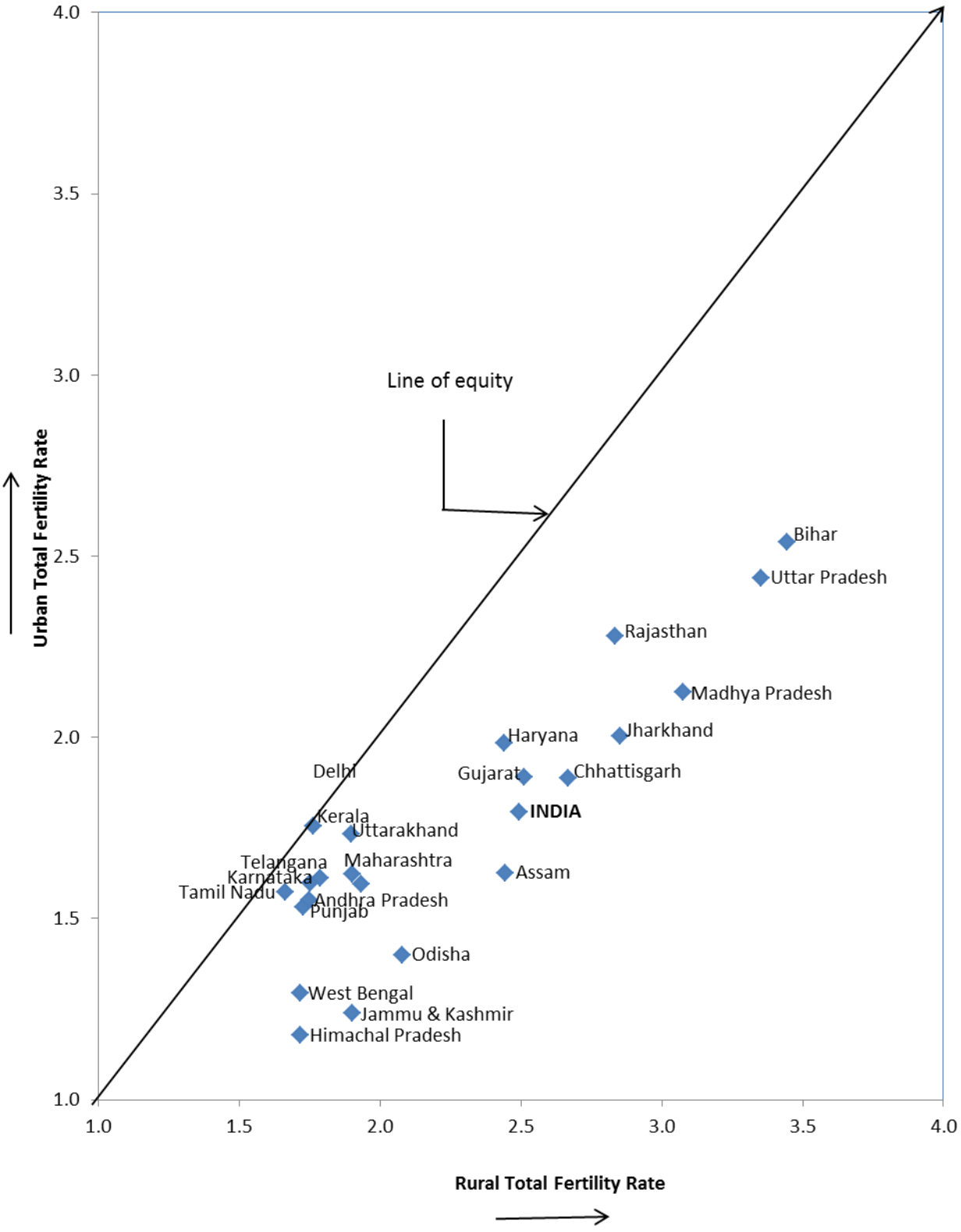


Chart 46: Total fertility rate (TFR) by residence, India and bigger States/UTs, 2016
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telengana
Uttar Pradesh
Uttarakhand
West Bengal
Total
Rural
Urban

**Chart 47: Distribution of bigger States/UTs by values of TFR (Total Fertility Rate) for rural and urban areas, 2016**



**3.19** Statement 25 below presents the percentage change in the average level of TFR between the periods 2004-06 and 2014-16 in India and bigger States/UTs. During the period TFR has declined by 20.7 percent at the National level. Among the bigger States/UTs, the decline varies from 29.2 percent in Jammu & Kashmir to an increase of 5.9% in Kerala. All bigger States/UTs have shown decline in both rural and urban areas except in Kerala and in the urban areas of Andhra Pradesh, Assam and Tamil Nadu.

**3.20** Among bigger States/UTs, Andhra Pradesh, Delhi, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Punjab, Tamil Nadu and West Bengal have the average TFR below 2.0 during 2014-16. Charts 48, 49 and 50 depict the average TFR between 2004-06 and 2014-16 of India and bigger States/UTs for Total, Rural and Urban areas respectively. Chart 51 shows the percentage change in average TFR between 2004-06 and 2014-16 by residence for India and bigger States/UTs.

**Statement 25**

**Percent change in average TFR (Total Fertility Rate) between 2004-06 and 2014-16 by residence, India and bigger States/UTs**

| India and bigger States/UTs | Total | | | Rural | | | Urban | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change |
| **India** | **2.9** | **2.3** | **-20.7** | **3.2** | **2.5** | **-21.9** | **2.1** | **1.8** | **-14.3** |
| Andhra Pradesh* | 2.0 | 1.7 | -15.0 | 2.2 | 1.8 | -18.2 | 1.6 | 1.6 | 0.0 |
| Assam | 2.9 | 2.3 | -20.7 | 3.1 | 2.4 | -22.6 | 1.6 | 1.6 | 0.0 |
| Bihar | 4.2 | 3.2 | -23.8 | 4.4 | 3.4 | -22.7 | 3.0 | 2.5 | -16.7 |
| Chhattisgarh | 3.4 | 2.5 | -26.5 | 3.7 | 2.7 | -27.0 | 2.2 | 1.9 | -13.6 |
| Delhi | 2.1 | 1.7 | -19.0 | 2.1 | 1.8 | -14.3 | 2.1 | 1.7 | -19.0 |
| Gujarat | 2.8 | 2.3 | -17.9 | 3.1 | 2.5 | -19.4 | 2.3 | 1.9 | -17.4 |
| Haryana | 2.9 | 2.3 | -20.7 | 3.1 | 2.4 | -22.6 | 2.4 | 2.0 | -16.7 |
| Himachal Pradesh | 2.1 | 1.7 | -19.0 | 2.2 | 1.7 | -22.7 | 1.4 | 1.2 | -14.3 |
| Jammu & Kashmir | 2.4 | 1.7 | -29.2 | 2.6 | 1.9 | -26.9 | 1.6 | 1.2 | -25.0 |
| Jharkhand | 3.5 | 2.7 | -22.9 | 3.8 | 2.9 | -23.7 | 2.3 | 2.1 | -8.7 |
| Karnataka | 2.2 | 1.8 | -18.2 | 2.4 | 1.9 | -20.8 | 1.8 | 1.7 | -5.6 |
| Kerala | 1.7 | 1.8 | 5.9 | 1.7 | 1.8 | 5.9 | 1.7 | 1.8 | 5.9 |
| Madhya Pradesh | 3.6 | 2.8 | -22.2 | 4.0 | 3.1 | -22.5 | 2.5 | 2.1 | -16.0 |
| Maharashtra | 2.2 | 1.8 | -18.2 | 2.4 | 1.9 | -20.8 | 1.9 | 1.6 | -15.8 |
| Odisha | 2.6 | 2.0 | -23.1 | 2.7 | 2.1 | -22.2 | 1.8 | 1.4 | -22.2 |
| Punjab | 2.1 | 1.7 | -19.0 | 2.2 | 1.7 | -22.7 | 2.0 | 1.6 | -20.0 |
| Rajasthan | 3.6 | 2.7 | -25.0 | 4.0 | 2.9 | -27.5 | 2.7 | 2.3 | -14.8 |
| Tamil Nadu | 1.7 | 1.7 | 0.0 | 1.8 | 1.7 | -5.6 | 1.6 | 1.6 | 0.0 |
| Uttar Pradesh* | 4.2 | 3.1 | -26.2 | 4.5 | 3.3 | -26.7 | 3.3 | 2.4 | -27.3 |
| West Bengal | 2.1 | 1.6 | -23.8 | 2.4 | 1.7 | -29.2 | 1.4 | 1.2 | -14.3 |

***** Andhra Pradesh and Uttar Pradesh include Telangana and Uttarakhand respectively.

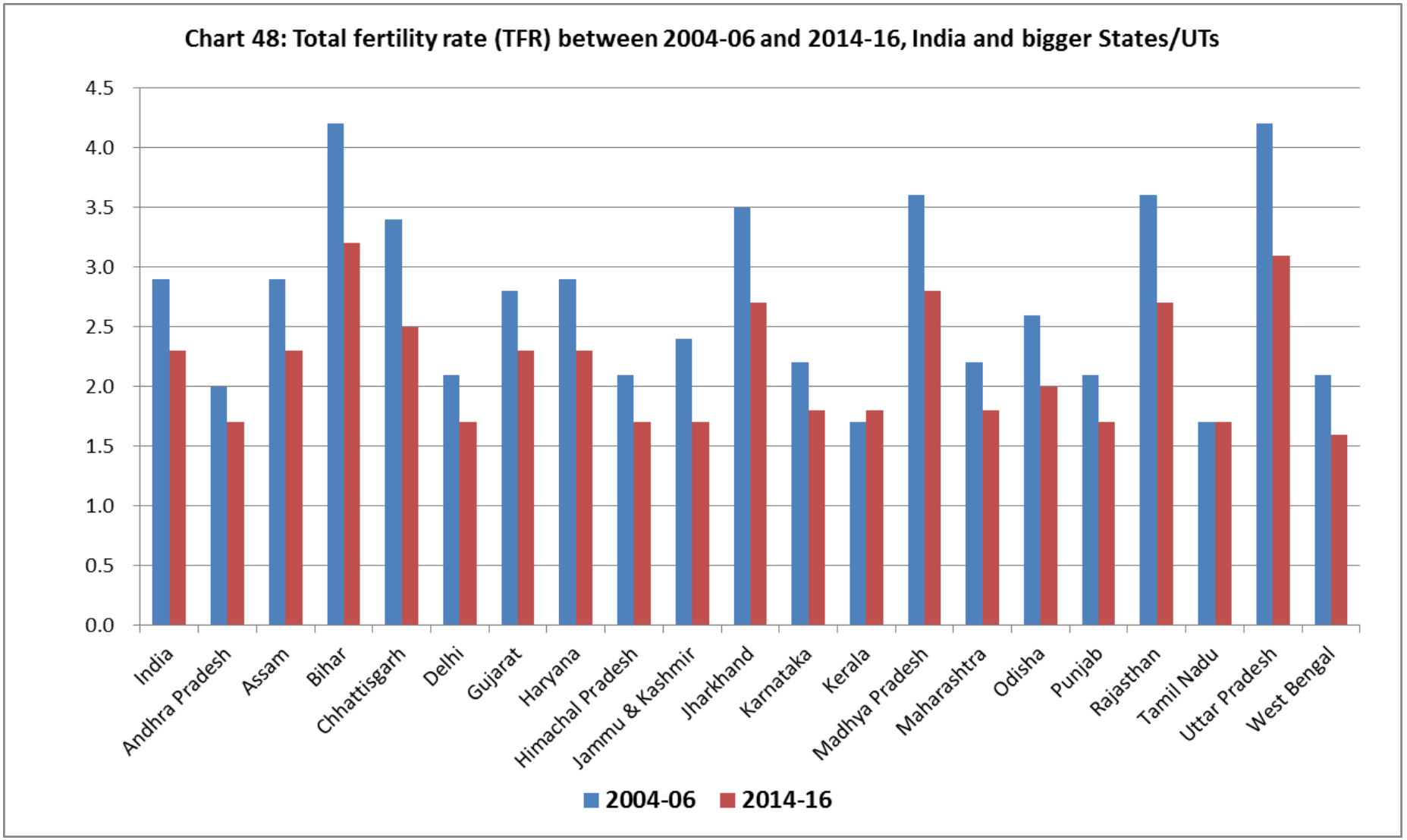


Chart 48: Total fertility rate (TFR) between 2004-06 and 2014-16, India and bigger States/UTs
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

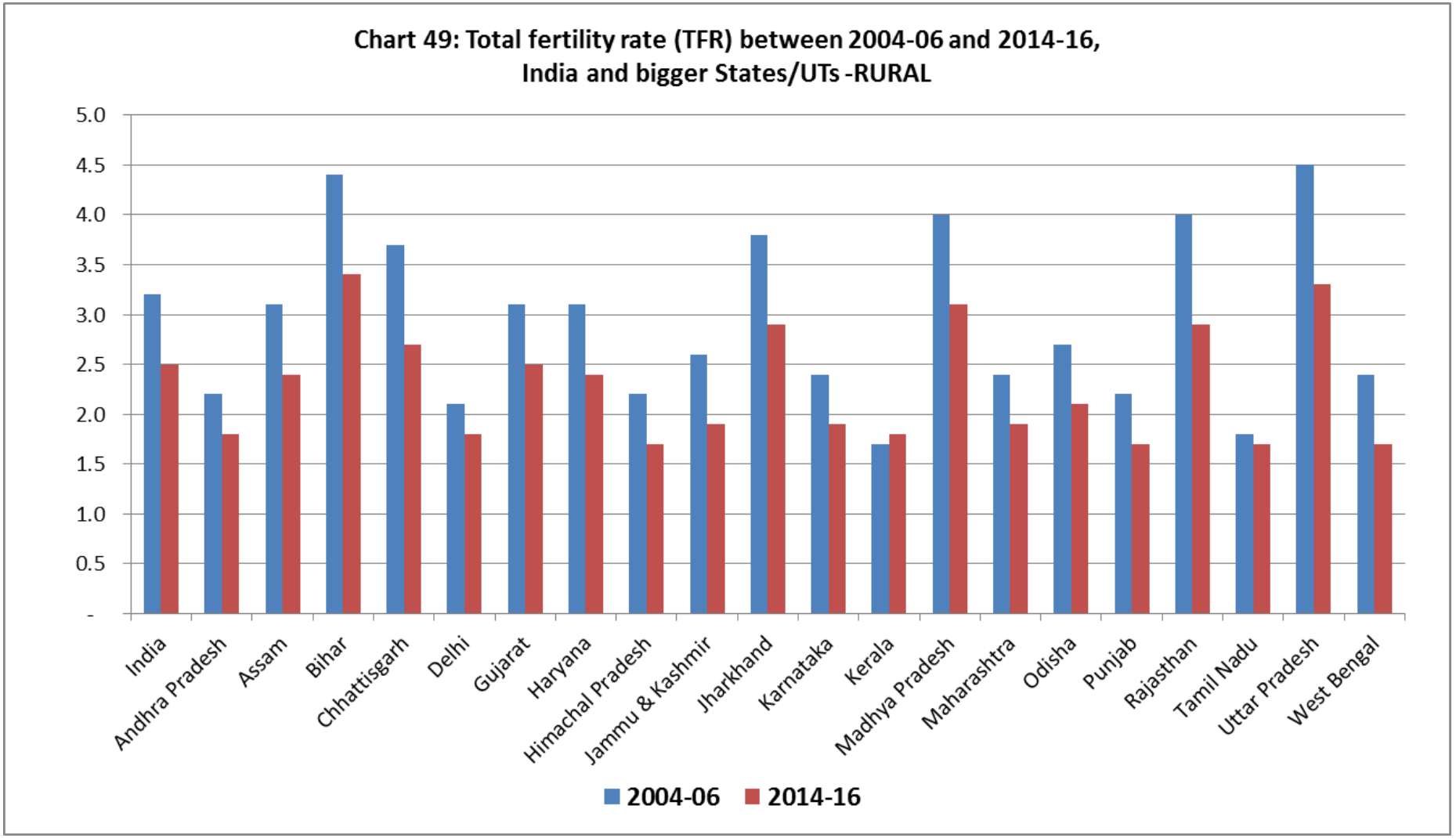


Chart 49: Total fertility rate (TFR) between 2004-06 and 2014-16,
India and bigger States/UTs -RURAL
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

