

Institutionalizing Community Health Conference



27-30 March 2017 | Johannesburg, South Africa



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FRONTIERS IN COMMUNITY HEALTH: USE OF DIGITAL TOOLS TO IMPROVE CONSUMER PROVIDER INTERACTIONS

*Institutionalizing Community Health Conference, 27-30 March 2017, Johannesburg, South Africa
1.30-3.00 pm, 29 March 2017, Vancouver, Canada*

AGENDA FOR THE SESSION

Key Topics	Moderator	Time
Introduction to the session and panel	Krishna Jafa	1.00 PM – 1.10 PM
Context setting for application of digital tools for improved health and nutrition outcomes	Usha Kiran Tarigopula	1.10 PM – 1.20 PM
Better performance through better planning: The Community Health Worker's planning tool	Vikas Gothewal	1.20 PM – 1.30 PM
Digital job aids to improve CHW interactions at Scale	B Ramakrishnan	1.30 PM – 1.40 PM
Digital tools to empower and equip CHWs for improved communication for health impact	Priyanka Dutt	1.40 PM – 1.50 PM
Digitizing CHW payments for improving motivation	Ms. Yamini Atmavilas	1.50 PM – 2.00 PM
Discussion/Q&A	Krishna Jafa	2.00 PM – 2.30 PM



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WHILE INDIA IS AMONG TOP 10 COUNTRIES IN MANY SECTORS, THERE IS A NEED TO ACCELERATE PROGRESS IN HEALTH DESPITE RECENT IMPROVEMENTS

WHAT INDIA IS GOOD AT GLOBALLY..

Technological and Economic Indicators



GDP

9th largest GDP size



DEFENCE

4th in military strength



INTERNET

2nd largest internet user base



SPACE

6th most advanced in space technology



MOBILE PHONES

2nd largest number of mobile phones

WHAT INDIA IS NOT GOOD AT GLOBALLY..

Health and Nutrition Indicators



MATERNAL MORTALITY

128th of 179 countries in maternal mortality rate



INFANT MORTALITY

144th of 187 countries in infant mortality rate



CHILD NUTRITION

150th of 151 countries in % wasted children



TUBERCULOSIS

194th of 194 countries in number of new TB cases

INDIA HAS MANY NATIONAL FLAGSHIP PROGRAMS TO ADVANCE NATIONAL HEALTH AND NUTRITION GOALS

HEALTH

National Health Mission (NHM)

National Rural Health Mission (NRHM): 2005
National Urban Health Mission (NUHM): 2013



Rashtriya Swasthya Bima Yojana (RSBY): 2008



NUTRITION

Mid Day Meal Scheme (MDM): 2001



Integrated Child Development Services (ICDS): 1975



Swachh Bharat Mission (SBM): 2014



DISEASE CONTROL / ELIMINATION

National AIDS Control Programme (NACP): 1992



Revised National TB Control Programme (RNTCP): 1997



National Vector Borne Disease Control Programme (NVBDCP): 2003-04



Integrated Disease Surveillance Project (IDSP): 2004



WE SHARE INDIA'S GOALS AND SUPPORT THE GOVERNMENT IN THE STATES OF UTTAR PRADESH AND BIHAR AND NATIONALLY

	Our impact commitments in India								
	Bihar			UP			India		
	Latest levels	Impact Horizon 1 (2020)	Impact Horizon 2 (2030)	Latest levels	Impact Horizon 1 (2020)	Impact Horizon 2 - (2030)	Latest levels	Impact Horizon 1 (2020)	Impact Horizon 2 (2030)
MMR	208 ¹	160*	70	285 ^{#1}	170*	70	167 ¹	We are <u>not</u> aiming for nationwide impact in Horizon 1	70
NMR	28 ¹	22*	12	55 ⁺	40*	TBD	28 ¹		12
U5MR	54 ¹	42*	25	99 ⁺	70*	25	49 ¹		25
Still Birth Rate	20 [@]	16*	10	-	TBD	10	23 [^]		10
mCPR – FP2020	23 ²	64 ⁴	TBD	38 ³	61 ⁴	TBD	-		TBD
Lives saved with nutrition interventions	-	81,000 ⁵	TBD	-	227,000 ⁵	TBD	-	680,000 ⁵	TBD

\$ World Bank 2015; ^ Lancet 2016; [@] BMC Pregnancy and Childbirth 2014

* Target slightly higher than what would be required to be on track for 2030 SDG target

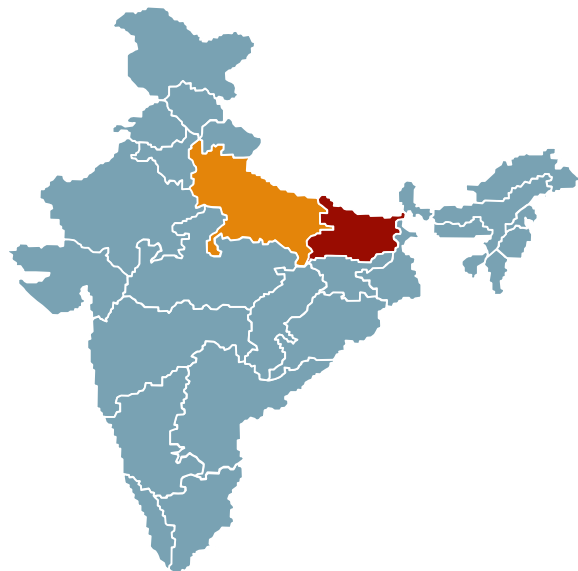
+ Level for 25 HPDs only, "latest levels" are estimated figures from AHS 2013 data

Level for all of UP

1 SRS 2013; 2 NFHS4 - 2015; 3 AHS 2012-2013; 4 GoI Vision FP2020 document

5 LiST modeling as part of 2015 Nutrition Strategy Refresh

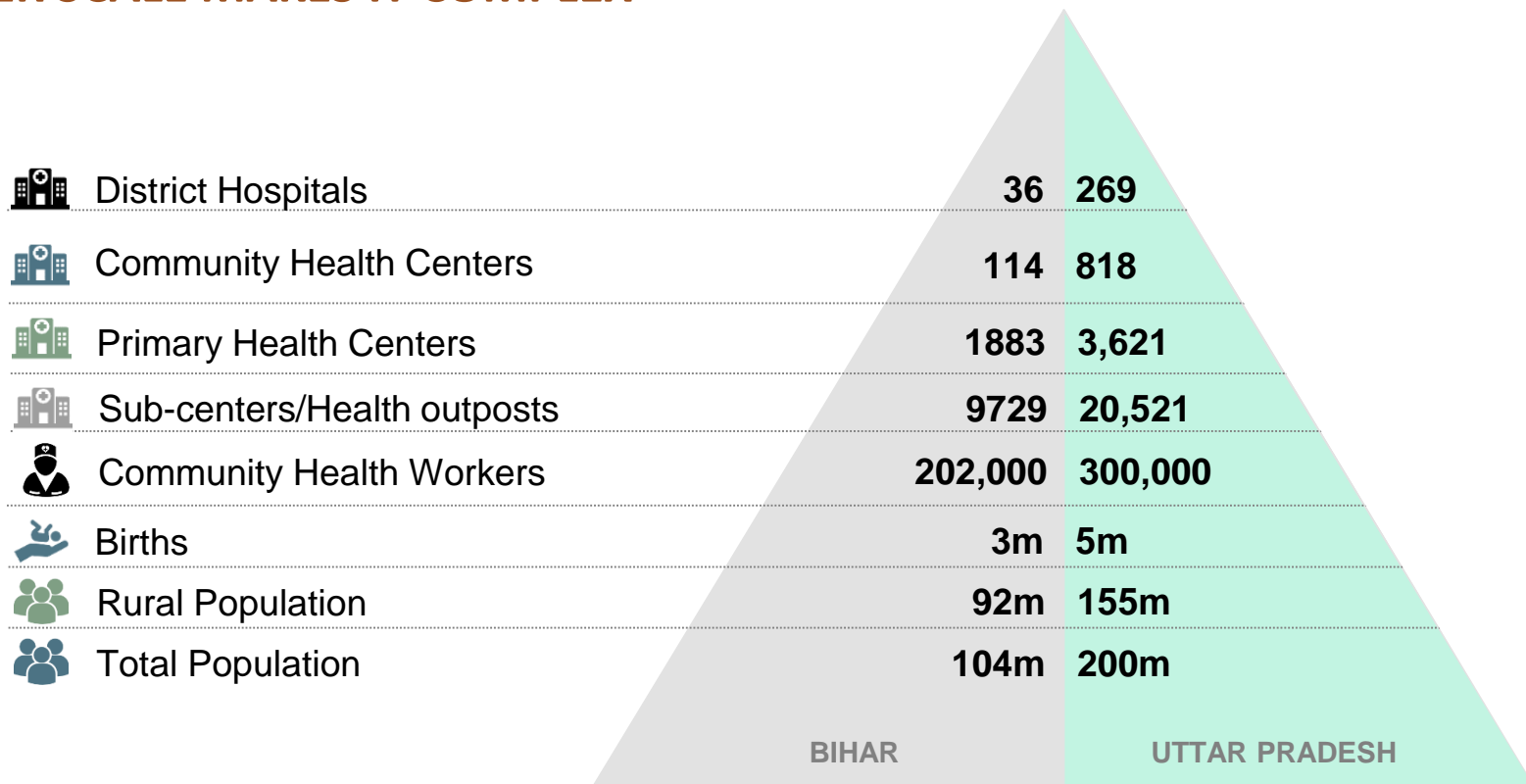
UTTAR PRADESH AND BIHAR CONTRIBUTE SIGNIFICANT DISEASE BURDEN NATIONALLY AND PROGRESS IN THESE TWO STATES IS CRITICAL FOR INDIA TO REACH SDGS



