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RGICS BRIEF

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Towards Equitable Maternal Health Care: A Decade of Transformation

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Towards Equitable Maternal Health Care: A Decade of Transformation

Part-I
Background

Family health has always been at the centre of India's health policies due to the high burden of precarious family health outcomes such as high maternal and child mortality, malnourished mother and children and widespread morbidities. The National Health Policy, 2017 introduced by the Union government in 2017 acknowledges that previous health policies, five year plans and programmes have served well to substantially improve family health outcome of the country. The life expectancy at birth, which was just 41 years in 1960, has now increased to 68 years in 2015. Similarly, the MMR has decreased from 1000[1] maternal death per one lakh live birth in 1950 to 167 in 2013. In case of the Infant Mortality Rate (IMR), the IMR has decreased from 148 deaths per 1000 live birth in 1960s to 34 in 2016. While these health outcomes reveal that the India has been gradually progressing, there exist huge disparities. Several reports and studies have found that economically poor and socially disadvantaged groups such as Scheduled Castes, Tribes and Minorities have relatively poor access to health care system. Moreover, health outcomes of people in EAG and hilly states are poorer compared to other region in the country. For example according to latest estimates the average MMR of EAG states (Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarsh, Odisha, Rajasthan, Bihar and Jharkhand) is 258 which is very high compared to national average of 167.

According to Annual Health Survey data, in India, more than 80% of maternal deaths occur due to obstetric complications during pregnancy, delivery and after delivery and incorrect treatment during this period (IEG, 2015). Similarly, nearly 78% of infant deaths in India are a result of causes such as prematurity & low birth weight, neonatal infections and birth trauma (MDS, 2010). These major causes of maternal and infant death are also known as direct causes, which are preventable through modern maternal and child health care. A large number of mother and infants can be saved just by extending quality maternal health care to all. A maternal health care can be divided into three parts namely Ante Natal Care (ANC), delivery care and Post Natal Care (PNC). ANC includes systematic observation and diagnosis of complications during pregnancy period. Delivery care involves assisting a delivery by skilled person in recognized health facility. PNC covers observation and care of mother and infant by skilled person up to 42 days after delivery. Successive National Family Health Survey (NFHS) reports have confirmed that poor maternal health outcome of socially and economically disadvantaged people/groups is highly correlated with their low access to health care system.

To reduce maternal health outcome disparities across communities the erstwhile UPA government radically re-structured national health policies and re-formulated its goals. The National Rural Health Mission (NRHM) was

[1] http://www.iegindia.org/upload/publication/Workpap/wp353.pdf

introduced in April 2005 as an umbrella programme to improve overall health outcomes of the country. To address the issues of disparities in health care, it focused on 18 low performing states, which includes Empowered Action Group (EAG) states, north eastern states and other hilly states such as Jammu and Kashmir and Himachal Pradesh. Janani Suraksha Yojana as a sub-scheme was also introduced under NRHM to incentivize women to go for institutional delivery. The broad aim of the NRHM was to provide universal access to equitable, affordable and quality health care. The reduction in maternal and child death was one of the main objective this policy. The NRHM was implemented from 2005 to 2012 and later renamed as National Health Mission in order to extend benefits to urban areas as well.

2005 to 2015 is the decade of implementation of reformed public health policies and renewed health outcome goals. Infrastructure, human resources and adequate funds are few major enablers, which further actualizes policy goals. We have seen that during their period number of paramedical staff has substantially increased. The public funding has also increased more than five times. It further translated into decrease in out of pocket expenditure on health care. However, the rate of increase in the number of health institutions and doctors especially in rural areas remain very low. Even after these mix experiences of implementation of health policies enacted in 2005, India has substantially progressed in providing institutionalized maternal care. It is now more than ten years since then, in this period various reports and studies were published to record implementation status and impact of the NRHM. These reports recorded substantial improvement in various health outcomes including maternal health. While the improvement in health care behavior of people and health outcome is evident from various official records and studies, there is a need to examine commitment of NRHM to reduce disparities. This paper is an attempt to evaluate reduction in disparities especially related to maternal care using NFHS data in the backdrop of policy initiatives in 2005. For this purpose, it compares data of NFHS-3 conducted in 2005-06 and NFHS-4 conducted in 2015-16.