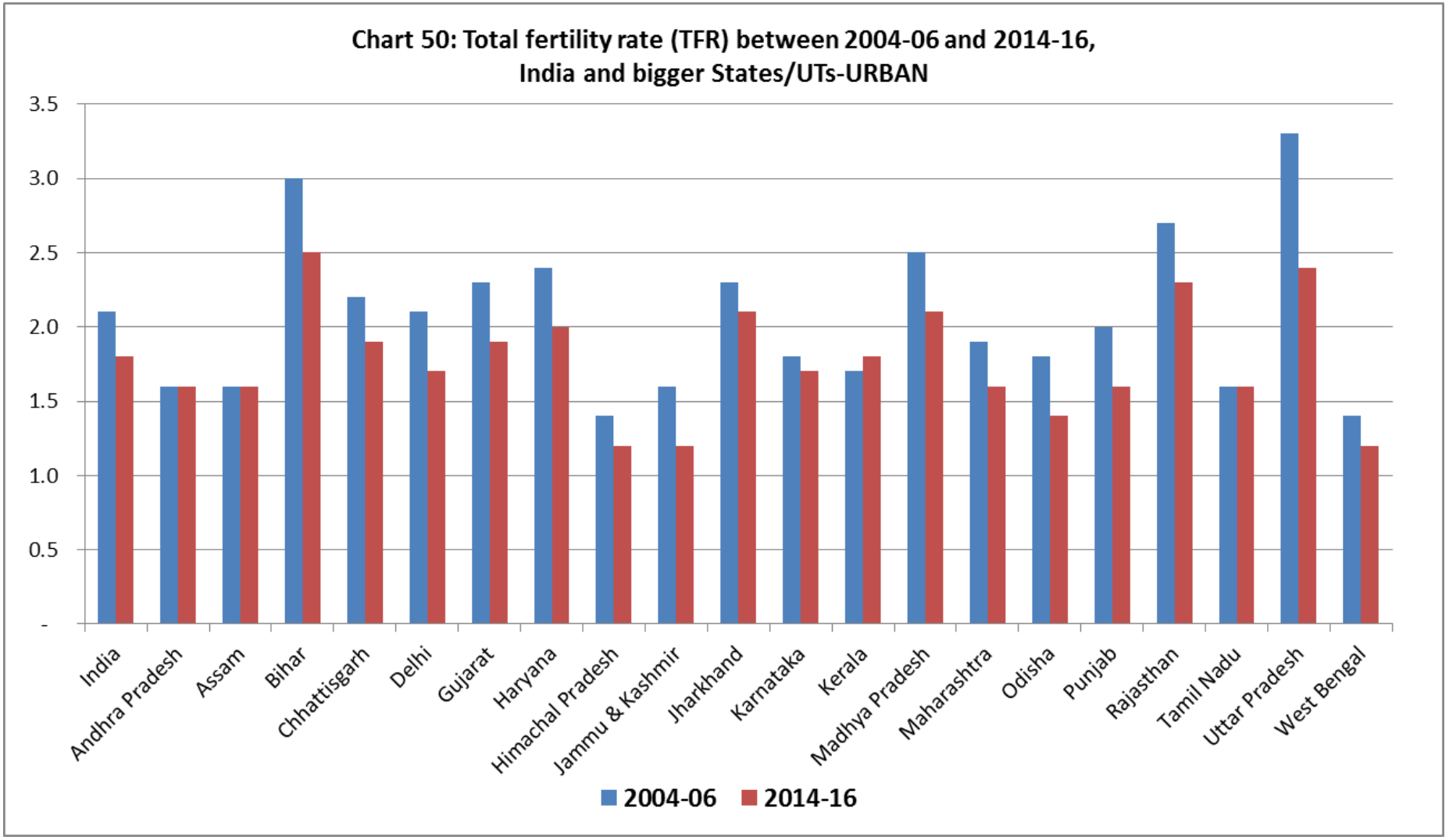
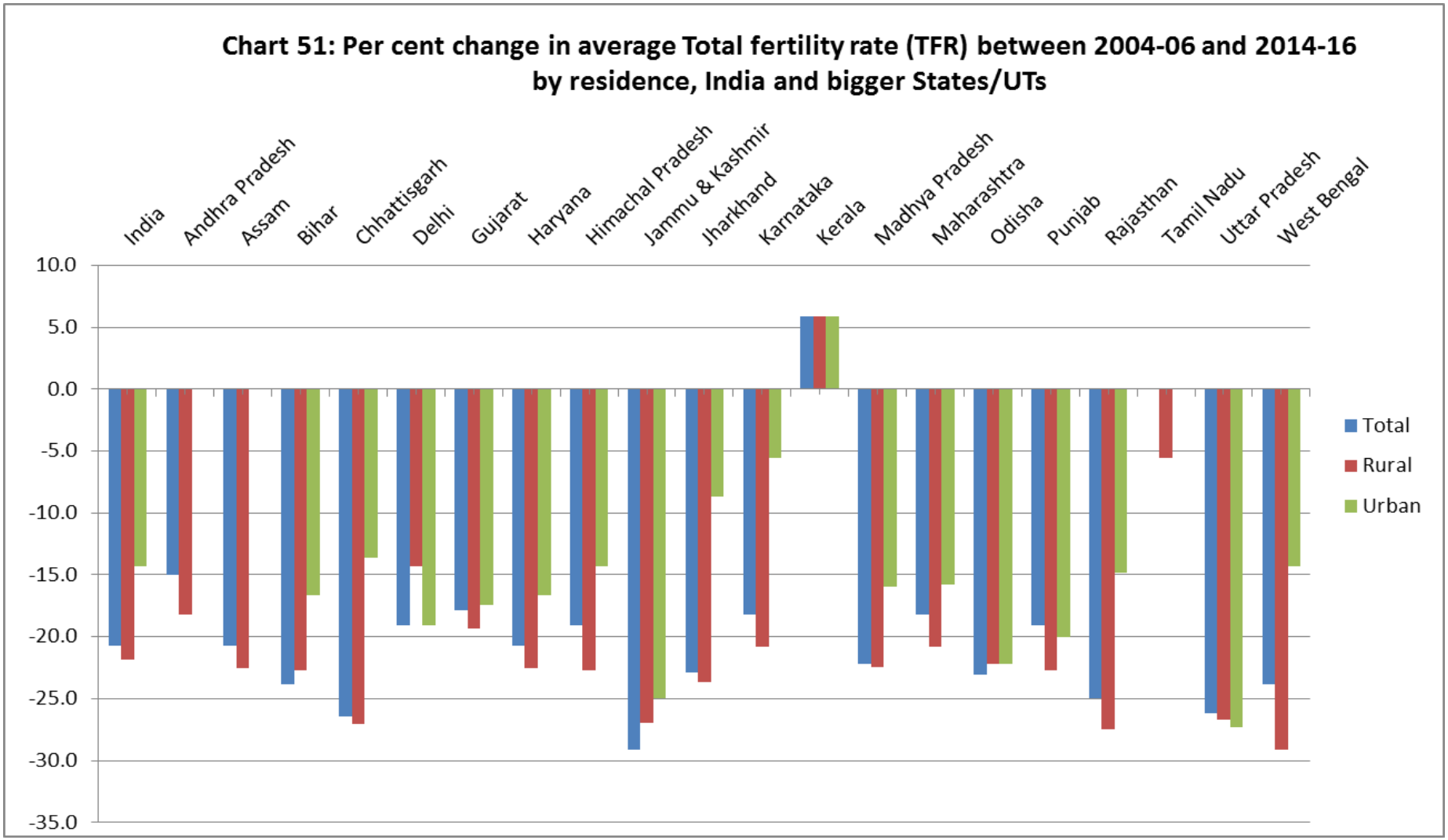


Chart 50: Total fertility rate (TFR) between 2004-06 and 2014-16,
India and bigger States/UTs-URBAN
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

**Chart 51: Per cent change in average Total fertility rate (TFR) between 2004-06 and 2014-16 by residence, India and bigger States/UTs**



**3.21** Another refined measure of fertility which accounts for future mothers is the Gross Reproduction Rate (GRR). It measures the average number of female children a woman is expected to give birth during her entire reproductive span conforming to the age specific fertility rates (ASFRs) for a given year, if there is no mortality. The estimated value of GRR for India in the year 2016 is 1.1 and varies from 0.8 in urban areas to 1.2 in rural areas. Values of GRR by residence for India and bigger States/UTs for the year 2016 are presented below in Statement 26. Chart 52 presents levels of TFR by residence for India and bigger States/UTs.

**Statement 26**

**GRR (Gross Reproduction Rate) by residence, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Total | Rural | Urban |
|---|---|---|---|
| **India** | **1.1** | **1.2** | **0.8** |
| Andhra Pradesh | 0.8 | 0.8 | 0.7 |
| Assam | 1.1 | 1.2 | 0.8 |
| Bihar | 1.6 | 1.6 | 1.1 |
| Chhattisgarh | 1.2 | 1.3 | 0.9 |
| Delhi | 0.7 | 0.8 | 0.7 |
| Gujarat | 1.1 | 1.2 | 0.9 |
| Haryana | 1.0 | 1.1 | 0.8 |
| Himachal Pradesh | 0.8 | 0.8 | 0.6 |
| Jammu & Kashmir | 0.8 | 0.9 | 0.6 |
| Jharkhand | 1.3 | 1.4 | 1.0 |
| Karnataka | 0.9 | 0.9 | 0.8 |
| Kerala | 0.8 | 0.8 | 0.8 |
| Madhya Pradesh | 1.3 | 1.4 | 1.0 |
| Maharashtra | 0.8 | 0.9 | 0.7 |
| Odisha | 0.9 | 1.0 | 0.7 |
| Punjab | 0.8 | 0.8 | 0.7 |
| Rajasthan | 1.2 | 1.3 | 1.1 |
| Tamil Nadu | 0.8 | 0.8 | 0.7 |
| Telangana | 0.8 | 0.8 | 0.8 |
| Uttar Pradesh | 1.4 | 1.5 | 1.2 |
| Uttarakhand | 0.8 | 0.8 | 0.8 |
| West Bengal | 0.8 | 0.8 | 0.6 |

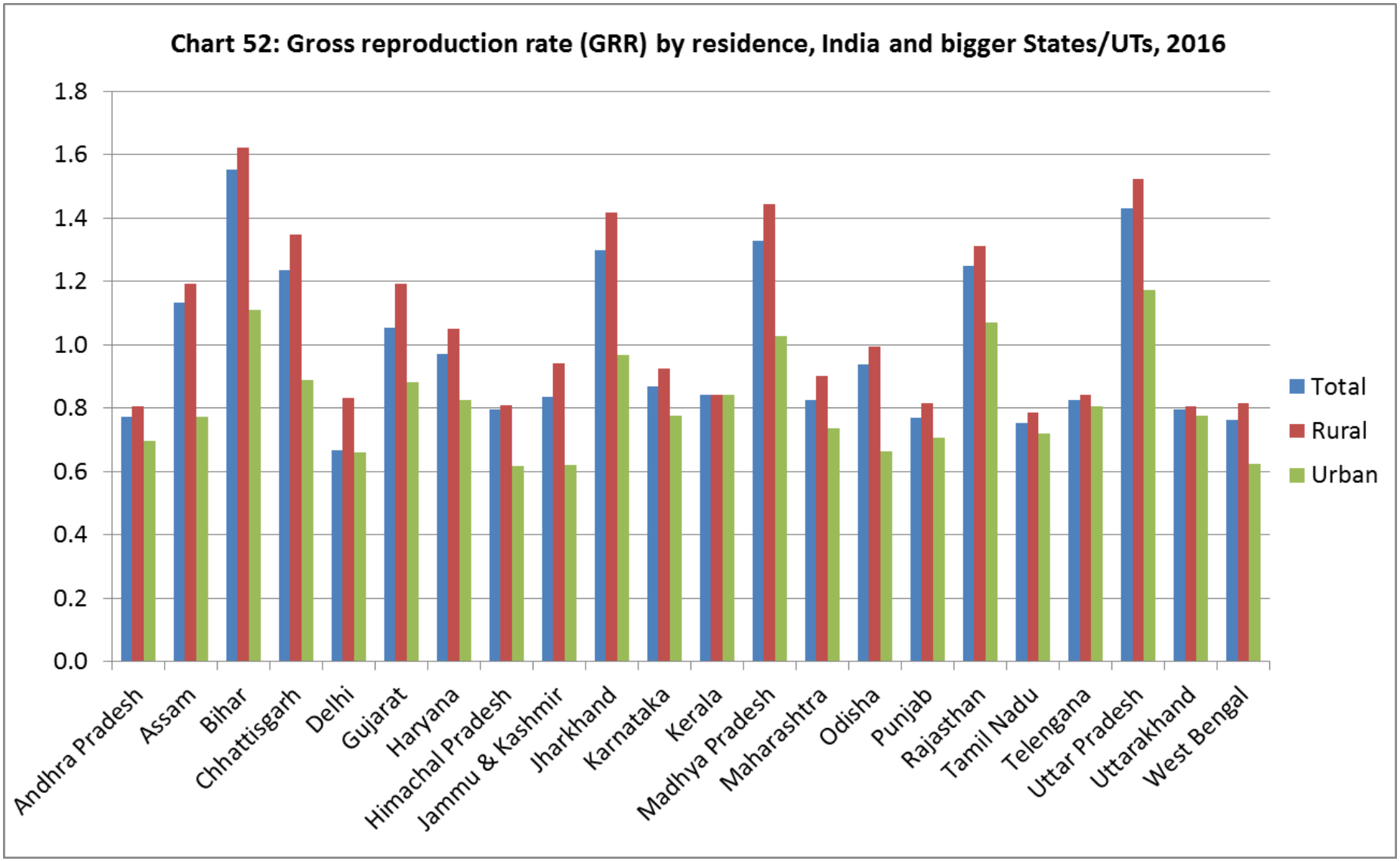


Chart 52: Gross reproduction rate (GRR) by residence, India and bigger States/UTs, 2016
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telengana
Uttar Pradesh
Uttarakhand
West Bengal
Total
Rural
Urban

## Marital Fertility

**3.22** Marriage is an important event in the social life of any population. In India, population censuses and large scale demographic sample surveys invariably collect data on the marital status of population separately for males and females. Age at effective marriage of females is a key factor that influences fertility. Marital distribution of the population enumerated through SRS and the age at effective marriage of females has been discussed in Chapter 2. Based on the distribution of live births by age of married females, age specific marital fertility rates (ASMFRs) are calculated. Statement 27 below provides the estimates of the ASMFRs for India separately for rural and urban areas for the year 2016. Marital fertility is higher in rural areas than in urban areas in all the age groups. A perceptible decline in marital fertility is seen for females aged 30 years and above both in rural and urban areas. Chart 53 depicts ASMFRs by residence for India in 2016.

**Statement 27**

**ASMFRs (Age Specific Marital Fertility Rates) by residence, India, 2016**

(Per thousand)

| Age group | Total | Rural | Urban |
|---|---|---|---|
| 15-19 | 286.6 | 304.6 | 226.2 |
| 20-24 | 313.4 | 322.7 | 285.4 |
| 25-29 | 206.4 | 214.2 | 189.5 |
| 30-34 | 99.4 | 107.1 | 85.2 |
| 35-39 | 34.9 | 37.8 | 29.5 |
| 40-44 | 12.2 | 13.8 | 9.2 |
| 45-49 | 4.6 | 5.5 | 2.8 |

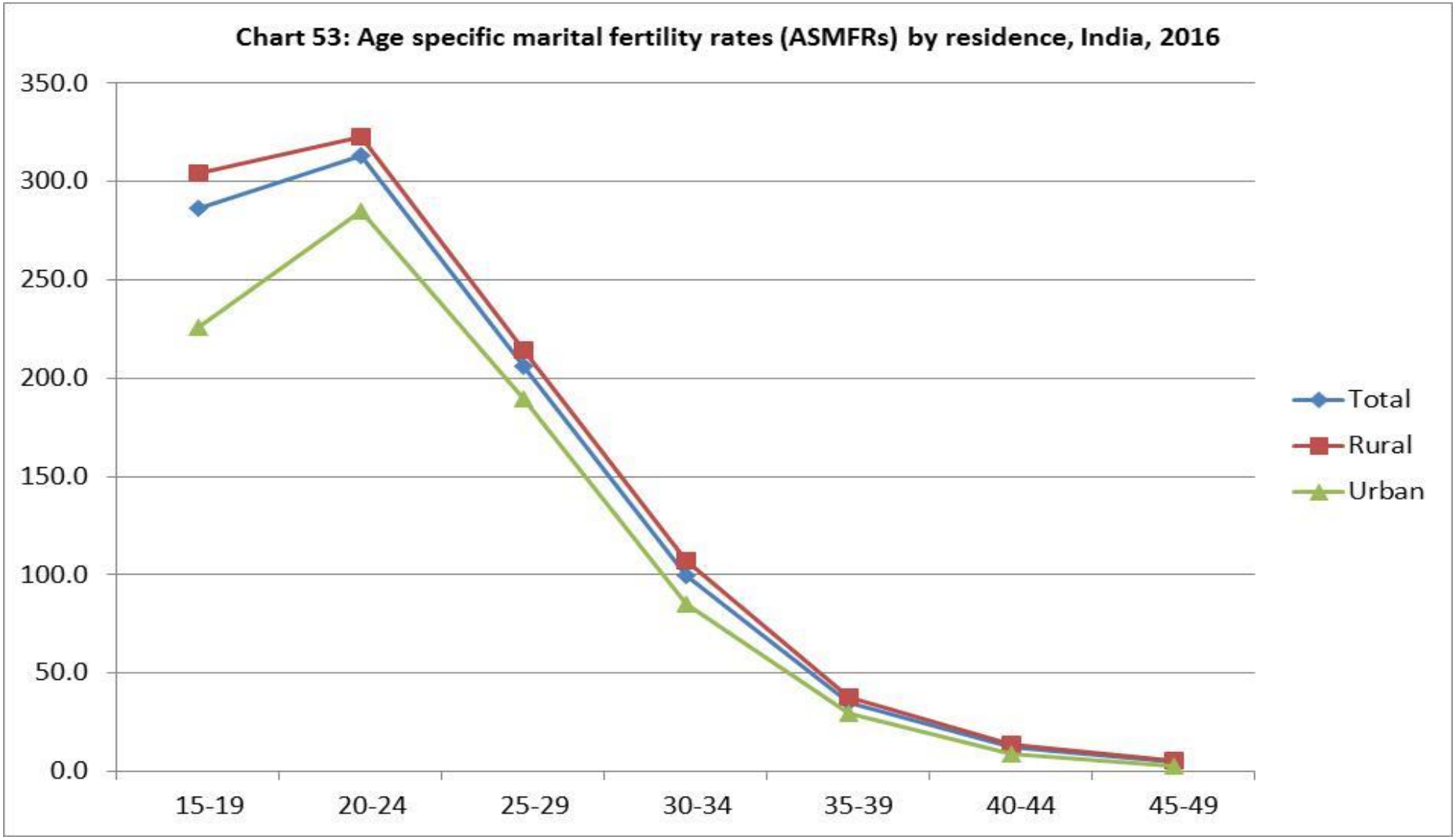


Chart 53: Age specific marital fertility rates (ASMFRs) by residence, India, 2016
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
15-19
20-24
25-29
30-34
35-39
40-44
45-49
Total
Rural
Urban

**3.23** Values of the age specific marital fertility rates for the year 2016 in bigger States/UTs are given below in Statement 28. It is observed that the age pattern of marital fertility is almost similar to the pattern of age specific fertility. The marital fertility in the age group 15-19 is lesser than national average in 14 bigger States/UTs viz. Andhra Pradesh, Delhi, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttarakhand and West Bengal. There is significant decline in marital fertility for women aged 30 years onwards, for all major States.

**Statement 28**

**ASMFRs (Age Specific Marital Fertility Rates), India and bigger States/UTs, 2016**

| India and bigger States/UTs | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 |
|---|---|---|---|---|---|---|---|
| **India** | **286.6** | **313.4** | **206.4** | **99.4** | **34.9** | **12.2** | **4.6** |
| Andhra Pradesh | 255.5 | 307.4 | 152.7 | 45.5 | 13.6 | 5.0 | 3.7 |
| Assam | 334.0 | 267.4 | 212.0 | 102.1 | 43.5 | 6.9 | 4.9 |
| Bihar | 381.8 | 358.5 | 272.9 | 171.3 | 56.0 | 13.8 | 2.9 |
| Chhattisgarh | 430.9 | 386.9 | 222.0 | 91.4 | 34.0 | 7.8 | 3.1 |
| Delhi | 277.6 | 308.6 | 187.9 | 80.2 | 22.8 | 9.5 | 2.6 |
| Gujarat | 257.0 | 326.5 | 213.4 | 86.2 | 29.6 | 11.3 | 3.1 |
| Haryana | 196.8 | 312.2 | 229.4 | 93.2 | 15.6 | 8.0 | 3.5 |
| Himachal Pradesh | 336.6 | 268.0 | 166.2 | 68.7 | 28.3 | 7.3 | 1.8 |
| Jammu & Kashmir | 290.4 | 302.4 | 225.0 | 137.0 | 53.4 | 28.7 | 12.7 |
| Jharkhand | 256.3 | 324.8 | 214.6 | 123.4 | 50.5 | 21.2 | 6.5 |
| Karnataka | 233.1 | 247.3 | 183.0 | 76.1 | 21.6 | 5.4 | 2.5 |
| Kerala | 226.2 | 244.4 | 168.4 | 87.7 | 25.5 | 4.8 | 0.7 |
| Madhya Pradesh | 350.1 | 346.1 | 258.5 | 102.0 | 40.6 | 13.3 | 4.2 |
| Maharashtra | 203.6 | 270.0 | 179.2 | 69.6 | 22.1 | 6.0 | 4.2 |
| Odisha | 286.7 | 280.8 | 188.6 | 88.3 | 30.4 | 13.4 | 3.9 |
| Punjab | 175.4 | 288.5 | 182.1 | 84.2 | 29.7 | 12.9 | 6.3 |
| Rajasthan | 221.9 | 328.8 | 208.4 | 109.1 | 42.9 | 14.3 | 4.0 |
| Tamil Nadu | 232.3 | 262.6 | 166.0 | 72.5 | 18.7 | 3.7 | 1.5 |
| Telangana | 262.3 | 306.3 | 181.8 | 61.7 | 16.0 | 3.1 | 3.3 |
| Uttar Pradesh | 407.6 | 422.9 | 264.5 | 165.4 | 64.1 | 29.5 | 11.1 |
| Uttarakhand | 175.3 | 280.3 | 205.9 | 85.5 | 27.9 | 10.0 | 4.8 |
| West Bengal | 264.9 | 229.0 | 112.5 | 46.8 | 15.1 | 6.3 | 2.3 |

**3.24** Like TFR, Total Marital Fertility Rate (TMFR) is the cumulative value of age specific marital fertility rates at the end of the reproductive period. It indicates the average number of children expected to be born per married woman during the entire span of her reproductive period, if the ASMFRs continue to be the same and if there is no mortality. The TMFRs worked out on the basis of ASMFRs for the year 2016 are given below in Statement 29 for India and bigger States/UTs separately for rural and urban areas. The TMFR for India is found to be 4.8 and varies from 4.1 in urban areas to 5.0 in rural areas. The TMFR is 5 and above in Bihar, Chhattisgarh, Jammu & Kashmir, Jharkhand, Madhya Pradesh and Uttar Pradesh. Chart 54 presents the TMFRs by residence for India and bigger States/UTs.