	Population	Maternal deaths	Neonatal deaths	Under five deaths
World	7.4B	303,000	2,682,000	5,945,000
India	1.2B	45,000	696,000	1,201,000
Uttar Pradesh	204M	14,123	158,571	282,455
Bihar	104M	5,651	73,352	143,988
UP + Bihar	Global Burden	7%	9%	7%
	Indian Burden	44%	33%	36%

BIHAR AND UTTAR PRADESH HAVE A COMBINED POPULATION OF 300 MILLION PEOPLE WITH 8 M ANNUAL BIRTH COHORT WITH 500K CHWS

SHEER SCALE MAKES IT COMPLEX



OUR MAIN MODEL OF SUPPORT IS THROUGH TECHNICAL ASSISTANCE TO GOVERNMENT TO STRENGTHEN HEALTH AND COMMUNITY SYSTEMS FOR IMPACT

BUILDING ON EXISTING SYSTEMS

SYSTEMS STRENGTHENING

- Supply chain & procurement
- Quality and quantity of HR
- Outsourcing and contracting
- Payments and budgeting



ACCOUNTABILITY / GOVERNANCE

- Concurrent monitoring, measurement systems
- Data driven management through use of dashboards



TECHNICAL INTERVENTIONS

LAST MILE DELIVERY

- Sub-health center level planning, quality BCC
- VHSND strengthening



VHSNDs

Mobile Kunji

PERFORMANCE MANAGEMENT

- Supportive supervision/mentoring
- Leadership and management coaching



Team based goals & incentives

DIRECT TO CONSUMER CHANNELS

- Self help groups and federations
- 360° communications support



SHG S

IMPROVING QUALITY OF CARE

- QI, nurse mentoring
- VLBW tracking
- Clinical reviews
- FP trainings



Nurse mentoring

SUPPORTIVE POLICIES

LEVERAGE TECHNOLOGY

LEVERAGING TECHNOLOGY AS AN ENABLER TO SOLVE LAST MILE DELIVERY CHALLENGES

Citizen | Government | Authority | Purchasers | Health Service Providers | Others

Community Based Systems

CHW Management

Interactive & Outreach Content

Telemedicine

Geographic Information System

Sentinel Surveillance

Service Providers Systems

Service Provider Registry

Enumeration and name based tracking

Facility Management System

Clinical Decision Support Systems

Skills and tools for CHW performance

Government/State Systems

Benefits Package

Supply Chain

HR management

Finance & Payments Management

Grievance Management

Consumer Facing Systems

EHR/ Clinical Summary

Consumer Health Information Portal

Appointment Systems

Health Risk Assessment

Patient/Provider Communication

Management Systems

Health Indicators and Analytics

Quality Measures

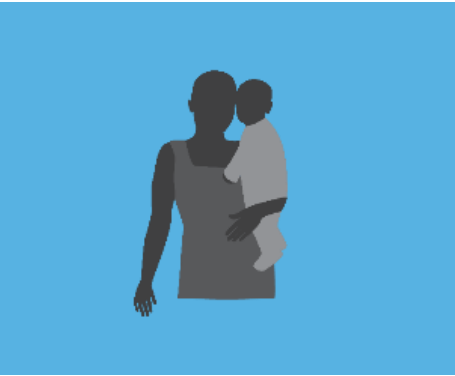
Utilization Measures

DHIS

Citizen Directory

- Missing denominators and beneficiary tracking systems
- Lack of continuum care
- Limited quantity, quality and effective interactions between CHWs and clients

- Laborious, time-consuming, paper-based systems
- High variability of skills among CHWs
- Delayed provider and client payments



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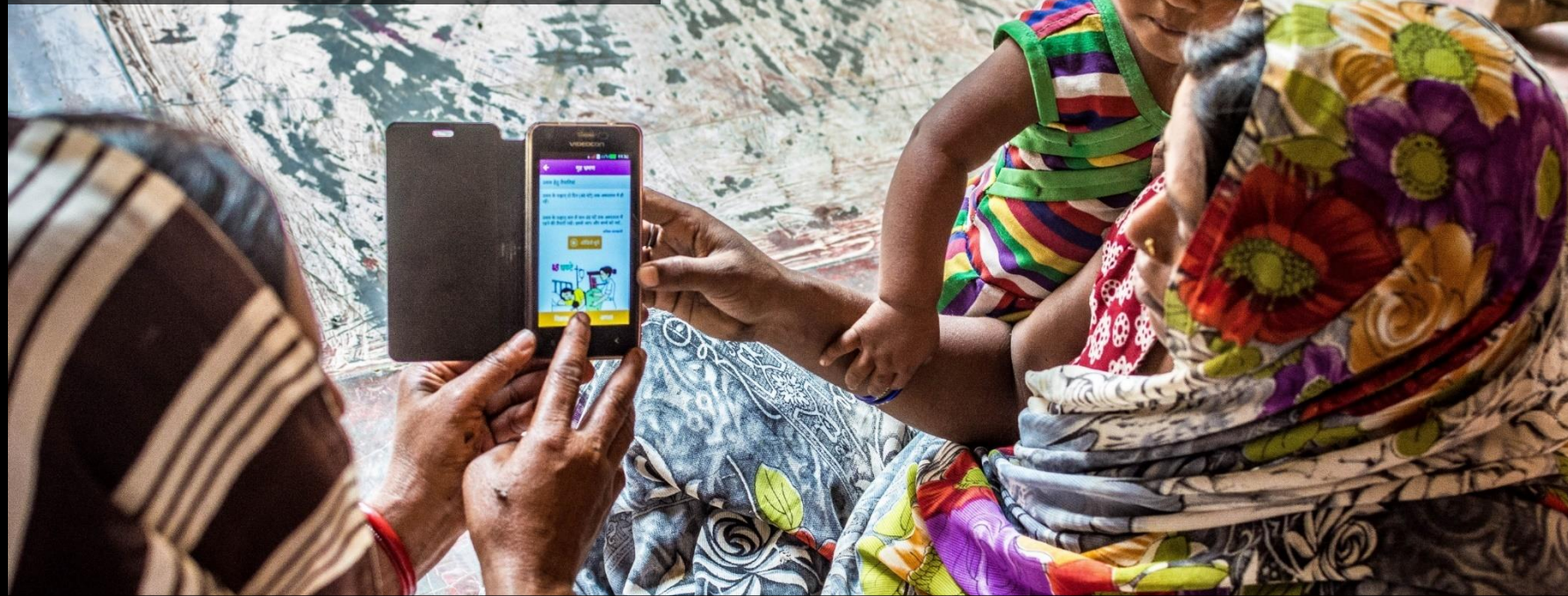


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Better performance through better
planning: the community health worker's
planning tool



Vikas Gothalwal,
Executive Director
Uttar Pradesh Technical Support Unit





~150,000 Accredited Social Health Activists or ASHAs- CHWs, selected from a village itself and accountable to it, act as an interface between the community and public health system

Responsibilities

Mobilizer

Prepare and maintain family wise line listing of all beneficiaries in her village, mobilize community to avail services

Activist


Create awareness on health, increase accountability and utilization of existing health services

Service provider

Provide minimum package of curate services and make timely referrals







ASHA/CHW
visits households for
family wise listing of
beneficiaries





ASHA visits
households for family
wise listing of
beneficiaries

Updates VHIR and
generates due-list
(need list)

ग्राम सर्वे तालिका


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graph LR; A[ASHA visits households for family wise listing of beneficiaries] --> B[Updates VHIR and generates due-list (need list)]; B --> C[Mobilizes Eligible Couples for FP services, distribution of condoms (Section 10)];
```

Mobilizes Eligible
Couples for FP services,
distribution of condoms
(Section 10)

ASHA visits
households for family
wise listing of
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Updates VHIR and
generates due-list
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ASHA/CHW visits
households for family
wise listing of
beneficiaries

Updates VHIR and
generates due-list
(need list)

Mobilizes Eligible
Couples for FP services,
distribution of condoms
(Section 10)

Prepares Birth Plan &
accompanies pregnant
woman to facility for
delivery (Section 3,4)

Plans Home Based
Newborn Care visits as
per date of delivery
(Section-5)





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graph LR; A[ASHA visits households for family wise listing of beneficiaries] --> B[Updates VHIR and generates due-list (need list)]; B --> C[Mobilizes Eligible Couples for FP services, distribution of condoms (Section 10)]; B --> D[Prepares Birth Plan & accompanies pregnant woman to facility for delivery (Section 3,4)]; B --> E[Plans Home Based Newborn Care visits as per date of delivery (Section-5)]; B --> F[Provides services to Pneumonia & Diarrhea cases (Section 7,8)]; B --> G[Mobilizes Adolescent girls for reproductive care (Section 12)];
```