Part-II
Policy Initiatives from 2005 to 2015

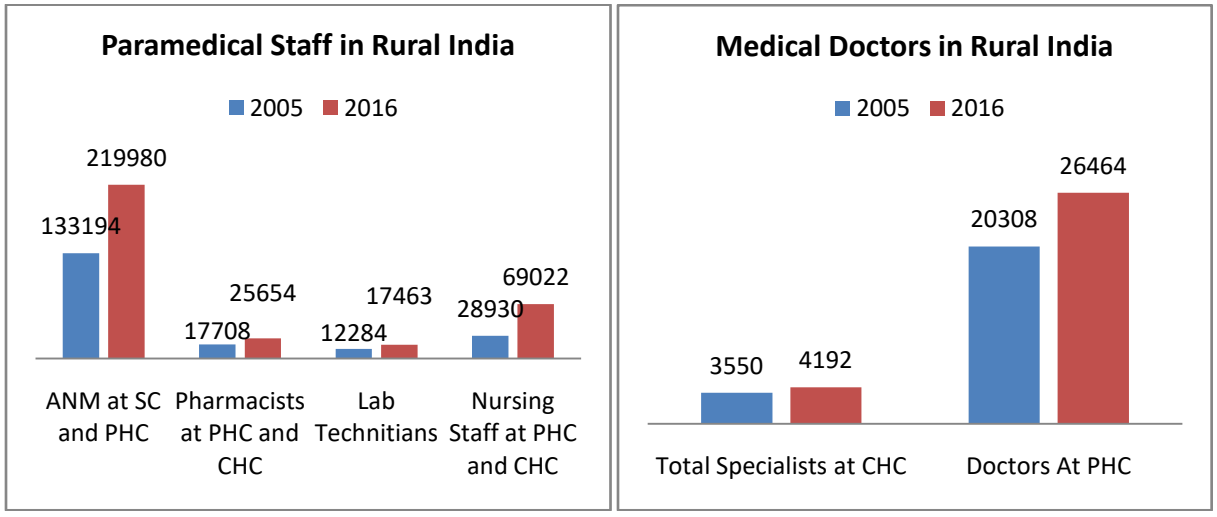
Restructuration of Public Health Policies:

The utilization of health care services depends on number of social and economic factors. At time the acceptance of available health care depends on prevalent social and customary norms related to health and care. The availability and affordability of health services are two other major issues, which affects its utilization by people. The ideal role health policy is to address these issues in order to improve health outcome of people. There have been various policy efforts in India after independence to promote institutional care for mother and children. In this line, public health policies were radically re-structured in 2005. The government of India launched an ambitious health programme called ‘National Rural Health Mission’ (NRHM) to strengthen public

health system in rural areas. The Indian Public Health Standards was developed to ensure minimum facilities such as human resources, equipments, drugs and involvement of communities in public health institutions such as Sub Centre, Primary Health Center and Community Health Centre. Today these standards help in evaluating public health institutions and fix responsibility of state governments to ensure adequate institutions and resources for health care system. The focus of the NRHM was not only to strengthen the capacity of public health institutions but it also intended to ensure people's awareness and mobilization. In order to build public confidence in the modern health system and especially in public health system, lakhs of community health workers- Accredited Social Health Activists (ASHAs) were recruited in every village. A dedicated scheme called Janani Suraksha Yojana (JSY) was launched in April 2005 under NRHM to decrease maternal and child mortality and morbidity.

Investment in Human Resource:

In order to achieve goals of newly enacted NRHM in 2005, there was high need to expand health infrastructure and deploy more health professionals in underserved areas such as rural parts of the country. According to latest Rural Health Statistics report, public health institutions in rural India marginally increased in 2016 compared to 2005. However, in this period human resource (both medical and paramedical staff) in these institutions increased substantially (see graphs below).



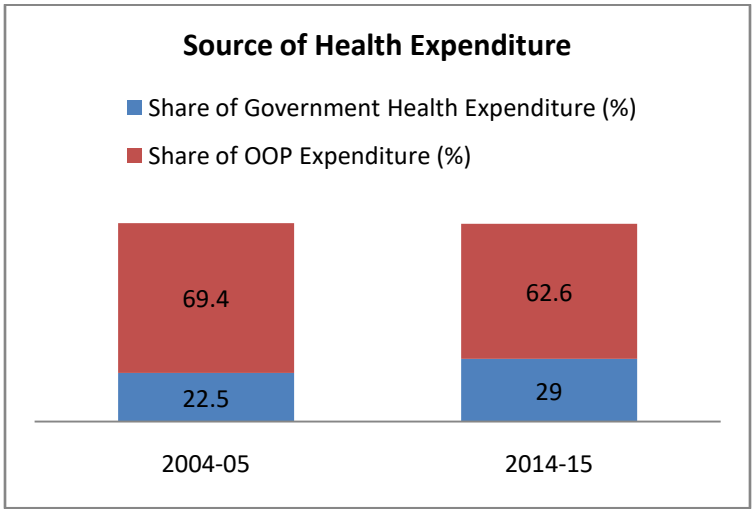
Source: RHS, 2016

Paramedical staffs are the backbone of a health system. The latest NFHS data shows that for a large population especially in remote rural areas, public paramedical staffs such as ANM and nursing staff are main health care providers. For example, nearly 24% of women in rural India were served by ANMs for their ANCs. ANM were deployed in huge number in these years. The total number of ANMs increased from 1.33 lakh in 2005 to 2.09 lakh in 2016. Similarly, nursing staff in PHC and CHCs have increased from 28.9 thousands in 2005 to 69 thousands in 2016. During this period total strength of paramedical staff in rural areas increased by more than

