Health Status of Indian Women: Evidence from World Health Survey Data

Introduction

Health is regarded as the most crucial aspect of human well being. The health status of a population is an important indicator reflecting social and economic development as well as the quality of human life. Improving the health of the general population as well as that of specific groups (infants, women etc.) has for long been an important concern for development. The role of women in the developmental process assumes great significance, as they constitute a substantial portion of the population. They play a variety of roles both within the household as well as outside the household, most of which often go unacknowledged. The woman's ability to perform these roles, as also her quality of life, is determined by the health status she enjoys (Nandraj et al., 2001).

According to WHO (1992), "the right to health is the most basic of all human rights". The constitution of the WHO asserts that: "The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition." It means that every human being has the right to live in an environment with minimum health risks and to have access to health services that can prevent or alleviate their suffering, treat disease, and help maintain and promote good health throughout the individual's life. However, in developing nations as well as in the developed world, many women are being denied this basic human right.

Although women generally live longer worldwide but they are more likely than men to experience poor health (World Bank, 1996). Good health and well-being continue to elude most women. It is a well-established truth that women face a host of problems throughout their life cycle which are not only related to physiological changes, but also to their nature of work and working conditions, their low status in the family and the society; and gender discrimination due to social, cultural and economic factors operating inside and outside the home. But still, women's health is probably one of the most inadequately researched areas in international public health. A major flaw in past efforts has been an almost exclusive focus on women as mothers and child-care givers rather than on women themselves as a target population of interest. In India also, the health status of women is an area, which so far has received inadequate attention. In most of the programs for women in India the underlying reason has always been demographic

India has made considerable progress in social and economic development in recent decades, as improvements in indicators such as life expectancy, infant mortality, and literacy demonstrate (World Bank, 1996). However, improvements in women's health have lagged behind gains in other areas. The poor health of Indian women is a concern on both national and individual levels. There have been number of studies on morbidity which focuses on the measurement issues such as problems of definition, choice of reference period, data collection methodology, recall bias and the perception and cultural influences which affect the reporting of morbidity. However, there are not many studies that have examined the health status of women like what they feel about their health?

Health status is multidimensional in nature and difficult to measure preciously. It is widely recognized that health reflected the combination of an array of factors that include physical, mental and social well-being, genotype and phenotype influences as well as expectations and information.

Clinical trials and national surveys rely heavily on self-reported measures of health, but interpretation of these measures is complicated by incomparability when different people understand and respond to a given question in different ways. Anchoring vignettes are a new component of survey instruments that can improve the comparability of self reported measures (Salomon et al., 2004). A vignette is a description of a concrete level of ability on a given domain that individuals are asked to evaluate using the same question and response scale as the self-report question on that domain.

Salomon, et al. (2004) examine the differences in expectations for health using anchoring vignettes, in six countries namely, China, Myanmar, Sri Lanka, Pakistan, Turkey and United Arab Emirates by using the data of World Health Survey. In their study they focus on the health domain of mobility and examined distributions of self-assessments and vignette ratings for the two mobility items in the survey. The health module included a self-assessment component consists of two questions pertaining to domain of mobility, along with 15 different anchoring vignettes. Finally, in the results they found the consistency in the ranking of vignettes, which indicates that vignettes are understood in similar ways in different settings, and internal consistency of orderings on two mobility questions indicates good comprehension. Variation in vignette ratings across age groups suggests that expectations for mobility decline with age.

Keeping in view the above information, the main aim of the present study is to examine the health status of women by background characteristics in India and its six states.

Data and Methodology

Data from World Health Survey (WHS), conducted in 2003 has been used for this study. The survey gives information related to health expenditure, health insurance, human resources for health, socio-demographics, health states of population, risk factors, mortality, morbidity prevalence both communicable and non-communicable, health system responsiveness for in-patient and out-patient care and social capital, for six states namely Assam, West Bengal, Karnataka, Maharashtra, Rajasthan and Uttar Pradesh. The selection of states was done in WHO survey by considering their geographic location and level of development. A total of 10279 household interviews were completed in six states and information on individual health modules was collected from 9994 individual respondents, among which 5145 respondents were females.

Selection of variables - In the present analysis, the health state is taken as dependent variable and independent variables taken in this study are place of residence, age-group, educational status and income tercile.

Health State Valuation – 'Health in general' and two major domains of health, which were considered in the study, are 'mobility' and 'pain and discomfort'. 'Health in general' is the women's health on the day of the survey rated as very good, good, moderate, bad and very bad which are reclassified as good, moderate and bad in this study. Difficulty in mobility and pain and discomfort (as rated 30 days prior to survey), has been classified on a five-point scale as none, mild, moderate, severe and extreme, which are also reclassified on a three-point scale as none, moderate and extreme.

The analysis of health state of women has been done in three parts.

1) To study the differentials in self-reporting for different domains of health by states and background characteristics bivariate analysis has been used for this. Multinomial logistic regression analysis has also been used to assess the rating of 'general health' and two major domains of health- 'difficulty in mobility' and 'pain and discomfort' in which dependent variable is of multiple responses. 'Health in general' has three categories i.e. good, moderate and bad. The effect of background characteristics had examined on multiple response category variables. The basic assumption of multinomial logistic regression model that should be strictly fulfilled is that the categories of the response variable should be mutually exclusive i.e. a sample member must fall in one and only one of the categories. The above assumption is fulfilled in the analyses.

2) To see the agreement between the ratings of 'general health' with ratings of two major domains of health-'mobility', and 'pain and discomfort'. kappa index has been used to see the agreement. Cohen (1960) has devised a measure, the kappa (k) statistic, specifically to determine the overall level of agreement between ratings using nominal scales or categories, while correcting for the proportion of agreement expected by chance. The formula for this statistic is:

$$K = \frac{P_o - P_c}{1 - P_c}$$

Where

P_o = the proportion of units in which there is agreement between the ratings, and
P_c = the proportion of units for which agreement is expected by chance.

The numerator of *k* represents the proportion of units in which agreement occurred beyond what would be expected by chance alone, and the denominator represents the maximum proportion agreement not attributable to chance. Kappa has a range from 0-1.

Kappa Index	**Agreement**
< 0.00	Less than chance
0.00-0.20	Slight
0.20-0.40	Fair
0.40-0.60	Moderates
0.60-0.80	Substantial
0.80-1.0	Almost perfect

3) To compare the rating of self-reporting for two major domains of health with rating for the same domain by using vignettes. Since WHS also focused on Vignette linked questions, an innovative attempt has been made to compare the response of vignettes with self-reporting among women in India by using bivariate analysis.

Findings

Differentials in rating of general health and two major domains of health

A. General health

General health rating is the rating of health by the women on the day of the survey as very good, good, moderate, bad and very bad. In this study we have reclassified the rating on a three-point scale as- good, moderate and bad to ensure sufficient cell frequencies.

Table 1.1 and figure 1.1 presents the health rating of the women amongst the six states and the pooled data for India. Overall in India, the highest proportion of 53 percent women rated themselves to be in good health followed by 28 percent in moderate health and 19 percent in a bad health state. Among the states, the highest 81 percent of women in Karnataka rated themselves to be in good health whereas West Bengal shares the lowest proportion of women rating themselves to be in good health. About 40 percent women in Maharashtra have rated themselves to be in moderate health followed by 37 percent in West Bengal compared to 13 percent in Karnataka. Conversely, the highest percent of women in West Bengal rated themselves to be in bad health and Karnataka has the lowest proportion of women who rated themselves to be in bad health.