ASHA visits households for family wise listing of beneficiaries

Updates VHIR and generates due-list (need list)

Mobilizes Eligible Couples for FP services, distribution of condoms
(Section 10)

Prepares Birth Plan & accompanies pregnant woman to facility for delivery
(Section 3,4)

Plans Home Based Newborn Care visits as per date of delivery
(Section-5)

Provides services to Pneumonia & Diarrhea cases
(Section 7,8)

Mobilizes Adolescent girls for reproductive care
(Section 12)

ASHA/CHW visits households for family wise listing of beneficiaries

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Mobilizes Adolescent girls for reproductive care
(Section 12)

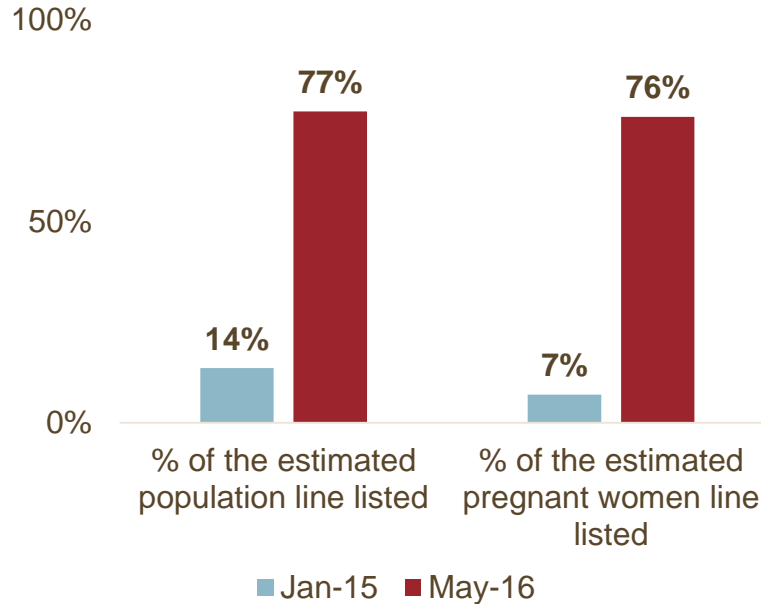
Mobilizes beneficiaries to village level RMNCH+A service delivery platform (VHND)

अध्यक्ष कोषाध्यक्ष सचिव
मुनीता दुर्गा देवी गीता
आस्था महिला ब्लाक संगठन
ब्लाक - बहादुरपुर
राजीव गाँधी महिला विकास परियोजना

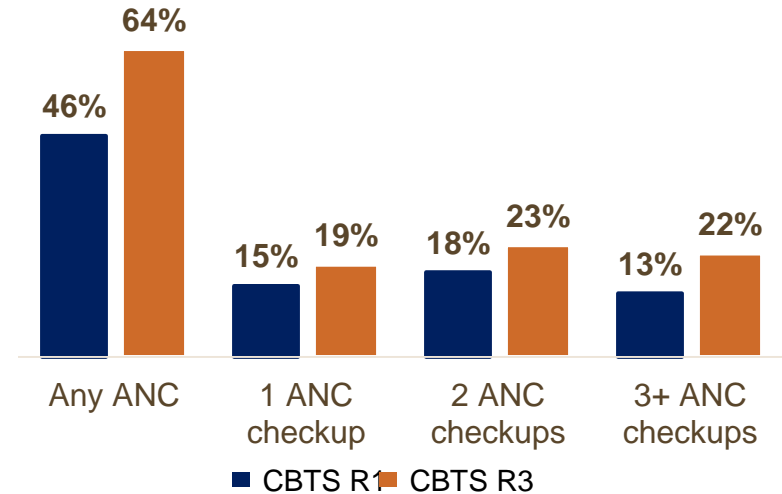
गर्भवती होने का पता
चलने ही 8-10 मिनट के
पास जाना है
और पैजिक्शन कराना
है।
गर्भवती महिला को
जागरण की 100
गोली दिखलाना है
और होने वाली
खून की कमी को
पता चाना है।



Increased line listing and registration of pregnant woman due to VHIR



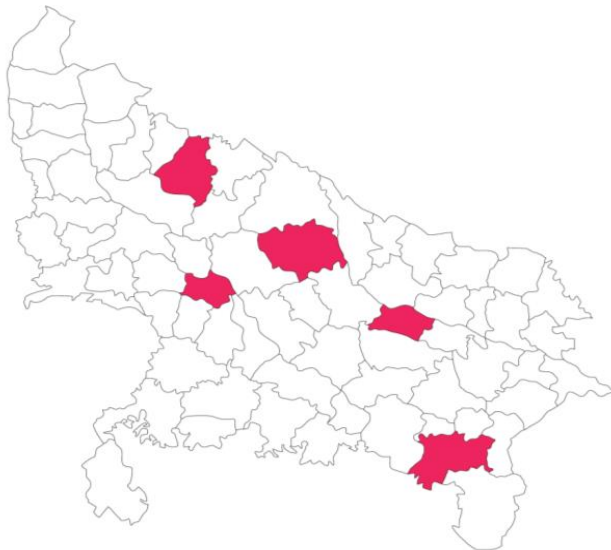
Improved ante-natal coverage



Next frontier in CHW planning- digitization
of job-aids



Launched as a pilot (in Q4 2015) in 5 districts of UP covering a population of 12 million



**10,000
ASHAs/CHWs**



1600 ANMs



**135 Block &
District officials**

Aims to reduce maternal, neonatal, child mortality by empowering CHWs

Key features



**Automated and
multimedia enabled
job-aids (eg. VHIR)**



On-demand training









**Automated report
generation**



**Timely incentive
payments**

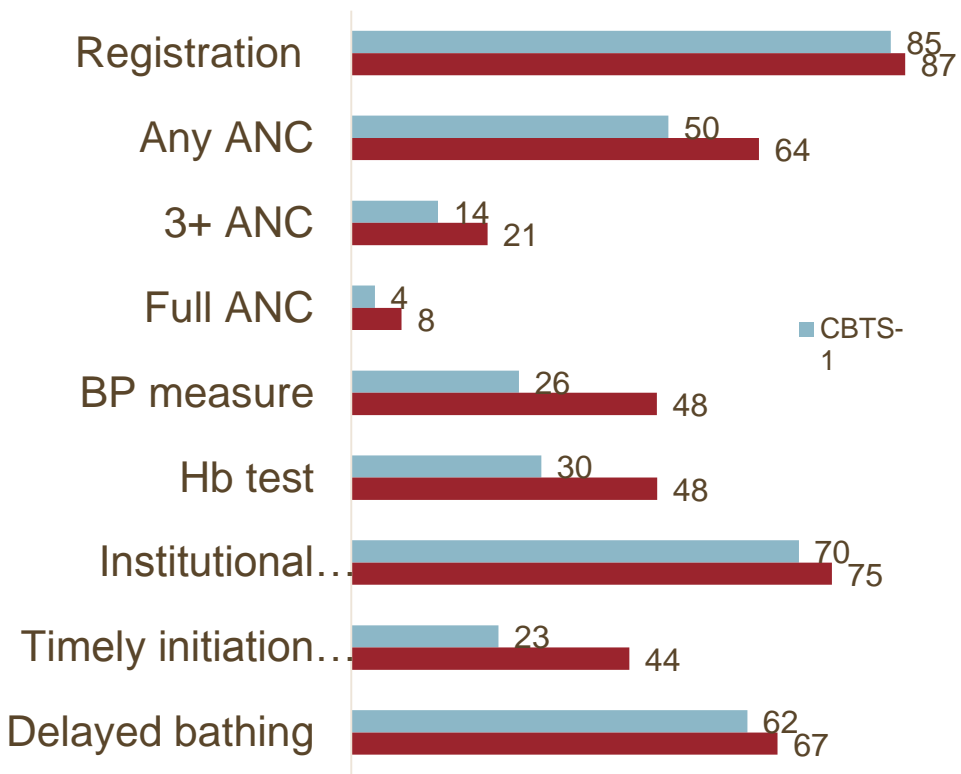


Coverage

	Target	In mSehat
 Population	1,25,04,900	1,20,93,355 (97%)
 Eligible Couple	21,25,833	19,47,477 (92%)
 Currently Pregnant Women	2,34,551	Identified 1,09,085 (47%) Registered for ANC 82,320 (75%)
 Births	3,12,734	2,73,538 (87%)
 Child (0-5 years)	12,33,522	8,55,570 (69%)
 Adolescents	26,60,538	26,71,256 (100%)



Impact



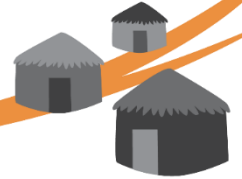
Improved coverage indicators in mSehat geographies

Note: CBTS or Community Behavior Tracking Survey is a periodic survey implemented by the UPTSU to measure community level RMNCH+A outcomes