130% from 1.94 lakh in 2005 to 3.34 lakh in 2016 (see graphs above). The increase in number of medical doctors remains low compared to other staff. Number of medical doctors at PHC has increased by 30% and specialist doctors in CHCs increased by 18% only.

Public Health Financing:

The NRHM envisaged that in partnership with state governments, India would increase its total public investment on health from less than 1% of GDP in 2004-05 to 2-3% of GDP in 2012. However, it remained an unachieved promise. The total public health expenditure has increased marginally from 0.84% of GDP in 2004-05 to 1.1% in 2014-15 (NHA, 2017). Meanwhile, the health expenditure of India has immensely increased. According to National Health Account Estimates for India, the per capita health expenditure has increased more than three times from Rs. 1,201 in 2004-05 to Rs. 3,826 in 2014-15 (NHA, 2017). The overall health expenditure of India has also massively increased from Rs. 1,33,776 crore in 2004-05 to Rs. 4,83,259 crore in 2014-15. It has recorded an increase of more than 260% just in these 10 years. According to NFHS-4 the average cost of institutional delivery in India is Rs. 7,938, which varies from Rs. 3,198 in public hospital to Rs. 16,522 in private facilities. Of the total health expenditure, 'Out of Pocket' (OOP) is 62.6%. In other words nearly two third of total health expenditure is paid by common people from their own resources.



Source: NHA, 2017

The public investments on health remains low in comparison to the GDP growth of the country. However, actual public investment in health has increased in last ten years. The total government health expenditure has increased more than four times from Rs. 26,313 crore in 2004-05 to Rs. 1,39,919 in 2014-15 (see graphs above). The increased public financing has also marginally reduced OOP expenditure from 69.4% in 2004-05 to 62.6% in 2014-15 (NHA, 2017). In the backdrop of policy responses during 2005 to 2015 and their implementation, the next, the next section of the brief attempts to highlights progress in institutionalized maternal care.

Part-III
Institutional Maternal Care

Ante Natal Care:

Ante Natal Care (ANC) is an important aspect of maternal care during pregnancy. It starts within the three months of pregnancy until the birth of baby. According to the guidelines of National Rural Health Mission, "Antenatal care is the systemic supervision of women during pregnancy to monitor the progress of foetal growth and to ascertain the well-being of the mother and the foetus." Data shows that nearly 85% women received ANC during their pregnancy. It also shows that more people are concerned about quality of care as the percentage of women, completing minimum three ANC has increased (see table-1).

Table-1

ANC to women age 15-49 during the five years preceding the survey by residence, NFHS-4 and NFHS-3, India

(Figures in %)

ANC	Urban		Rural		Total	
	NFHS-3	NFHS-4	NFHS-3	NFHS-4	NFHS-3	NFHS-4
% of pregnant women who received antenatal care	91.8	90.8	74.8	80.4	79.6	85.5
% of pregnant women who had at least three antenatal care visits	76.8	77.0	47.8	59.4	56.0	64.6
% of pregnant women who received antenatal care within the first trimester of pregnancy	65.8	69.1	40.0	54.2	47.3	58.6

Source: NFHS-3 and NFHS-4

There has been a wide gap between health care outcomes of rural and urban India. The latest NFHS data also reports the rural and urban divide. However, rural India in last ten years has not only progressed faster but attempted to match health outcomes of urban India. While the number of women receiving ANC remained more or less same in urban India the rural parts recorded sharp jump in 2015-16 compare to 2005-06. The proportion of pregnant women receiving ANC in rural India has increased tremendously from just 47.8% in 2005-06 to 80.4% in 2015-16.

Quality of ANC:

A proper antenatal check-up provides necessary care to the mother and helps identify any complications of pregnancy such as anaemia, pre-eclampsia and hypertension etc. in the mother and slow/inadequate growth of the foetus (NRHM, 2010). Minimum prescribed examination under ANC by Skill health attendants are listed in table-2. Data reveals that the institutional ante natal care has outstandingly expanded to cover more women compared to ten years ago.