Table 1.2 and figure 1.2 shows the percentage distribution of women rating of their general health status by background characteristics in India. A greater proportion of women in urban areas (58 percent) rated themselves to be in good health compared to women in rural areas (52 percent). However, the proportion of women who rated themselves to be in moderate and bad health is higher in rural areas compared to urban areas. The proportion of women who rated themselves to be in good health declines with increasing age. Women reported to be in good health in the ages less than 35 (67 percent) is about three times higher than the women in the ages 60 and above (24 percent). Conversely, the proportion of women who reported bad health increases with age. The proportion of respondents who rated themselves to be in bad health is about four times higher in the ages 60 and above compared to those in the younger ages less than 35. The percentage of women who rated themselves to be in good health is quite higher among those who had completed their secondary education and above (71 percent) compared to those women who had no formal schooling (47 percent). On the other hand, the percentage of women who rated themselves to be in moderate health is highest among the women who had completed their education up to primary. Women who reported to be in bad health state is about four times higher for those who had no formal schooling compared to those who had completed their secondary education and above. The percentage of women who rated themselves to be in good health is positively associated with income. The proportion of women who reported to be in bad health is higher (25 percent) at the lowest income tercile compared to higher income tercile (15 percent).

The adjusted percentage for rating of general health among women in India by using multinomial logistic regression analysis is shown in table 1.3. The result of multinomial logistic regression support the results obtained from bivariate analysis that higher percentage of urban women reported themselves to be in good health whereas more rural women reported themselves to be in moderate health. Age-wise differentials exist in reporting of health. As the age of women increases, the reporting of good health by the women had decreases. A higher percentage of women who had completed their secondary education and above reported themselves to be in good health compared to those women who had no formal schooling. Women belong to higher income tercile had more reported themselves to be in good health whereas women belong to middle income tercile had more reported themselves to be in moderate health. A higher percentage of women belong to lowest income tercile had reported themselves to be in bad health. Among the states, Karnataka has highest percentage of women reported themselves to be in good health whereas West Bengal has lowest percentage of women who reported themselves to be in good health. In Maharashtra more women reported themselves to be in moderate health whereas more women in West Bengal had reported themselves to be in bad health.

B. Mobility

The health state module of the World Health Survey asked two questions on mobility: 1) difficulties in moving around 2) difficulties in engaging in vigorous activities. The first question was asked to know whether respondents generally face any difficulty in moving in and around their house. By difficulty it means increased effort, discomfort or pain, slowness or changes in the way they do a particular activity. Moving around refers to the use of assistive services or personal help in moving around inside the house, from room to room and within rooms and outside the house. For this section, these two questions have been combined and the ratings are reclassified on a three-point scale as- no difficulty, moderate difficulty and extreme difficulty.

Table 1.4 and figure 1.3 presents the percent distribution of women rating of their difficulty in mobility in six states and in India. The results show that overall in India, 56 percent of women do not have any difficulty in mobility whereas 29 percent have reported moderate difficulty and 15 percent of women have reported extreme difficulty. Sharp inter state variations have been found in women's ratings of their difficulties in mobility. About 84 percent of women in Karnataka having no difficulty in mobility followed by 72 percent in Assam whereas in Maharashtra only 40 percent of women reported no difficulty in mobility. The higher proportion of women in Maharashtra reporting moderate difficulty in mobility compared to Karnataka. About 21 percent of women in Uttar Pradesh rated themselves with extreme difficulty in mobility whereas only five percent of women reported extreme difficulty in Karnataka.

Table 1.5 and figure 1.4 provides the results on distribution of women rating difficulty in mobility according to their background characteristics in India. A greater percentage of urban women reported that they do not have any difficulty in mobility whereas a higher percentage of rural women have reported moderate and extreme difficulty in mobility. The percentage of women with no difficulty in mobility decreases with increasing age and vice versa for those

with difficulties. The proportion of women with no difficulty in mobility is higher in the ages less than 35 (69 percent) compared to those aged 60 and above (29 percent). It has also been observed from table 1.5 that as the educational level of women increases the proportion of women having no difficulty in mobility also increases. In other words, the percentage of women reporting extreme difficulty in mobility was found to decline with higher levels of education. About 19 percent of women reporting extreme difficulty that had no formal schooling compared to those who had completed their secondary education and above (seven percent). More women of lower income terciles reported moderate and extreme difficulty in mobility compared to women of highest income terciles. About 59 percent of women in the highest income terciles reported no difficulty compared to 53 percent at the lowest income terciles.

Table 1.6 shows the adjusted percentage for rating of difficulty in mobility among women in India by using multinomial logistic regression analysis. The result of multinomial logistic regression shows that higher percentage of urban women reported no difficulty in mobility whereas more rural women reported moderate difficulty in mobility. As the age of women increases, the reporting of no difficulty in mobility by the women had decreases. A higher percentage of women who had completed their secondary education and above reported no difficulty in mobility whereas higher proportion of women who had no formal schooling had reported extreme difficulty in mobility. The higher percent of women belong to middle income tercile had reported extreme difficulty in mobility whereas least percentage of women belong to higher income tercile had reported extreme difficulty in mobility. Among the states, Karnataka has highest percentage of women reported no difficulty in mobility whereas Maharashtra has lowest percentage of women who reported no difficulty in mobility. In Maharashtra more women reported themselves moderate difficulty whereas more women in Uttar Pradesh had reported extreme difficulty in mobility in last 30 days.

C. Pain and Discomfort

The World Health Survey in six states of India assessed the extent of pain and discomfort reported by the respondents. The health state module contains two questions on pain and discomfort: 1) extent of bodily aches or pain in the body of the adult respondents and 2) extent of bodily discomfort. The reference here is to the difficulties that interfere with usual activities either for a short or long period of time. For this section, these two questions of pain and discomfort have been combined and ratings are converted into a three-point scale as- no pain and discomfort, moderate pain and discomfort and extreme pain and discomfort.

Table 1.7 and figure 1.5 presents the percent distribution of women rating ‘pain and discomfort’ in six states and India. The results found that overall in India, 58 percent of women reported no bodily pain and discomfort. Twenty-five percent of women reported moderate pain and discomfort and 17 percent reported extreme pain and discomfort. Among the states, a higher percentage of women in Karnataka (79 percent) and Assam (71 percent) reported no bodily pain and discomfort. Maharashtra has the lowest proportion of women with no bodily pain and discomfort. More than two-thirds of women in Maharashtra have reported moderate and extreme pain and discomfort, which is the highest prevalence among the six states.

Table 1.8 and figure 1.6 shows the proportion of women reported bodily pain and discomfort according to their background characteristics in India. About 60 percent of urban women and 57 percent of rural women do not have any bodily pain and discomfort. However, no significant rural-urban differences are reported in the proportion of women having moderate pain and discomfort but the percentage of women reporting extreme pain and discomfort are greater in rural areas. Expectedly, the reported prevalence of no bodily pain and discomfort significantly decreases with age of the women. The percentage of women who reported no bodily pain and discomfort is about twice higher in the ages less than 35 (71 percent) compared to those in the ages 60 and above (35 percent). Conversely, the proportion of women with moderate and extreme pain and discomfort increases sharply with age. Thirty-four percent of women at ages 60 and above have extreme bodily pain and discomfort. It has also been found that the percentage of women who reported no bodily pain and discomfort is 52 percent among those who had no formal schooling and 75 percent among those who had completed their secondary education and above. The percentage of women having moderate and extreme bodily pain and discomfort shows a declining trend with increasing educational level. Women reporting no bodily pain and discomfort increase substantially in the highest income tercile (61 percent) compared to the lowest income tercile (54 percent). Conversely, we can say that the proportion of women reporting extreme pain and discomfort is higher at the lowest income tercile (20 percent) compared to the highest income tercile (14 percent).

