

# Progress in Uttar Pradesh in antenatal care, institutional delivery and maternal mortality reductions

## Background

In 2001, the Government of India formed the Empowered Action Group (EAG) states comprising of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and Uttarakhand representing the most socio-economically disadvantaged states in India. In 2012, 184 high focus districts were identified for enhanced RMNCH+A intervention of which 82 were from the EAG states. There were 19 high focus districts identified in Uttar Pradesh (UP) to which Government of Uttar Pradesh (GoUP) added six more districts to form 25 High Priority Districts (HPDs).

The RMNCH+A program was rolled out in UP through the National Health Mission (NHM) with the aim to design and implement strategies to improve key health indicators related to RMNCH+A. In the last quarter of 2013, GoUP created a technical support unit (TSU) to provide techno-managerial support for the 25 HPDs in the state. The TSU has been supporting the GoUP towards improving availability, quality and utilization of RMNCH+A services to improve the overall maternal and child health outcomes.

The results from the Sample Registration System (SRS) has shown significant improvement in maternal mortality rates (MMR) across India. The EAG states have closed the gap to the Indian average with Uttar Pradesh/Uttarakhand demonstrating a reduction in MMR from 600 to 210 between 1998 and 2015 (Figure 1).

Over this period, the government has launched various programs such as the Janani Suraksha Yojna and the Janani Shishu Suraksha Yojna, which has made care more accessible to pregnant women. At the same time, in UP, the TSU has worked towards complementing these efforts by supporting the strengthening of public facilities and other service delivery platforms for provision of quality Antenatal Care and Institutional deliveries. In addition to this, the TSU has also been working on building capacity of front line workers to better identify and mobilize women to take up these services.