**Statement 29**

**TMFRs (Total Marital Fertility Rates) by residence, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Total | Rural | Urban |
|---|---|---|---|
| **India** | **4.8** | **5.0** | **4.1** |
| Andhra Pradesh | 3.9 | 4.1 | 3.4 |
| Assam | 4.9 | 5.0 | 3.7 |
| Bihar | 6.3 | 6.4 | 5.8 |
| Chhattisgarh | 5.9 | 6.3 | 4.3 |
| Delhi | 4.4 | 3.1 | 4.5 |
| Gujarat | 4.6 | 5.0 | 3.8 |
| Haryana | 4.3 | 4.6 | 3.5 |
| Himachal Pradesh | 4.4 | 4.4 | 3.7 |
| Jammu & Kashmir | 5.2 | 5.2 | 5.1 |
| Jharkhand | 5.0 | 5.1 | 4.7 |
| Karnataka | 3.8 | 3.8 | 3.9 |
| Kerala | 3.8 | 4.1 | 3.5 |
| Madhya Pradesh | 5.6 | 5.9 | 4.1 |
| Maharashtra | 3.8 | 3.9 | 3.6 |
| Odisha | 4.5 | 4.6 | 3.9 |
| Punjab | 3.9 | 4.3 | 3.3 |
| Rajasthan | 4.6 | 4.7 | 4.3 |
| Tamil Nadu | 3.8 | 4.1 | 3.5 |
| Telangana | 4.2 | 4.4 | 3.8 |
| Uttar Pradesh | 6.8 | 6.8 | 7.2 |
| Uttarakhand | 3.9 | 3.8 | 4.3 |
| West Bengal | 3.4 | 3.5 | 3.1 |

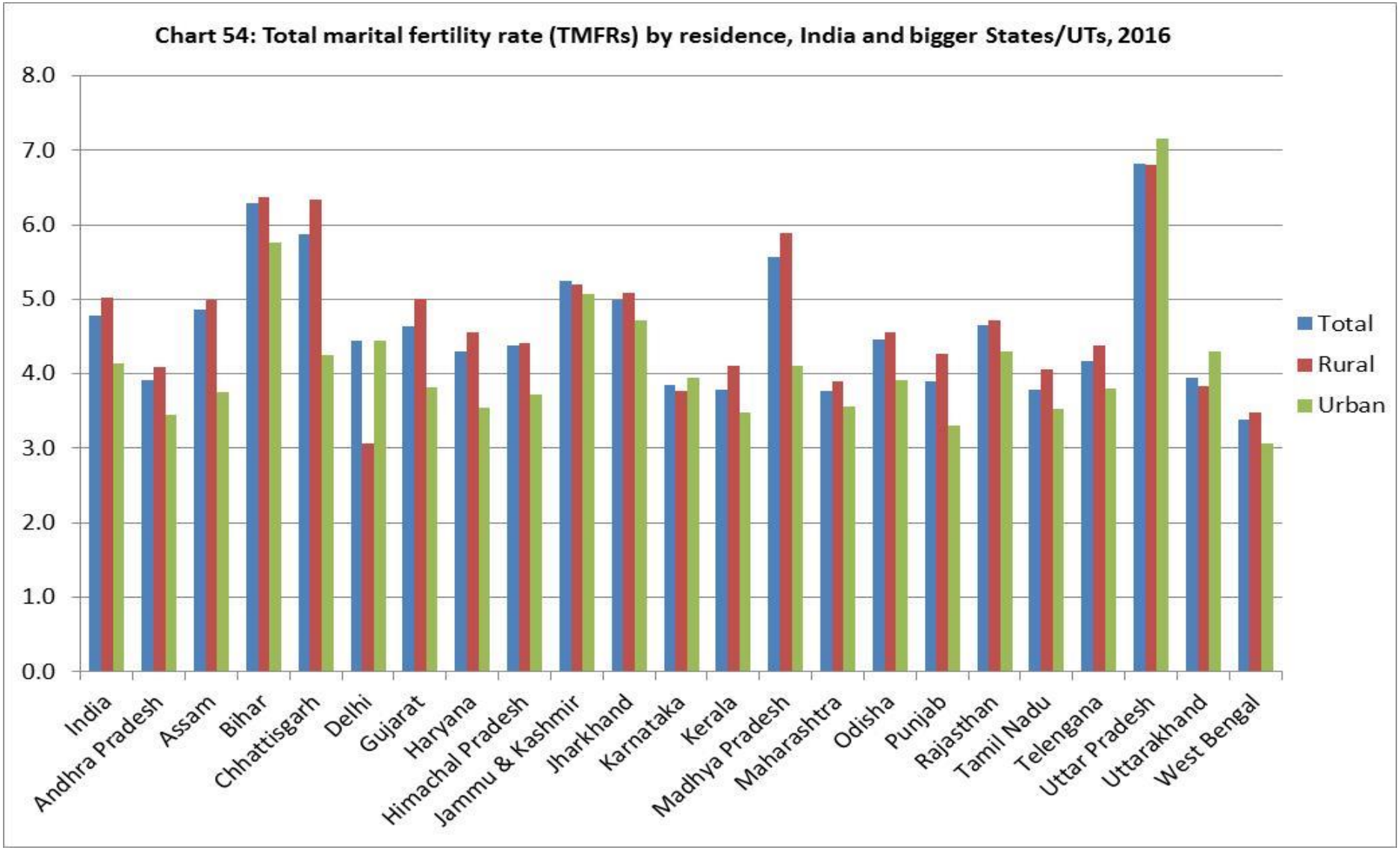


Chart 54: Total marital fertility rate (TMFRs) by residence, India and bigger States/UTs, 2016
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Total
Rural
Urban
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telengana
Uttar Pradesh
Uttarakhand
West Bengal

**3.25** Statement 30 below presents the percentage change in the average level of TMFR between the period 2004-06 and 2014-16 in India and bigger State/UTs s Among the bigger States/UTs, Himachal Pradesh has witnessed a decline of about 19.1 percent. Charts 55, 56 and 57 depict the average TMFR between 2004-06 and 2014-16 of India and bigger States/UTs for Total, Rural and Urban areas respectively. Chart 58 shows the percentage change in average TMFR between 2004-06 and 2014-16 by residence for India and bigger States/UTs.

**Statement 30**

**Percentage change in average Total Marital Fertility Rate (TMFR) between 2004-06 and 2014-16, by residence, India and bigger States/UTs**

| India and bigger States/UTs | Total | | | Rural | | | Urban | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change | 2004-06 | 2014-16 | % Change |
| **India** | **4.4** | **4.4** | **0.0** | **4.6** | **4.6** | **0.0** | **3.9** | **3.9** | **0.0** |
| Andhra Pradesh* | 3.4 | 3.8 | 11.8 | 3.5 | 3.9 | 11.4 | 3.1 | 3.6 | 16.1 |
| Assam | 5.3 | 4.5 | -15.1 | 5.5 | 4.6 | -16.4 | 3.5 | 3.6 | 2.9 |
| Bihar | 5.1 | 5.3 | 3.9 | 5.2 | 5.3 | 1.9 | 4.6 | 4.9 | 6.5 |
| Chhattisgarh | 5.0 | 5.3 | 6.0 | 5.2 | 5.7 | 9.6 | 3.9 | 4.1 | 5.1 |
| Delhi | 4.0 | 4.1 | 2.5 | 3.5 | 3.6 | 2.9 | 4.1 | 4.1 | 0.0 |
| Gujarat | 4.1 | 4.4 | 7.3 | 4.4 | 4.7 | 6.8 | 3.6 | 3.9 | 8.3 |
| Haryana | 4.5 | 4.1 | -8.9 | 4.6 | 4.3 | -6.5 | 4.3 | 3.6 | -16.3 |
| Himachal Pradesh | 4.7 | 3.8 | -19.1 | 4.8 | 3.8 | -20.8 | 3.9 | 3.7 | -5.1 |
| Jammu & Kashmir | 4.7 | 4.6 | -2.1 | 4.9 | 4.7 | -4.1 | 4.1 | 4.1 | 0.0 |
| Jharkhand | 4.8 | 4.7 | -2.1 | 5.0 | 4.8 | -4.0 | 4.0 | 4.7 | 17.5 |
| Karnataka | 4.0 | 3.5 | -12.5 | 4.2 | 3.5 | -16.7 | 3.7 | 3.4 | -8.1 |
| Kerala | 4.0 | 3.7 | -7.5 | 4.0 | 3.7 | -7.5 | 4.3 | 3.8 | -11.6 |
| Madhya Pradesh | 4.9 | 5.2 | 6.1 | 5.2 | 5.4 | 3.8 | 4.0 | 4.4 | 10.0 |
| Maharashtra | 3.6 | 3.6 | 0.0 | 3.6 | 3.6 | 0.0 | 3.5 | 3.5 | 0.0 |
| Odisha | 4.3 | 4.2 | -2.3 | 4.4 | 4.3 | -2.3 | 3.5 | 3.6 | 2.9 |
| Punjab | 4.1 | 3.4 | -17.1 | 4.2 | 3.6 | -14.3 | 3.8 | 3.1 | -18.4 |
| Rajasthan | 4.6 | 4.4 | -4.3 | 4.8 | 4.5 | -6.3 | 4.0 | 4.5 | 12.5 |
| Tamil Nadu | 3.8 | 4.0 | 5.3 | 3.8 | 4.1 | 7.9 | 3.9 | 3.8 | -2.6 |
| Uttar Pradesh* | 5.7 | 6.1 | 7.0 | 5.8 | 6.1 | 5.2 | 5.5 | 6.2 | 12.7 |
| West Bengal | 3.5 | 2.9 | -17.1 | 3.7 | 3.1 | -16.2 | 2.9 | 2.5 | -13.8 |

*: Andhra Pradesh and Uttar Pradesh include Telangana and Uttarakhand respectively

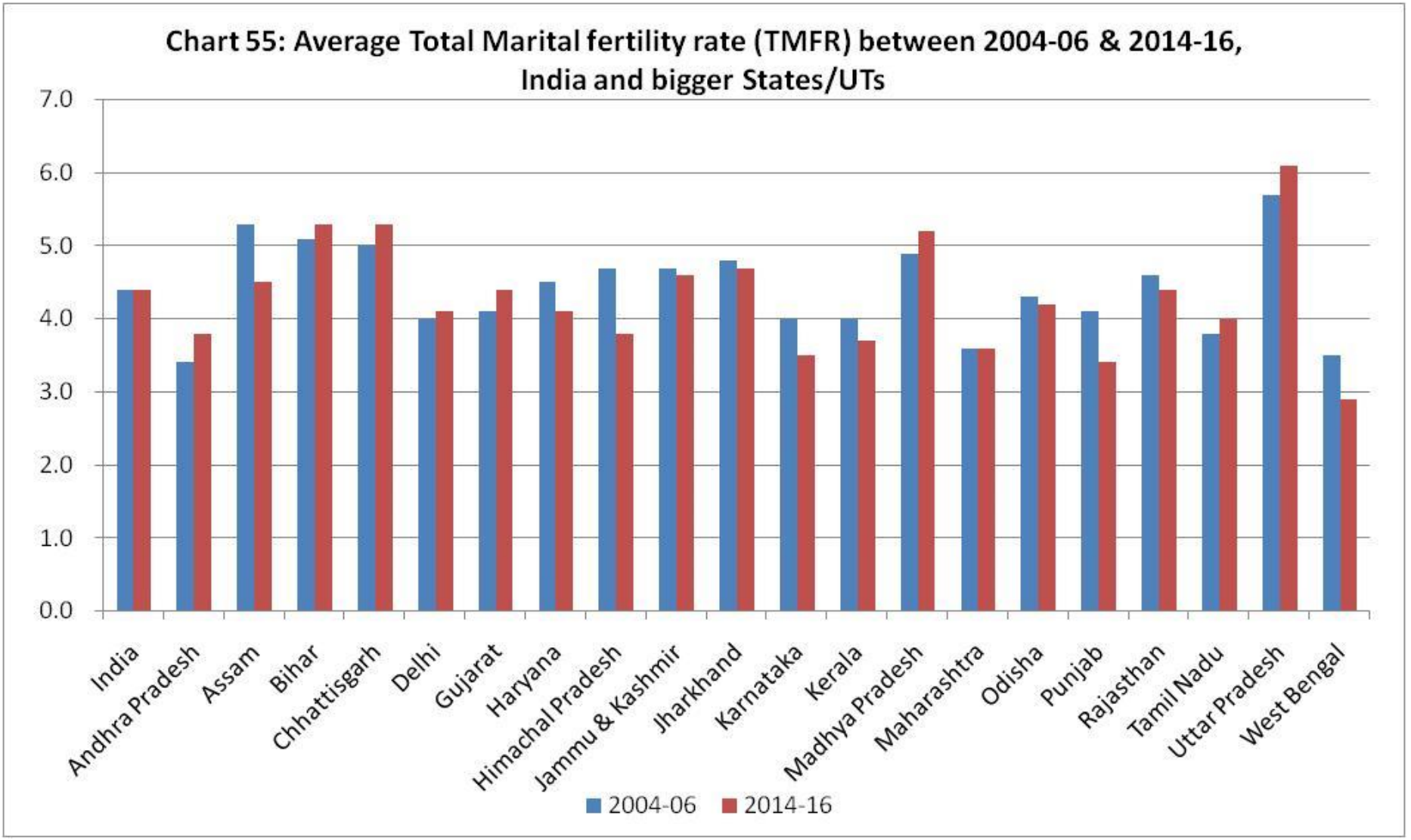


Chart 55: Average Total Marital fertility rate (TMFR) between 2004-06 & 2014-16, India and bigger States/UTs
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

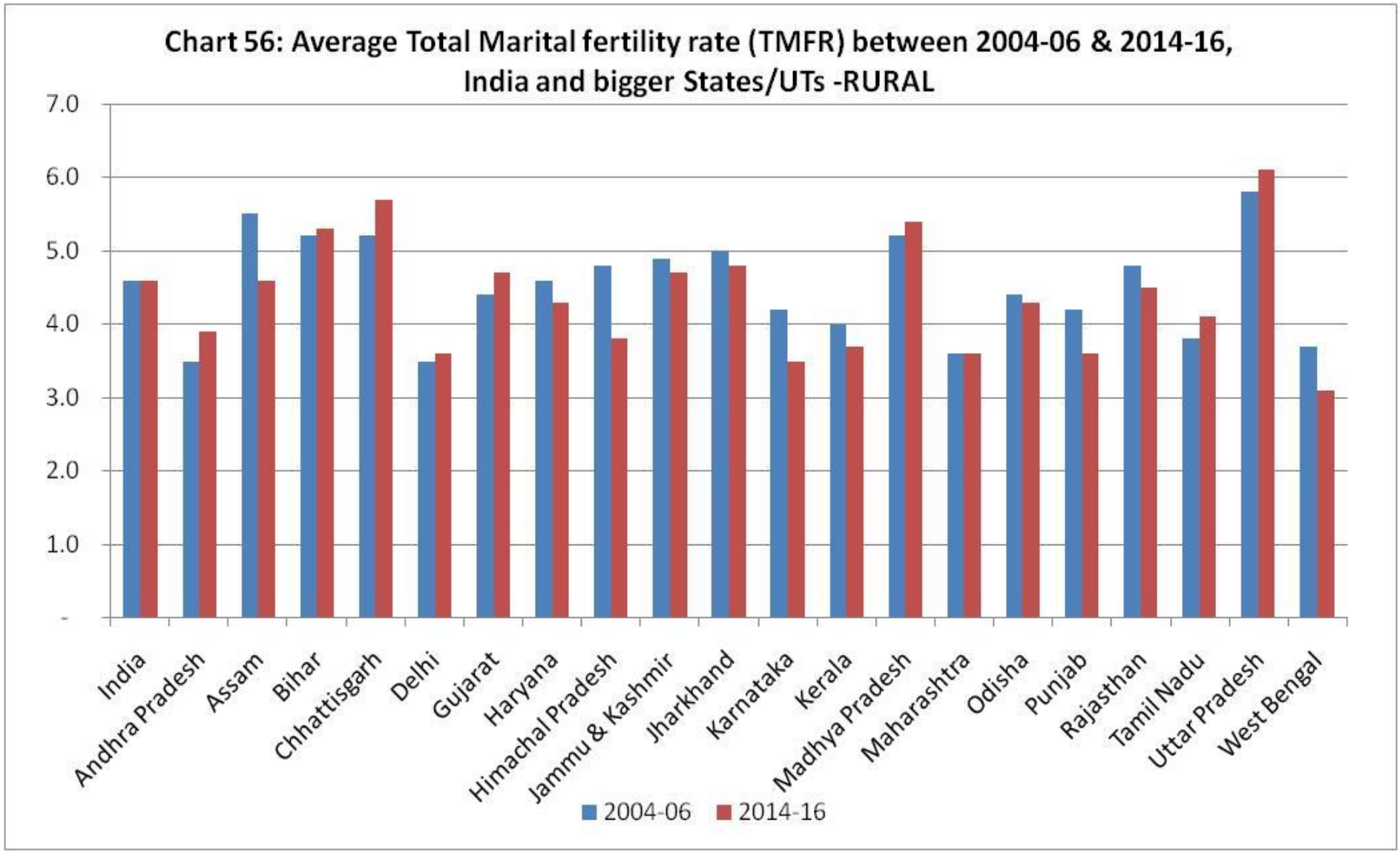


Chart 56: Average Total Marital fertility rate (TMFR) between 2004-06 & 2014-16, India and bigger States/UTs -RURAL
7.0
6.0
5.0
4.0
3.0
2.0
1.0
-
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