Table 1.9 represents the adjusted percentage for rating of pain and discomfort among women in India by using multinomial logistic regression analysis. The result shows that higher percentage of urban women reported no pain and discomfort whereas more rural women reported moderate and extreme pain and discomfort in last 30 days. As the age of women increases, the reporting of extreme pain and discomfort by the women had also increases. A higher percentage of women who had completed their secondary education and above reported no pain and discomfort whereas higher proportion of women who had no formal schooling had reported moderate and extreme pain and discomfort. Women belong to highest income tercile had more reported no pain and discomfort whereas more women belong to lower income tercile had reported extreme pain and discomfort in last 30 days. Among the states, Rajasthan has highest percentage of women reported no pain and discomfort whereas Karnataka has lowest percentage of women who reported no pain and discomfort. In Karnataka more women reported moderate pain and discomfort whereas more women in Maharashtra had reported extreme pain and discomfort.

Agreement of rating of general health with rating of two major domains of health

This section deals with the association of ratings of general health on the day of the survey with ratings of two major domains of health- ‘mobility’ and ‘pain and discomfort’ obtained for 30 days prior to the survey in India and for its six states. Kappa index has been used to see the agreement between ratings of general health with ratings of two different domains of health.

Table 1.10 shows the agreement of rating of general health with rating of difficulty in mobility. The results of Kappa index shows that the agreement of ratings of general health with ratings of difficulty in mobility in India was found to be fair. Among states, only Karnataka has found

moderate agreement and all the remaining states had fair agreement of ratings of health in general with ratings of difficulty in mobility.

Table 1.11 presents the agreement of rating of health in general with pain and discomfort. The results shows that a fair agreement of ratings of general health with ratings of pain and discomfort for India. Among the states, we also found fair agreement of ratings of health in general with ratings of pain and discomfort in all the states except Assam, which shows moderate agreement of ratings of general health with rating of pain and discomfort.

Health state valuation by using vignettes

This section of health state of women focuses on comparison of rating of difficulty in two major domains of health by self-reporting with rating for difficulty in the same domain of health by using vignettes in India. In this section we have considered separately both the questions of each domain. The questions of mobility are- 1) difficulty in moving around and 2) difficulty in vigorous activities. The two questions of pain and discomfort are-1) bodily aches or pain and 2) bodily discomfort. There are five different anchoring vignettes for each domain of health. Comparison of vignettes ratings may show how cut points for multiple questions relating to the same domain on a common scale.

Figure 1.7 shows the ratings for an array of five vignettes using two different mobility questions. This figure shows that the second question is more difficult in the sense of tapping a higher level of mobility than the first: that individuals rate themselves favorably on mobility but recognize on average that the top first vignette describe higher levels than their own, and that respondents use the available categories similarly in providing self ratings and vignette ratings, suggested by the correspondence between the two questions on both the self assessments and vignette ratings- in both cases, individuals respond to the second question in a way that accords with tapping a higher level of difficulty.

Figure 1.8 shows the ratings for an array of five vignettes using the two different questions on pain and discomfort. This figure shows that the first question is more difficult question in the sense of tapping a low level of pain than the second: that individuals rate themselves favorably on pain and discomfort but recognize on average that the top first vignette describe higher levels than their own, and that respondents use the available categories similarly in providing self ratings and vignette ratings, suggested by the correspondence between the two questions on both the self assessments and vignette ratings- in both cases, women respond to the first question in a way that accords with tapping of higher level of pain.

Conclusion

In the perspective of health of the women, the interacting factors, effect of socio-economic factors had been analyzed and appreciated already. The health problem of women should not be viewed in a purely technological frame, but should have a human perspective. Inclusion of vignettes in the analysis makes self reported measures more comparable among women with different socio-economic characteristics in different states of India.

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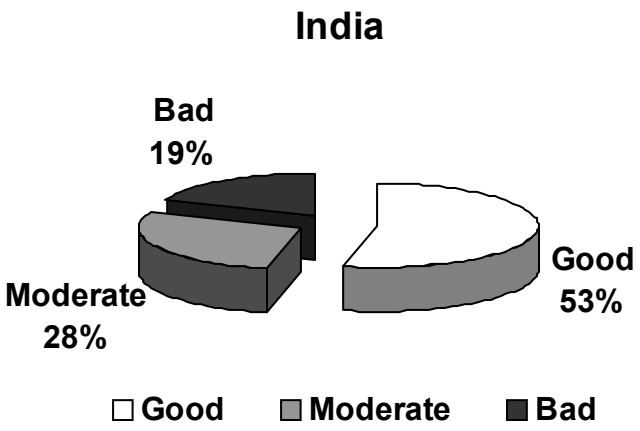
Table 1.1 Rating of general health among women in states and India, 2003

States	Percent Distribution			No. of Respondents
	Good	Moderate	Bad	
Maharashtra	44.3	39.7	16.0	1065
Uttar Pradesh	54.4	22.9	22.7	965
Rajasthan	50.6	25.6	23.8	937
West Bengal	32.9	37.3	29.8	877
Karnataka	81.3	12.7	6.0	771
Assam	70.1	18.3	11.6	530
India (pooled)	**53.3**	**28.0**	**18.7**	**5145**

Table 1.2 Rating of general health among women by background characteristics in India, 2003

Characteristics	Percent Distribution		
	Good	Moderate	Bad
Place of Residence			
Rural	52.4	28.2	19.4
Urban	57.6	26.8	15.6
Age-Group			
< 35	67.2	23.1	9.7
35-60	46.0	30.6	23.4
> 60	24.4	37.6	38.0
Educational Status			
No formal schooling	47.1	28.3	24.6
Up to primary	49.6	32.4	18.0
Secondary & above	71.1	22.3	6.6
Income Terciles			
Tercile 1	47.9	27.6	24.5
Tercile 2	53.7	28.9	17.4
Tercile 3	57.7	27.3	15.0

Figure 1.1 Rating of general health among women in states and India, 2003



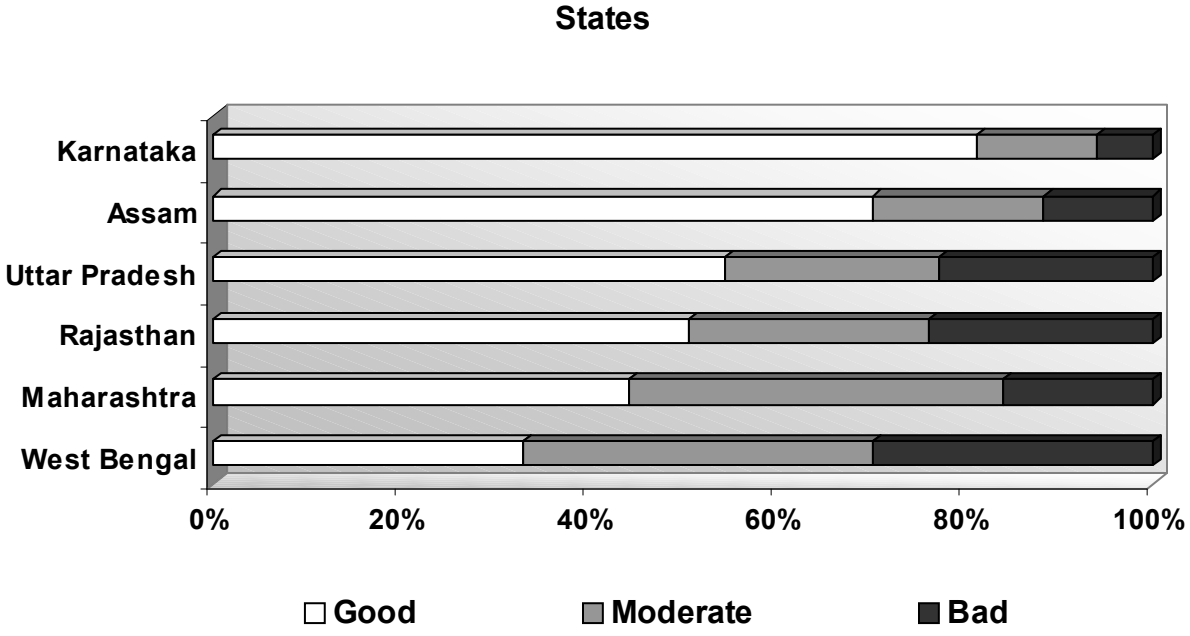


Figure 1.2 Differentials in rating of general health among women by background characteristics in India, 2003