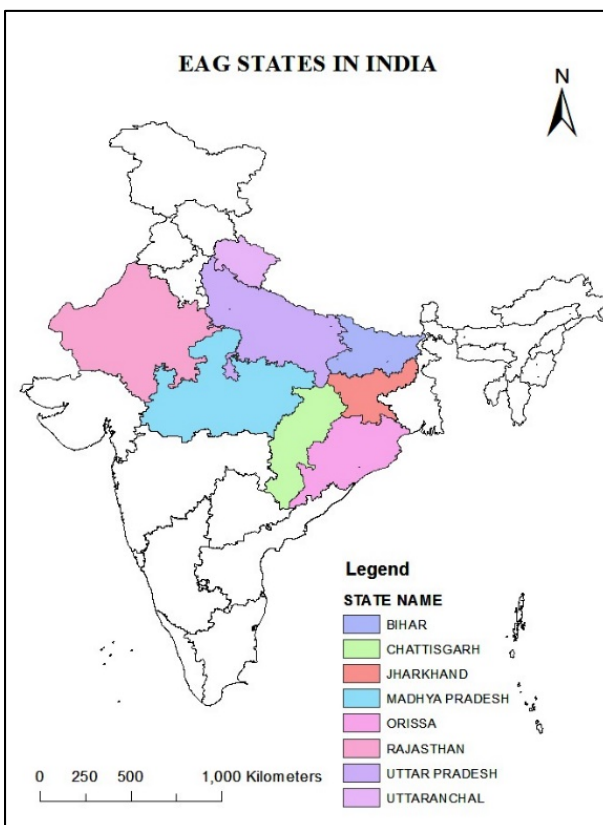
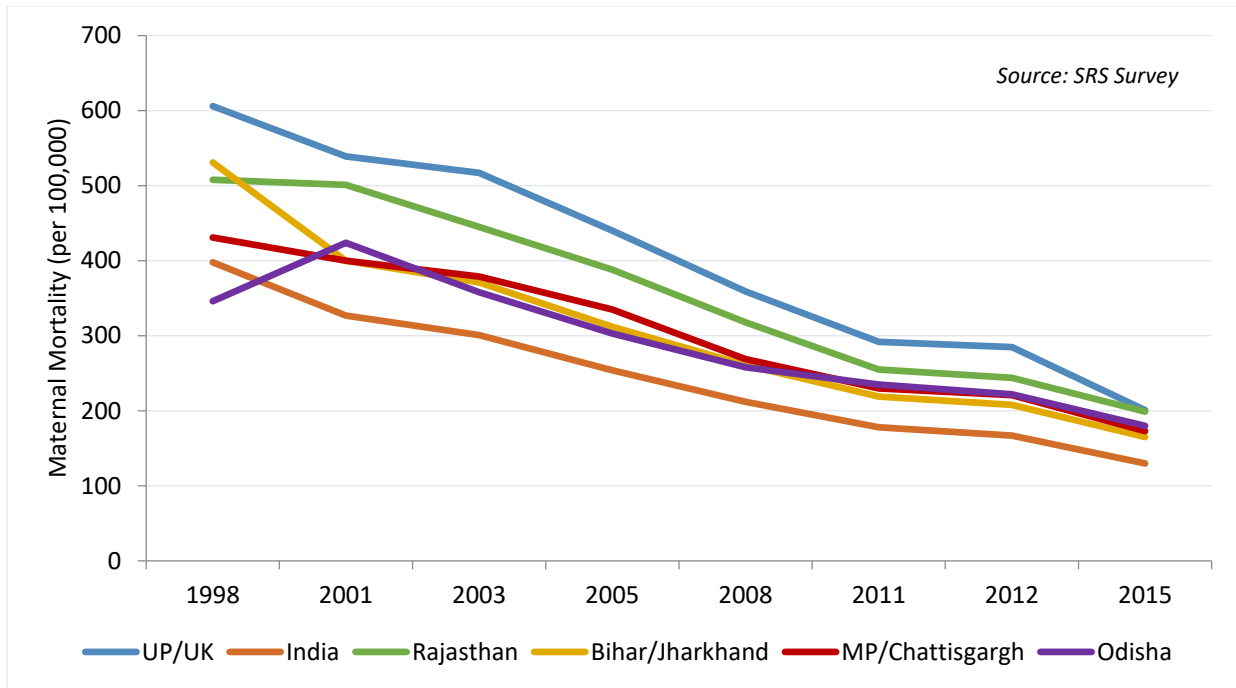
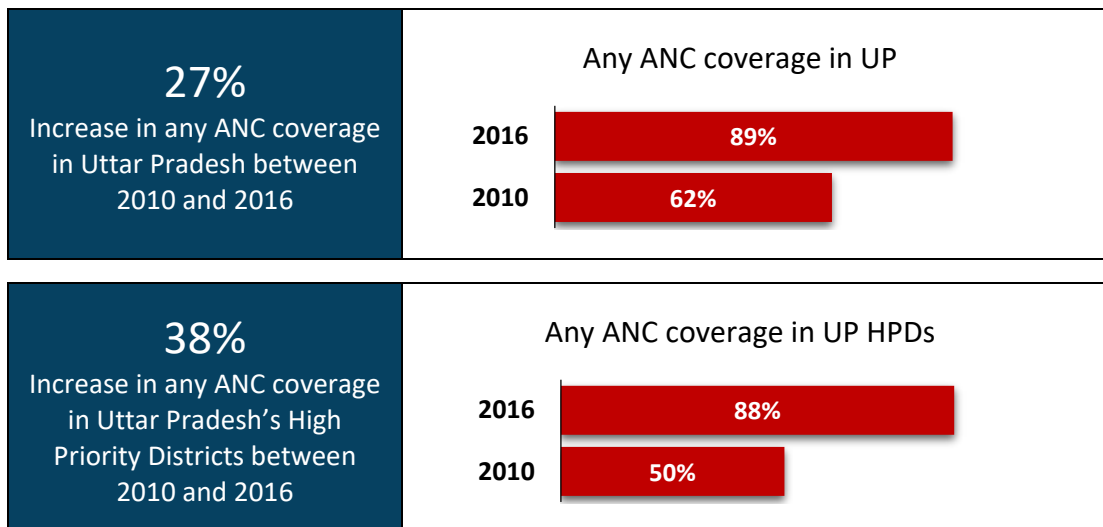


