

A top-down view of a desk with a map, a Nikon camera strap, a pen, and a leather bag. The map shows the Salisbury District and Wilton. A yellow pen is pointing to a location on the map. A Nikon D4S camera strap is visible at the top. A leather bag is on the left. A pen is on the right.

# National Family Health Surveys - What do they tell us?

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Collation and analysis of health information is a very crucial part of any health care system, especially population based health surveys that provide invaluable information regarding a country's real health status. These surveys are the very backbone of health policies charted by the government. A key objective of these surveys is to provide fine quality authentic data for policy development, program planning, monitoring as well as evaluation. Given the evolving disease burden in India, the surveys are poised to provide effective, use-able and timely data along with the health status of millions of people. Accordingly, efforts are implemented to deal with such diseases through proper allocation of funds. National health surveys have been popular in India since 1992 and were crafted to provide information on health indicators at sub national levels. Ever since then the design of these surveys has been modified to cover a larger picture and to highlight health issues that require consideration by the government.

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## What is National Family Health Survey?

Population-based surveys have been used extensively to gather information on fertility, mortality, family planning, maternal and child health, and some other aspects of nutrition and health care in India. It will be worth understanding as to what constitutes a National Family Health Survey that is one of the most trusted health surveys in India. The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India. Four rounds of the survey have been conducted (NFHS-1 in 1992-93, NFHS-2 in 1998-99, NFHS-3 in 2005-06 and NFHS-4 in 2015-16). The survey provides state and national information for India on fertility, infant and child mortality, the practice of family planning, maternal and child health, reproductive health, nutrition, anaemia, utilization and quality of health and family planning services. Each successive round of the NFHS has had two specific goals: a) to provide essential data on health and family welfare needed by the Ministry of Health and Family Welfare and other agencies for policy and program purposes, and b) to provide information on important emerging health and family welfare issues. The funding for different rounds of NFHS has been provided by USAID, DFID, the Bill and Melinda Gates Foundation, UNICEF, UNFPA, and MOHFW, GOI. The NFHS is overseen by the Ministry of Health and Family Welfare and is coordinated by the International Institute for Population Sciences (IIPS) in Mumbai, as the nodal agency, with support from ORC Macro (now called ICF International) and other agencies.(Source: <http://rchiips.org/nfhs/>)

## What data is collected by NFHS and how is it used?

The International Institute for Population Sciences (IIPS) Mumbai, is the nodal agency that provides coordination and technical guidance for the survey.

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The recent NFHS-4 has been successful in covering a significant number of households as compared to previous surveys, and data was collected through Computer Assisted Personal Interviewing (CAPI) on mini notebook computers. The NFHS-4 used four types of questionnaires (Household, Woman's, Man's and Biomarker Questionnaires). The contents of the questionnaires include the following:

- Household characteristics
- Individual characteristics
- Fertility-related information
- Family planning
- Maternal health
- Child health
- Mortality
- Nutrition
- Non-communicable Diseases (NCDs) and other health issues
- HIV/AIDS-related knowledge, attitudes and behaviour

The new/expanded content areas in NFHS-4 include the following:

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- Ownership of physical and economic assets for women
- Malaria prevention
- Expanded domain of clinical, anthropometric, and biochemical (CAB) testing
- Consanguinity
- Age at puberty and menstrual hygiene
- Abortion
- JSY, JSSK, and out-of-pocket expenditure for institutional deliveries
- Migration in the context of HIV
- HIV testing during ANC visits
- Violence during pregnancy
- Insurance coverage for men and women
- NCDs and other health issues

Biomarkers in NFHS-3 included (a) height/weight, (b) anaemia testing, (c) salt iodization, and (d) HIV testing. Two additional biomarkers (hypertension and blood glucose) were included in NFHS-4. Similar to NFHS-3, slum estimates in NFHS-4 are given for eight cities (Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur).

The NFHS-4 sample comprises of 6,01,509 households, 6,99,686 women, and 1,03,525 men from 28,583 primary sampling units (rural and urban), spread across 640 districts of India. For the first time, NFHS-4 provides district-level estimates for many important indicators.

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Primarily, and as stated earlier, the surveys throw light on important emerging health and family welfare issues. Besides providing information to the home agencies, the NFHS surveys update the DHS (Demographic and Health Surveys) funded by the USAID. The analyses are then used by organizations such as WHO, UNICEF, World Bank and many more. NFHS also maintains national, state as well as district fact sheets along with seminar presentations that serves as a ready to refer repository of information.

It will be worth mentioning the existing set of trends in health, fertility, status of women, nutrition and child mortality as well as new inclusions between 2005-06 and 2015-16 as have emerged from the National Family Health Surveys .

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NFHS-4 results for 2015-16 clearly indicate a major improvement in some of the crucial population and health indicators since the last survey in 2005-06, including spousal violence and women's participation in decision-making. However, spousal violence is still unacceptably high (29%) in NFHS-4. A large proportion of women aged 15-49 years in most of the states/UTs now have access to a bank account or a savings account and mobile phones that they use. Over the last decade, the percentage of women having a bank account or a savings account has increased by 38 percentage points. However, change in comprehensive knowledge of HIV/AIDS among women in NFHS-4 is not prominent. This is posing a serious threat to the development of the country as a whole because one of the earlier eight-millennium development goals was to combat HIV/AIDS. The encouraging features have been an increase in the number of households getting electrified, better access to improved sources of drinking water and sanitation, and more use of clean fuel for cooking. For example, the percentage of households using clean fuel for cooking has increased by 18 percentage points, and the percentage of households using improved sanitation facilities has increased by 19 percentage points in India over the last decade. Besides, in most states fertility underwent a further decline, reaching the replacement level or below. Surprisingly, the current use of modern contraceptive methods decreased in most states over the last decade. Child nutrition and vaccination coverage showed an improvement in most states, but concerns continue to remain with rural areas. Adult health will be an important issue to address in the future, particularly related to obesity and high blood glucose levels, the use of tobacco and alcohol despite the substantial decline that has taken place over the years.