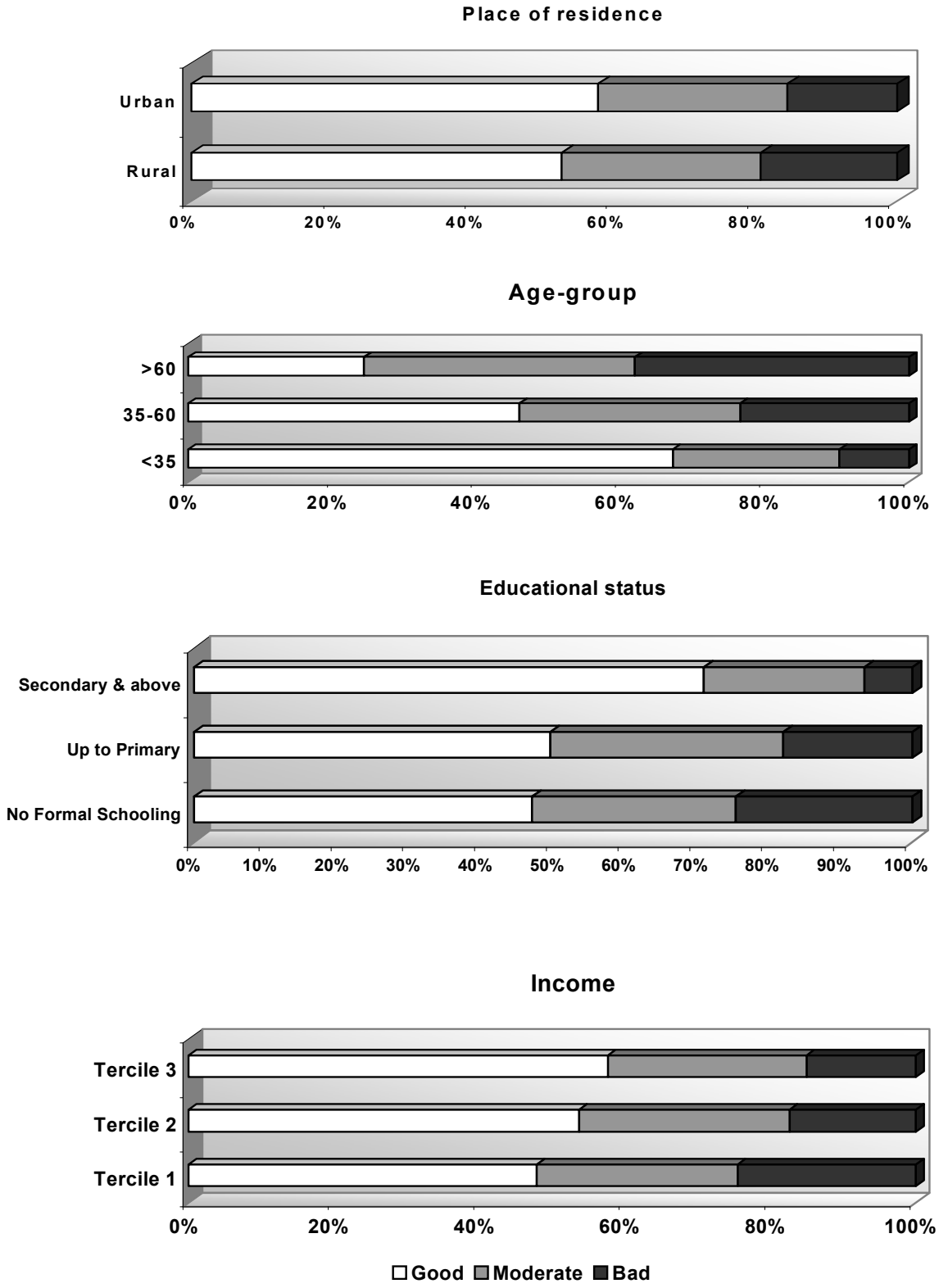


Table 1.3 Adjusted percentages for rating of general health among women in India using multinomial logistic regression analysis, 2003

Characteristics	Adjusted Percentage		
	Good	Moderate	Bad
Place of Residence			
Rural	54.7	29.7	15.6
Urban	58.6	25.7	15.7
Age-Group			
< 35	69.6	21.8	8.6
35-60	47.5	31.5	20.9
> 60	23.7	41.0	35.2
Educational Status			
No formal schooling	53.4	28.1	18.4
Up to primary	52.4	30.3	17.3
Secondary & above	61.9	28.7	9.4
Income Terciles			
Tercile 1	53.5	28.0	18.5
Tercile 2	54.7	30.4	14.9
Tercile 3	57.7	28.4	14.0
States			
Maharashtra	43.3	41.8	14.9
Uttar Pradesh	54.8	24.4	20.7
Rajasthan	53.2	26.9	20.0
West Bengal	33.6	40.4	25.9
Karnataka	82.7	12.4	4.9
Assam	72.2	18.1	9.7

Table 1.4 Difficulty in mobility in last 30 days among women in states and India, 2003

States	Percent Distribution			No. of Respondents
	None	Moderate	Extreme	
Maharashtra	40.9	43.5	15.6	1065
Uttar Pradesh	56.6	22.4	21.0	965
Rajasthan	54.2	32.4	13.4	937
West Bengal	45.8	34.1	20.1	877
Karnataka	84.0	11.3	4.7	771
Assam	71.8	19.8	8.4	530
India (pooled)	**56.2**	**29.2**	**14.7**	**5145**

Table 1.5 Difficulty in mobility in last 30 days among women by background characteristics in India, 2003

Characteristics	Percent Distribution		
	Good	Moderate	Bad
Place of Residence			
Rural	55.1	30.0	14.9
Urban	61.3	24.9	13.8
Age-Group			
< 35	69.4	23.4	7.2
35-60	49.1	33.7	17.2
> 60	28.8	34.5	36.7
Educational Status			
No formal schooling	49.2	32.1	18.7
Up to primary	53.2	33.7	13.1
Secondary & above	74.6	18.0	7.4
Income Terciles			
Tercile 1	52.5	31.1	16.4
Tercile 2	57.0	28.0	15.0
Tercile 3	58.6	28.6	12.8

Figure 1.3 Difficulty in mobility in last 30 days among women in states and India, 2003