Table-2

Percentage of Pregnant Women Examined under Different Components of ANC

(Figures in %)

	Urban		Rural	
ANC	**NFHS-3**	**NFHS-4**	**NFHS-3**	**NFHS-4**
Weight Measured	80.1	95.0	55.5	88.3
Blood Pressure Measured	82.8	95.4	55.0	86.5
Urine Sample Taken	80.1	94.4	48.0	84.9
Blood Sample Taken	80.0	94.6	50.0	83.8
Abdomen Examined	86.5	94.1	65.4	86.0
Given IFA Tablets	75.7	83.9	61.2	75.1
Took IFA Tablets	34.8	40.8	18.8	25.9
Received TT Injection	86.4	84.4	72.6	82.4

Source: NFHS-3 and NFHS-4

Data in Table-2 reveals that in rural area not only ANC visits have increased but the quality of care has also remarkably improved. On an average, more than 80 per cent of pregnant women in rural India were examined under all necessary ANC components to ensure healthy pregnancy period and safe delivery.

Access of Disadvantaged to Skilled Health Providers:

Medical doctors, auxiliary nurse midwife (ANM), nurse, midwife and lady health visitors are categorized as skilled ANC providers. The NFHS-4 data shows a marginal increase in access to skilled providers for antenatal care compared to NFHS-3. However, significant differences exist between privileged and underprivileged communities. Data shows that upper caste communities, rich people and people living in cities have more access to doctors compared to others (See Table-3).

Table-3
% distribution of women receiving ANC from skilled provider

	NFHS-3			NFHS-4		
Background	**Doctor**	**ANM**	**Total**	**Doctor**	**ANM**	**Total**
Caste/Tribe						
SC	42.0	28.1	70.1	54.6	23.0	77.6
ST	32.8	28.3	61.1	47.9	24.9	72.8
OBC	48.4	23.1	71.5	57.2	21.1	78.3
Other	63.6	17.7	81.3	70.3	15.4	85.7
Wealth Index						
Lowest	22.5	29.6	52.1	30.2	26.9	57.1
Second	36.4	28.1	64.5	51.9	24.3	76.2
Middle	52.4	24.0	76.4	65.6	20.0	85.6
Fourth	69.0	18.7	87.7	74.8	15.6	90.4
Highest	86.2	10.0	96.2	81.6	12.5	94.1
Residence						
Urban	76.7	12.4	89.1	76.1	12.9	89.0
Rural	40.6	26.9	67.5	51.6	23.6	75.2

Source: NFHS-3 and NFHS-4

Data in above table reveals that rural population, poor people and socially disadvantaged communities such as Scheduled Castes and Scheduled Tribes have comparatively higher dependency on ANM for ANC services. On an average, one fourth of these communities are availing ante natal care from ANMs. However, it also reveals that this dependency has decreased marginally in last ten years. Their access to relatively more qualified and skilled health providers-medical doctors has increased. There are various factors that explain this difference over access to kind of skilled health providers between advantaged and less advantaged people. Some of them include lack of medical doctors in disadvantaged area and high cost of care associated with a medical doctor.

Role of Paramedical Staff:

Premedical staff and health volunteers provide essential health services to common people. More than seven lakh Accredited Social Health Activists (ASHAs) deployed in rural areas under NRHM play a crucial role in mobilizing people and bridging the gap between health system and masses. An assessment of ASHA workers revealed that they were central with regard to providing ante natal and intranatal care service such as counseling, support and escort service. According to an assessment in Karnataka, nearly 60% of women who had reported an institutional delivery attributed it to being a result of the motivation by the ASHA in their community (Fathima et al, 2015). Auxiliary Nurse Midwife (ANM) is another category of paramedical staff, which has crucial role in actual delivery of health services. There are more than 1.5 lakh ANMs across the

country to provide basic health services including ante natal and post natal care. These two types of health workers play an important role in disadvantaged areas.

ANC Provider in High Focused States

Women aged 15-49 who Received ANC from Skilled Provider

(Figure in %)

	Women Received ANC from any Skilled Provider		Women Received ANC from Doctor		Women Received ANC from ANM	
State	**NFHS-3**	**NFHS-4**	**NFHS-3**	**NFHS-4**	**NFHS-3**	**NFHS-4**
Jharkhand	52.7	69.7	39.3	39.0	13.4	30.7
Bihar	33.0	49.0	29.1	30.4	3.9	18.6
Chhattisgarh	75.5	91.2	41.8	44.0	33.7	47.2
Uttarakhand	59.3	74.9	47.9	52.2	11.4	22.7
Rajasthan	73.1	82.7	33.9	54.9	39.2	27.8
Odisha	74.0	82.9	57.6	75.9	16.4	7.0
Jammu & Kashmir	83.4	90.4	77.2	81.8	6.2	8.6
Uttar Pradesh	65.4	72.3	22.5	36.8	42.9	35.5
Himachal Pradesh	84.3	90.6	66.0	77.7	18.3	12.9
Madhya Pradesh	73.7	68.9	32.6	31.3	41.1	37.6

Apart from eight North-Eastern states, the NRHM is focused in ten more states, listed in the above table to improve their health outcomes. Data shows that all of these states have improved substantially in providing ante natal care. Out of these ten states only in Himachal Pradesh, Jammu & Kashmir and Odisha, people have greater access to doctors for their ANCs. Rest all other states have higher dependency on ANMs for ANCs. In fact, in many States the increase in institutional ante natal care is positively correlated with increase in ANMs in these States.