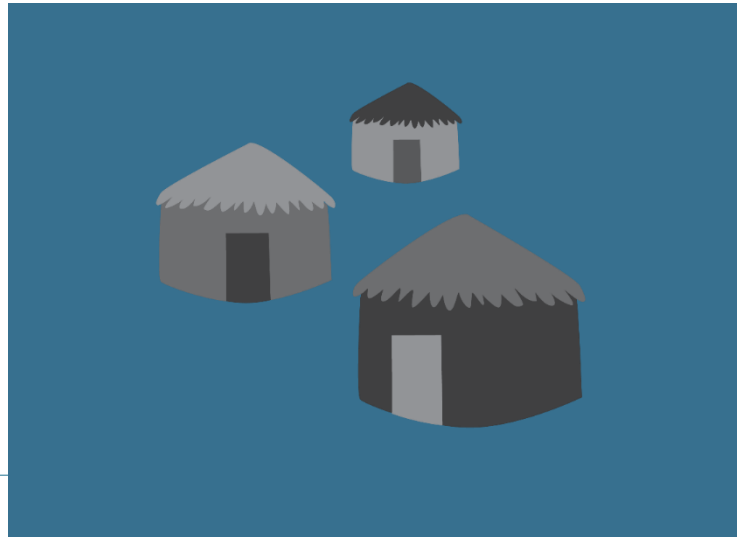




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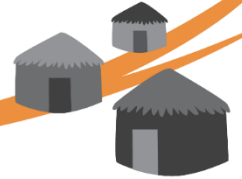
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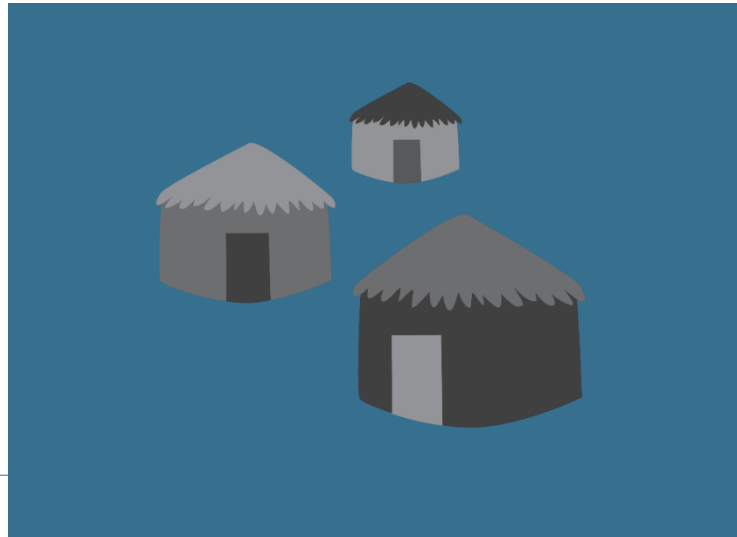
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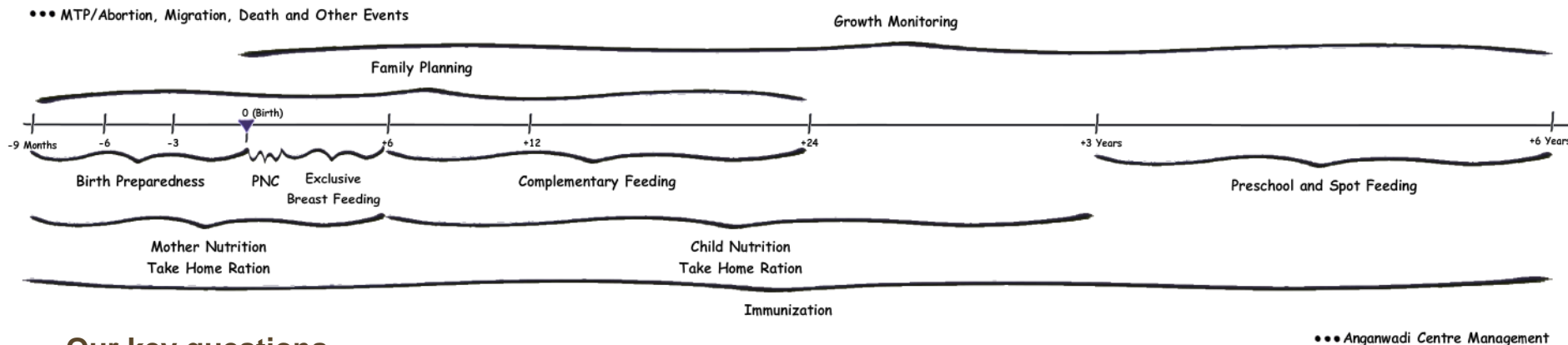


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OUR STARTING HYPOTHESIS FOR LEVERAGING TECHNOLOGY TO ADDRESS CONTINUUM OF CARE CHALLENGES



Our key questions

- Is mobile technology **usable and effective** in the hands of Community Health Workers (CHWs) during continuum of care
- Can we establish the use of mobile technology as **job-aids** for CHWs and help improve Service Delivery
- Can real-time data help effective **Supportive Supervision**

Objective: To examine usefulness of technology aids for better nutrition and health outcomes

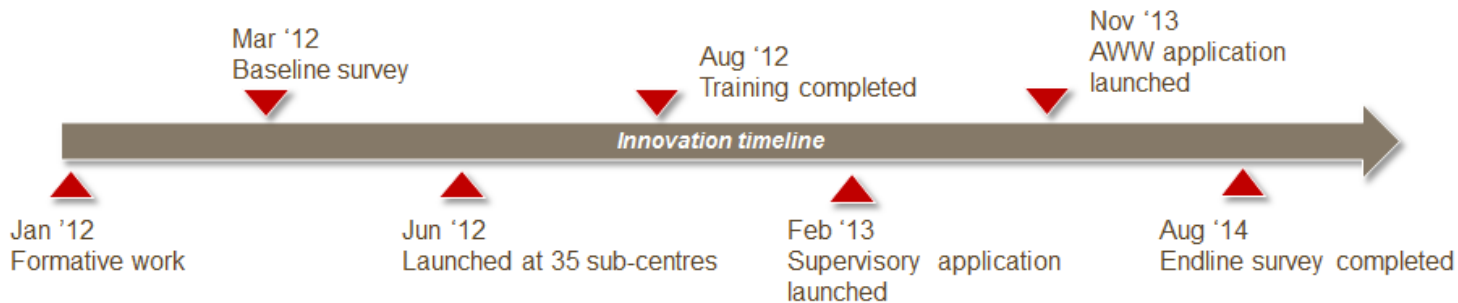
OUR INNOVATION WAS DONE IN ONE OF THE MOST REMOTE DISTRICTS OF BIHAR COVERING 334K POPULATION DURING 2012-14

STATE: **BIHAR**
DISTRICT: **SAHARSA**



Innovation Coordinates (Saharsa Districts)

Blocks	4
Health Subcentres	70 (35 Treatment, 35 Control)
Treatment Population Coverage	3,34,470
Treatment CHWs	569 (#ASHA: 240, #AWW: 272, #ANM: 45, # Lady Supervisor: 12)