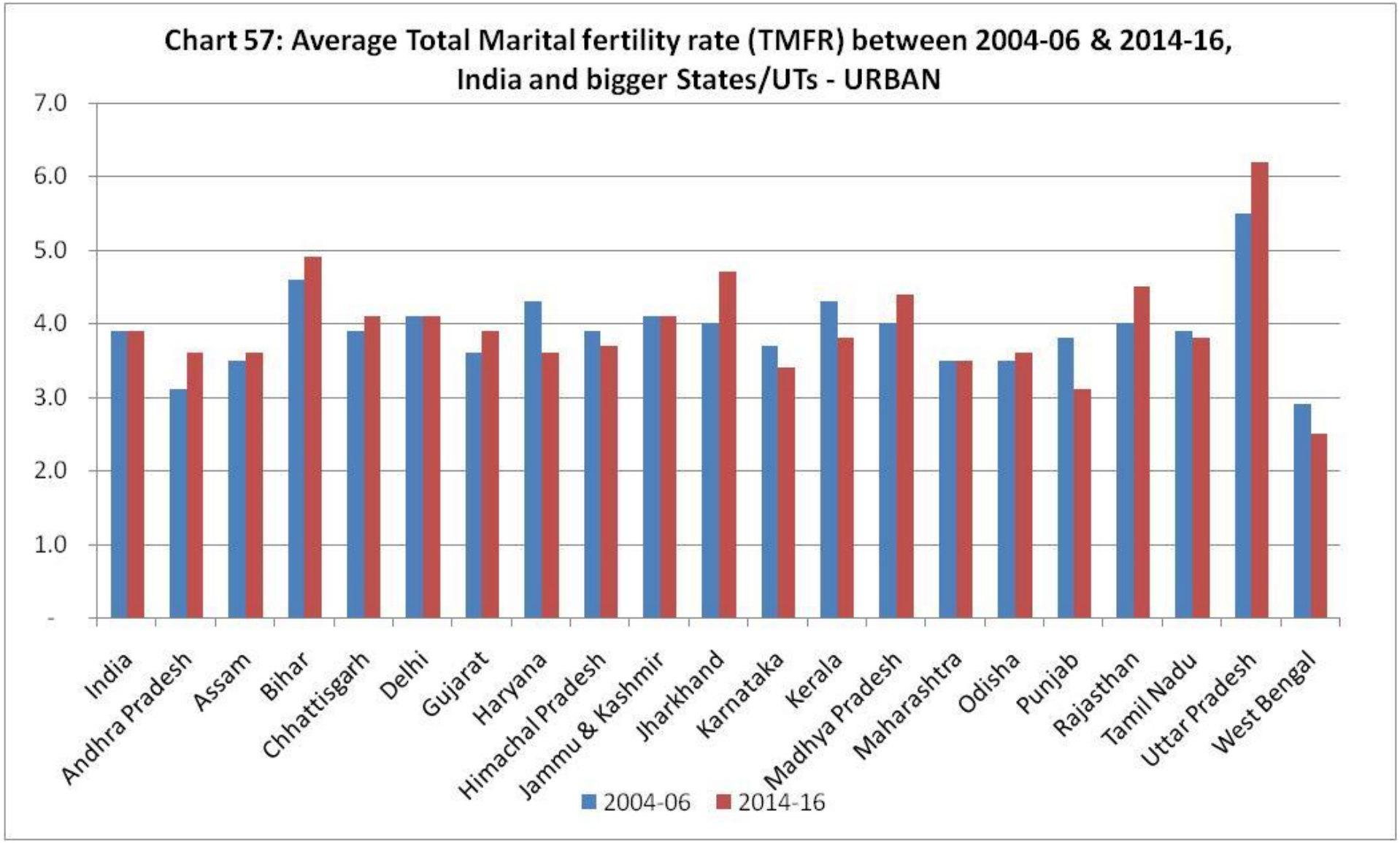
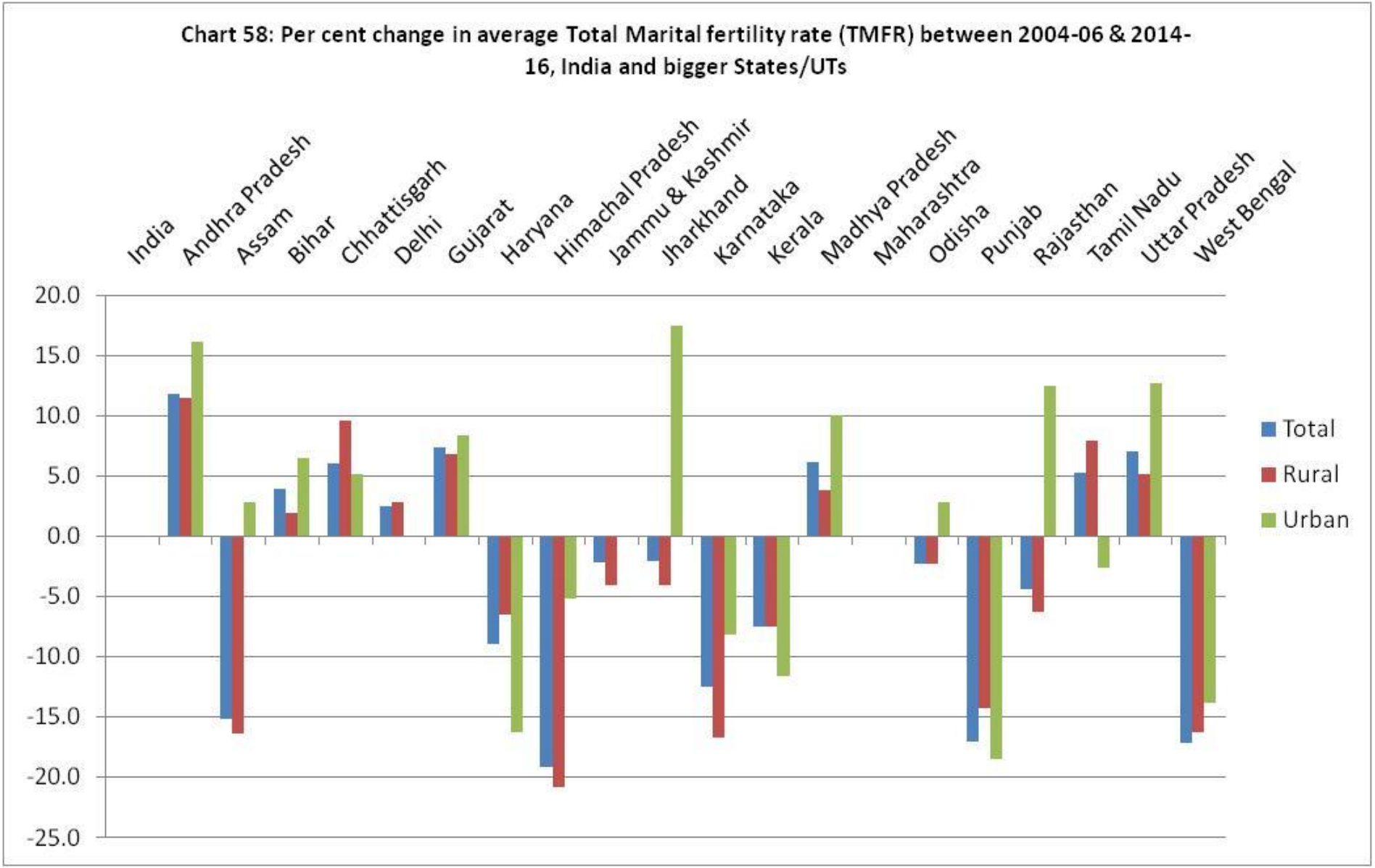


Chart 57: Average Total Marital fertility rate (TMFR) between 2004-06 & 2014-16, India and bigger States/UTs - URBAN
7.0
6.0
5.0
4.0
3.0
2.0
1.0
-
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Uttar Pradesh
West Bengal
2004-06
2014-16

Chart 58: Per cent change in average Total Marital fertility rate (TMFR) between 2004-06 & 2014-16, India and bigger States/UTs



**Fertility by level of education of the women**

**3.26** Education, more precisely the female education, has a direct impact on fertility. To ascertain levels of fertility by educational status of the women three indicators viz. general fertility rate, age-specific fertility rate and total fertility rate by educational status of the women have been worked out separately for rural and urban areas. These are discussed in the subsequent paragraphs.

**3.27** Statement 31 below indicates the percentage of female population in the age group 15-49 by level of education, at the National level and for the bigger States/UTs. At the National level, 15.2 percent of the female population is reported 'Illiterate' as against 84.8 percent in the 'Literate' category. About 17.8 percent have education up to Class X, 12.1 percent women have education level of Class XII, and only 9.9 percent have reported education level of graduate and above. Among the illiterates, Kerala 0.8 has the lowest and Bihar 28.3 the highest percentage of illiterate women.

**Statement 31**

**Percentage of female population in the age group 15-49 by level of education, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Educational level of women | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Illiterate | Literate | | | | | | | |
| | | Total literate | Without any formal education | Below primary | Primary | Middle | Class X | Class XII | Graduate and above |
| **India** | **15.2** | **84.8** | **5.6** | **7.4** | **13.4** | **18.6** | **17.8** | **12.1** | **9.9** |
| Andhra Pradesh | 16.6 | 83.4 | 6.1 | 8.3 | 14.0 | 15.4 | 20.1 | 11.4 | 8.0 |
| Assam | 11.7 | 88.3 | 6.4 | 12.6 | 16.9 | 24.7 | 16.5 | 7.2 | 3.9 |
| Bihar | 28.3 | 71.7 | 10.2 | 7.4 | 12.0 | 16.6 | 14.2 | 6.8 | 4.5 |
| Chhattisgarh | 17.6 | 82.4 | 4.9 | 7.7 | 15.2 | 21.2 | 15.0 | 11.3 | 7.1 |
| Delhi | 8.7 | 91.3 | 3.6 | 3.1 | 10.7 | 15.0 | 18.0 | 18.3 | 22.6 |
| Gujarat | 15.6 | 84.4 | 2.5 | 7.6 | 18.0 | 17.4 | 17.0 | 12.0 | 9.8 |
| Haryana | 13.6 | 86.4 | 7.3 | 13.0 | 10.8 | 14.4 | 17.1 | 13.7 | 10.3 |
| Himachal Pradesh | 1.6 | 98.4 | 1.8 | 2.8 | 9.8 | 14.6 | 25.7 | 29.2 | 14.5 |
| Jammu & Kashmir | 17.3 | 82.7 | 5.5 | 3.6 | 7.2 | 16.9 | 24.6 | 15.8 | 9.1 |
| Jharkhand | 25.0 | 75.0 | 7.6 | 5.5 | 11.7 | 19.8 | 15.5 | 8.8 | 6.0 |
| Karnataka | 7.2 | 92.8 | 3.4 | 7.0 | 13.8 | 18.3 | 25.6 | 13.5 | 11.1 |
| Kerala | 0.8 | 99.2 | 0.4 | 2.6 | 6.2 | 20.6 | 25.0 | 22.6 | 21.8 |
| Madhya Pradesh | 19.4 | 80.6 | 5.7 | 7.9 | 16.3 | 22.1 | 13.1 | 8.2 | 7.3 |
| Maharashtra | 5.0 | 95.0 | 3.6 | 6.3 | 10.9 | 18.7 | 25.6 | 16.8 | 13.1 |
| Odisha | 12.2 | 87.8 | 5.6 | 10.3 | 16.1 | 23.0 | 17.3 | 8.6 | 6.7 |
| Punjab | 10.1 | 89.9 | 6.3 | 8.4 | 11.2 | 16.0 | 20.6 | 16.1 | 11.3 |
| Rajasthan | 23.5 | 76.5 | 9.7 | 6.9 | 13.7 | 13.6 | 12.7 | 10.2 | 9.7 |
| Tamil Nadu | 4.2 | 95.8 | 2.6 | 7.3 | 11.9 | 17.7 | 22.3 | 17.2 | 16.8 |
| Telangana | 18.2 | 81.8 | 9.3 | 4.0 | 9.1 | 14.0 | 20.0 | 12.8 | 12.5 |
| Uttar Pradesh | 22.9 | 77.1 | 5.2 | 6.3 | 13.5 | 17.8 | 13.5 | 11.7 | 9.1 |
| Uttarakhand | 11.5 | 88.5 | 5.1 | 3.3 | 12.1 | 17.7 | 17.7 | 16.4 | 16.3 |
| West Bengal | 11.7 | 88.3 | 7.4 | 11.2 | 16.6 | 23.8 | 15.3 | 7.4 | 6.6 |

**3.28** Statement 32 below presents the estimates of General Fertility Rate (GFR) by educational status of the women for India and bigger States/UTs. It is apparent from the Statement that there is a difference between the GFRs of the Illiterate and Literate women with the latter depicting lower levels of GFR, both at the National and State level.

**Statement 32**

**General Fertility Rate by level of education of women, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Educational level of women | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Illiterate | Literate | | | | | | | |
| | | Total literate | Without any formal education | Below primary | Primary | Middle | Class X | Class XII | Graduate and above |
| **India** | **75.2** | **74.6** | **67.7** | **85.4** | **84.8** | **74.2** | **68.9** | **70.2** | **73.2** |
| Andhra Pradesh | 32.1 | 61.4 | 36.5 | 44.9 | 62.3 | 64.1 | 78.7 | 59.4 | 49.9 |
| Assam | 54.3 | 81.6 | 49.7 | 82.0 | 103.5 | 79.3 | 79.0 | 79.8 | 65.8 |
| Bihar | 119.6 | 100.6 | 127.1 | 132.1 | 108.1 | 80.8 | 89.3 | 91.6 | 91.1 |
| Chhattisgarh | 53.7 | 88.8 | 59.9 | 132.3 | 110.2 | 93.3 | 64.2 | 73.5 | 79.2 |
| Delhi | 39.6 | 57.0 | 28.9 | 92.8 | 65.7 | 61.8 | 60.9 | 56.9 | 46.3 |
| Gujarat | 52.7 | 78.4 | 95.2 | 124.5 | 94.6 | 84.0 | 59.4 | 56.3 | 58.6 |
| Haryana | 65.3 | 80.0 | 65.9 | 94.4 | 96.8 | 78.3 | 68.4 | 75.8 | 81.2 |
| Himachal Pradesh | 22.4 | 58.6 | 26.5 | 46.8 | 38.2 | 41.7 | 56.6 | 69.9 | 76.5 |
| Jammu & Kashmir | 45.2 | 55.4 | 40.5 | 97.7 | 67.9 | 60.2 | 53.1 | 45.6 | 52.0 |
| Jharkhand | 82.2 | 85.4 | 99.0 | 93.6 | 97.5 | 71.6 | 86.2 | 89.2 | 75.0 |
| Karnataka | 35.3 | 63.8 | 25.3 | 57.7 | 70.7 | 69.9 | 63.5 | 60.3 | 65.6 |
| Kerala | 1.6 | 51.8 | 5.4 | 5.2 | 12.5 | 30.4 | 43.4 | 70.6 | 79.7 |
| Madhya Pradesh | 81.4 | 98.2 | 76.4 | 134.5 | 124.8 | 98.6 | 74.3 | 75.2 | 83.9 |
| Maharashtra | 31.4 | 60.1 | 42.8 | 39.9 | 57.4 | 64.0 | 67.1 | 62.1 | 55.3 |
| Odisha | 52.3 | 69.3 | 61.0 | 72.3 | 80.0 | 75.3 | 61.3 | 61.1 | 56.3 |
| Punjab | 40.3 | 57.2 | 50.2 | 63.1 | 69.0 | 62.3 | 55.4 | 52.0 | 48.5 |
| Rajasthan | 88.0 | 90.5 | 68.7 | 124.7 | 126.0 | 113.3 | 63.5 | 55.8 | 78.2 |
| Tamil Nadu | 13.0 | 55.3 | 19.6 | 33.3 | 39.0 | 47.1 | 62.2 | 58.3 | 78.6 |
| Telangana | 39.4 | 63.2 | 31.2 | 57.0 | 70.7 | 63.8 | 69.1 | 66.3 | 70.5 |
| Uttar Pradesh | 98.3 | 97.3 | 87.6 | 111.3 | 93.1 | 91.4 | 90.2 | 104.6 | 111.9 |
| Uttarakhand | 62.0 | 63.6 | 61.8 | 71.2 | 66.0 | 61.8 | 51.9 | 64.4 | 74.8 |
| West Bengal | 32.5 | 56.4 | 34.9 | 57.6 | 67.1 | 56.5 | 59.9 | 54.6 | 45.2 |

**3.29** Statement 33 below presents, at the National level, age specific fertility rates by level of education of women separately for rural and urban areas. The data reveals marked rural-urban differences with the rural areas generally reporting higher levels of fertility than the urban areas for all age groups. Fertility attains the peak in the age-group 20-24 years both in the rural and urban areas for illiterate female population; while for literate females, fertility is at its peak in the age-group 25-29 years. 'Illiterate' women have higher levels of age-specific fertility rates both in the rural and urban areas than the 'Literate'. Within the 'Literate' group there is a general decline in the fertility rates with the increase in the educational status both in the rural and urban areas, barring a few exceptions. Charts 59, 60 and 61 depict the Age Specific Fertility Rate by level of education of women for Total, Rural and Urban areas respectively.