Institutional Deliveries:

An institutional delivery means birth of a child in a recognized health facility (both private and public). There has been high focus on institutional delivery in India in last ten years to minimize maternal and child mortality. The roll out of Janani Suraksha Yojana under the National Rural Health Mission is one such serious effort by the Government to encourage people for institutional deliveries. Figures reported by NFHS-4 related to institutional deliveries are impressive. The report reveals that the share of institutional deliveries has increased tremendously in last ten years.

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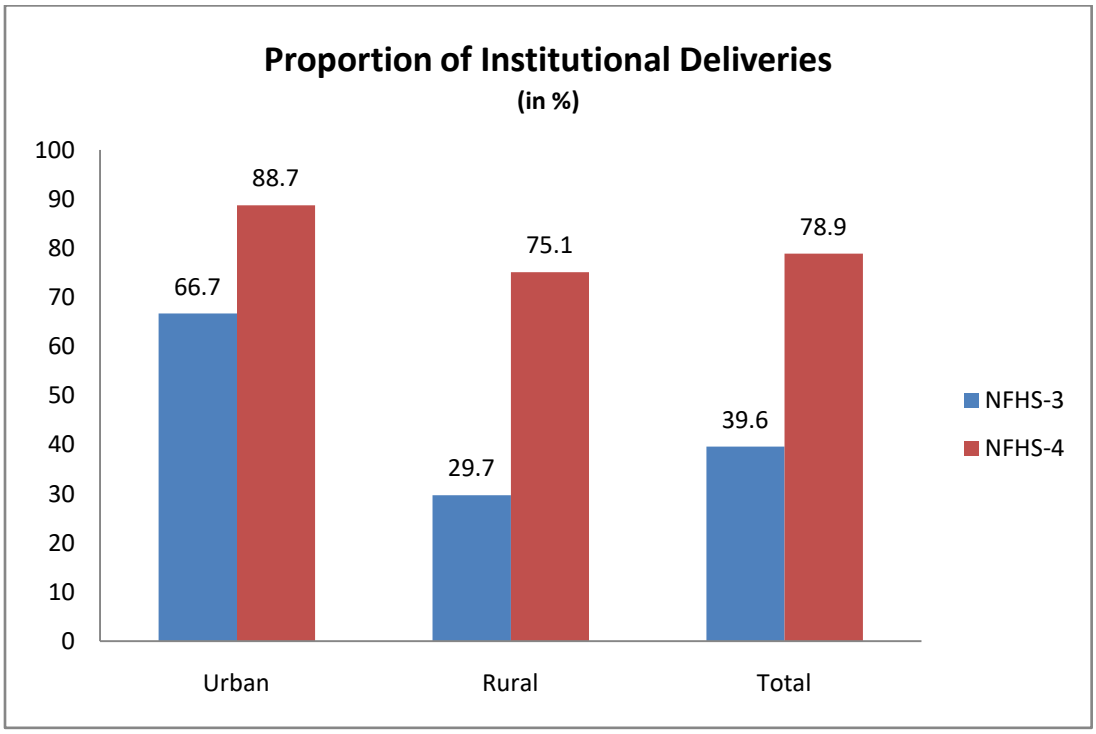
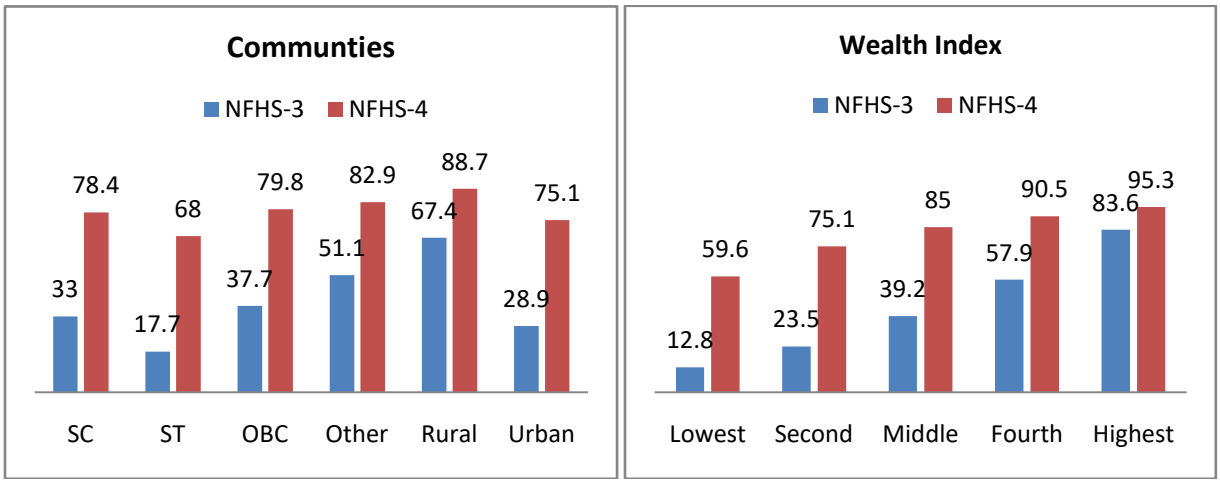