THIS IS A HANDSET BASED APPLICATION ENABLING PLANNING AND TRACKING CHW-CLIENT INTERACTIONS

Interaction between CHW and client between pregnancy
and first 24 months

Automatic Scheduling of Home Visit



Prompts Structured Key Messages

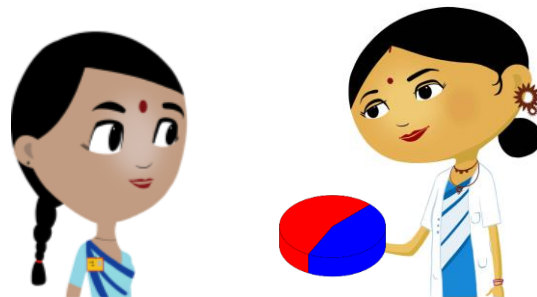


Suggest a Video to Reinforce

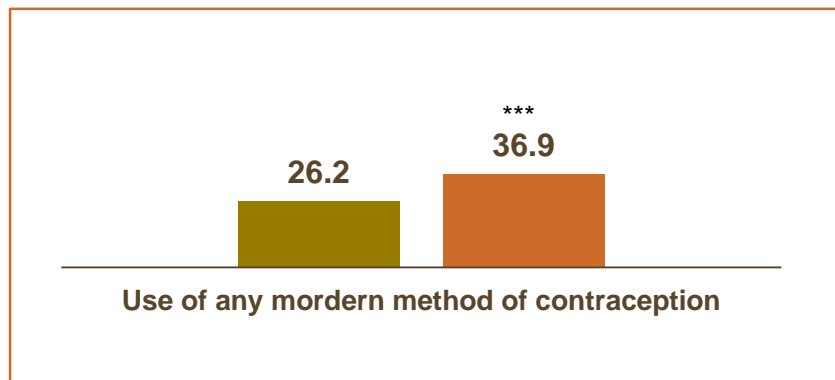
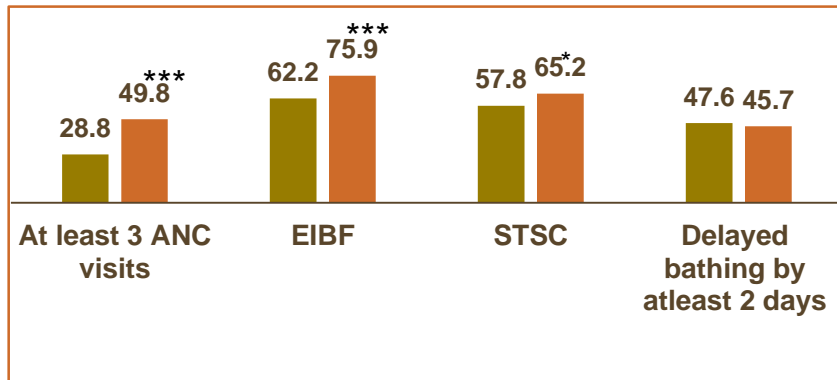
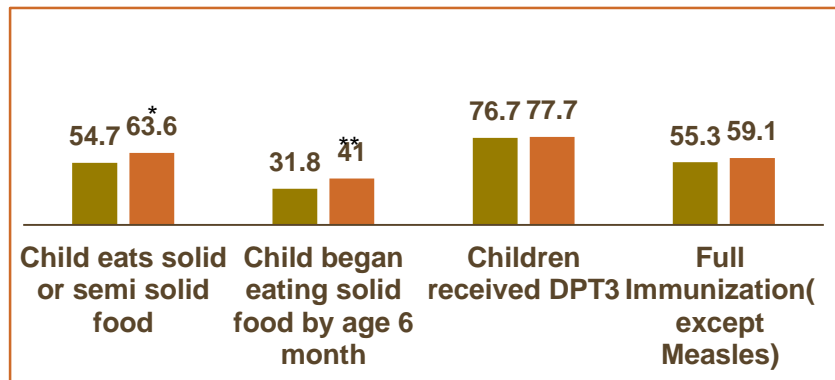
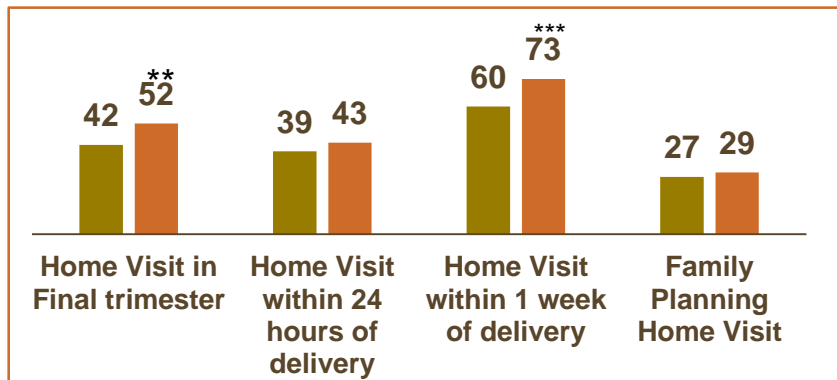


Remind to Collect Relevant Data

Data Driven Dialogs Between CHWs and Supervisors

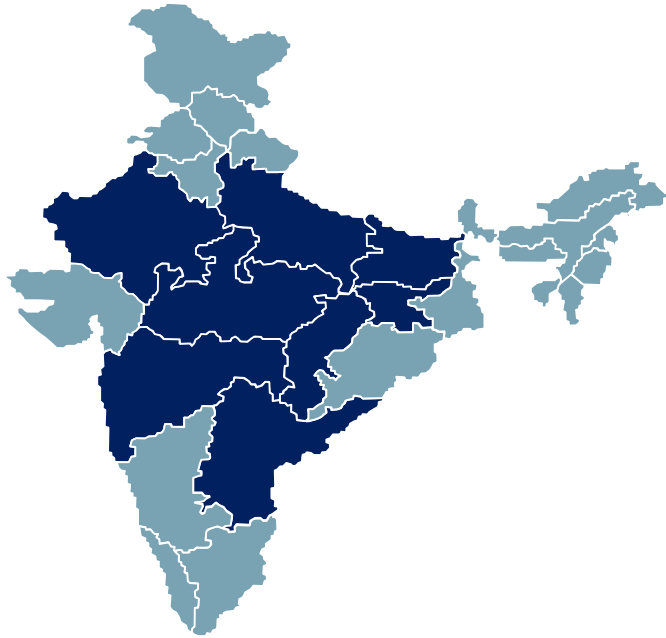


RIGOROUS MEASUREMENT SHOWED THAT CHWS REGISTERING, REACHING AND TRACKING PREGNANT WOMEN AND INFANTS, IMPROVED QUANTITY OF HOME VISITS AS WELL AS CRITICAL BEHAVIORS

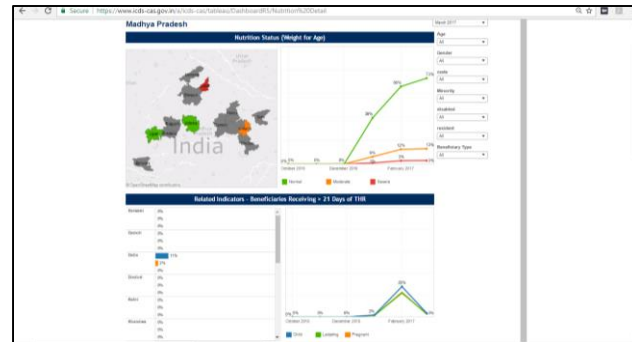
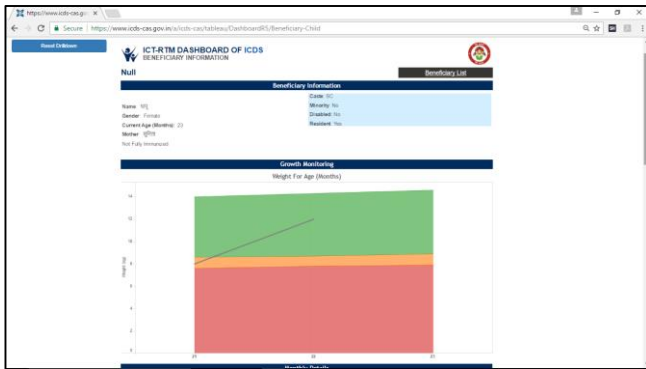
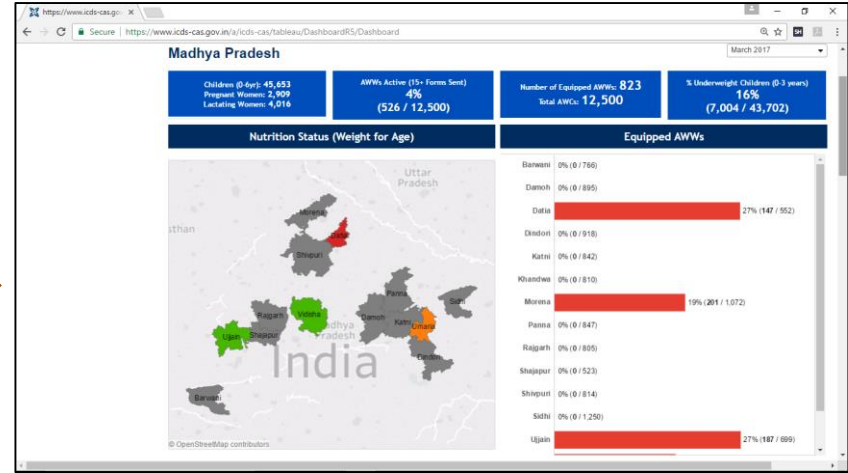
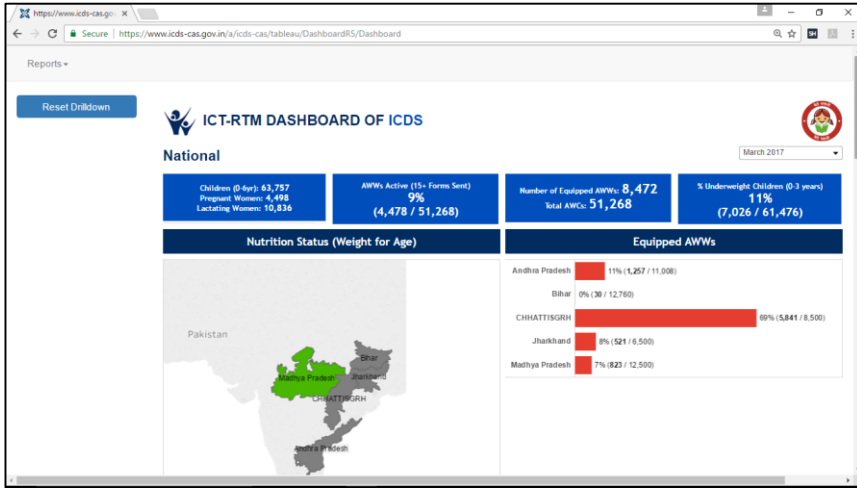


Control mean
Adjusted treatment mean

THE EVIDENCE HAS INFORMED THE DECISION OF GOVERNMENT OF INDIA TO ADAPT AND SCALE, BEGINNING WITH 100,000 CHWS



ADAPPTIONS FOR SCALE ALLOW STAKEHOLDERS AT ALL LEVELS TO ACCESS REAL TIME DATA



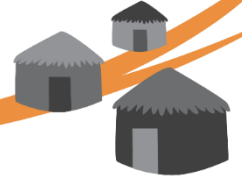


An excited ASHA and AWW with their new tech aid, Saurbazar block, Saharsa district.