**Statement 33**

**Age Specific Fertility Rate by level of education of women and residence, India, 2016**

| Age group | Educational level of women | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Illiterate | Literate | | | | | | | |
| | | Total literate | Without any formal education | Below primary | Primary | Middle | Class X | Class XII | Graduate and above |
| | | | | **Total** | | | | | |
| 15-19 | 24.5 | 10.3 | 14.1 | 23.5 | 17.6 | 9.4 | 6.8 | 7.6 | 0.0 |
| 20-24 | 192.0 | 131.5 | 135.2 | 220.3 | 199.1 | 172.1 | 131.8 | 81.6 | 67.9 |
| 25-29 | 184.9 | 164.0 | 168.3 | 191.0 | 183.9 | 174.1 | 172.3 | 158.0 | 120.8 |
| 30-34 | 109.8 | 88.4 | 87.4 | 89.6 | 88.7 | 86.8 | 83.1 | 88.4 | 96.1 |
| 35-39 | 41.1 | 30.4 | 33.4 | 32.6 | 30.5 | 28.2 | 25.6 | 31.1 | 36.4 |
| 40-44 | 16.1 | 9.6 | 14.9 | 9.6 | 9.3 | 9.4 | 7.9 | 8.9 | 8.0 |
| 45-49 | 6.2 | 3.3 | 3.7 | 4.6 | 3.7 | 3.1 | 2.8 | 2.3 | 2.1 |
| | | | | **Rural** | | | | | |
| 15-19 | 27.1 | 11.8 | 15.2 | 26.3 | 19.5 | 10.2 | 8.1 | 7.9 | 0.0 |
| 20-24 | 201.3 | 148.1 | 140.2 | 230.6 | 207.3 | 178.7 | 140.4 | 93.3 | 83.3 |
| 25-29 | 194.2 | 178.5 | 179.7 | 197.0 | 191.4 | 181.3 | 181.6 | 172.0 | 137.8 |
| 30-34 | 117.2 | 95.9 | 94.8 | 95.4 | 95.3 | 96.1 | 90.4 | 99.8 | 107.6 |
| 35-39 | 43.3 | 32.8 | 35.4 | 34.7 | 33.6 | 30.3 | 26.1 | 39.3 | 39.8 |
| 40-44 | 17.1 | 10.8 | 14.8 | 9.6 | 10.0 | 10.8 | 9.9 | 9.8 | 9.8 |
| 45-49 | 7.0 | 3.9 | 4.0 | 4.4 | 3.5 | 4.2 | 2.8 | 4.5 | 4.8 |
| | | | | **Urban** | | | | | |
| 15-19 | 12.2 | 6.6 | 10.1 | 12.4 | 10.5 | 7.0 | 4.1 | 7.3 | 0.0 |
| 20-24 | 143.0 | 96.9 | 114.8 | 180.6 | 171.6 | 150.6 | 110.6 | 63.6 | 54.8 |
| 25-29 | 138.7 | 139.5 | 125.8 | 170.0 | 162.3 | 156.8 | 156.7 | 139.1 | 110.3 |
| 30-34 | 73.4 | 77.1 | 60.7 | 70.6 | 72.3 | 68.0 | 73.5 | 77.0 | 91.6 |
| 35-39 | 30.9 | 26.9 | 26.4 | 25.6 | 23.0 | 24.4 | 25.1 | 24.4 | 35.2 |
| 40-44 | 11.6 | 7.9 | 15.1 | 9.5 | 8.0 | 7.2 | 5.8 | 8.3 | 7.5 |
| 45-49 | 2.8 | 2.5 | 2.7 | 5.2 | 3.9 | 1.3 | 2.8 | 1.0 | 1.4 |

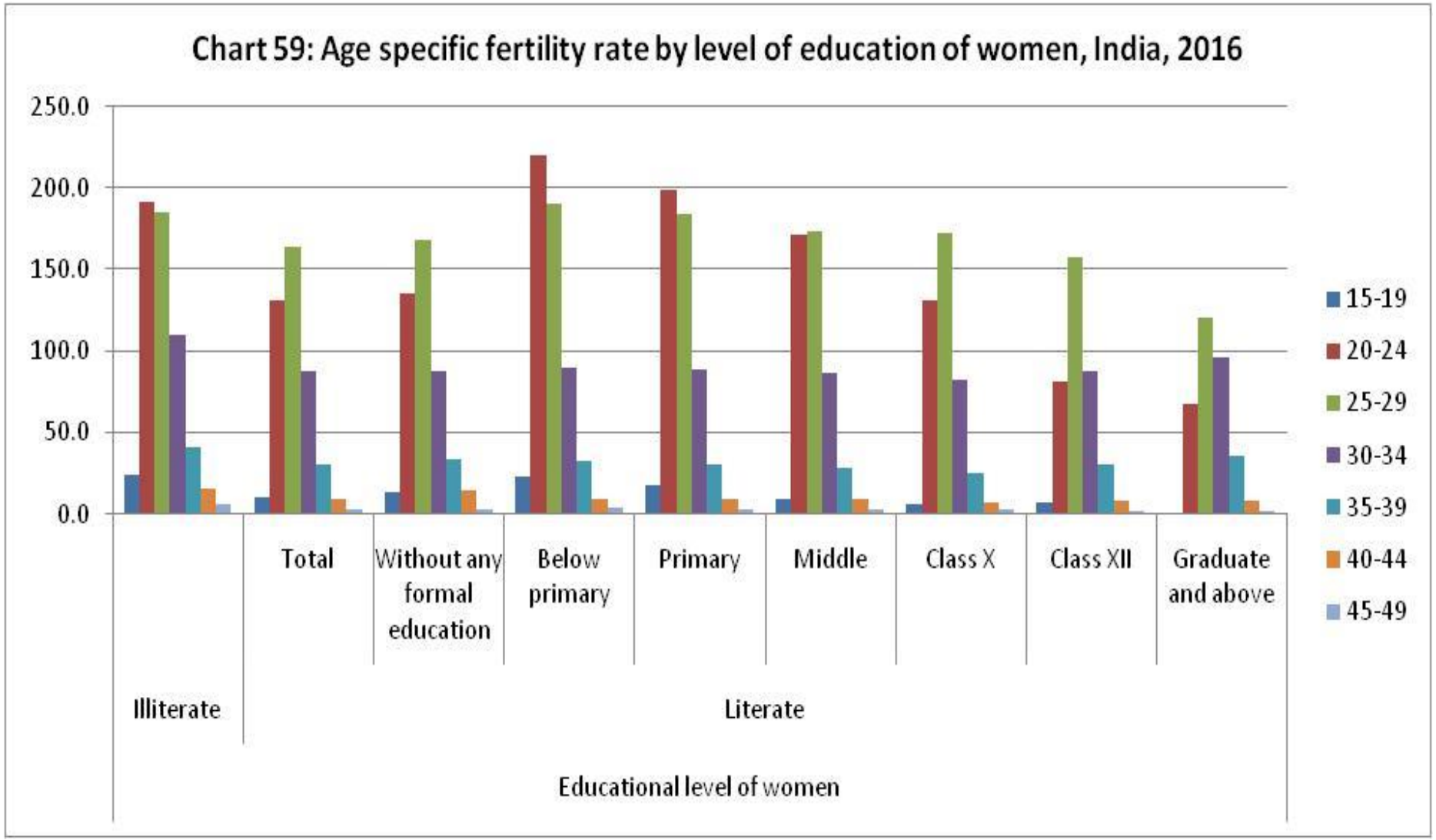


Chart 59: Age specific fertility rate by level of education of women, India, 2016
250.0
200.0
150.0
100.0
50.0
0.0
Total
Without any formal education
Below primary
Primary
Middle
Class X
Class XII
Graduate and above
Illiterate
Literate
Educational level of women
15-19
20-24
25-29
30-34
35-39
40-44
45-49

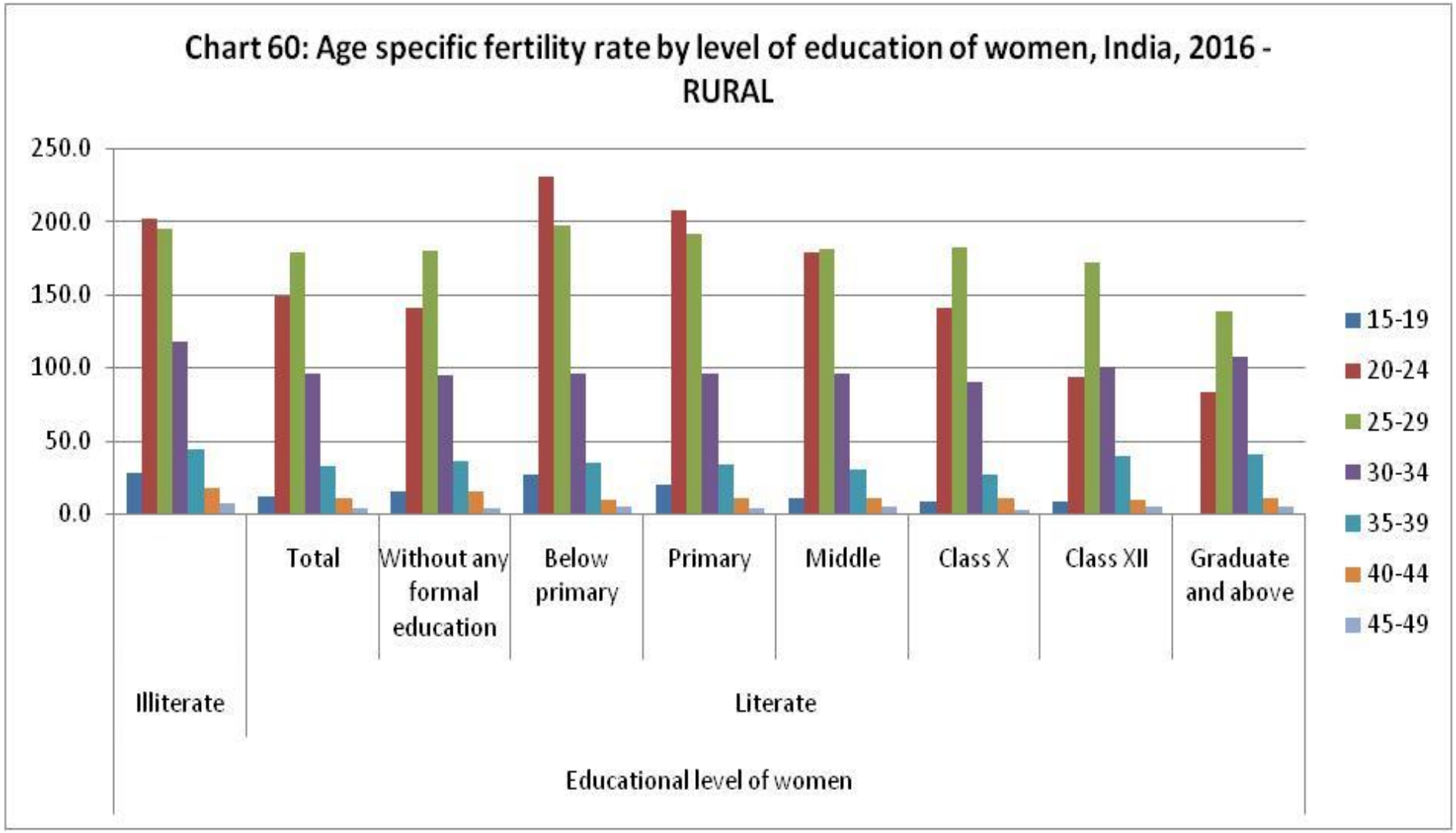


Chart 60: Age specific fertility rate by level of education of women, India, 2016 - RURAL
250.0
200.0
150.0
100.0
50.0
0.0
Total
Without any formal education
Below primary
Primary
Middle
Class X
Class XII
Graduate and above
Illiterate
Literate
Educational level of women
15-19
20-24
25-29
30-34
35-39
40-44
45-49

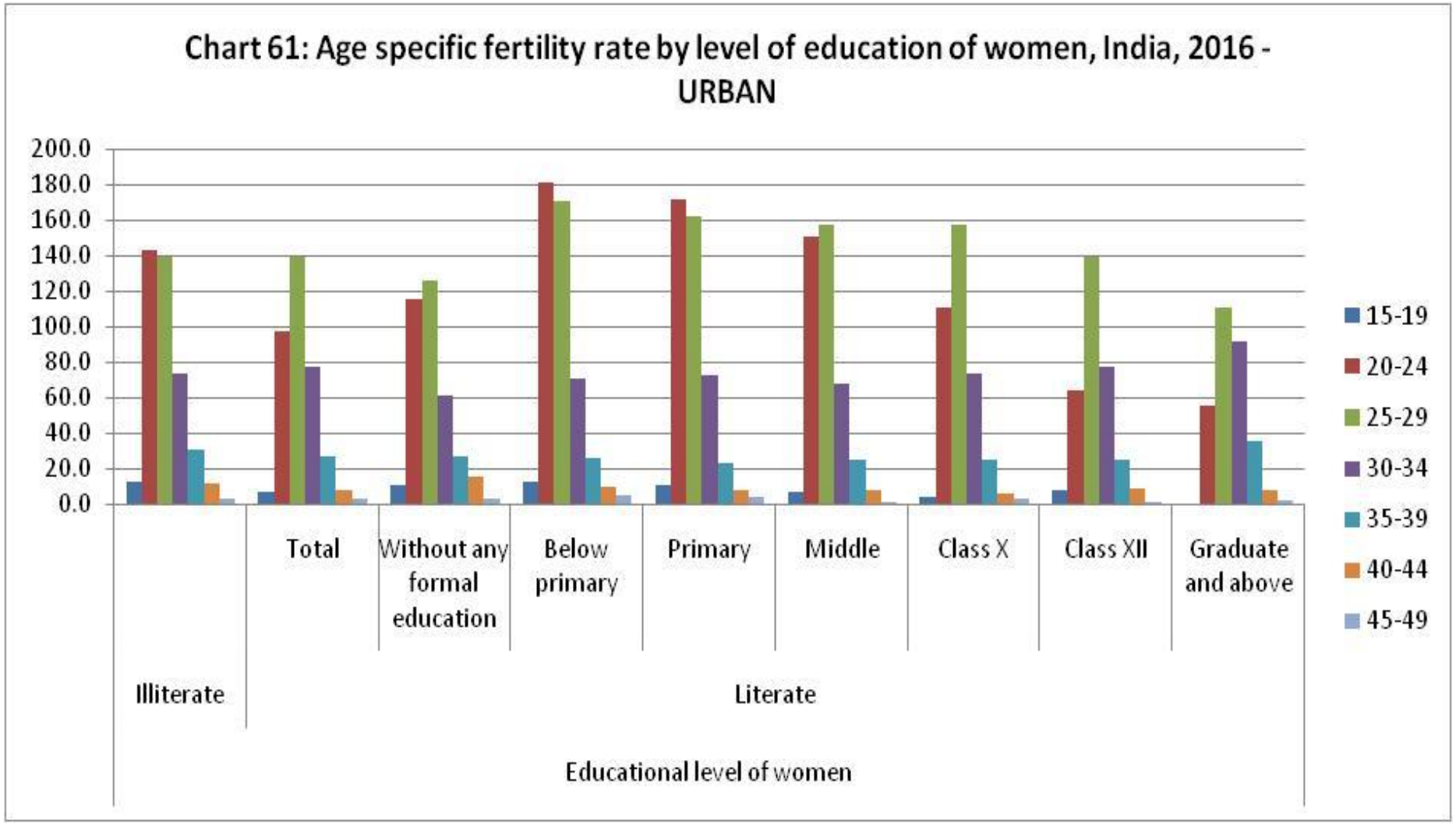


Chart 61: Age specific fertility rate by level of education of women, India, 2016 - URBAN
200.0
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Illiterate
Total
Without any formal education
Below primary
Primary
Middle
Class X
Class XII
Graduate and above
Literate
Educational level of women
15-19
20-24
25-29
30-34
35-39
40-44
45-49

**3.30** Total fertility rates by education levels of the women for India and bigger States/UTs are presented below in Statement 34. At the National level, total fertility rate for the women having educational status 'Illiterate' for 2016 is 2.9. This is much higher than the 'Literate' group of women. Among the 'Literate' (2.2), there is a gradual decline of TFR with the increase in the level of education. Chart 62 presents, at the National level, total fertility rate by level of education of women separately for rural and urban areas for the year 2016. The TFR by levels of education of the women for India and bigger States/UTs by place of residence are given in Table-4.

**Statement 34**

**Total Fertility Rate by level of education of women, India and bigger States/UTs, 2016**

| India and Bigger States/UTs | Educational level of women | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Illiterate | Literate | | | | | | | |
| | | Total literate | Without any formal education | Below primary | Primary | Middle | Class X | Class XII | Graduate and above |
| **India** | **2.9** | **2.2** | **2.3** | **2.9** | **2.7** | **2.4** | **2.2** | **1.9** | **1.7** |
| Andhra Pradesh | 1.6 | 1.7 | 1.6 | 2.1 | 2.4 | 2.1 | 2.1 | 1.5 | 1.1 |
| Assam | 2.0 | 2.4 | 1.6 | 2.8 | 2.9 | 2.4 | 2.4 | 1.9 | 1.7 |
| Bihar | 3.8 | 3.2 | 3.6 | 3.8 | 3.7 | 3.3 | 2.9 | 2.6 | 2.3 |
| Chhattisgarh | 3.4 | 2.5 | 3.2 | 4.5 | 3.1 | 2.8 | 2.1 | 1.7 | 1.8 |
| Delhi | 1.5 | 1.6 | 0.9 | 2.6 | 1.9 | 2.1 | 2.2 | 1.6 | 1.1 |
| Gujarat | 2.2 | 2.3 | 3.1 | 3.8 | 2.7 | 2.6 | 2.0 | 1.7 | 1.4 |
| Haryana | 2.8 | 2.3 | 2.2 | 3.2 | 3.0 | 2.6 | 2.1 | 1.9 | 1.8 |
| Himachal Pradesh | 2.8 | 1.7 | 1.9 | 2.4 | 2.0 | 2.0 | 2.1 | 1.7 | 1.6 |
| Jammu & Kashmir | 1.5 | 1.7 | 1.5 | 3.4 | 2.4 | 2.1 | 1.7 | 1.4 | 1.2 |
| Jharkhand | 3.0 | 2.6 | 2.9 | 2.9 | 3.1 | 2.6 | 2.6 | 2.3 | 1.8 |
| Karnataka | 1.7 | 1.8 | 1.3 | 2.5 | 2.3 | 2.1 | 1.9 | 1.5 | 1.4 |
| Kerala | 0.1 | 1.8 | 0.4 | 0.6 | 1.0 | 1.7 | 1.8 | 2.0 | 1.9 |
| Madhya Pradesh | 3.5 | 2.8 | 3.1 | 3.8 | 3.4 | 3.0 | 2.4 | 2.2 | 1.9 |
| Maharashtra | 1.5 | 1.8 | 1.4 | 1.7 | 2.2 | 2.2 | 2.0 | 1.7 | 1.3 |
| Odisha | 2.1 | 2.0 | 2.2 | 2.4 | 2.2 | 2.1 | 1.9 | 1.8 | 1.3 |
| Punjab | 1.8 | 1.7 | 1.5 | 2.3 | 2.3 | 2.2 | 1.8 | 1.4 | 1.1 |
| Rajasthan | 3.3 | 2.6 | 2.5 | 3.4 | 3.3 | 2.9 | 2.3 | 2.2 | 1.7 |
| Tamil Nadu | 0.9 | 1.6 | 1.1 | 1.7 | 1.8 | 1.8 | 2.0 | 1.6 | 1.7 |
| Telangana | 1.9 | 1.7 | 1.1 | 2.3 | 2.4 | 2.1 | 2.0 | 1.6 | 1.6 |
| Uttar Pradesh | 3.5 | 3.0 | 2.9 | 3.8 | 3.3 | 3.2 | 3.2 | 2.9 | 2.5 |
| Uttarakhand | 2.4 | 1.8 | 2.5 | 2.5 | 2.2 | 1.9 | 1.7 | 1.7 | 1.7 |
| West Bengal | 1.6 | 1.6 | 1.4 | 2.1 | 2.0 | 1.7 | 1.6 | 1.3 | 1.1 |

Note: 0.0 denotes negligible

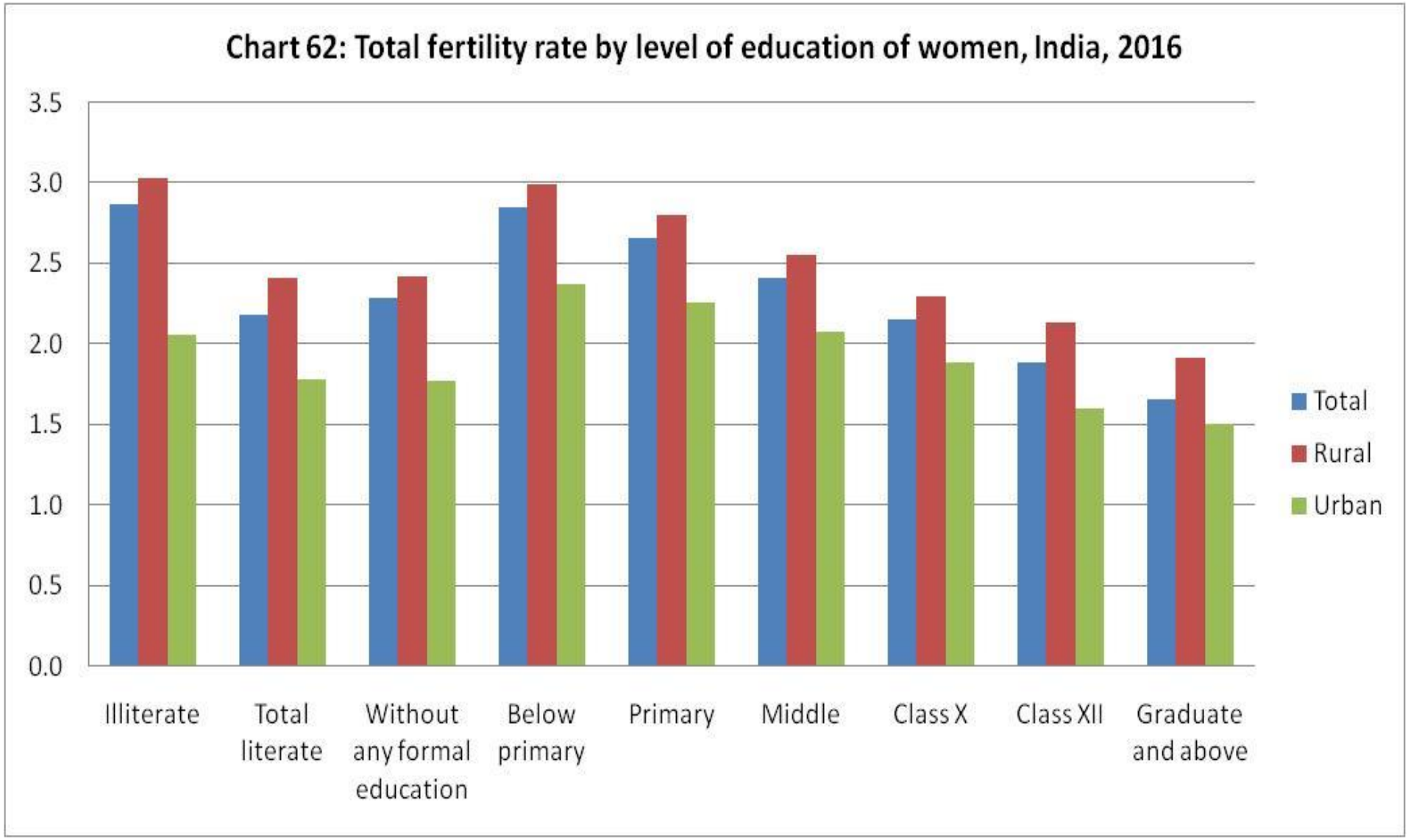


Chart 62: Total fertility rate by level of education of women, India, 2016
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Illiterate
Total literate
Without any formal education
Below primary
Primary
Middle
Class X
Class XII
Graduate and above
Total
Rural
Urban

**Birth order**

**3.31** Information on order of the live birth and interval between current and previous live births are also collected in SRS from 1990 onwards. These provide useful information on spacing of children and level of fertility. The estimated percentages on order of live birth and birth interval for India and bigger States/UTs are given in Tables 5, 6 and 7. Based on these tables, two State-wise comparative Statements are presented below.