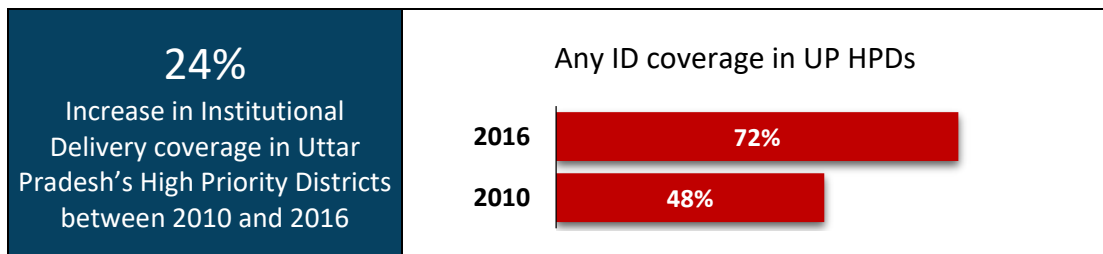
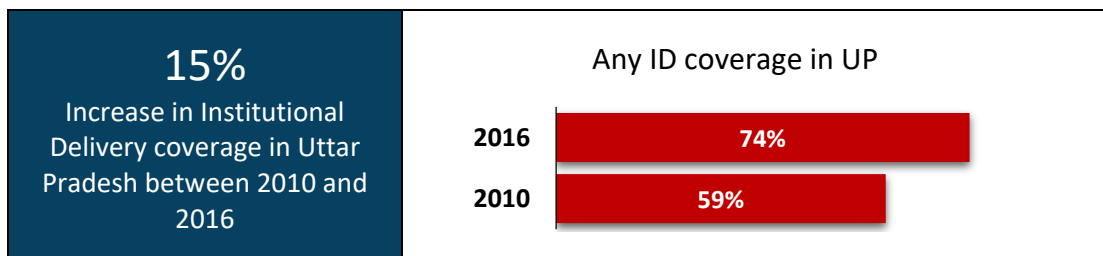
Figure 1: Trends of Maternal Mortality Rates (MMR) among EAG states in India



This report focuses on Antenatal Care (ANC) and Institutional Delivery (ID) in rural areas, two areas where the TSU provides support to GoUP. We use the NFHS-4 data to analyze the progress of ANC and ID in rural areas among the EAG states, including Uttar Pradesh between the period 2010 – 2016. We present the population level coverage of ANC and ID in HPDs and Non HPDs of UP.