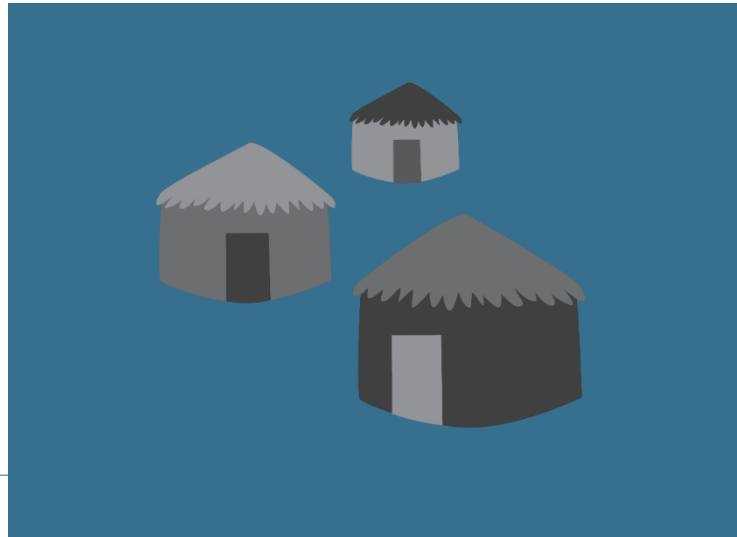




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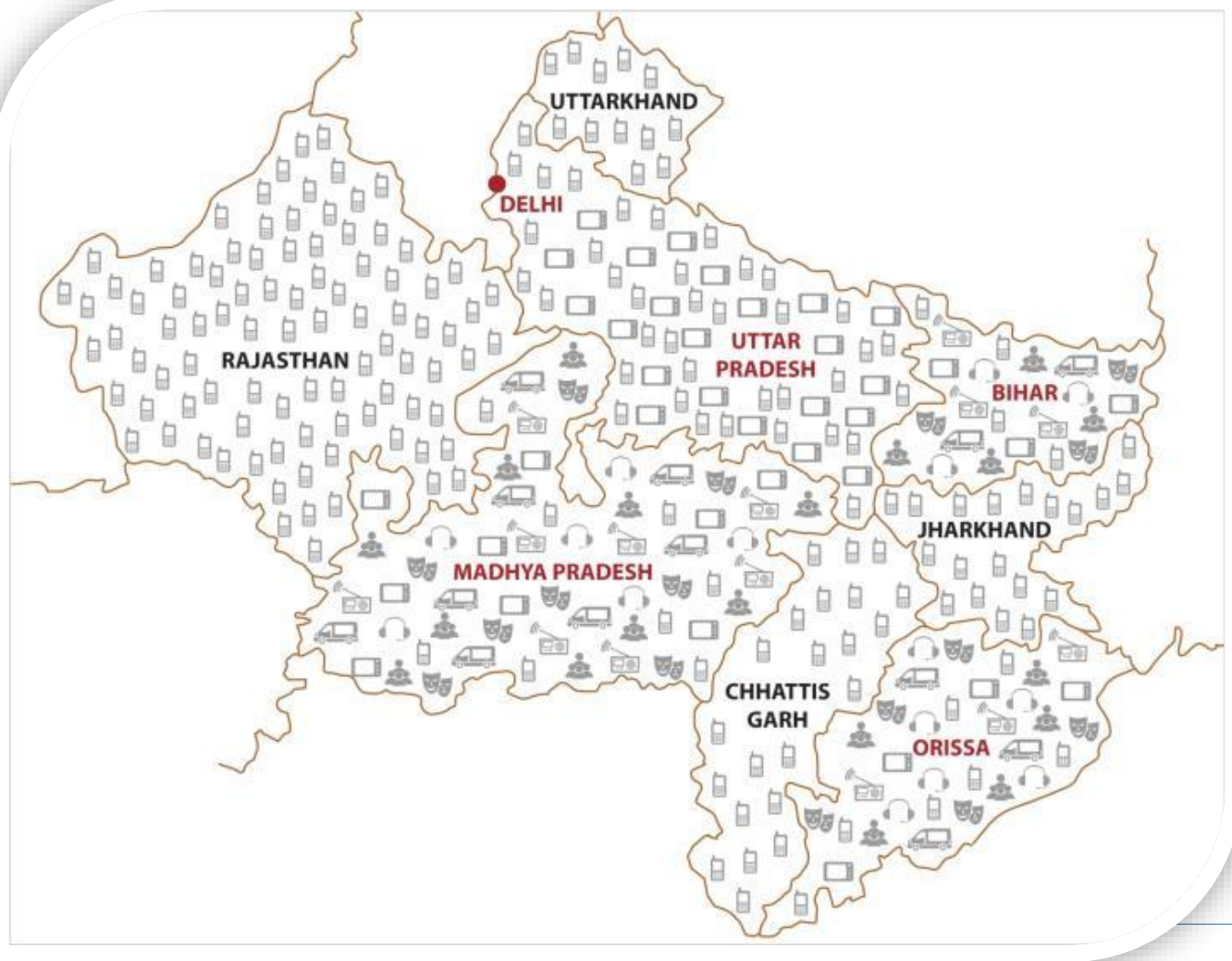




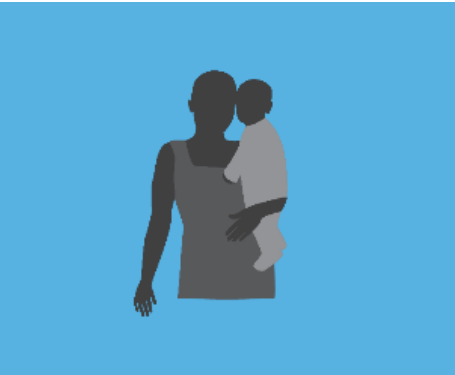
“Keep 3 phone numbers
in mind.

Hospital, car and
community health worker.
To keep tension at bay.
Plan as we say!”









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■ BACKGROUND

World Bank Group (WBG), in partnership with Government of Bihar's State Health Society (SHS) and Bill and Melinda Gates Foundation (BMGF), is implementing the Government to Person (G2P) health payments project

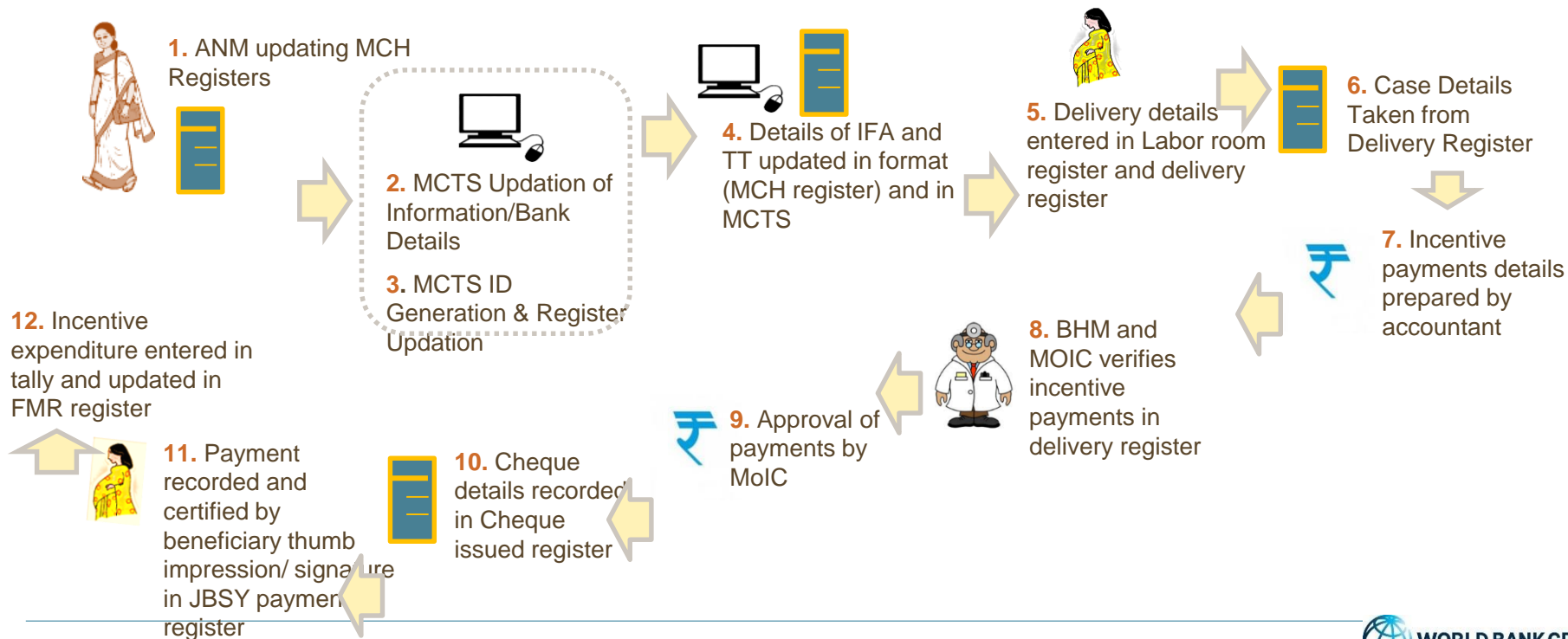
Public Financial Management System Health Module (PFMS HM) is being used for automation of the incentives for women beneficiaries and frontline health workers, salaries for contractual staff and fee to private providers under PPP.