**3.32** The percentage distribution of live births by birth order for India and bigger States/UTs for the year 2016 is presented below in Statement 35. It is observed 49.7 percent of the current live births in India are first order births, and 28.4 percent of total births are second order births. The fourth and higher order births account for 9.0 percent of the total births. Among the bigger States/UTs, the percentage share of first order birth varies from 34.7 percent in Bihar to 79.6 percent in Jammu & Kashmir. On the other hand, the percentage share of fourth and higher order births varies from 1.0 percent in Andhra Pradesh and Tamil Nadu to 19.0 percent in Bihar. Chart 63 shows the percentage distribution of current live births by birth order for India and bigger States/UTs.

**Statement 35**

**Percentage distribution of current live births by Birth Order, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Birth order | | | |
|---|---|---|---|---|
| | 1st | 2nd | 3rd | 4th & above |
| **India** | **49.7** | **28.4** | **12.9** | **9.0** |
| Andhra Pradesh | 61.0 | 31.4 | 6.6 | 1.0 |
| Assam | 49.5 | 28.3 | 14.2 | 8.0 |
| Bihar | 34.7 | 26.2 | 20.0 | 19.0 |
| Chhattisgarh | 44.2 | 36.1 | 13.4 | 6.4 |
| Delhi | 67.1 | 19.6 | 9.4 | 3.9 |
| Gujarat | 69.8 | 18.8 | 7.3 | 4.2 |
| Haryana | 49.2 | 31.8 | 12.4 | 6.6 |
| Himachal Pradesh | 60.5 | 31.2 | 5.7 | 2.6 |
| Jammu & Kashmir | 79.6 | 12.2 | 5.5 | 2.7 |
| Jharkhand | 45.6 | 30.5 | 15.6 | 8.3 |
| Karnataka | 51.1 | 35.7 | 10.4 | 2.9 |
| Kerala | 48.1 | 38.1 | 11.0 | 2.8 |
| Madhya Pradesh | 43.3 | 31.0 | 15.4 | 10.3 |
| Maharashtra | 53.1 | 33.2 | 10.0 | 3.6 |
| Odisha | 50.7 | 32.5 | 11.1 | 5.8 |
| Punjab | 61.0 | 27.6 | 9.5 | 2.0 |
| Rajasthan | 43.6 | 30.6 | 14.7 | 11.1 |
| Tamil Nadu | 54.5 | 37.6 | 6.9 | 1.0 |
| Telangana | 59.4 | 30.0 | 8.0 | 2.7 |
| Uttar Pradesh | 45.5 | 23.9 | 15.8 | 14.9 |
| Uttarakhand | 46.2 | 33.9 | 12.5 | 7.4 |
| West Bengal | 66.2 | 24.0 | 6.8 | 3.1 |

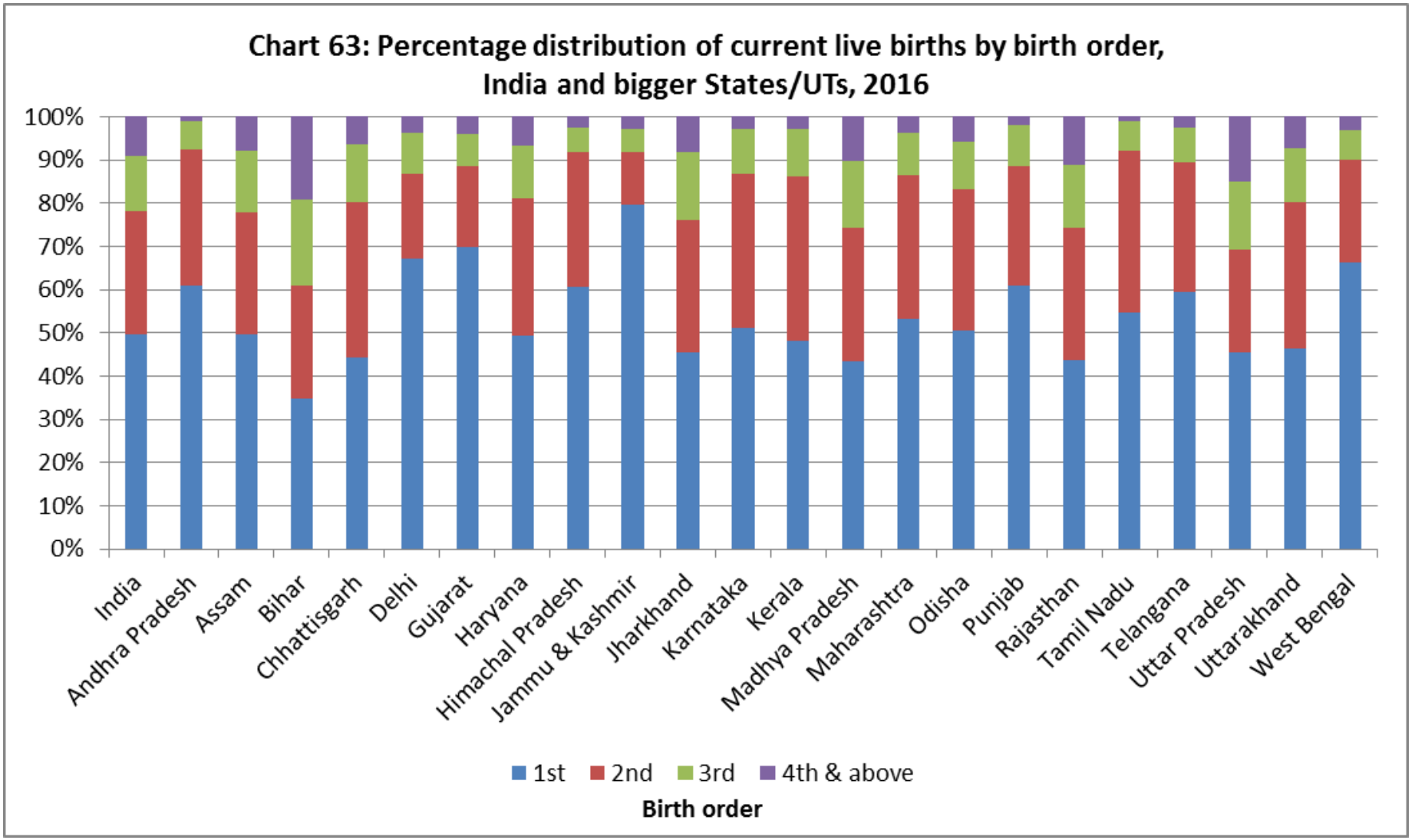


Chart 63: Percentage distribution of current live births by birth order, India and bigger States/UTs, 2016
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
1st
2nd
3rd
4th & above
Birth order

**3.33** Statement 36 below presents the percentage distribution of current live births by birth order and residence for India and bigger States/UTs. It may be observed that the percentage of current live births for 'first' and 'second' order taken together is generally higher for urban areas if compared to the rural areas for bigger States/UTs except Delhi, Himachal Pradesh, Jharkhand, Maharashtra, Punjab, Telangana and West Bengal. For 'third', 'fourth & above' order live births, the percentage contribution at National level is significantly higher in rural areas (24.4) compared to urban areas (15.0). Charts 64 and 65 depict the percentage distribution of current live births by birth order for rural and urban areas respectively.

**Statement 36**

**Percentage distribution of current live births by Birth Order and residence, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Birth order | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Rural | | | | Urban | | | |
| | 1st | 2nd | 3rd | 4th & above | 1st | 2nd | 3rd | 4th & above |
| **India** | **47.5** | **28.1** | **13.9** | **10.5** | **55.8** | **29.2** | **10.0** | **5.0** |
| Andhra Pradesh | 59.6 | 32.2 | 7.2 | 1.0 | 64.7 | 29.2 | 5.0 | 1.2 |
| Assam | 48.3 | 28.2 | 14.8 | 8.6 | 59.6 | 29.1 | 8.8 | 2.6 |
| Bihar | 33.9 | 26.1 | 20.3 | 19.7 | 41.1 | 27.6 | 17.8 | 13.5 |
| Chhattisgarh | 43.8 | 35.3 | 13.8 | 7.1 | 45.6 | 39.6 | 11.7 | 3.1 |
| Delhi | 65.5 | 26.5 | 6.0 | 2.0 | 67.1 | 19.4 | 9.5 | 3.9 |
| Gujarat | 66.7 | 19.4 | 8.3 | 5.5 | 74.7 | 17.7 | 5.5 | 2.1 |
| Haryana | 46.7 | 31.8 | 13.4 | 8.1 | 54.6 | 31.8 | 10.1 | 3.5 |
| Himachal Pradesh | 60.8 | 30.9 | 5.6 | 2.6 | 54.4 | 35.9 | 8.1 | 1.6 |
| Jammu & Kashmir | 77.0 | 13.5 | 6.0 | 3.5 | 88.0 | 7.9 | 3.9 | 0.2 |
| Jharkhand | 46.0 | 30.2 | 15.5 | 8.3 | 44.0 | 31.8 | 15.8 | 8.3 |
| Karnataka | 49.5 | 35.5 | 11.5 | 3.4 | 53.9 | 35.9 | 8.3 | 1.9 |
| Kerala | 47.4 | 37.7 | 11.8 | 3.2 | 48.9 | 38.6 | 10.2 | 2.3 |
| Madhya Pradesh | 41.3 | 31.3 | 16.1 | 11.3 | 50.9 | 30.1 | 12.5 | 6.4 |
| Maharashtra | 53.6 | 33.2 | 9.9 | 3.3 | 52.5 | 33.3 | 10.1 | 4.0 |
| Odisha | 49.8 | 32.8 | 11.4 | 6.1 | 56.9 | 30.5 | 8.9 | 3.7 |
| Punjab | 61.1 | 27.5 | 9.8 | 1.6 | 60.7 | 27.7 | 9.1 | 2.6 |
| Rajasthan | 43.1 | 30.4 | 14.8 | 11.7 | 45.1 | 31.5 | 14.3 | 9.1 |
| Tamil Nadu | 53.9 | 36.3 | 8.4 | 1.4 | 55.2 | 38.7 | 5.5 | 0.6 |
| Telangana | 59.4 | 30.0 | 8.0 | 2.7 | 59.4 | 30.0 | 8.0 | 2.7 |
| Uttar Pradesh | 43.4 | 23.4 | 16.6 | 16.6 | 52.9 | 25.8 | 12.5 | 8.8 |
| Uttarakhand | 44.8 | 34.9 | 12.6 | 7.7 | 50.1 | 31.3 | 12.1 | 6.5 |
| West Bengal | 66.2 | 24.8 | 6.6 | 2.4 | 66.0 | 21.6 | 7.2 | 5.2 |

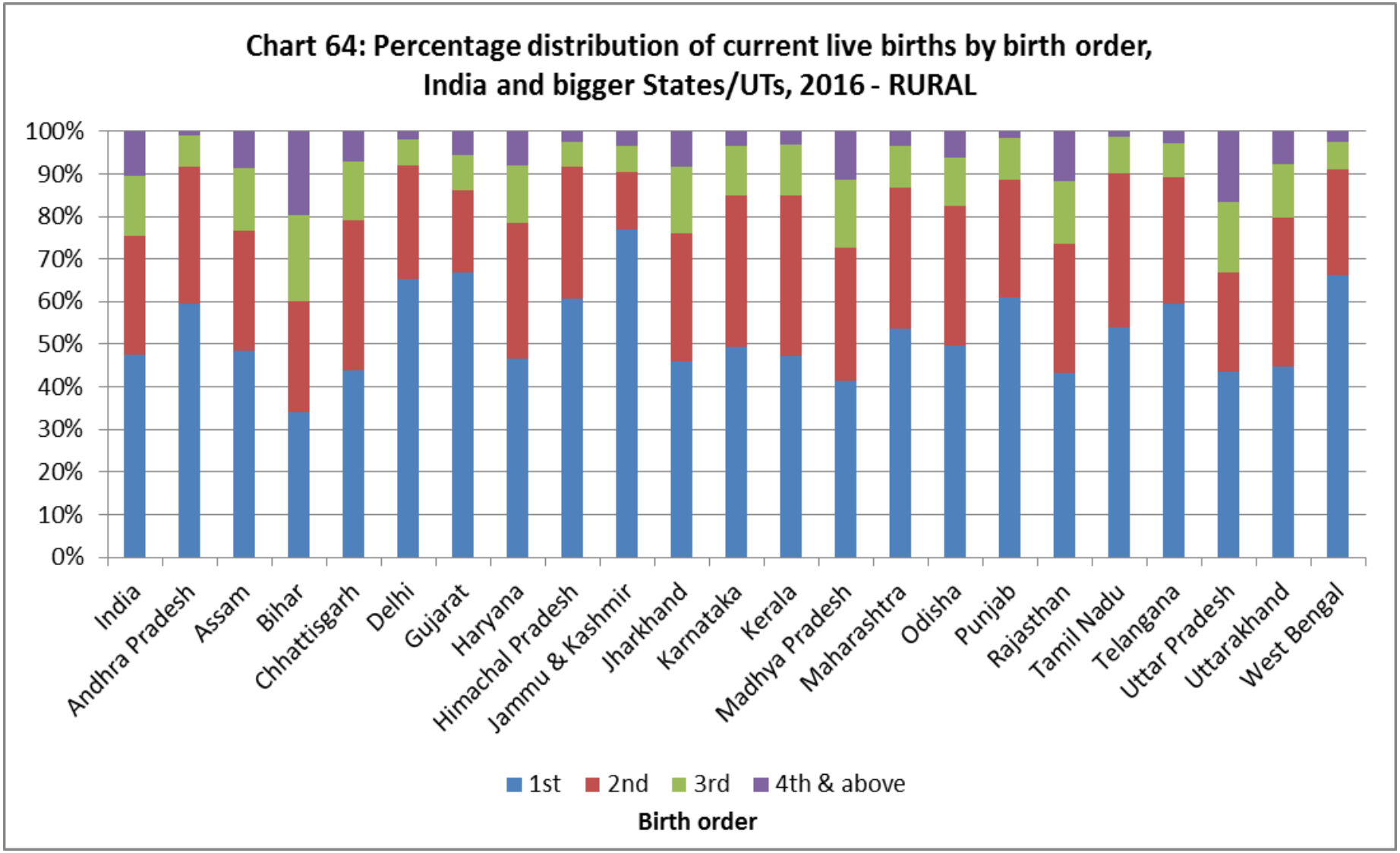


Chart 64: Percentage distribution of current live births by birth order, India and bigger States/UTs, 2016 - RURAL
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
1st
2nd
3rd
4th & above
Birth order

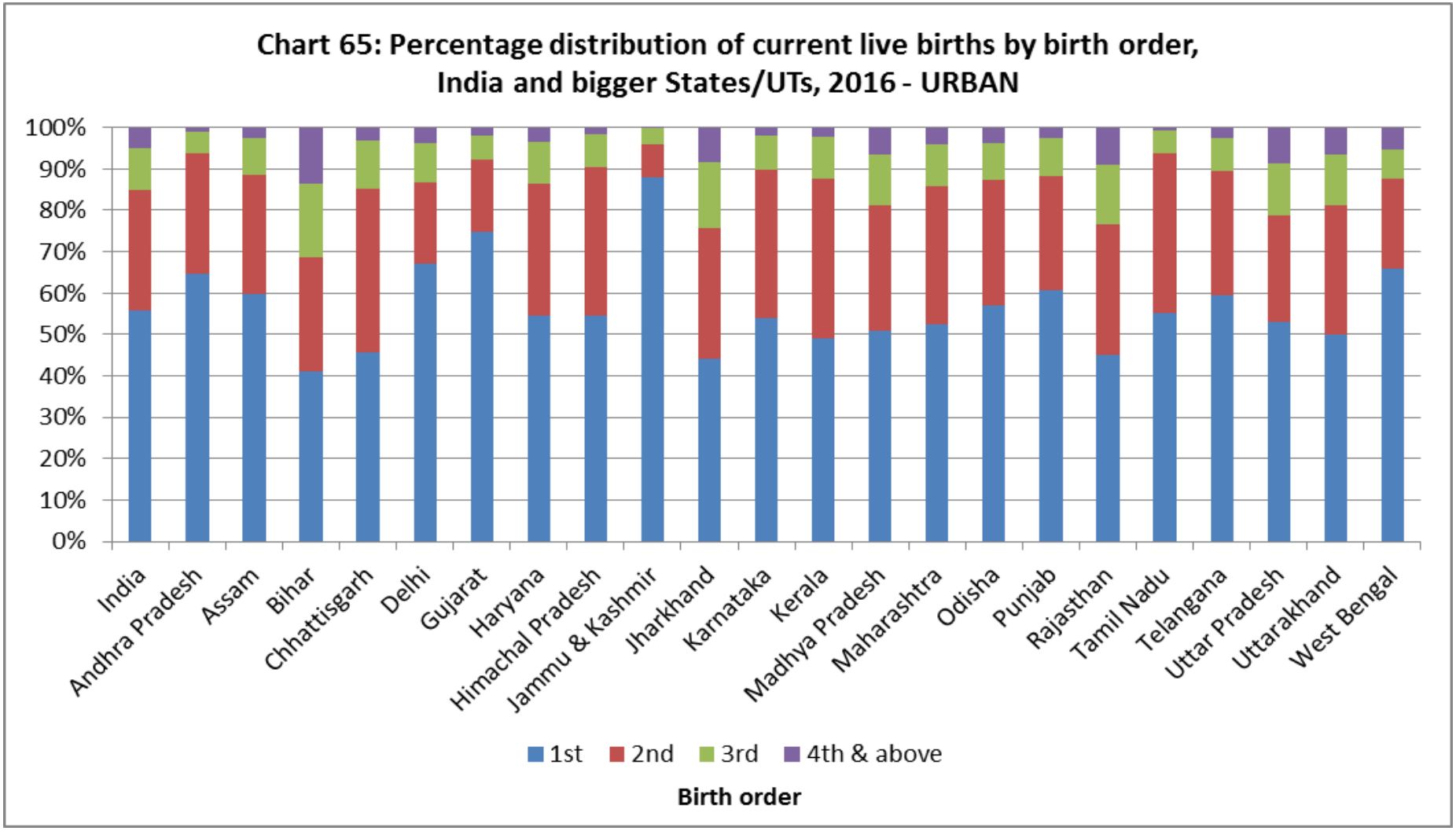


Chart 65: Percentage distribution of current live births by birth order, India and bigger States/UTs, 2016 - URBAN
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
1st
2nd
3rd
4th & above
Birth order

**Birth interval**

**3.34** The percentage distribution of second and higher order live births by interval between current and previous live birth is shown below in Statement 37 for India and bigger States/UTs for the year 2016. At the National level, 2.0 percent of the live births occur within one year from the previous live birth. Such percentage varies from 0.4 in Kerala to 3.6 in Delhi. The percentage of births beyond three years of birth interval from the previous live birth for India is 51.9. It varies from 44.4 in Bihar to 71.6 in Odisha. Chart 66 presents the percentage distribution of second and higher order live births by interval for India and bigger States/UTs.