The highest increase in institutional deliveries is recorded in rural areas. Data in above graph reveals that from 2005-06 to 2015-16, the share of institutional deliveries has increased more than doubled. An institutional delivery is also known as safe delivery, as it implies that deliveries take place with the help of trained human resource, technology and required medicine to handle any complications during delivery. With this assumption, we can say that nearly 80% delivery in the country and 75% delivery in rural India are safe.

The NFHS data further reveals that the regional disparities has also reduced in last ten years in terms of accessing institutional care of deliveries. In 2005-06 only Kerala, Tamil Nadu and Goa had share of institutional deliveries more than eighty percent. The share of institutional deliveries in most of States specially EAG and North-Eastern States was less than 25%. The NFHS-4 data found significant improvement in these States. Now, out of 36 States and UTs, 24 have recorded more than 80% institutional delivery. The improvement rate in high focus State is much higher than other States. For example, the share of institutional deliveries in Uttar Pradesh has increased from 20.6% in 2005-06 to 68% in 2015-16. Similarly, in Chhattisgarh it has increased from 14.3% to 70% in the same period. Amongst these, Jharkhand recorded lowest institutional delivery (62%) and Jammu & Kashmir recorded highest share of institutional delivery (86%). Share of institutional delivery was recorded lowest in Nagaland (33%), Arunachal Pradesh (52%) and Meghalaya (51%).

Percentage of Institutional Deliveries

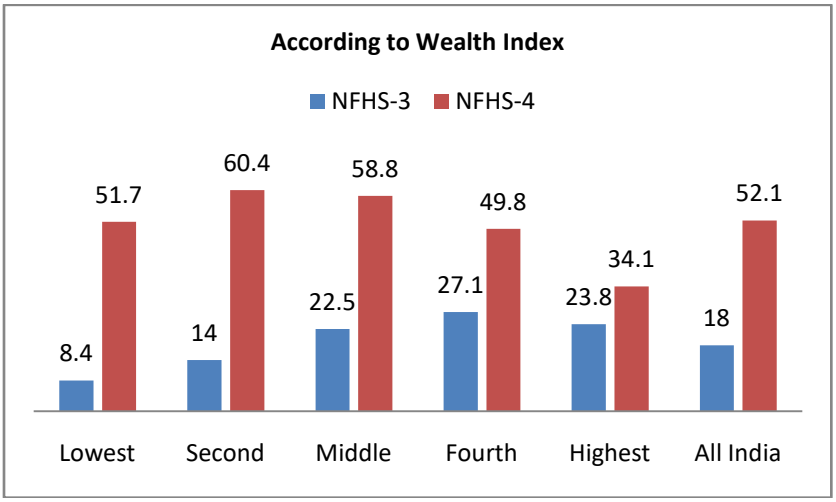


The proportions of institutional deliveries remain low amongst the poor and scheduled tribes. However, both of these categories have recorded tremendous improvement in comparison to 2005-06. People in lowest wealth index have recorded nearly 5 times and people in second lowest wealth index have recorded more than 3 times increase in proportion of institutional deliveries. This tremendous increase in proportion of safe deliveries amongst social and economically disadvantaged communities is a strong evidence of improvement in India's health care system.