## Key Findings

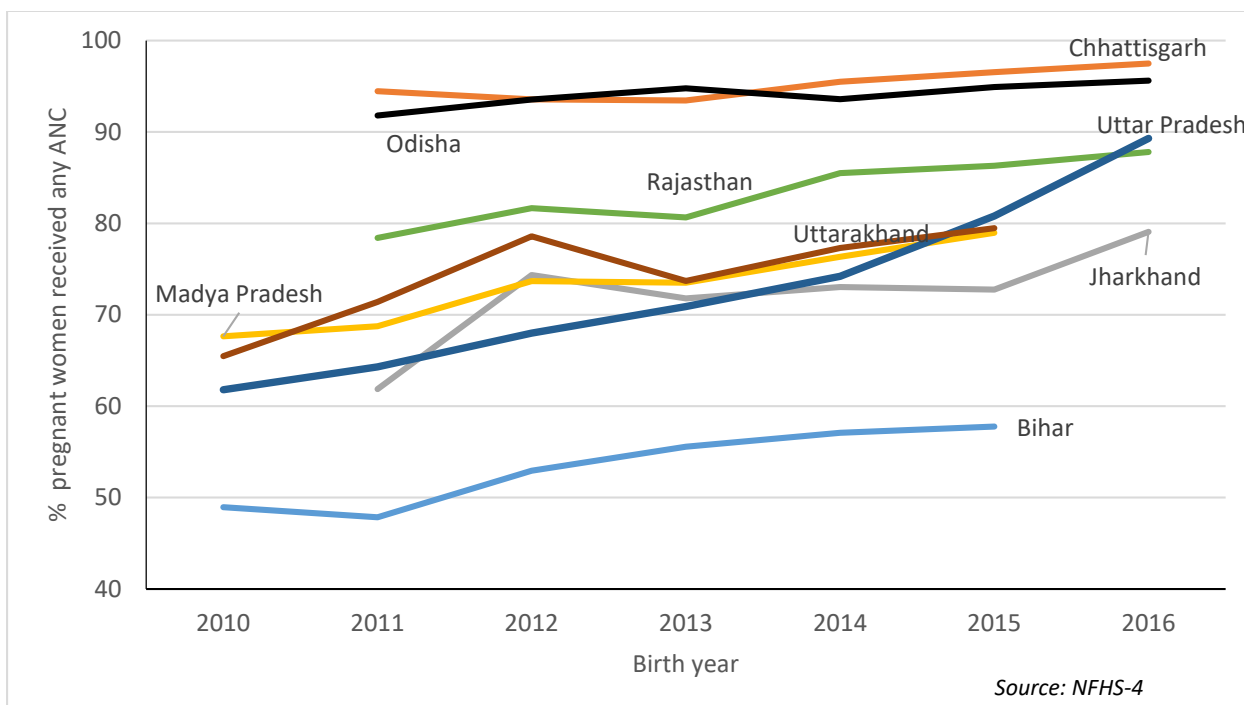




## Antenatal Care

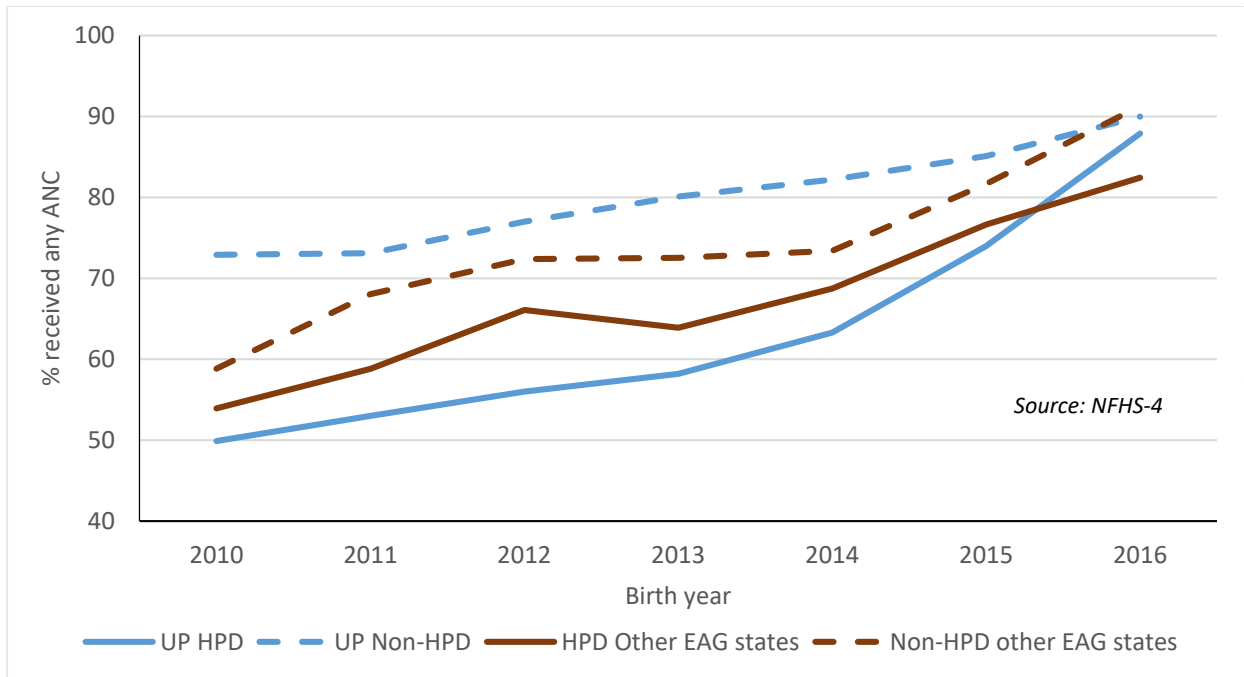
All EAG states have shown an improvement in coverage of any ANC for pregnant women, however, UP has showed the highest improvement in coverage of 27% (Figure 2). During this period, UP has closed the gap to Chhattisgarh and Odisha, which have maintained coverage of over 90%.