**Statement 37**

**Percentage distribution of second and higher order live births by interval, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Interval between current and previous live birth ( in months) | | | |
|---|---|---|---|---|
| | 10-12 | 12-24 | 24-36 | 36+ |
| **India** | 2.0 | 21.8 | 24.3 | 51.9 |
| Andhra Pradesh | 1.9 | 21.6 | 29.2 | 47.3 |
| Assam | 2.5 | 14.0 | 17.4 | 66.1 |
| Bihar | 1.3 | 26.4 | 27.9 | 44.4 |
| Chhattisgarh | 1.0 | 18.2 | 29.8 | 51.0 |
| Delhi | 3.6 | 16.0 | 18.3 | 62.1 |
| Gujarat | 3.3 | 16.0 | 17.4 | 63.3 |
| Haryana | 2.1 | 19.8 | 26.1 | 51.9 |
| Himachal Pradesh | 1.7 | 19.1 | 22.1 | 57.1 |
| Jammu & Kashmir | 3.4 | 18.1 | 20.4 | 58.2 |
| Jharkhand | 1.2 | 22.4 | 25.5 | 50.9 |
| Karnataka | 0.7 | 24.1 | 28.0 | 47.3 |
| Kerala | 0.4 | 12.0 | 16.7 | 70.9 |
| Madhya Pradesh | 1.8 | 23.6 | 29.8 | 44.8 |
| Maharashtra | 1.7 | 23.1 | 24.8 | 50.3 |
| Odisha | 1.0 | 9.9 | 17.5 | 71.6 |
| Punjab | 2.1 | 21.1 | 25.8 | 51.0 |
| Rajasthan | 3.5 | 25.1 | 26.1 | 45.2 |
| Tamil Nadu | 1.0 | 19.3 | 23.9 | 55.8 |
| Telangana | 1.6 | 26.1 | 23.0 | 49.4 |
| Uttar Pradesh | 3.0 | 23.4 | 21.1 | 52.5 |
| Uttarakhand | 1.8 | 19.5 | 23.4 | 55.3 |
| West Bengal | 2.2 | 12.2 | 16.3 | 69.3 |

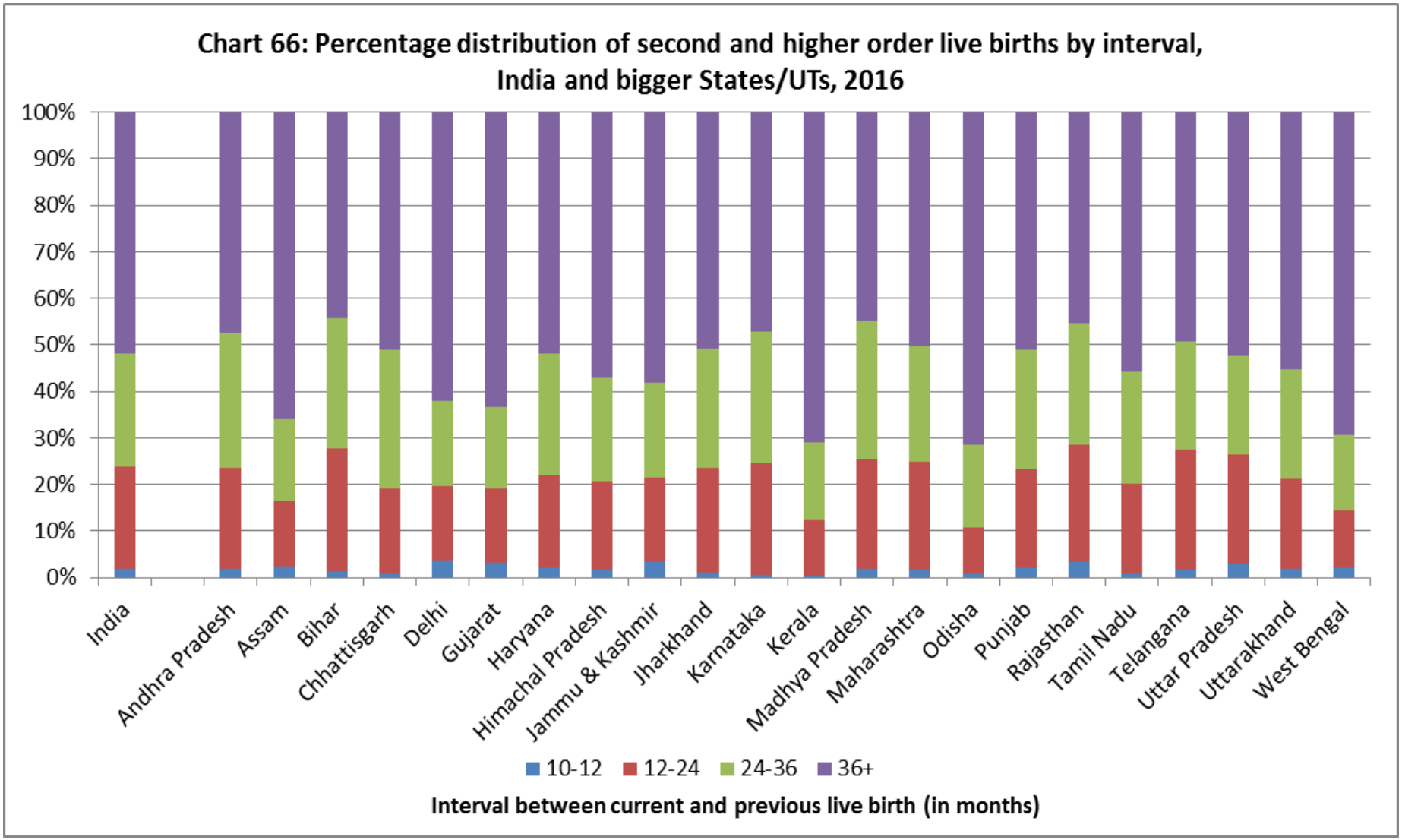


Chart 66: Percentage distribution of second and higher order live births by interval, India and bigger States/UTs, 2016
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
10-12
12-24
24-36
36+
Interval between current and previous live birth (in months)

**3.35** Statement 38 below presents the percentage distribution of second and higher order live births by interval between current and previous live birth separately for rural and urban areas. At the National level, 2.0 percent of live births have been reported within an interval of one year for rural areas and 1.8 percent in urban areas. More than 75 percent of births have birth interval of 24 and more months both in rural and urban areas. Charts 67 and 68 give the percentage distribution of second and higher order live births by interval for rural and urban areas respectively.

**Statement 38**

**Percentage distribution of second and higher order live births by interval and residence, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Interval between current and previous live birth ( in months) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Rural | | | | Urban | | | |
| | 10-12 | 12-24 | 24-36 | 36+ | 10-12 | 12-24 | 24-36 | 36+ |
| **India** | 2.0 | 22.7 | 25.2 | 50.1 | 1.8 | 18.7 | 20.9 | 58.5 |
| Andhra Pradesh | 1.9 | 22.3 | 29.3 | 46.4 | 1.7 | 19.1 | 28.4 | 50.8 |
| Assam | 2.6 | 14.5 | 17.8 | 65.1 | 0.7 | 9.4 | 13.3 | 76.6 |
| Bihar | 1.3 | 26.3 | 27.7 | 44.7 | 1.5 | 27.6 | 29.7 | 41.2 |
| Chhattisgarh | 0.9 | 18.6 | 30.1 | 50.4 | 1.2 | 16.7 | 28.5 | 53.6 |
| Delhi | 0.0 | 21.1 | 21.1 | 57.9 | 3.7 | 15.9 | 18.2 | 62.2 |
| Gujarat | 2.4 | 16.8 | 19.9 | 60.9 | 5.5 | 14.0 | 11.0 | 69.5 |
| Haryana | 2.5 | 22.9 | 27.8 | 46.8 | 1.4 | 14.0 | 23.0 | 61.6 |
| Himachal Pradesh | 1.9 | 19.5 | 22.6 | 56.0 | 0.0 | 13.1 | 14.2 | 72.8 |
| Jammu & Kashmir | 3.4 | 19.6 | 21.1 | 56.0 | 3.4 | 10.3 | 16.6 | 69.7 |
| Jharkhand | 1.1 | 24.4 | 26.0 | 48.6 | 1.3 | 14.8 | 23.9 | 60.0 |
| Karnataka | 0.7 | 25.1 | 30.0 | 44.2 | 0.5 | 22.2 | 24.2 | 53.1 |
| Kerala | 0.4 | 11.9 | 17.1 | 70.5 | 0.3 | 12.0 | 16.3 | 71.4 |
| Madhya Pradesh | 1.9 | 24.9 | 31.0 | 42.1 | 1.6 | 16.4 | 23.0 | 59.0 |
| Maharashtra | 1.8 | 26.3 | 26.9 | 44.9 | 1.6 | 17.6 | 21.0 | 59.8 |
| Odisha | 1.0 | 10.0 | 17.9 | 71.2 | 0.9 | 9.5 | 14.5 | 75.1 |
| Punjab | 1.7 | 19.5 | 30.0 | 48.8 | 2.8 | 23.4 | 19.8 | 54.1 |
| Rajasthan | 3.9 | 26.2 | 27.7 | 42.2 | 2.3 | 21.5 | 20.9 | 55.4 |
| Tamil Nadu | 1.3 | 21.7 | 28.3 | 48.8 | 0.6 | 16.6 | 18.9 | 63.8 |
| Telangana | 1.6 | 26.4 | 22.2 | 49.8 | 1.5 | 25.5 | 24.4 | 48.7 |
| Uttar Pradesh | 3.0 | 23.6 | 21.5 | 51.9 | 2.8 | 22.3 | 19.4 | 55.5 |
| Uttarakhand | 2.0 | 20.3 | 24.6 | 53.0 | 1.1 | 17.0 | 19.4 | 62.6 |
| West Bengal | 2.5 | 12.0 | 16.9 | 68.5 | 1.4 | 12.7 | 14.3 | 71.6 |

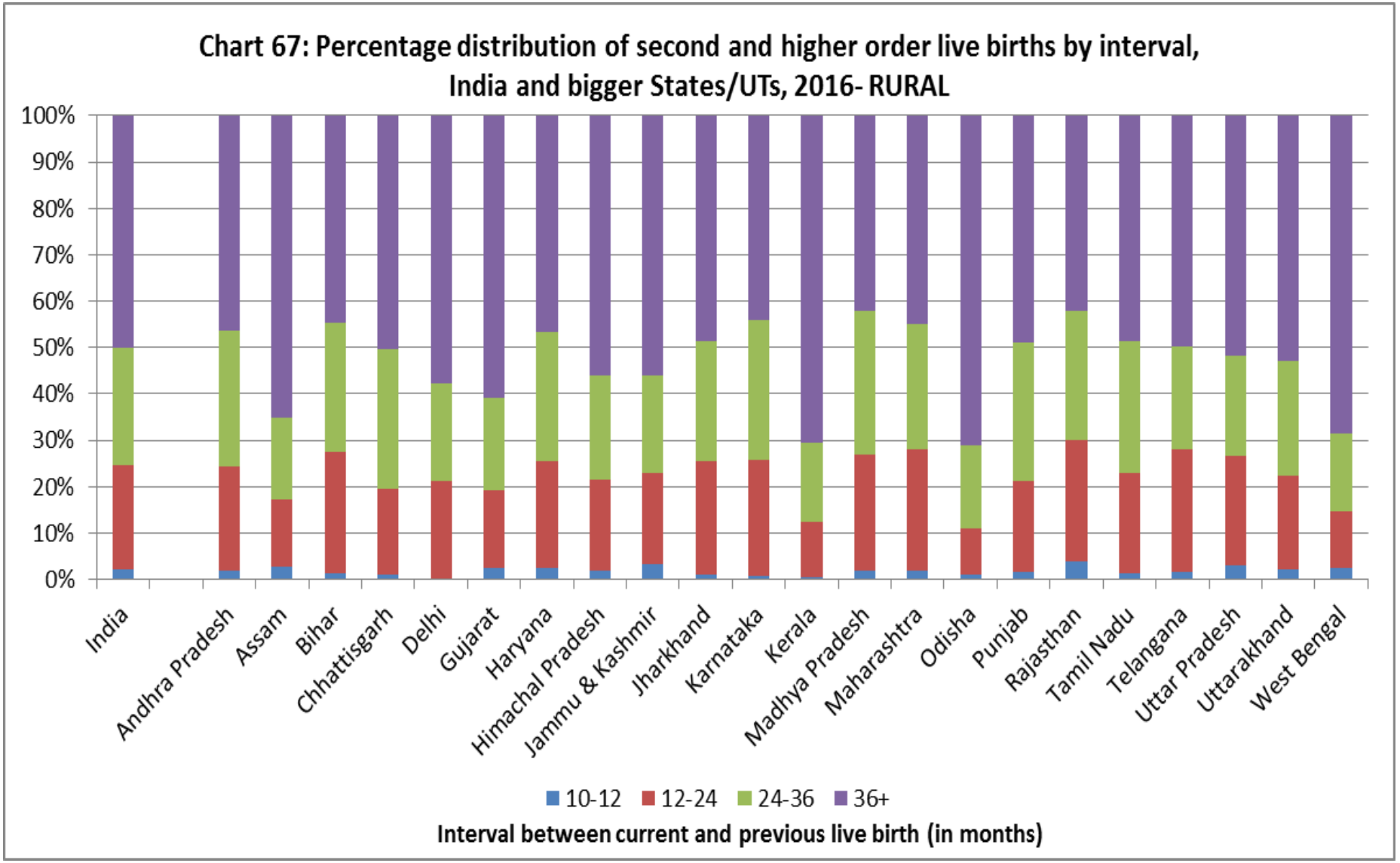


Chart 67: Percentage distribution of second and higher order live births by interval, India and bigger States/UTs, 2016- RURAL
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
10-12
12-24
24-36
36+
Interval between current and previous live birth (in months)

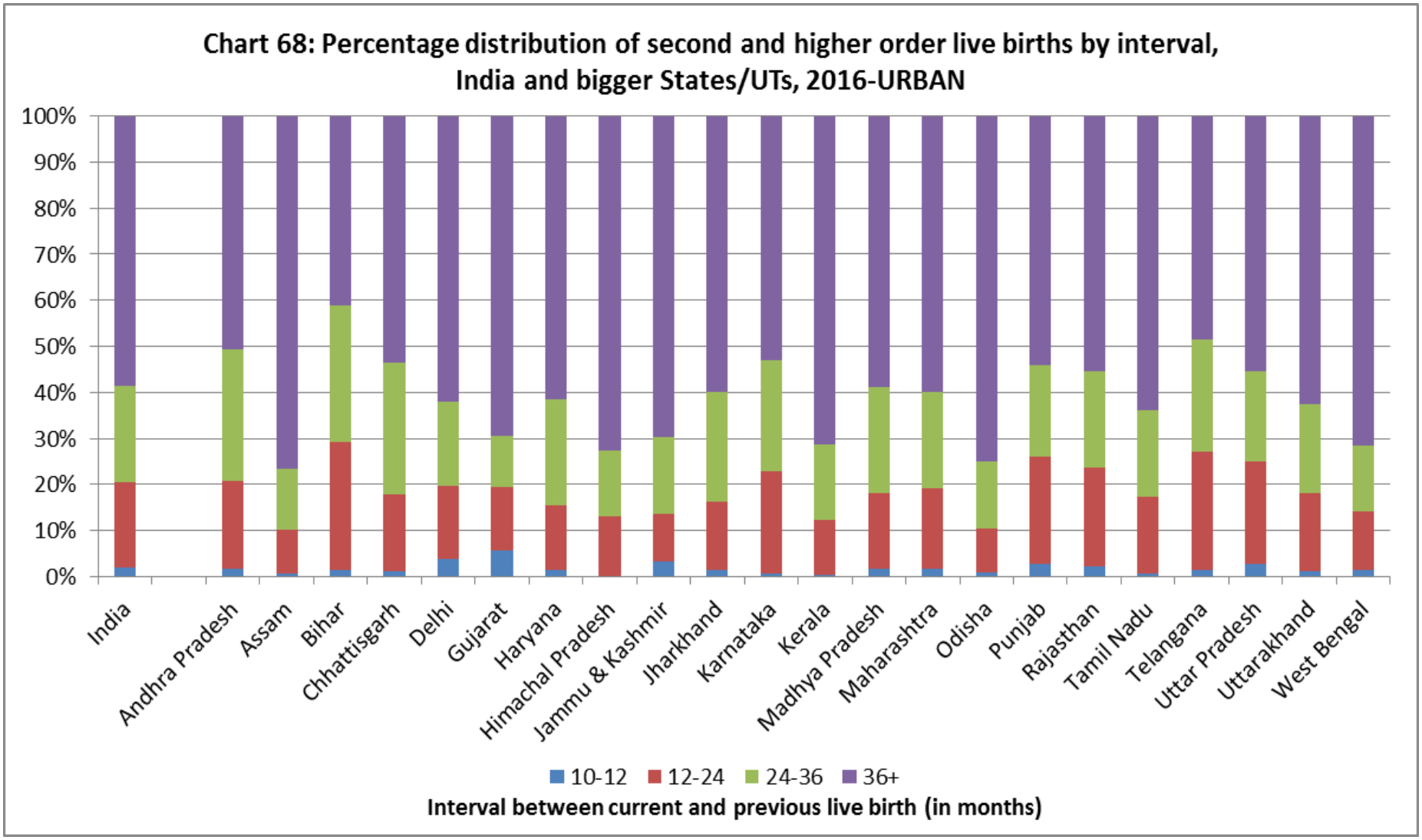


Chart 68: Percentage distribution of second and higher order live births by interval, India and bigger States/UTs, 2016-URBAN
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
India
Andhra Pradesh
Assam
Bihar
Chhattisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & Kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
10-12
12-24
24-36
36+
Interval between current and previous live birth (in months)

## Medical attention at delivery

**3.36** While recording details of every outcome of pregnancy during continuous enumeration and half yearly survey, the enumerators and supervisors are required to enquire about the type of medical attention received by the mother at the time of delivery/abortion of the new born. From 2004 onwards, the options on types of medical attention received by the mother at delivery have been modified to capture the deliveries specifically at private hospital/nursing homes. The new options include 'Government Hospital', 'Private Hospital', 'Qualified professional', 'Untrained functionary and others' in comparison to 'Institutional'; 'Doctor, Nurse or trained midwife'; 'Traditional birth attendants'; and 'relatives or others' adopted till 1991 SRS sample. Statement 39 below gives the percentage distribution of live births recorded in the year 2016 by type of medical attention received by the mother at the time of delivery for India and bigger States/UTs separately by rural and urban areas. At the National level, 53.4 percent births were attended by Government Hospitals and vary from 52.5 percent in rural areas to 56.1 percent in urban areas. Among the bigger States/UTs, it varies from 38.3 percent in Jharkhand to 70.3 percent in Rajasthan. About 27.4 percent of births occurred at Private Hospital. Medical attention by qualified professionals constitutes 10.3 percent of total deliveries whereas untrained and others constitute 8.9 percent. More than three fourth of deliveries are occurring in institutions and conducted by the qualified professional. Charts 69, 70 and 71 depict the percentage distribution of live births by type of Medical Attention received by the mother for Total, Rural and Urban areas respectively.