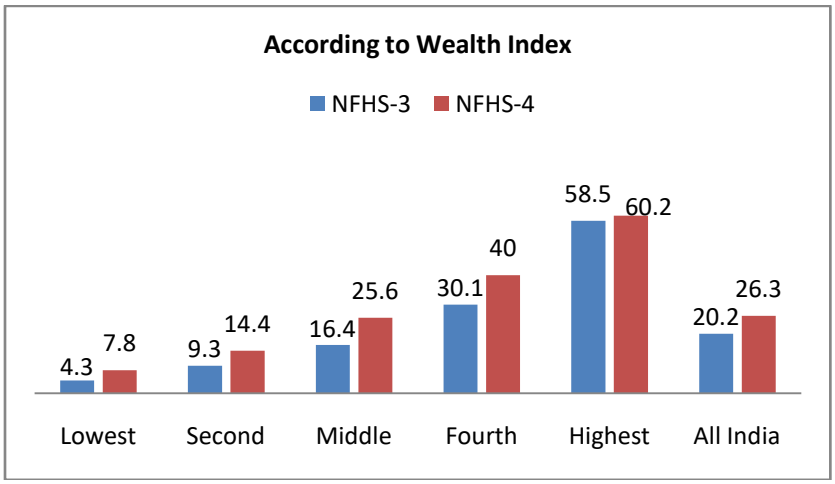
Public Health Institutions Savior of Poor and Disadvantaged:

According to NFHS-3, private health institutions were attending to more deliveries in comparison to government hospitals. According to the survey in 2005-06, private hospitals were attending to more than 20 per cent deliveries, where as public hospitals were attending to only 18 per cent of total deliveries. Ten years later in 2015-16, the situation has changed. Today, public health institutions have been attending to more than half of total deliveries. It has recorded nearly three-time increase in housing deliveries in last ten years. The share of institutional deliveries in private hospital has also marginally increased from 20% in 2005-06 to 26% in 2015-16 (See graphs below). The huge spike in number of institutional deliveries in public health institutions can be correlated with the increase in institutional deliveries amongst socially and economically disadvantaged communities. Data shows that in last ten years, people's behavior related to deliveries has drastically changed. Now more people are finding institutional deliveries safe compared to earlier.

Institutional Deliveries in Public Hospitals



Institutional Deliveries in Private Hospitals



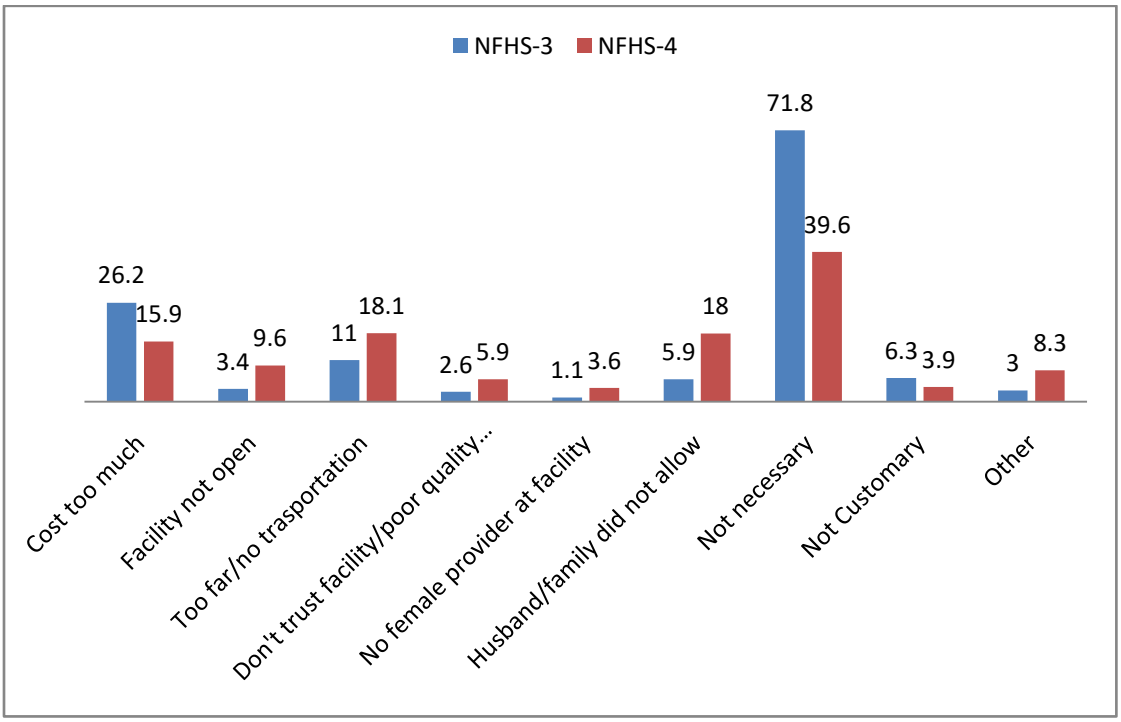
The data on institutional deliveries shows that highest increase in proportion of institutional deliveries recorded amongst poor, especially in last three categories in the wealth index. Data in above two graphs further clarify that most of them availed services from public health institutions.