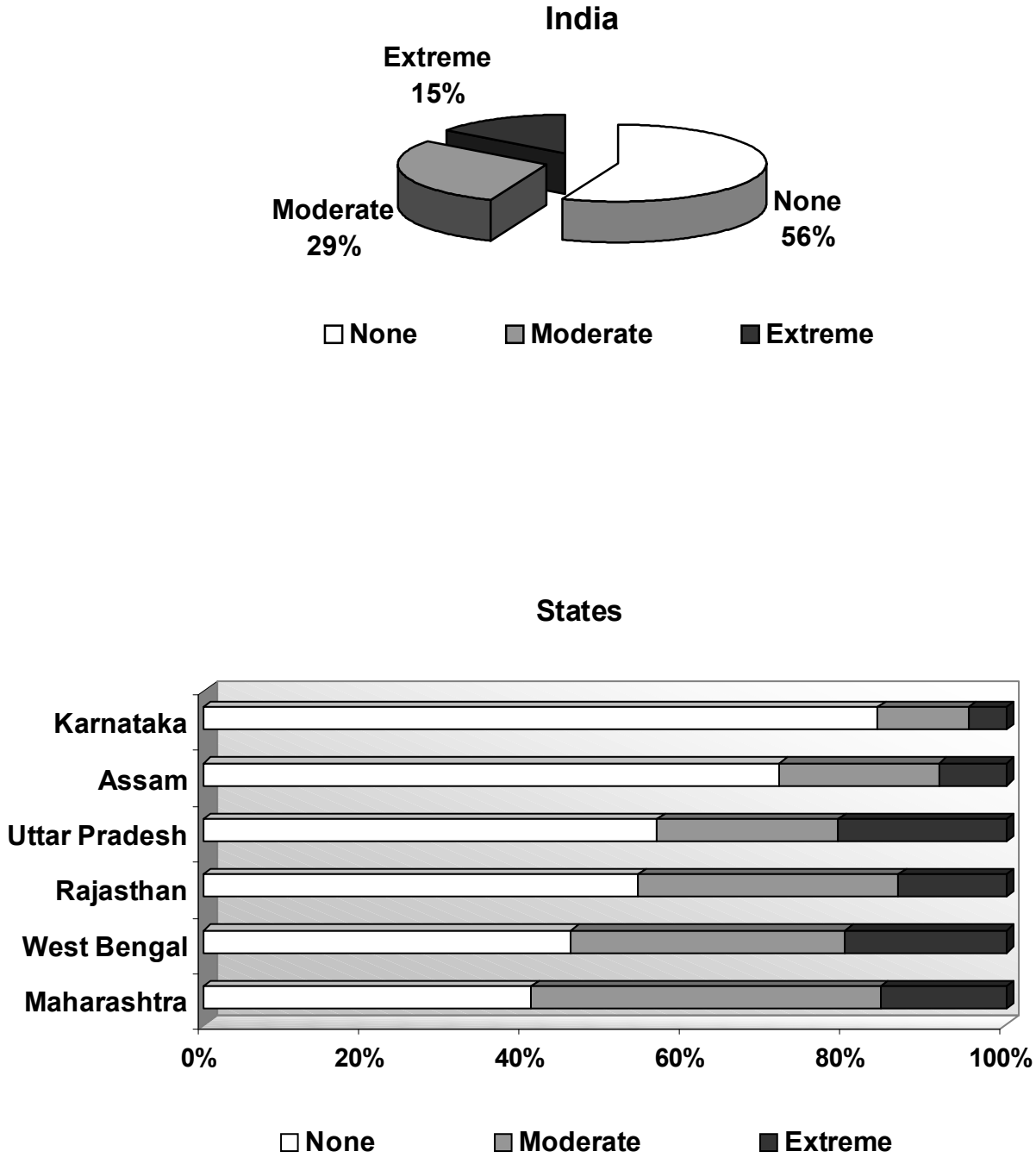


Figure 1.4 Differentials in rating of difficulty in mobility in last 30 days among women by background characteristics in India, 2003

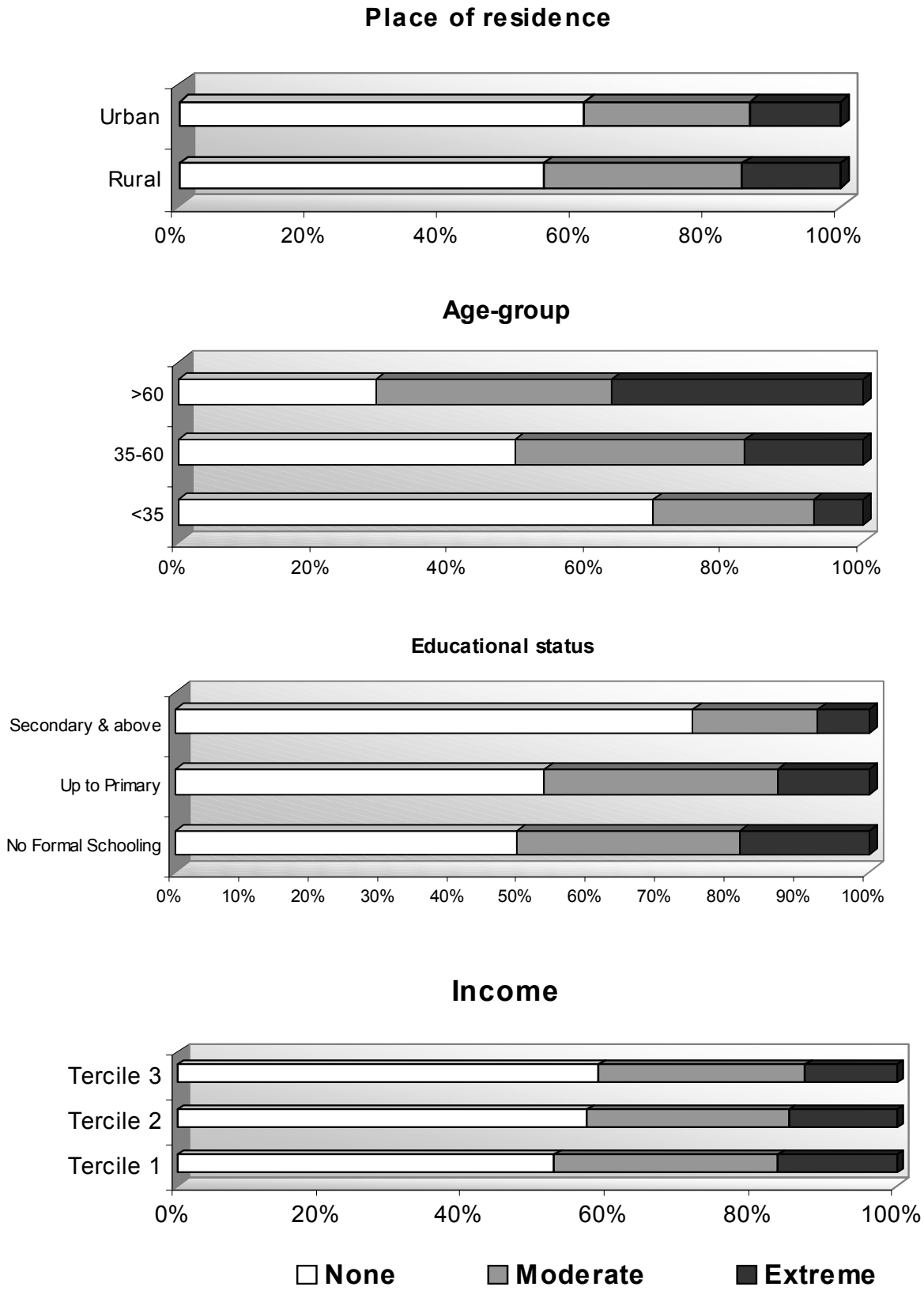


Table 1.6 Adjusted percentage for rating of difficulty in mobility in last 30 days among women in India by using multinomial logistic regression analysis, 2003