**Statement 39**

**Percentage distribution of live births by type of Medical Attention received by the mother at delivery by residence, India and bigger States/UTs, 2016**

| India and bigger States/UTs | Govt. Hospital | | | Private Hospital | | | Qualified professional | | | Untrained functionary and others | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban |
| **India** | **53.4** | **52.5** | **56.1** | **27.4** | **23.6** | **38.1** | **10.3** | **12.2** | **4.8** | **8.9** | **11.7** | **1.0** |
| Andhra Pradesh | 52.9 | 55.6 | 45.7 | 43.6 | 39.7 | 54.0 | 3.3 | 4.4 | 0.2 | 0.2 | 0.2 | 0.1 |
| Assam | 53.6 | 52.5 | 63.6 | 27.5 | 27.0 | 31.7 | 13.0 | 14.0 | 4.4 | 5.9 | 6.5 | 0.2 |
| Bihar | 44.3 | 43.5 | 51.4 | 23.6 | 21.9 | 38.6 | 10.5 | 10.8 | 7.7 | 21.5 | 23.7 | 2.3 |
| Chhattisgarh | 49.0 | 46.0 | 60.8 | 26.5 | 26.2 | 27.8 | 18.2 | 20.2 | 10.2 | 6.3 | 7.6 | 1.2 |
| Delhi | 63.6 | 64.4 | 63.6 | 31.2 | 29.4 | 31.2 | 4.8 | 5.2 | 4.8 | 0.3 | 1.0 | 0.3 |
| Gujarat | 46.0 | 47.4 | 44.0 | 47.4 | 42.0 | 55.5 | 5.6 | 9.1 | 0.5 | 0.9 | 1.6 | 0.0 |
| Haryana | 43.1 | 44.9 | 39.2 | 40.5 | 37.0 | 48.1 | 14.8 | 16.2 | 11.7 | 1.6 | 1.9 | 1.0 |
| Himachal Pradesh | 59.4 | 58.2 | 80.6 | 17.3 | 17.4 | 15.2 | 17.8 | 18.6 | 3.6 | 5.5 | 5.7 | 0.6 |
| Jammu & Kashmir | 68.9 | 64.7 | 81.3 | 17.9 | 18.7 | 15.7 | 6.8 | 8.1 | 2.8 | 6.3 | 8.4 | 0.2 |
| Jharkhand | 38.3 | 36.5 | 51.9 | 21.0 | 18.6 | 38.4 | 16.8 | 18.5 | 3.8 | 23.9 | 26.4 | 6.0 |
| Karnataka | 66.0 | 69.4 | 60.8 | 31.1 | 25.9 | 38.8 | 2.1 | 3.4 | 0.2 | 0.8 | 1.2 | 0.2 |
| Kerala | 44.3 | 50.1 | 38.9 | 55.4 | 49.6 | 60.8 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 |
| Madhya Pradesh | 56.3 | 52.2 | 70.3 | 25.4 | 25.0 | 26.7 | 10.4 | 12.8 | 2.4 | 7.9 | 10.0 | 0.6 |
| Maharashtra | 55.4 | 54.0 | 57.4 | 40.8 | 40.0 | 42.0 | 3.0 | 4.8 | 0.4 | 0.8 | 1.2 | 0.2 |
| Odisha | 62.4 | 61.2 | 70.5 | 17.3 | 16.5 | 22.8 | 9.8 | 10.4 | 6.0 | 10.4 | 11.9 | 0.7 |
| Punjab | 39.2 | 39.3 | 39.1 | 49.1 | 45.1 | 55.1 | 10.9 | 14.4 | 5.5 | 0.8 | 1.1 | 0.3 |
| Rajasthan | 70.3 | 69.7 | 72.3 | 17.3 | 16.2 | 21.1 | 10.6 | 11.8 | 6.3 | 1.9 | 2.3 | 0.3 |
| Tamil Nadu | 61.3 | 65.1 | 57.5 | 34.2 | 26.3 | 42.1 | 4.2 | 8.1 | 0.3 | 0.3 | 0.5 | 0.1 |
| Telangana | 49.4 | 52.1 | 44.7 | 44.0 | 39.3 | 51.9 | 3.6 | 5.2 | 0.9 | 3.1 | 3.4 | 2.5 |
| Uttar Pradesh | 47.4 | 46.8 | 49.8 | 18.6 | 15.5 | 31.1 | 19.1 | 19.6 | 17.0 | 15.0 | 18.1 | 2.1 |
| Uttarakhand | 51.0 | 52.7 | 46.3 | 20.8 | 16.7 | 32.3 | 18.9 | 19.9 | 15.9 | 9.3 | 10.7 | 5.5 |
| West Bengal | 67.4 | 67.5 | 67.1 | 17.4 | 14.2 | 26.9 | 6.7 | 7.7 | 3.9 | 8.5 | 10.7 | 2.0 |

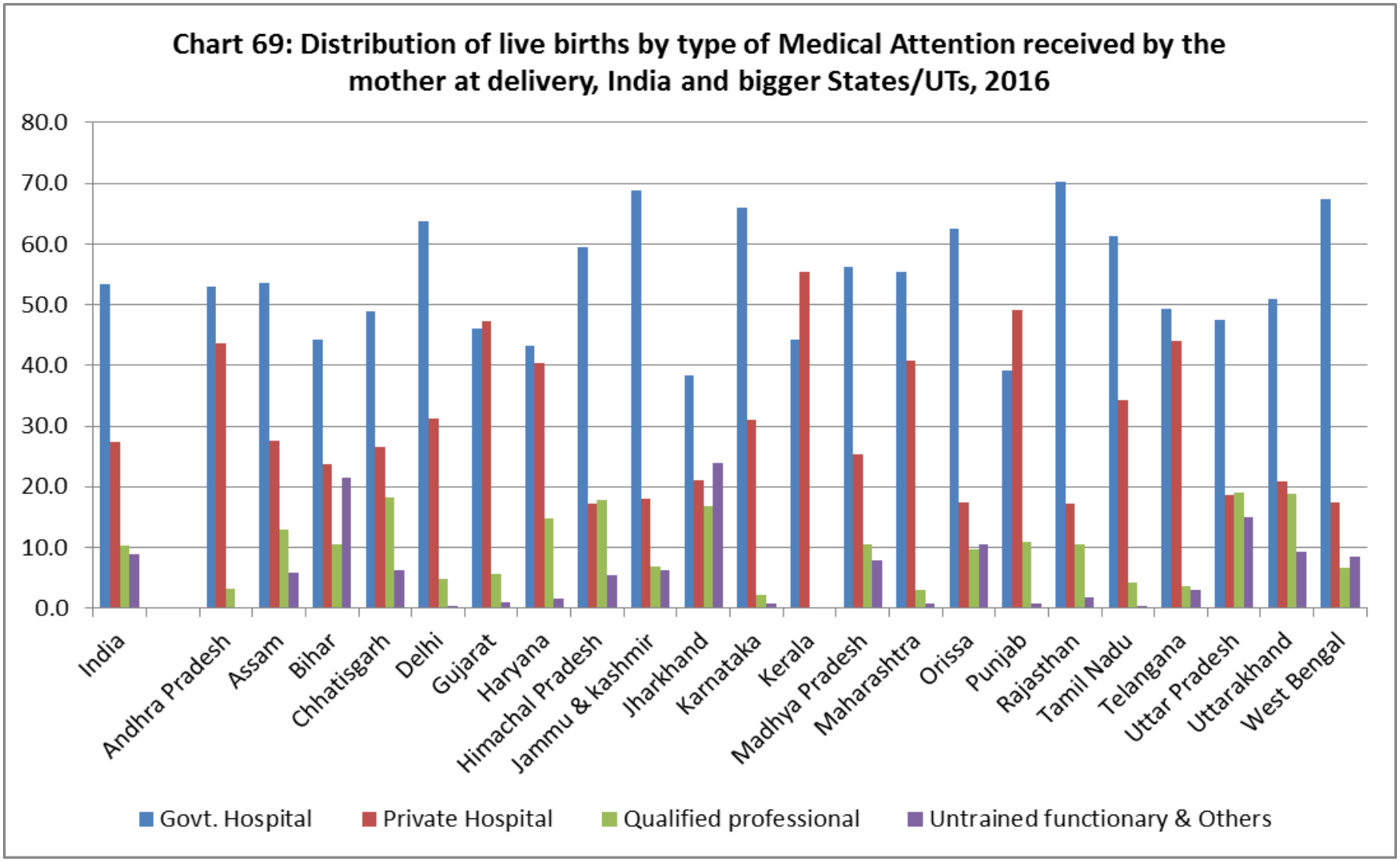


Chart 69: Distribution of live births by type of Medical Attention received by the mother at delivery, India and bigger States/UTs, 2016
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhatisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Orissa
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
Govt. Hospital
Private Hospital
Qualified professional
Untrained functionary & Others

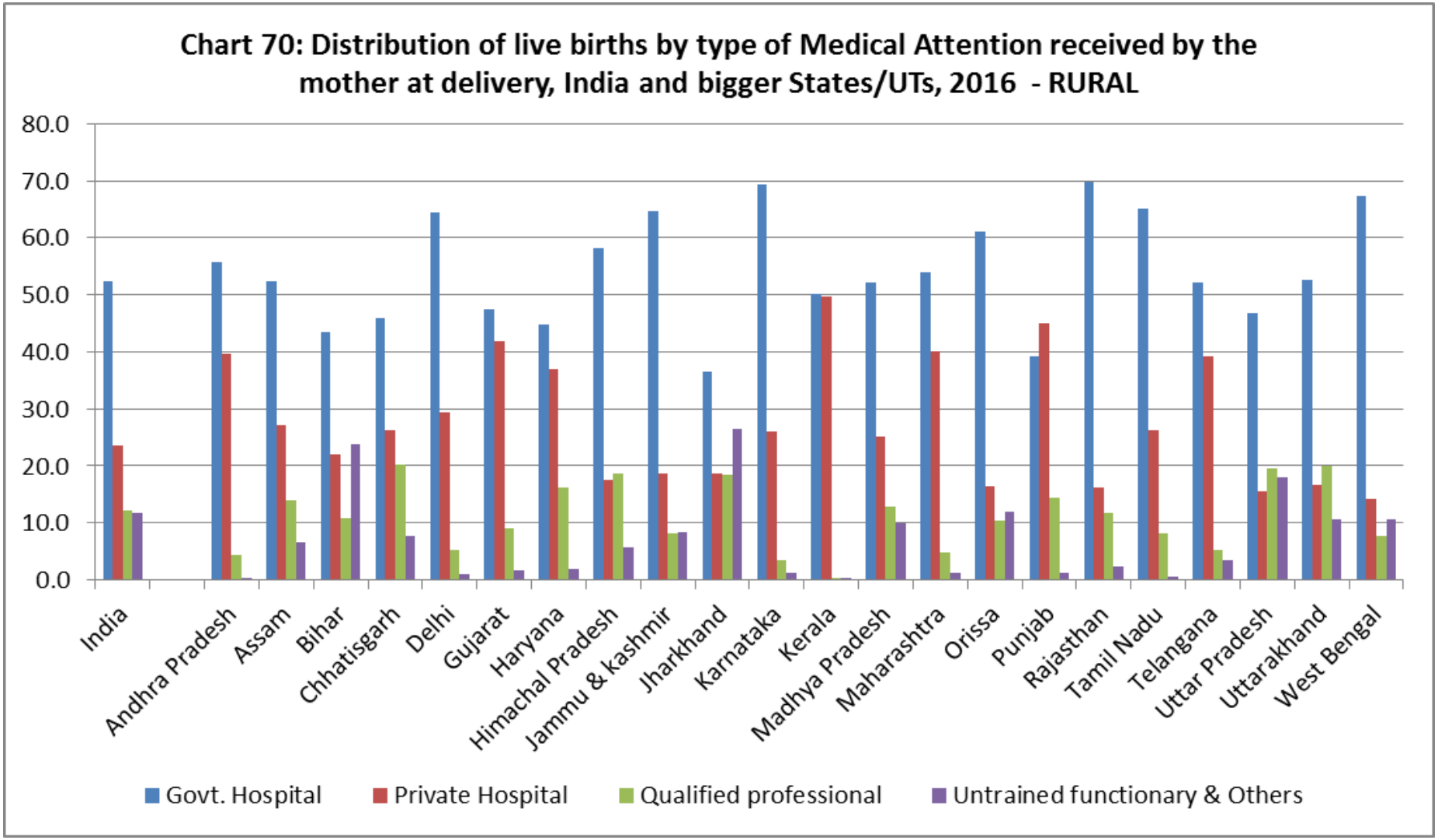


Chart 70: Distribution of live births by type of Medical Attention received by the mother at delivery, India and bigger States/UTs, 2016 - RURAL
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
India
Andhra Pradesh
Assam
Bihar
Chhatisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Orissa
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
Govt. Hospital
Private Hospital
Qualified professional
Untrained functionary & Others

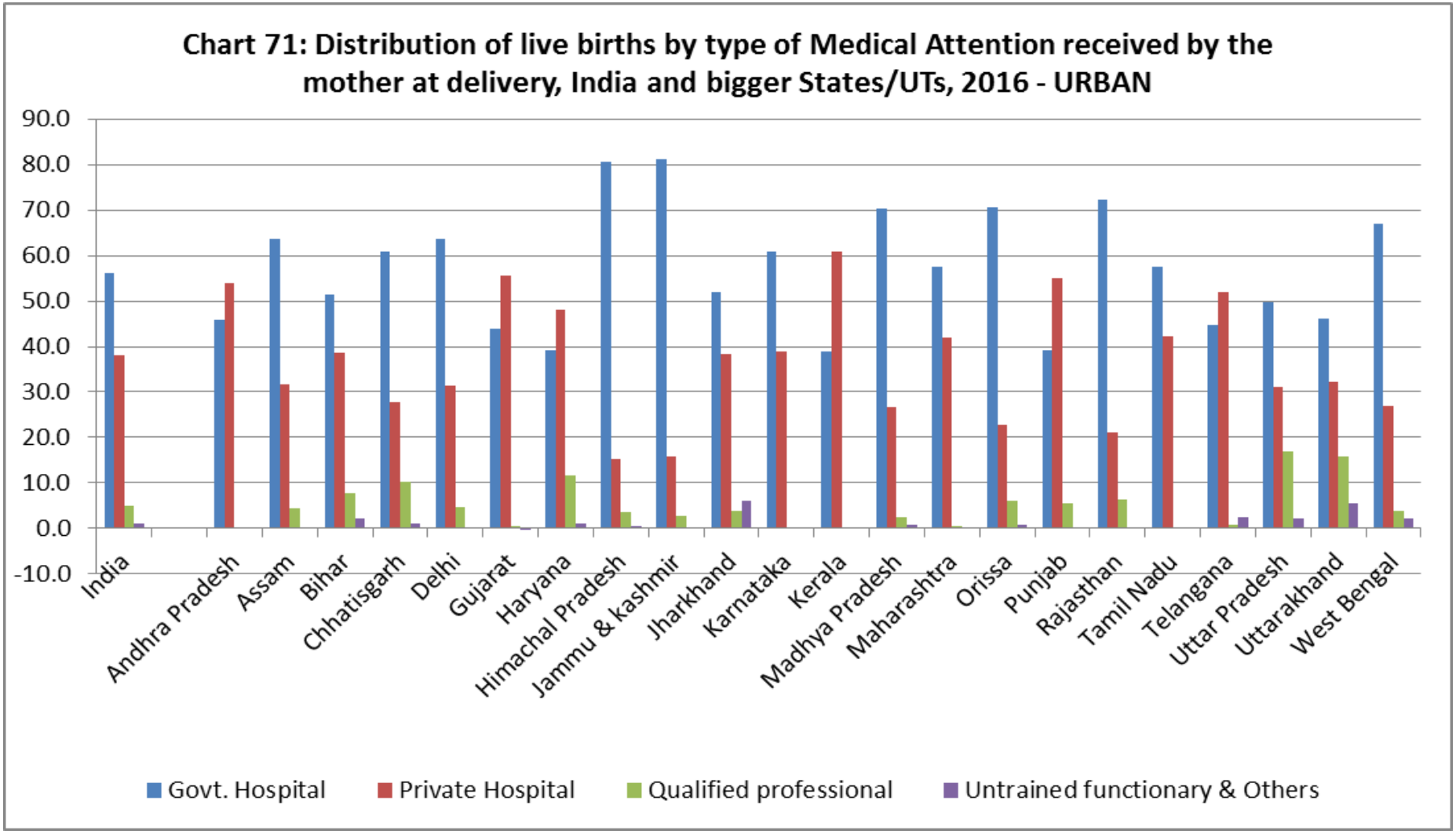


Chart 71: Distribution of live births by type of Medical Attention received by the mother at delivery, India and bigger States/UTs, 2016 - URBAN
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
-10.0
India
Andhra Pradesh
Assam
Bihar
Chhatisgarh
Delhi
Gujarat
Haryana
Himachal Pradesh
Jammu & kashmir
Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Orissa
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
Govt. Hospital
Private Hospital
Qualified professional
Untrained functionary & Others