PFMS HM will replace the existing paper based payment processing with electronic payment processing to a large extent

Main activities under the project – **training of users, handholding support to PHC staff, training of ASHAs for financial awareness.**

The project is implemented in two phases: Pilot phase (2014) and Scale up phase (2015). The presentation here refers to findings from the pilot

A COMMUNITY HEALTH WORKER SPENDS A GREAT DEAL OF TIME AND ENERGY IN A PROCESS-HEAVY SYSTEM TO ENSURE SHE AND THE CLIENTS SHE SERVES RECEIVE INCENTIVES



INEFFICIENCIES IN THE SYSTEM

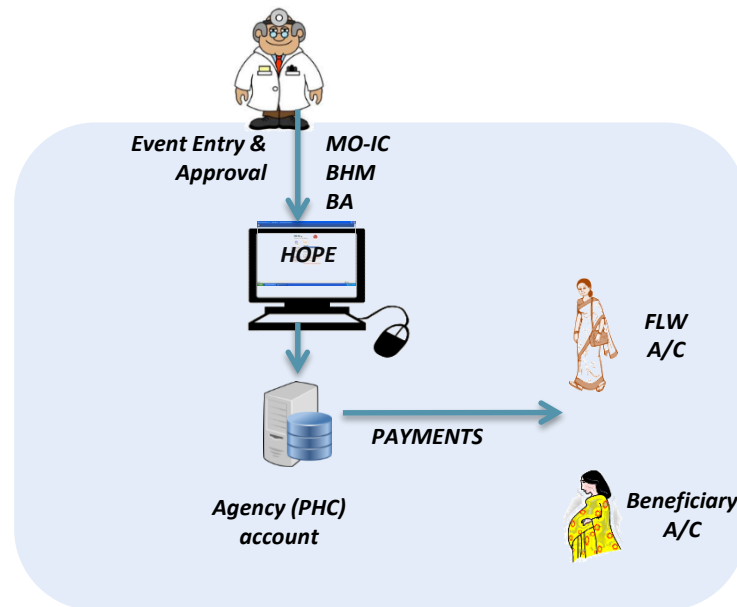
2013 project baseline study by independent evaluator revealed:

- CHWs wait on average **191 days** to receive payment
- Beneficiaries wait on average **58 days** to receive incentive payments for delivering at public institutions
- **25% of beneficiaries** report having to pay a “facilitation fee” to receive payment
- Health officials spend **15 to 54 hours per month** administering payments, time that could be spent providing health services



AT ITS MOST BASIC LEVEL, HOPE IS A PAYMENT ENGINE

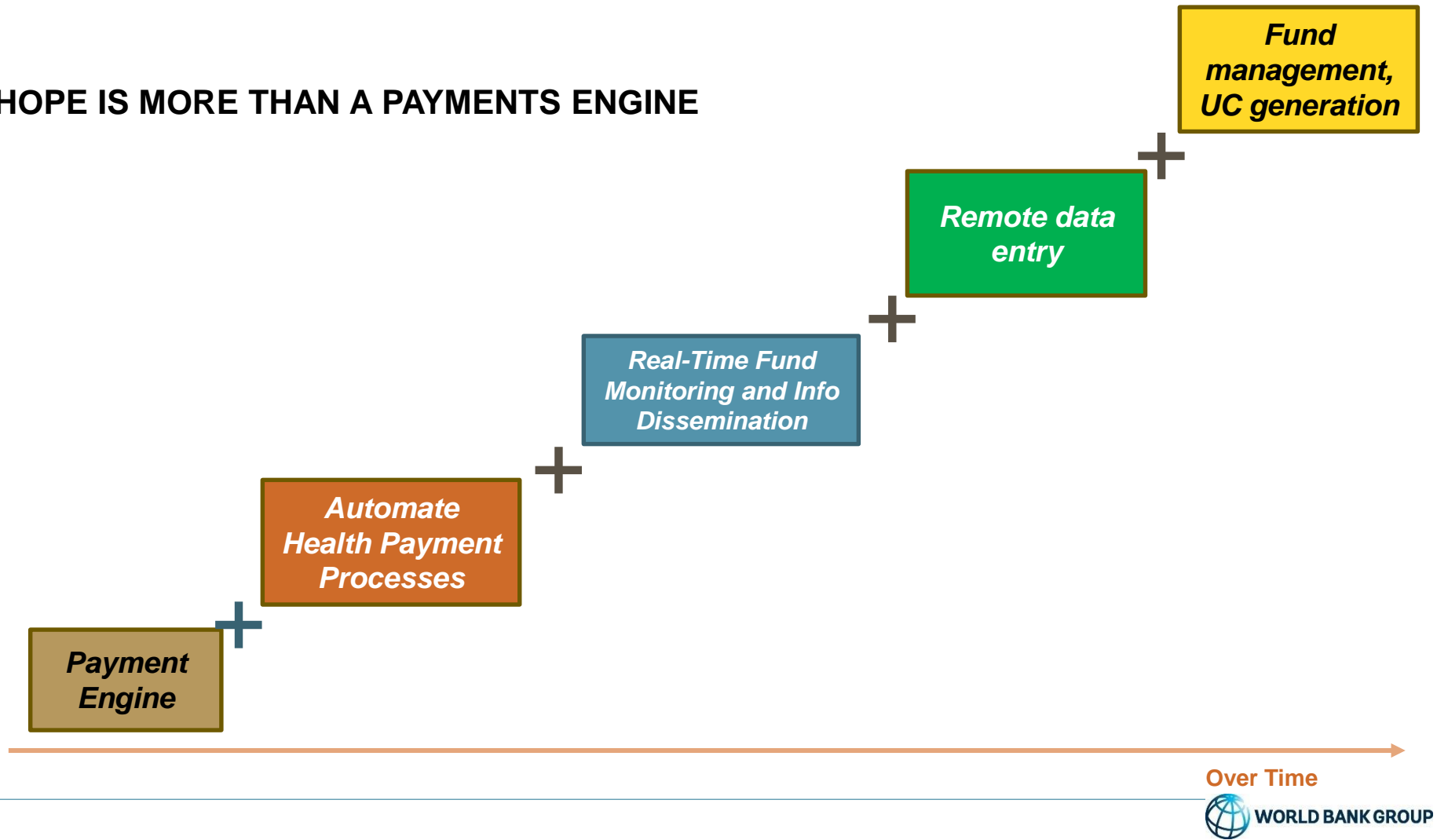
“**HOPE** automates the calculation, recording and authentication of events and delivers health payments **directly into beneficiary's account**”



Key Benefits

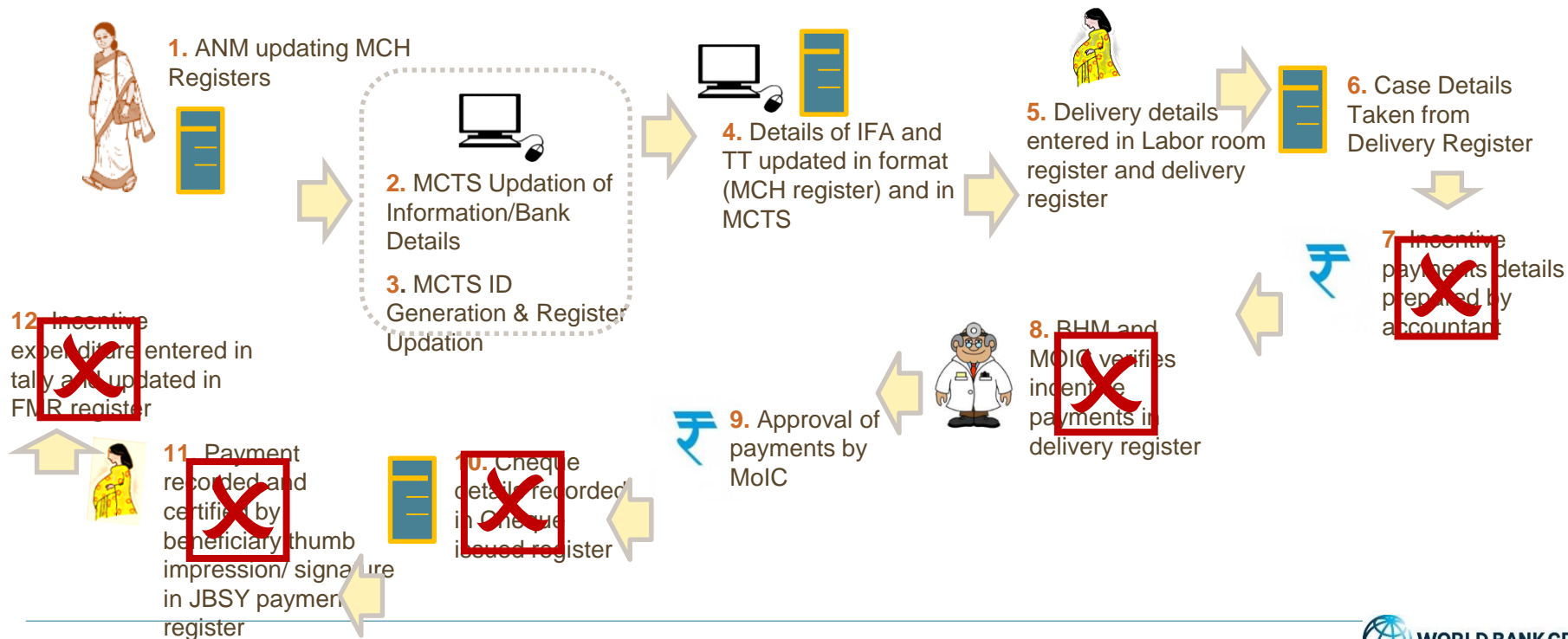
- Frontline workers and beneficiaries will get payments much faster, into a designated account, resulting in far better level of motivation and satisfaction
- Transparency in the payment process and “loss” of funds minimized