Characteristics	Adjusted Percentage		
	None	Moderate	Extreme
Place of Residence			
Rural	58.0	29.9	12.1
Urban	63.5	23.9	12.6
Age-Group			
< 35	70.9	22.5	6.6
35-60	52.0	32.0	16.0
> 60	29.7	34.7	35.7
Educational Status			
No formal schooling	54.2	32.0	13.8
Up to primary	57.2	30.7	12.1
Secondary & above	70.4	20.5	9.1
Income Terciles			
Tercile 1	59.5	27.7	12.7
Tercile 2	59.8	27.2	13.0
Tercile 3	57.4	31.6	11.0
States			
Maharashtra	39.3	45.9	14.8
Uttar Pradesh	57.6	23.3	19.1
Rajasthan	58.1	31.2	10.7
West Bengal	47.5	34.9	17.6
Karnataka	85.2	11.1	3.7
Assam	73.3	19.8	6.9

Table 1.7 Pain and Discomfort in last 30 days among women in states and India, 2003

States	Percent Distribution			No. of Respondents
	Good	Moderate	Bad	
Maharashtra	35.1	39.4	25.5	1065
Uttar Pradesh	65.8	17.7	16.5	965
Rajasthan	66.7	18.0	15.3	937
West Bengal	49.7	30.7	19.6	877
Karnataka	78.7	15.4	5.9	771
Assam	70.8	18.5	10.7	530
India (pooled)	**57.8**	**25.2**	**16.9**	**5145**

Table 1.8 Pain and Discomfort in last 30 days among women by background characteristics in India, 2003

Characteristics	Percent Distribution		
	Good	Moderate	Bad
Place of Residence			
Rural	57.4	25.1	17.5
Urban	60.1	25.9	14.0
Age-Group			
< 35	70.8	19.4	9.8
35-60	50.0	30.0	20.0
> 60	35.3	30.4	34.3
Educational Status			
No formal schooling	51.7	27.7	20.6
Up to primary	54.2	28.1	17.7
Secondary & above	75.4	16.7	7.9
Income Terciles			
Tercile 1	53.5	26.2	20.3
Tercile 2	58.1	24.8	17.1
Tercile 3	61.4	24.8	13.8

Figure 1.5 Pain and Discomfort in last 30 days among women in states and India, 2003

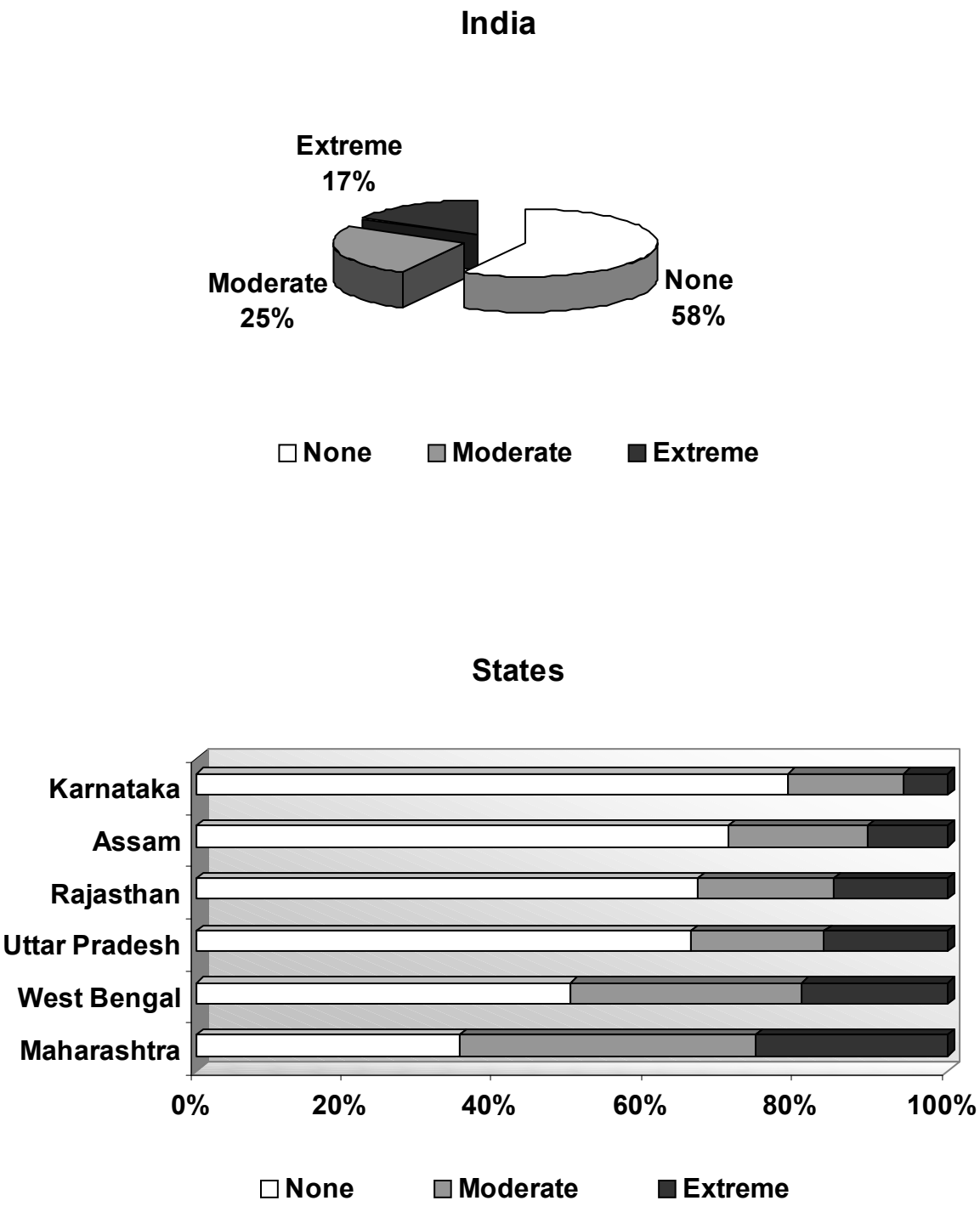


Figure 1.6 Differentials in rating of pain and discomfort in last 30 days among women by background characteristics in India, 2003

