

Notes and Commentaries

## **Rise of Health Risks among Adults in India: A Quick Look at NFHS-4 Fact Sheets**

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### **Abstract**

*The recently published fact sheets of 15 states/UTs from NFHS-4 survey provide overall estimation of selected health and demographic indicators. Many of the focussed areas of national health programmes have shown improvement, but some emerging trends are calling for immediate attention. In this commentary, we look at rise of health risk factors such as alcohol/tobacco use, obesity and hypertension in recent years. The fact sheets reveal that while alcohol consumption, especially in the southern states, has gone up in the last decade, tobacco consumption has come down. Regarding malnutrition, the country now carries a double burden of the same— still prevailing under nutrition and alarming rise of obesity. Similarly, hypertension is increasing with no rural-urban differentials. These trends suggest policy interventions for health promotion focusing on lifestyle change across sub-groups of population in India.*

### **I. Introduction**

The much expected release of National Family Health Survey (NFHS-4) fact sheets for 15 states carry both positive and adverse messages about the health status of the Indian population<sup>#</sup>. The fact sheets for Andhra Pradesh, Andaman & Nicobar Islands, Bihar, Goa, Haryana, Karnataka, Madhya Pradesh, Meghalaya, Puducherry, Sikkim, Tamil Nadu, Telangana, Tripura, Uttarakhand and West Bengal show significant improvements in indicators of infant and child health, fertility and maternal health. However, in many other domains of health, a negative trend is visible that needs a careful examination, especially of health risk factors. On the one hand, the success stories of economic growth and social protection schemes can be well-observed in the data, and on the other hand, there is a substantial rise in risk factors associated with health such as use of alcohol, malnutrition and blood pressure among adults in India. The sharp increase in risk factors mainly observed in South Indian states which are known for their better health status calls for attention in this regard.

Data from NFHS play a crucial role in the assessment of implications of policies and programmes. The first round of NFHS conducted during 1992-93 (NFHS-1) and the subsequent rounds, 1998-99 (NFHS-2) and 2005-06 (NFHS-3) provided information on the health status of the country periodically and became the basis of many significant social and public health policies and programmes in the country. Over time, many new aspects have been added in NFHS such as biological markers of health and district level estimation, aiming at better assessment of health and family welfare indicators of Indian population. NFHS-4 is significant as it contains valuable information on various indicators after a decade, reflecting the impact of public health interventions and policies such as National Rural Health Mission (2005).

In this commentary, we intend to look at changes in major health risk factors from NFHS-3 to NFHS-4. Factors such as sanitation and access to safe drinking water contribute directly to

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# NFHS Fact Sheets are available at [http://rchiips.org/NFHS/factsheet\\_NFHS-4.shtml](http://rchiips.org/NFHS/factsheet_NFHS-4.shtml)

public health and a welcoming trend is observed in NFHS-4 that these indicators are improving in all the states of which the fact sheets are released. However, health risk factors such as obesity, alcohol use and blood pressure level show an alarming change among Indian adults. Hence, they need to be identified and analysed with utmost importance.

## II. Decrease in tobacco use and increase in alcohol consumption

The existing literature indicates the negative consequences of alcohol and tobacco consumption. Across the globe, tobacco use and alcohol consumption are leading causes of morbidity and mortality. An almost universal decline in tobacco use from NFHS-3 to NFHS-4 conveys a positive message (Table 1).

However, alcohol use has shown a mixed result with increase in some states and decrease in others. A notable increase in alcohol consumption is observed in Goa, Tamil Nadu, Tripura and Sikkim. Increase in alcohol consumption in Tamil Nadu is reflected in the ongoing agitation by civil society groups across the state to impose total prohibition. Though states like Kerala and Bihar are trying to regulate alcohol consumption in a phased manner, the current trend shows a need for serious policy intervention to reduce consumption across the states of India.