HOPE IS MORE THAN A PAYMENTS ENGINE

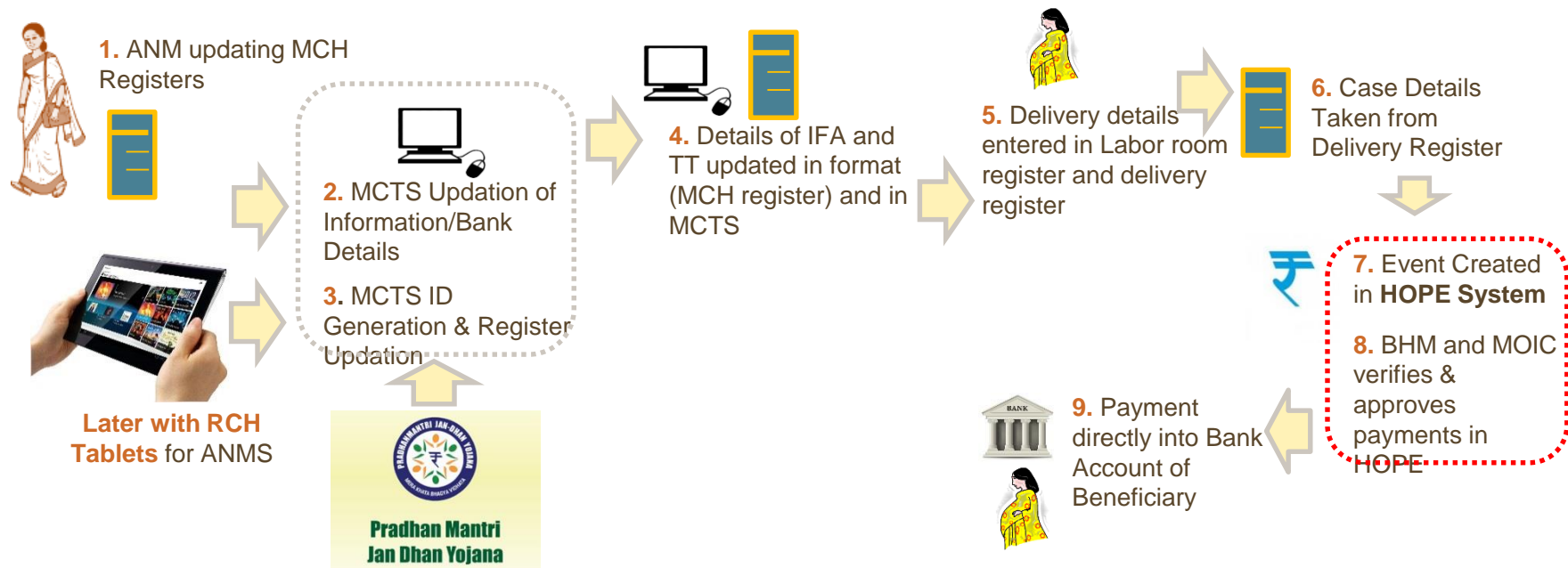


HOPE SYSTEM IS IMPROVING PAYMENT PROCESSES & BUILDING ACCOUNTABILITY...

☒ Steps Eliminated when using HOPE

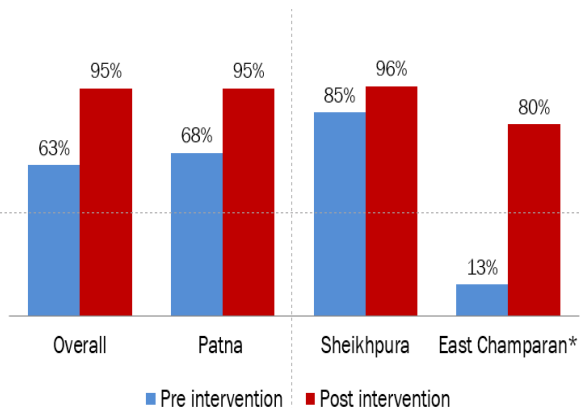


...AND CONTINUES FURTHER REFINING PAYMENT PROCESSES IN BIHAR



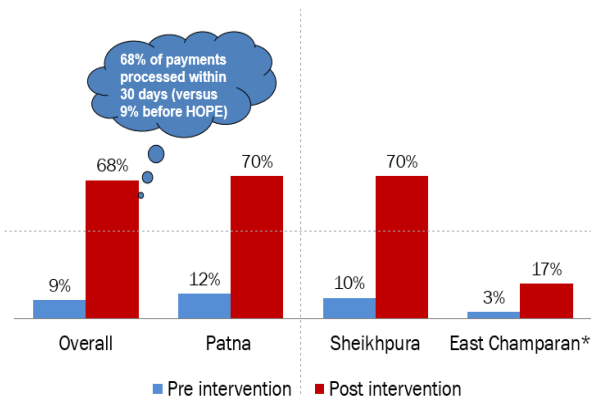
DIGITIZING PAYMENTS TO CHWS THROUGH HOPE HAS REDUCED DELAYS IN RECEIVING INCENTIVE PAYMENTS

% ASHAs reporting JBSY payments within 6 months

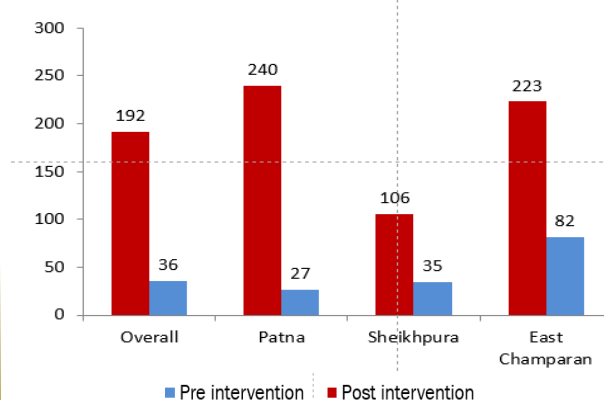


* In East Champaran, very few payments made to ASHAs through HOPE within the blocks where pre-intervention survey was conducted

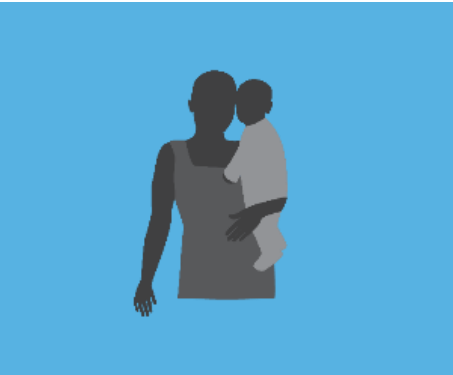
% ASHAs reporting JBSY payments within 30 days



Average # of days to receive payments (among those who received payments)



This experience and evidence informed federal government's decision to scale-up



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AGENDA FOR THE SESSION

Key Topics	Moderator	Time
Introduction to the session and panel	Krishna Jafa	1.00 PM – 1.10 PM
Context setting for application of digital tools for improved health and nutrition outcomes	Usha Kiran Tarigopula	1.10 PM – 1.20 PM
Better performance through better planning: The Community Health Worker's planning tool	Vikas Gothewal	1.20 PM – 1.30 PM
Digital job aids to improve CHW interactions at Scale	B Ramakrishnan	1.30 PM – 1.40 PM
Digital tools to empower and equip CHWs for improved communication for health impact	Priyanka Dutt	1.40 PM – 1.50 PM
Digitizing CHW payments for improving motivation	Ms. Yamini Atmavilas	1.50 PM – 2.00 PM
Discussion/Q&A	Krishna Jafa	2.00 PM – 2.30 PM



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