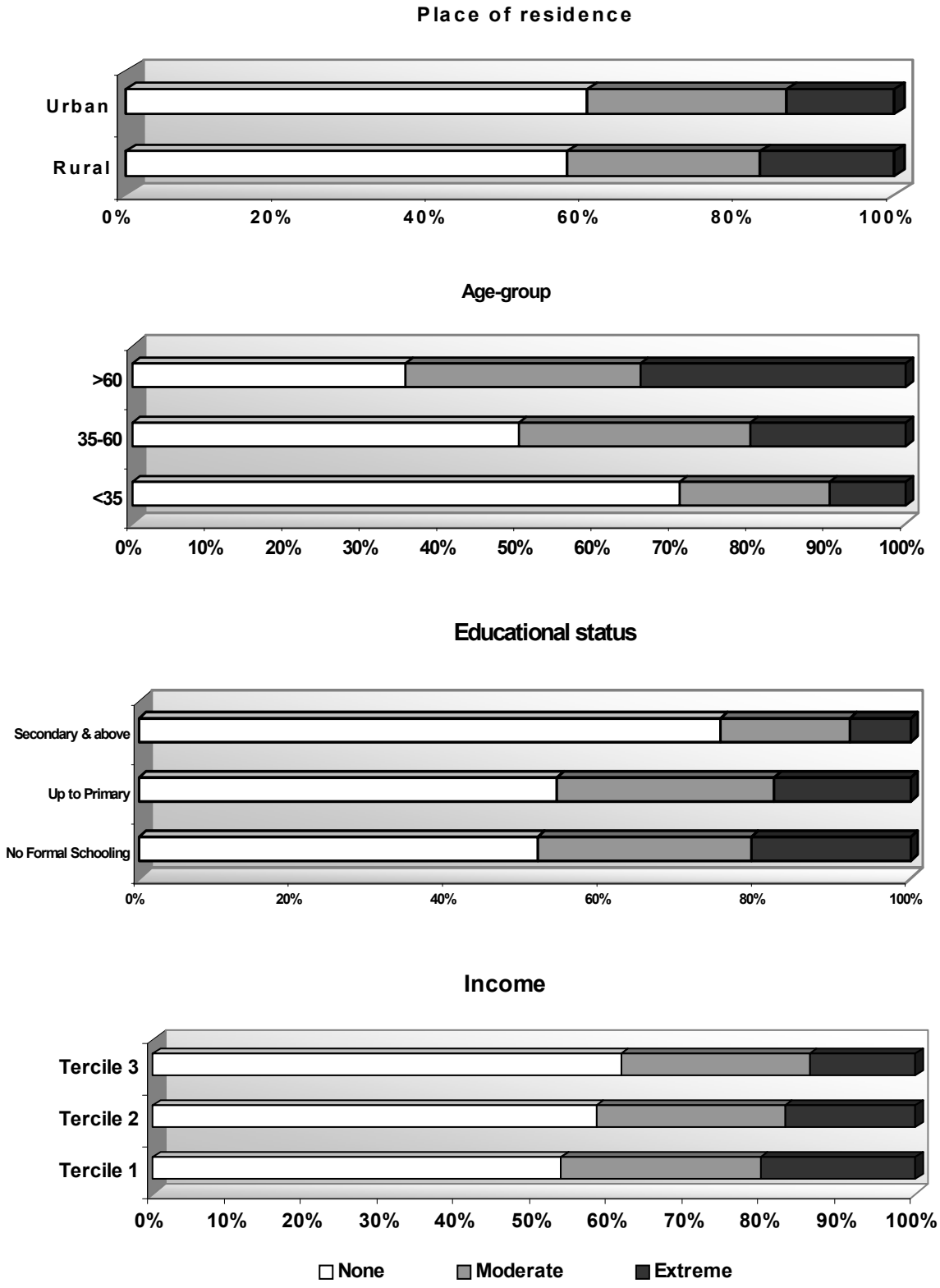


Table 1.9 Adjusted percentage for rating of pain and discomfort in last 30 days among women in India by using multinomial logistic regression analysis, 2003

Characteristics	Adjusted Percentage		
	None	Moderate	Extreme
Place of Residence			
Rural	60.8	34.9	4.4
Urban	61.3	34.8	3.9
Age-Group			
< 35	28.2	55.8	16.1
35-60	14.9	61.2	23.9
> 60	8.5	54.3	37.3
Educational Status			
No formal schooling	60.9	34.8	4.3
Up to primary	65.0	30.8	4.2
Secondary & above	77.1	20.4	2.5
Income Terciles			
Tercile 1	60.8	34.2	5.0
Tercile 2	58.2	37.7	4.1
Tercile 3	63.4	33.0	3.6
States			
Maharashtra	73.2	22.1	4.6
Uttar Pradesh	92.6	5.8	1.6
Rajasthan	93.6	5.1	1.3
West Bengal	85.9	11.9	2.2
Karnataka	62.3	33.8	3.9
Assam	93.2	5.8	1.0

Table 1.10 Agreement of ratings of general health with difficulty in mobility in last 30 days among women in states and India, 2003

States	General health	Difficulty in Mobility			Kappa Index
		None	Moderate	Extreme	
	Good	64.4	33.7	1.9	
Maharashtra	**Moderate**	29.1	54.5	16.4	**0.331**
	Bad	5.3	43.0	51.7	
	Good	72.3	17.1	10.6	
Uttar Pradesh	**Moderate**	43.1	39.4	17.5	**0.319**
	Bad	32.4	18.3	49.3	
	Good	73.2	24.2	2.6	
Rajasthan	**Moderate**	36.7	47.4	15.9	**0.300**
	Bad	32.5	33.8	33.7	
	Good	75.8	22.1	2.1	
West Bengal	**Moderate**	41.2	44.3	14.5	**0.330**
	Bad	18.1	34.5	47.4	
	Good	93.3	6.2	0.5	
Karnataka	**Moderate**	47.6	36.4	16.0	**0.425**
	Bad	35.6	26.1	38.3	
	Good	87.0	10.8	2.2	
Assam	**Moderate**	49.2	39.9	10.9	**0.395**
	Bad	17.9	43.0	39.1	
	Good	78.0	18.7	3.3	
India	**Moderate**	37.2	46.9	15.9	**0.378**
	Bad	22.3	32.2	45.5	

Difficulty in mobility in last 30 days include these two -

1) Difficulty in moving around in last 30 days.
2) Difficulty with vigorous activities in last 30 days.

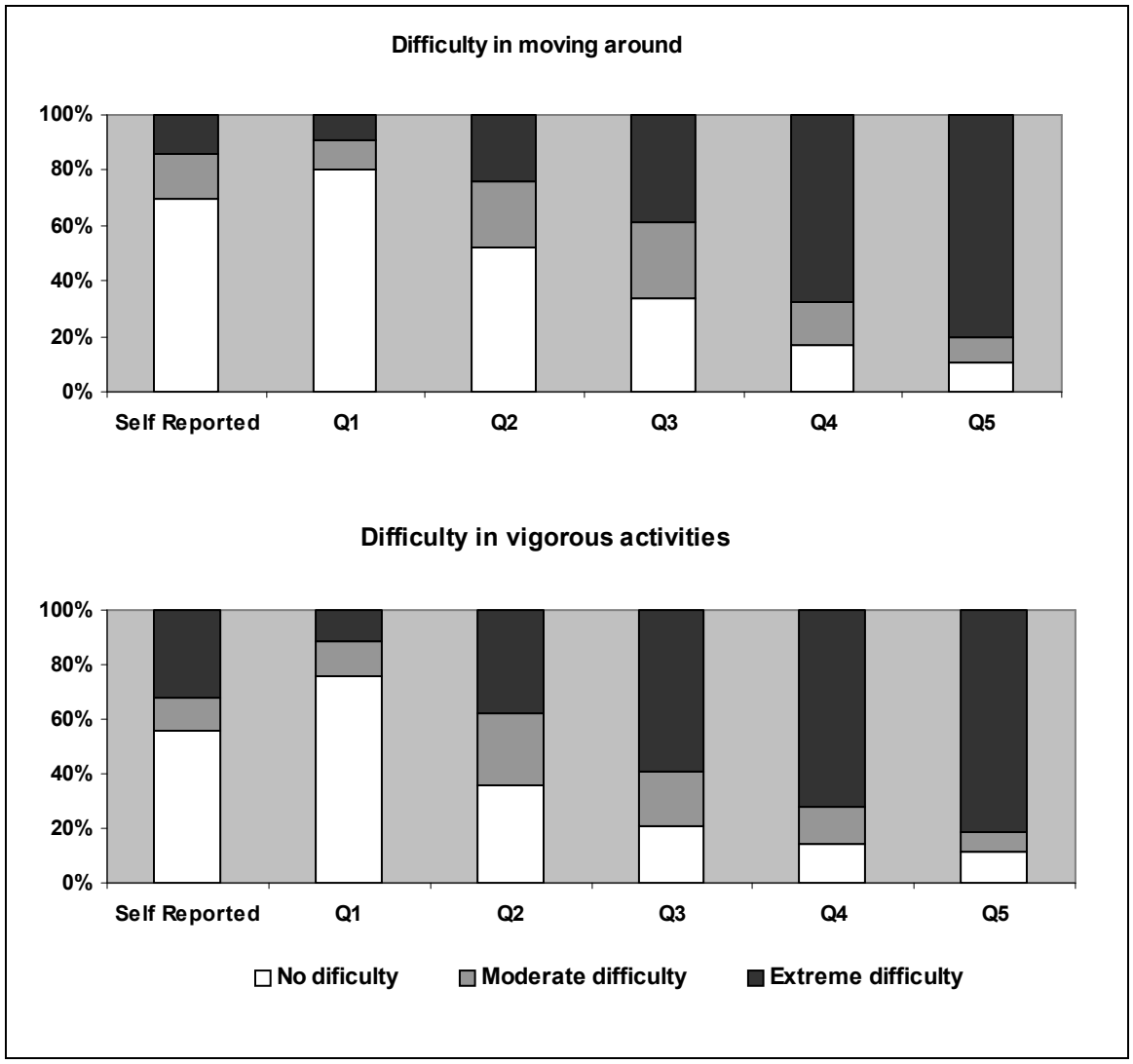
Table 1.11 Agreement of ratings of general health with pain and discomfort in last 30 days among women in states and India, 2003