*Figure 2: Trends of any ANC coverage in rural areas of EAG states*



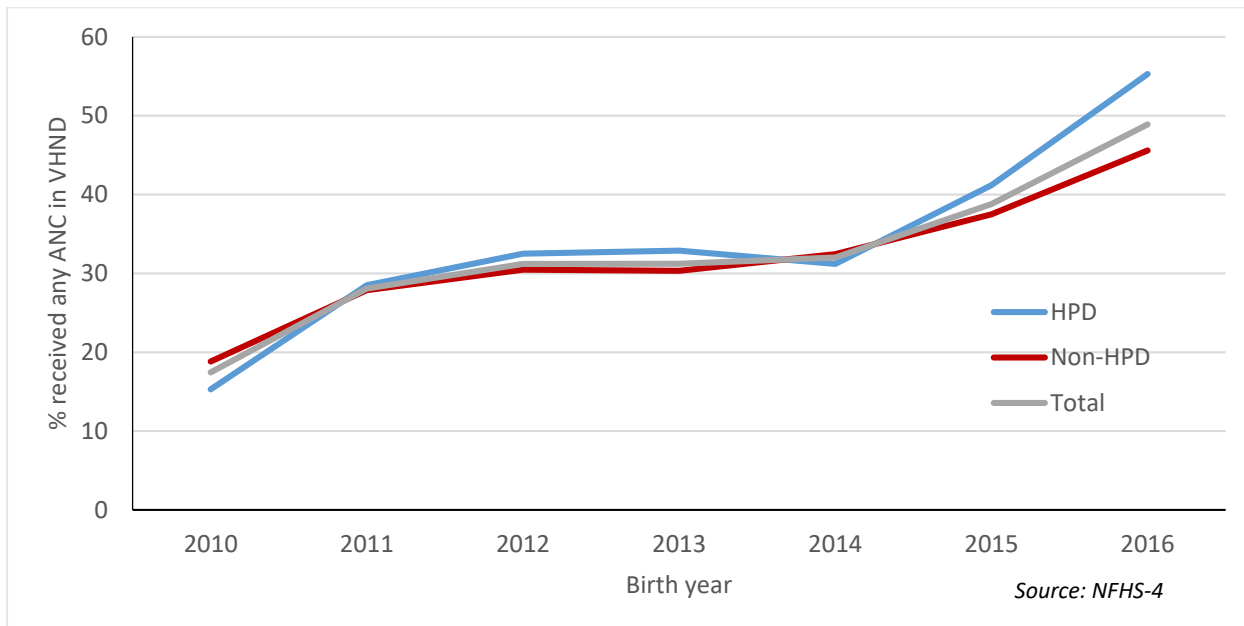
In Uttar Pradesh, the HPDs demonstrated substantial improvement in coverage compared to the non-HPDs by closing the gaps in coverage to less than 3% (Figure 3). The improvement in coverage in UP was the highest among the EAG states at 38% where the coverage improved from 50% in 2010 to 88% in 2016.

*Figure 3: Trends of any ANC coverage in HPDs vs. Non-HPDs of rural areas of EAG states*



In UP, it should be noted that the change in coverage has improved at a faster rate since 2014 (Figure 3). This improvement can be attributed to the focused efforts initiated by the GoUP and TSU in strengthening service delivery platform to include ANC vis-à-vis the Village Health and Nutrition Days (VHND). The percentage of women receiving ANC at a VHND or sub-center saw a steep increase during this period as shown in the figure below (Figure 4). It can also be seen that the change was steeper in the HPDs where the TSU provides focused support to the GoUP.