Table 1: Percentage of tobacco and alcohol users among adult men (age 15-54) across 15 states and union territories

State	Per cent of adults using tobacco		Per cent of adults using alcohol	
	NFHS-3	NFHS-4	NFHS-3	NFHS-4
Andhra Pradesh	-	26.8	-	34.9
Andaman & Nicobar Islands	-	61.6	-	51.7
Bihar	66.5	50.1	34.9	28.9
Goa	27.8	20.8	40.0	44.7
Haryana	46.3	35.8	27.7	24.5
Karnataka	44.7	34.3	28.3	29.3
Madhya Pradesh	68.5	59.5	30.8	29.6
Meghalaya	69.3	72.2	49.2	44.6
Puducherry	-	14.4	-	41.0
Sikkim	61.8	40.3	45.4	51.2
Tamil Nadu	40.1	31.7	41.5	46.7
Telangana	-	28.3	-	53.9
Tripura	76.0	67.8	40.9	57.6
Uttarakhand	53.3	43.7	39.1	35.2
West Bengal	70.2	58.8	34.0	28.7

Source: NFHS-4 Fact sheets.

## III. Emergence of dual burden of malnutrition

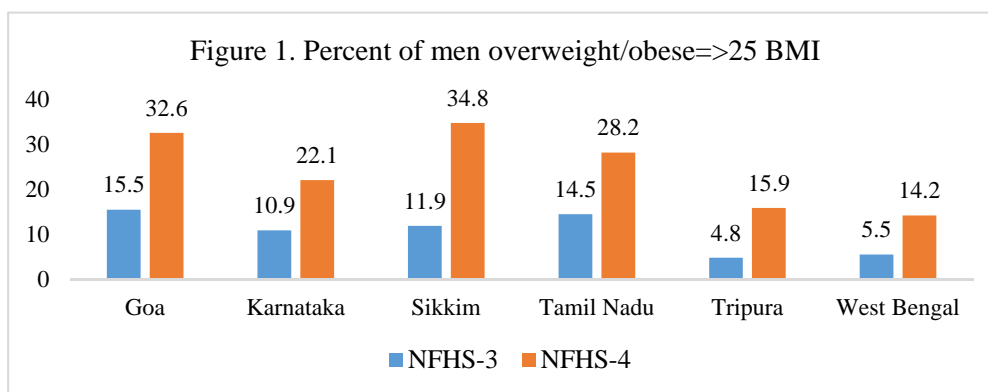
NFHS-4 shows that many states are able to bring down the levels of malnutrition. However, still we are not out of danger. The World Bank estimates that India is one of the top ranking countries in the world for the number of children suffering from malnutrition (Gragnotati, 2006). The prevalence of underweight children in India is among the highest in the world and is nearly double that of Sub-Saharan Africa with dire consequences for morbidity, mortality, productivity and economic growth. The 2015 Global Hunger Index (GHI) Report ranked India 25th amongst leading countries with a serious hunger situation (Grebmer et al., 2015). Thus, an enormous effort is needed to restrain this trend and adopt strategies to bring down malnutrition under control as soon as possible.

Anaemia prevalence is also linked to malnutrition, the control of which is definitely not satisfactory. Over a decade from NFHS-3, not much change has occurred in improving the anaemia

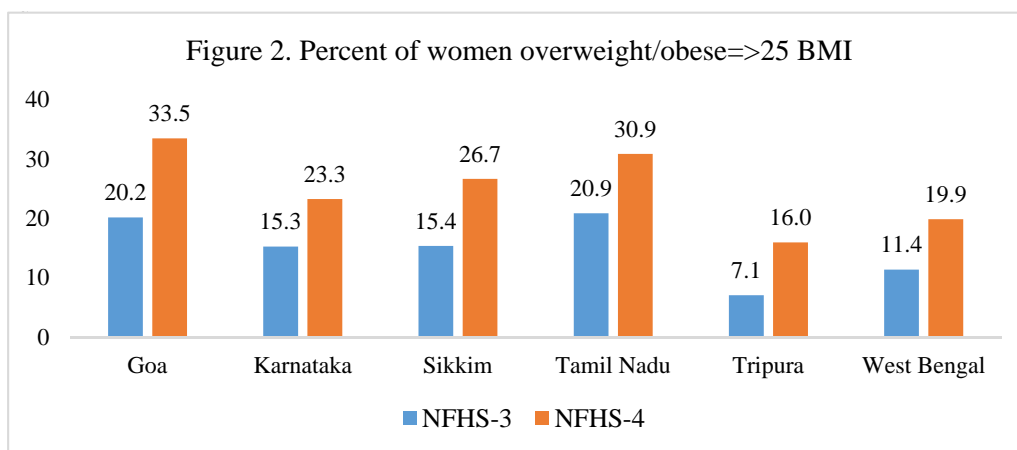
levels among children, men and women. In some states such as Haryana, Goa and Tamil Nadu, its prevalence among women has even increased. In seven out of 15 states, the anaemia levels of women and children are high, i.e., more than 50 per cent.