States	General health	Pain & Discomfort			Kappa Index
		None	Moderate	Extreme	
	Good	56.1	32.3	11.6	
Maharashtra	**Moderate**	24.9	49.2	25.9	**0.297**
	Bad	2.1	35.0	62.9	
	Good	81.9	11.6	6.5	
Uttar Pradesh	**Moderate**	62.3	25.6	12.1	**0.301**
	Bad	31.0	24.4	44.6	
	Good	85.5	11.0	3.5	
Rajasthan	**Moderate**	61.0	22.3	16.7	**0.280**
	Bad	33.1	28.1	38.8	
	Good	75.8	20.6	3.6	
West Bengal	**Moderate**	51.9	35.3	12.8	**0.273**
	Bad	18.1	36.2	45.7	
	Good	87.5	10.3	2.2	
Karnataka	**Moderate**	47.5	35.5	17.0	**0.338**
	Bad	25.6	40.8	33.6	
	Good	84.7	11.4	3.9	
Assam	**Moderate**	45.9	43.8	10.3	**0.410**
	Bad	28.1	22.8	49.1	
	Good	78.0	16.5	5.5	
India	**Moderate**	44.2	37.5	18.3	**0.337**
	Bad	21.0	31.6	47.4	

Difficulty in pain and discomfort in last 30 days include these two-

1) Difficulty with bodily aches or pain in last 30 days.
2) Difficulty in bodily discomfort in last 30 days

Figure 1.7 Comparison of rating of self-reporting of difficulty in mobility with rating of difficulty in mobility by using vignettes in India, 2003



Q1 [Sunita] has no problems with walking, running or using her hands, arms and legs. She jogs 4 kilometers twice a week.

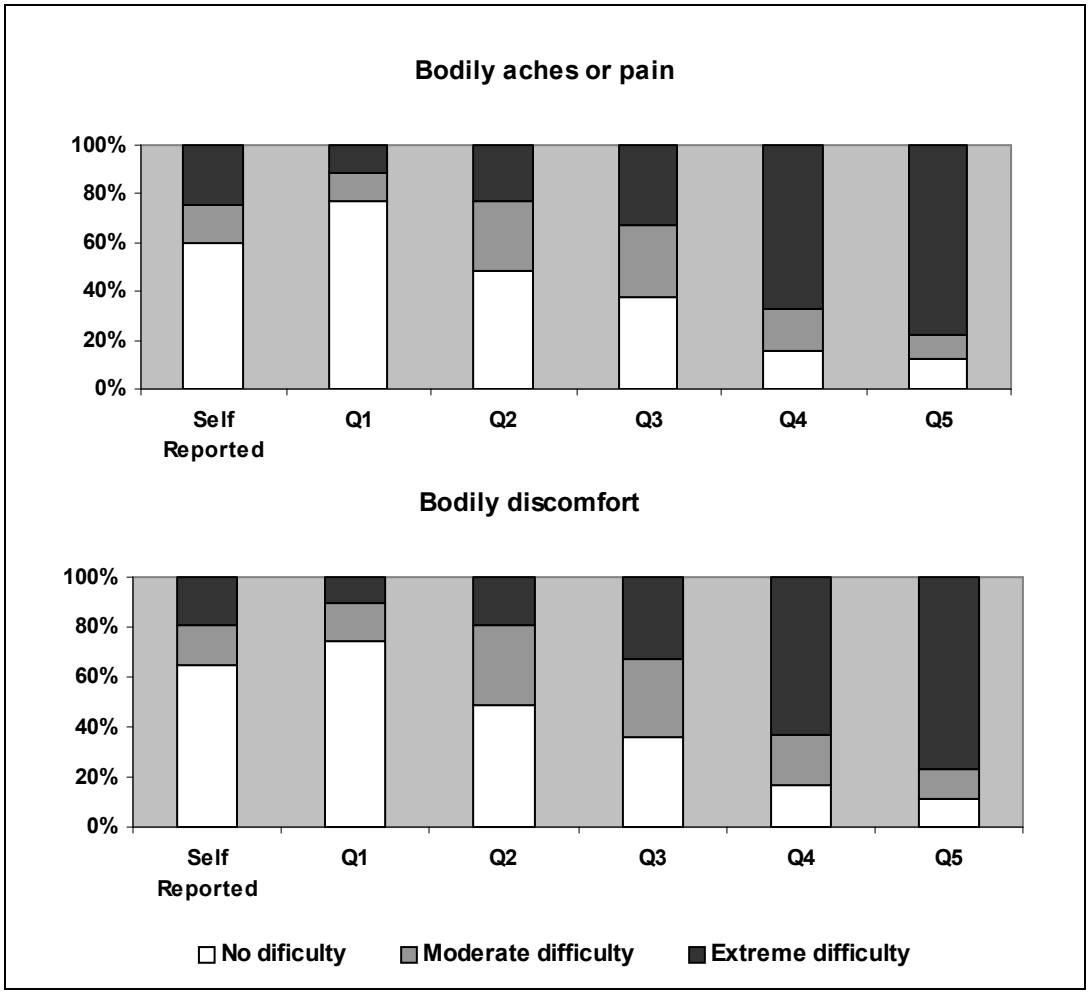
Q2 [Rajesh] is able to walk distances of up to 200 meters without any problems but feels tired after walking one kilometer or climbing up more than one flight of stairs. He has no problems with day-to-day physical activities, such as carrying food from the market.

Q3 [Manish] does not exercise. He cannot climb stairs or do other physical activities because he is obese. He is able to carry the groceries and do some light household work.

Q4 [Vinay] has a lot of swelling in his legs due to his health condition. He has to make an effort to walk around his home, as his legs feel heavy.

Q5 [Deepak] is paralyzed from the neck down. He is unable to move his arms and legs or to shift body position. He is confined to bed.

Figure 1.8 Comparison of rating of self-reporting of pain and discomfort with rating of pain and discomfort by using vignettes in India, 2003



Q1 [Kiran] cannot remember when she last felt pain as this has not happened for the last several years now. She does not experience any pain even after hard physical labor or exercise.

Q2 [Leena] has a headache once a month that is relieved one hour after taking a pill. During the headache she can carry on with her day to day affairs.

Q3 [Shilpa] has pain that radiates down her right arm and wrist during her day at work. This is slightly relieved in the evenings when she is no longer working on her computer.

Q4 [Mayank] has pain in his knees, elbows, wrists and fingers, and the pain is present almost all the time. It gets worse during the first half of the day. Although medication helps, he feels uncomfortable when moving around, holding and lifting things

Q5 [Sahil] has pain in the neck radiating to the arms that is not relieved by any medicines or other treatment. The pain is sharp at all times and keeps him awake most of the night. During the day the pain has made him completely incapacitated. It has necessitated complete confinement to the bed and often makes him think of ending his life