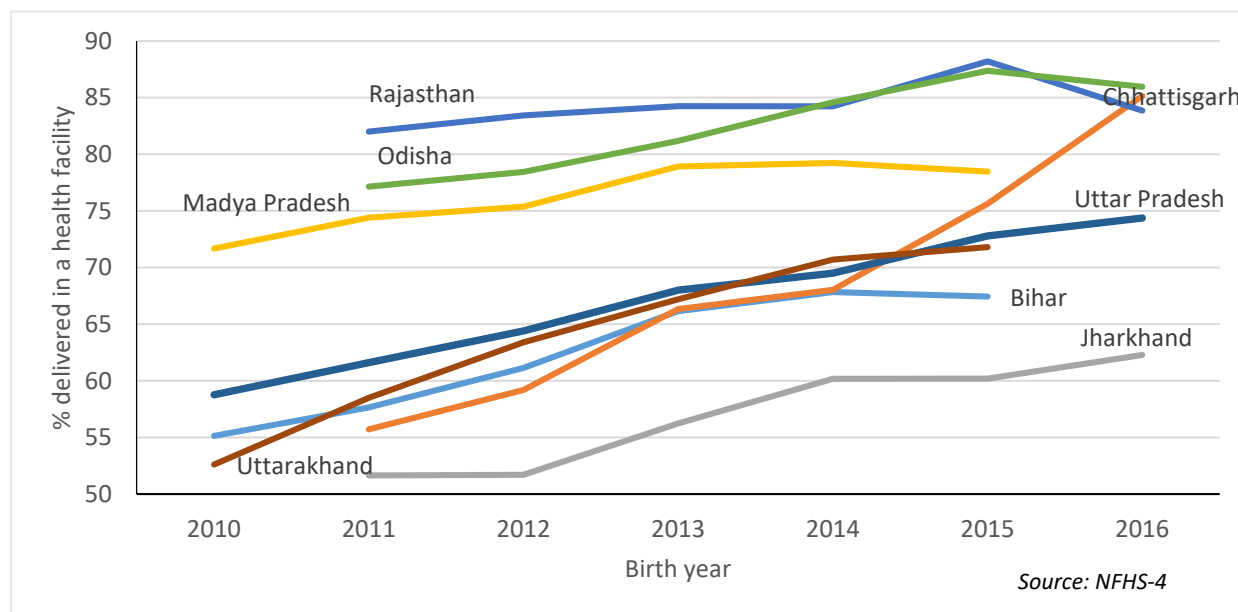
*Figure 4: Trends in % of pregnant women receiving ANC in a VHND/Sub-centre in rural UP*