Reasons for not delivering in a Health facility:

With the tremendous increase in institutional deliveries, the proportion of home deliveries has shrunk significantly in last ten years. According to the data, the proportion of home deliveries has decreased from nearly 60% in 2005-06 to 21% in 2015-16. However, this relatively lower proportion still accounts for a huge

number. According to a report of Union Ministry of Health and Family Welfare 23.5 lakh women delivered babies at home in 2015-16[2]. There are number of reasons related to affordability, accessibility, acceptability and quality of care for not delivering in a health facility.

Reasons for not delivering in a Health facility
(Figures in %)



The non-acceptability of institutional deliveries has been the main reason for not delivering in health institution. Of the total home deliveries recorded by NFHS-4, 39.6% percent women reported that an institutional delivery is not important. It remains top reason for home delivery, despite the fact that this perception has drastically changed in last ten years. In 2005-06, institutional delivery was not important for 71.8% women who delivered at home. Perception related to other reasons pertaining to acceptability of modern health care such as not finding it according to local customs has also changed remarkably. Communities in India have several traditional ways to provide care during pregnancy and handle delivery. Traditional Birth Attendants (TBAs) has great role especially in rural areas to provide those traditional cares. In many parts of country, these TBAs were given preferences while recruiting ASHAs as health volunteer. Probably their induction in public health care system also played an important role in increasing acceptance for modern maternal health care.

[2] https://nrhm-mis.nic.in/SitePages/FW%20Statistics%20in%20India%202017.aspx

The accessibility and affordability of health care are two other big reasons for not delivering in a health facility. According to NFHS-4 more than 43% women who delivered at home reported reasons such high cost of care, hospital being too far, poor transportation facility and non-availability of health institution. In other words, a large number of women are still forced to deliver at home because of high cost and in-accessible health institutions. In addition to quality of care, the availability of health institutions in rural areas remain a big issue. According to latest rural health statistics (RHS), the rural India has shortfall of nearly 35 thousands SCs, 6.5 thousands PHCs and 2.2 thousands CHCs. The shortfall of doctors in PHCs has also increased from nearly 1000 in 2005 to 3000 in 2016. Similarly, the shortfall of specialist doctors in CHCs has increased from 3.5 thousands in 2005 to 17.8 thousands in 2016. In many States, especially in EAG and hilly states, this shortfall has been forcing people to opt for unsafe or home delivery.

Conclusion:

The Supreme Court in one of its order held that the right to health is integral to the right to life and the government has a constitutional obligation to provide health facilities[3]. After independence, there were several efforts, which attempted to provide better health care system to people. However, there is a huge health outcome disparity between socially and economically advantaged and disadvantaged. With an aim to reduce this disparity, the Government of India launched National Rural Health Mission (NRHM) in 2005. Through NRHM and its sub schemes such as JSY and IPHS, the Government targeted geographies, communities and groups that are underserved. The aim of the NRHM launched in April 2005 was to provide universal access to equitable, affordable and quality health care by focusing on socially, economically and geographically disadvantaged communities and groups. The NFHS-3 conducted in 2005-06, NFHS-4 conducted in 2015-16 could be used to measure progress in health sector in first 10 years of NRHM. Moreover, these two data sets are perfect to test objective of the Government of India under NRHM to provide affordable, equitable and quality health care to all.

National Family Health Survey (NFHS-4) data released in January 2018 has revealed several commendable achievements in the sector of maternal health care. Comparing results of last two NFHS surveys (NFHS-3 and NFHS-4) conducted at an interval of 10 years shows that coverage of institutional care for mothers has remarkably widened. Most significant result of this comparison is increase in access to health facilities amongst socially and economically underprivileged communities and groups. This survey reveals that the institutional maternal care is now relatively more available, accessible and affordable for economically poor and socially disadvantaged such as Scheduled Caste and Scheduled Tribes. The latest NFHS report has also recorded disparity in health outcomes related to maternal health between groups and communities. However, it also reveals that the gap of health outcome has substantially decreased in these ten years. Amongst various other reasons, NFHS data indicates that the greater public health financing and increased capacity of existing health institutions are critical policy factors, which helped in increasing accessibility of poor and disadvantaged to health facility. In other words it can be argued that the national public health policies post 2005 led by National

[3] http://ijme.in/articles/the-fundamental-right-to-health-care/?galley=html

Rural Health Mission (NRHM) attempted to address issues related to availability, accessibility, affordability and quality of health care in public hospitals. In these ten years, India's rural health system substantially transformed. In terms of maternal health care, it has not only increased its capacity to serve more people but also improved on quality of care.

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