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## Maternal Health Status in India

The NFHS-4 provides information on the utilization of safe motherhood services like antenatal care (ANC) and postnatal care for the most recent birth, and delivery care for all births. The situation of maternal health in India and its states has improved markedly over the last decade. For instance, (a) institutional births increased by 40 percentage points, and (b) utilization of antenatal care by mothers (at least four ANC visits for their last birth) increased by 14 percentage points. This increase is consistent with the Government of India's initiatives of NRHM (now NHM), particularly schemes like JSY and JSSK which helped improve the coverage of ANC, PNC, and institutional deliveries in states and UTs in NFHS-4. The southern states are found to be better off in terms of all the maternal health indicators, whereas Northern and Eastern states covered in NFHS-4 are lagging behind in terms of maternal health indicators. Rural-urban differentials are also evident. Although maternal healthcare services need to be strengthened in rural areas, more accessible maternal health care services are needed to improve the health conditions of mothers and their newborn babies throughout the country.



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## Pain Points in Child Health & Nutrition

India's official source of nutrition data, a key to measure stunting, wasting and other indicators of acute malnutrition is the National Family Health Survey whose fourth round was conducted in 2015-16. Over the last decade, there has been an improvement in the nutritional status of children in all the states in India. For instance, among children under five years, there has been 10 percentage points decline in stunting and 7 percentage points decline in wasting. However, the current levels of stunting (38%) and underweight (36%) among children under five years are still unacceptably high in India. As regards breastfeeding, the initiation of breastfeeding within one hour of birth has shown substantial improvements in India and almost all the states over the last decade – 19 percentage points for children under three years. The current level of initiation of breastfeeding within one hour is still quite low (42 %). Similarly, there has been substantial increase in the percentage of children aged 12-23 months fully vaccinated (18 percentage points) and decline in the prevalence of anaemia in children aged 6-59 months (11 percentage points). Even in 2015-16, 58.4 percent of the children aged 6-59 months are anaemic.

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## Other Inclusions in NFHS-4

As NCDs are emerging as a “silent killer” in India, it is necessary to know the actual burden of the risk factors. It is therefore worth recognizing and appreciating the efforts of NFHS-4, to have included the component of NCDs in the survey. For the first time, there was an addition of clinical component (blood pressure measurement) and biochemical component (blood sugar level assessment) along with the anthropometric assessment (height and weight measurements) in NFHS-4. Similarly, for the first time, NFHS-4 collected information on tobacco use by adult men and women aged 15-49 years. About 4% of adult men and 3% of adult women aged 15-49 years have very high levels of blood glucose (more than 160 mg/dl) in India. Similarly, the prevalence of hypertension in India is 3% for adult men and 2% for adult women. There has been 12 percentage points decline in the use of any kind of tobacco (smoking and smokeless) among adult men (down from 57% in 2005-06 to 45% in 2015-16). Among adult women, there has been a 5 percentage points decline in the use of any kind of tobacco (down from 11% in NFHS-3 to 7% in NFHS-4).

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## Existing Gaps

The fourth round of the National Family Health Survey (NFHS-4) conducted during 2015–16, containing some key indicators that reflect the country's present status on critical population and health indicators, was released in New Delhi on 1 March 2017 by the Ministry of Health and Family Welfare (MOHFW). As per key survey findings, India has made considerable progress in the utilization of antenatal care, institutional deliveries, fertility reduction, reduction in infant mortality rate, childhood vaccinations, reduction in anaemia among children, initiation of breastfeeding within one hour of birth, nutritional status of children, and women's empowerment (in terms of having access to a bank account or a savings account they operate, participation in household decision-making and a mild reduction in spousal violence). However, there are four issues that need to be addressed by the policy makers and programme managers. First, the current levels of many of the above-mentioned population and health indicators are undesirable, and there is ample scope of further improvements. Second, there remains huge inequality by states, regions (rural/urban), socio-economic groups (education, caste and class) and gender. Third, there has been almost near stagnation of the use of modern methods of contraception. And finally, the emerging disease burden associated with non-communicable diseases amidst the unfinished agenda of dealing with the remaining challenges of communicable diseases and maternal and child health is another area of key concern. In fact, NCDs contribute 60% of the entire disease burden in India, thus require a renewed focus on prevention and management.

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## Shaping Strategies for Future

Thus, the national health surveys lend a helping hand to the government to plan strategies for improving health situations in a certain state. They bring together international & national agencies as well as trusts to curb health issues of the ailing population through socio-economic planning. The surveys lay the very foundation of a country's overall health and well being. The above findings are bound to help the policy makers pay enough heed to sensitive issues demanding immediate attention so that the country further embarks on a new journey of being both healthy and successful.

The International Institute of Health Management Research (IIHMR), New Delhi, in collaboration with IIHMR Jaipur, was engaged in the implementation of NFHS-4 surveys for the states of Odisha, Rajasthan, Madhya Pradesh (East), Chhattisgarh and Uttaranchal. The IIHMR Delhi has the relevant competencies to conduct such large-scale health surveys in India. The multi-disciplinary faculty of IIHMR Delhi comprises of public health specialists, epidemiologists, demographers, statisticians, IT experts, GIS experts, health economists, and other social scientists.