## Institutional Delivery

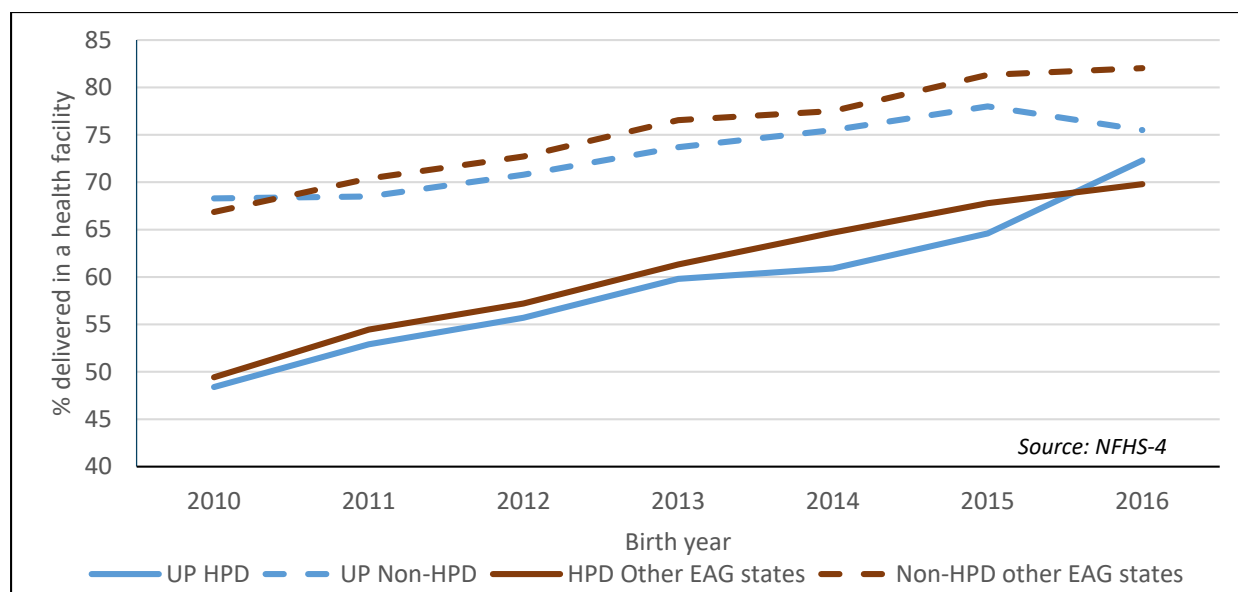
Institutional delivery has similarly improved across all EAG states. While Chhattisgarh showed the most improvement in ID, UP showed an increase from 59% to 74% between 2010 and 2016. (Figure 5)

*Figure 5: Trends of Institutional Delivery coverage in rural areas of EAG states*



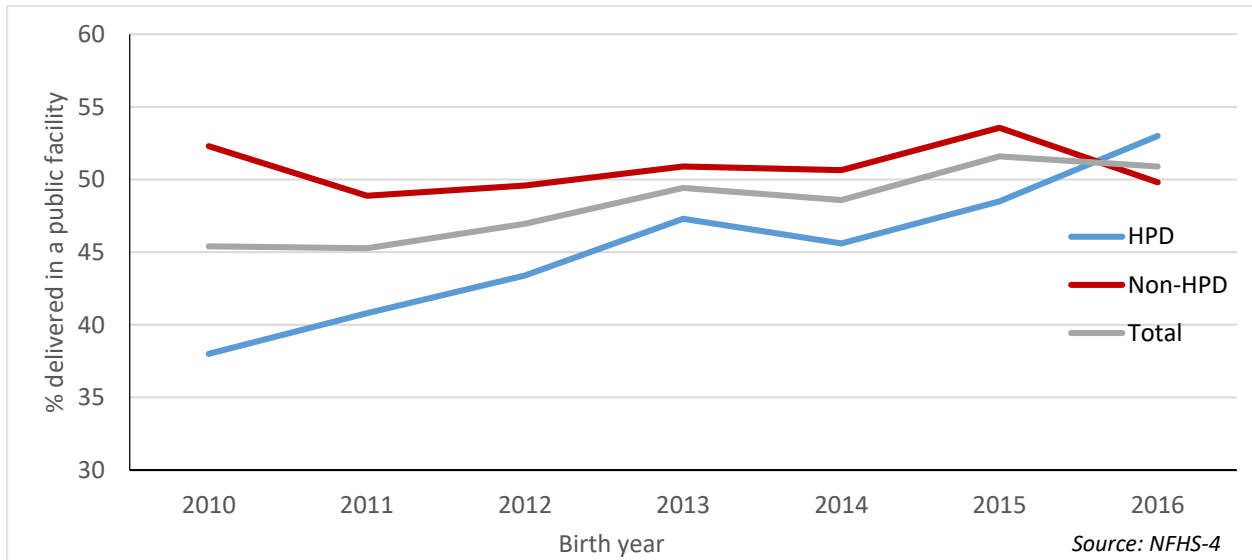
As with ANC, Uttar Pradesh's improvement in ID was much higher in the HPDs than the Non-HPDs. However, there remains a large opportunity in further improving the coverage of institutional delivery.