While we are still battling to curb anaemia levels, there is another disturbing trend visible. There has been a drastic increase in the overweight/obesity levels in the country. All the 15 states for which the fact sheets are available have seen a substantial rise in overweight/obese individuals (BMI>25).

One in three adults (both men and women) is overweight/obese in at least five states and union territories, viz., Puducherry, Andaman & Nicobar Islands, Sikkim, Andhra Pradesh and Goa. Its prevalence is particularly marked in urban areas and is way ahead compared with their rural counterpart. For example, obesity in Andhra Pradesh among urban women is as high as 45.6 per cent, whereas in rural women it is 27.6 per cent. The increase in obesity prevalence is explosive in the country. From NFHS-3, the figures have almost doubled in 10 years, which is consistent in all the 15 states. Usually, it is expected that women have higher prevalence of overweight/obesity, particularly in low and middle-income countries. But we have a different pattern for India, with men being more overweight than women in many states.



Source: NFHS-4 Fact sheets.



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It is well established that over-nutrition leading to overweight and obesity has influence on blood pressure, cholesterol triglyceride levels and insulin resistance. It increases the risk for cardiovascular diseases, type 2 diabetes mellitus, different cancers and other chronic non-communicable diseases. Thus, the country is now facing a double burden of malnutrition. On the one side, under-nutrition, even though declining, still prevails in alarming proportions. On the other side, the life style disorders go up substantially, reflecting the effects of over-nutrition by way of overweight and obesity.

#### IV. Unusual trend in blood pressure

Another aspect of health risk among Indian population is increasing prevalence of hypertension. More importantly, rising hypertension among men is observed in all the states from NFHS-3 to NFHS-4. This situation indicates that men are at a higher risk of future ill-health than women. Overall, there is a substantial increase in health risks across rural and urban population in many parts of India. In some states, among the rural population the health risks are increasing as high as in urban areas. In Andaman & Nicobar Islands, Sikkim, Tripura and Meghalaya, rural areas are at a higher risk of hypertension compared with their urban counterparts. This is contrary to the popular belief that hypertension (among the other lifestyle diseases) is a disease of the "urban elite". Thus, the emerging situation needs urgent evaluation and intervention.

Table 2: Per cent of adult men (aged 15-54) and women (aged 15-49) diagnosed with hypertension slightly above normal (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg)

State	Men		Women	
	Urban	Rural	Urban	Rural
Andhra Pradesh	11.1	11.0	8.5	7.3
Andaman & Nicobar Islands	16.1	24.1	6.6	7.5
Bihar	10.3	7.0	4.2	4.5
Goa	8.4	14.0	6.7	5.6
Haryana	14.7	14.2	8.2	7.2
Karnataka	12.5	11.7	7.0	7.1
Madhya Pradesh	10.2	7.3	6.5	5.9
Meghalaya	13.4	6.4	6.5	7.4
Puducherry	14.2	6.2	7.2	5.9
Sikkim	17.7	21.1	13.1	11.1
Tamil Nadu	12.2	10.8	6.8	5.5
Telangana	14.0	10.6	8.1	6.8
Tripura	8.5	13.4	11.5	8.9
Uttarakhand	14.8	12.0	8.1	6.7
West Bengal	12.2	8.8	9.1	7.2

Source: NFHS-4 Fact sheets.

#### V. Conclusion

The NFHS-4 fact sheets show an increasing trend of health risks of the adult population among different states in India, which diverges among sub-groups of population. Over time, lifestyle and food intake patterns have changed along with economic growth which might have resulted in the specific trends by their complex socio-political interactions. These patterns indicate the focussed areas in public health in the immediate future. Health promotion strategies such as policies to promote healthy lifestyle and reduce alcohol consumption will be among the most deciding factors for shaping public health as the country is taking steps to utilise the demographic dividend. We hope to get a clearer picture of these trends once the survey is completed in the entire country and fact sheets of remaining states are in the public domain.

#### References

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