*Figure 6: Trends of Institutional Delivery coverage in HPDs vs. Non-HPDs in rural areas of EAG states*



It is important to note the incremental improvement of uptake of Institutional Delivery seemed to occur largely at public facilities in the HPDs of UP, especially during the period from 2014-2016 (Figure 7). This could be attributed to improved availability and service delivery in these facilities. The nearly stagnant growth in the Non-HPDs should be explored and addressed.

*Figure 7: Trends in % delivering in HPDs vs. Non-HPDs at public health facility in rural UP*



## Way Forward

Uttar Pradesh has made major strides towards improving the availability of ANC across the state, particularly in the high priority districts, which has closed the gaps in ANC coverage with respect to the rest of the state. The TSU continues to support the government in improving overall ANC coverage across the state, while also working towards improving the number of ANC visits. In addition to this, the TSU aims to improve the quality of care that occurs during these ANC visits by providing pregnant women both preventive and therapeutic care necessary for good birth outcomes.

While there has been significant improvement in ID overall, further efforts are required. The UP TSU will continue to work with the GoUP to improve the coverage of Institutional delivery while also working towards improving the quality of care at the facilities. Efforts have already been initiated through the nurse-mentoring program to improve practices of facility staff and to strengthen the First Referral Units for management of complications among pregnant women. By strengthening the care provided during the antenatal period, combined with improved services for delivery at public facilities, this will help ensure overall continued gains for improved maternal and child outcomes in the state.



UNIVERSITY  
OF MANITOBA



## Annexure 1: Limitation of the Analysis

Due to the difference in the timings of data collection in different districts in NFHS-4, the samples in the birth years 2010 and 2016 may not include all district samples in HPDs and non-HPDs. To that extent, we might have under- or over-estimated the coverage rates in these years.

*Table 1: Unweighted number of births in Uttar Pradesh, NFHS-4*

Birth year	2010	2011	2012	2013	2014	2015	2016	Total
HPD	1,060	2,133	2,546	2,458	2,472	1,510	350	12,529
Non-HPD	993	2,971	3,986	4,101	4,031	3,113	873	20,068
<b>Total</b>	<b>2,053</b>	<b>5,104</b>	<b>6,532</b>	<b>6,559</b>	<b>6,503</b>	<b>4,623</b>	<b>1,223</b>	<b>32,597</b>

## Annexure 2: Average annual Improvement in coverage in any ANC and Institutional Delivery in rural areas among various EAG states

The average annual improvement is the average growth per year in coverage. In ANC, Uttar Pradesh has the highest improvement per year in coverage with HPDs showing the highest improvement. For institutional delivery, Uttar Pradesh ranked 5<sup>th</sup> amongst all EAG states for overall but was ranked 3<sup>rd</sup> for HPDs.

*Table 2: Average annual Improvement in coverage in Antenatal care and Institutional Delivery in rural areas of EAG states split by HPDs & Non-HPDs, NFHS-4*

State	Average annual improvement of the any ANC coverage			Average annual improvement of the Institutional Delivery coverage		
	HPD	Non-HPD	Overall	HPD	Non-HPD	Overall
Bihar	3.8	4.9	4.4	7.2	3.4	4.5
Chhattisgarh	1.4	0.5	0.8	6	8.9	7.7
Jharkhand	0.4	2.0	1.4	3.5	4.7	4.1
Madhya Pradesh	5.0	2.3	3.2	2.7	1.2	2.0
Odisha	0.5	0.5	0.5	2.2	1.4	1.2
Rajasthan	2.5	1.8	1.8	3.0	3.0	2.8
Uttarakhand	4.7	2.3	3.1	4.7	6.7	6.1
<b>Uttar Pradesh</b>	<b>8.2</b>	<b>3.3</b>	<b>5.3</b>	<b>5.3</b>	<b>2.5</b>	<b>3.7</b>