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

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

Sources:
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

<table>
<thead>
<tr>
<th>Our impact commitments in India</th>
<th>Bihar</th>
<th>UP</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMR</td>
<td>208¹</td>
<td>160*</td>
<td>70</td>
</tr>
<tr>
<td>NMR</td>
<td>28¹</td>
<td>22*</td>
<td>12</td>
</tr>
<tr>
<td>U5MR</td>
<td>54¹</td>
<td>42*</td>
<td>25</td>
</tr>
<tr>
<td>Still Birth Rate</td>
<td>20@</td>
<td>16*</td>
<td>10</td>
</tr>
<tr>
<td>mCPR – FP2020</td>
<td>23²</td>
<td>64⁴</td>
<td>TBD</td>
</tr>
<tr>
<td>Lives saved with nutrition interventions</td>
<td>-</td>
<td>81,000⁵</td>
<td>TBD</td>
</tr>
</tbody>
</table>

¹ World Bank 2015; ² Lancet 2016; ³ 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
ª LiST modeling as part of 2015 Nutrition Strategy Refresh

We are not aiming for nationwide impact in Horizon 1

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

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

Definitions: Maternal deaths: Number of female deaths from any cause related to pregnancy during pregnancy and childbirth or within 42 days of termination of pregnancy; Neonatal: Number of deaths during the first 28 completed days of life; Infant deaths: Number of deaths of infants before reaching the age of one; Under 5 deaths: Number of deaths of children before reaching the age of five; Source: WHO data, 2015
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

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Bihar</th>
<th>Uttar Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Hospitals</td>
<td>36</td>
<td>269</td>
</tr>
<tr>
<td>Community Health Centers</td>
<td>114</td>
<td>818</td>
</tr>
<tr>
<td>Primary Health Centers</td>
<td>1883</td>
<td>3,621</td>
</tr>
<tr>
<td>Sub-centers/Health outposts</td>
<td>9729</td>
<td>20,521</td>
</tr>
<tr>
<td>Community Health Workers</td>
<td>202,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Births</td>
<td>3m</td>
<td>5m</td>
</tr>
<tr>
<td>Rural Population</td>
<td>92m</td>
<td>155m</td>
</tr>
<tr>
<td>Total Population</td>
<td>104m</td>
<td>200m</td>
</tr>
</tbody>
</table>
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

PERFORMANCE MANAGEMENT
- Supportive supervision/mentoring
- Leadership and management coaching

DIRECT TO CONSUMER CHANNELS
- Self help groups and federations
- 360° communications support

LEVERAGE TECHNOLOGY

TECHNICAL INTERVENTIONS

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

PERFORMANCE MANAGEMENT
- Supportive supervision/mentoring
- Leadership and management coaching

DIRECT TO CONSUMER CHANNELS
- Self help groups and federations
- 360° communications support

IMPROVING QUALITY OF CARE
- QI, nurse mentoring
- VLBW tracking
- Clinical reviews
- FP trainings

TEAM TO CONSUMER CHANNELS
- Self help groups and federations
- 360° communications support

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

PERFORMANCE MANAGEMENT
- Supportive supervision/mentoring
- Leadership and management coaching

DIRECT TO CONSUMER CHANNELS
- Self help groups and federations
- 360° communications support

LEVERAGE TECHNOLOGY

TECHNICAL INTERVENTIONS

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

PERFORMANCE MANAGEMENT
- Supportive supervision/mentoring
- Leadership and management coaching

DIRECT TO CONSUMER CHANNELS
- Self help groups and federations
- 360° communications support

IMPROVING QUALITY OF CARE
- QI, nurse mentoring
- VLBW tracking
- Clinical reviews
- FP trainings

TEAM TO CONSUMER CHANNELS
- Self help groups and federations
- 360° communications support

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY

LEVERAGE TECHNOLOGY
LEVERAGING TECHNOLOGY AS AN ENABLER TO SOLVE LAST MILE DELIVERY CHALLENGES

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

<table>
<thead>
<tr>
<th>Community Based Systems</th>
<th>Service Providers Systems</th>
<th>Government/State Systems</th>
<th>Consumer Facing Systems</th>
<th>Management Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHW Management</td>
<td>Service Provider Registry</td>
<td>Benefits Package</td>
<td>EHR/ Clinical Summary</td>
<td>Health Indicators and Analytics</td>
</tr>
<tr>
<td>Interactive &amp; Outreach Content</td>
<td>Enumeration and name based tracking</td>
<td>Supply Chain</td>
<td>Consumer Health Information Portal</td>
<td></td>
</tr>
<tr>
<td>Telemedicine</td>
<td>Facility Management System</td>
<td>HR management</td>
<td>Appointment Systems</td>
<td>Quality Measures</td>
</tr>
<tr>
<td>Geographic Information System</td>
<td>Clinical Decision Support Systems</td>
<td>Finance &amp; Payments Management</td>
<td>Health Risk Assessment</td>
<td>Utilization Measures</td>
</tr>
<tr>
<td>Sentinel Surveillance</td>
<td>Skills and tools for CHW performance</td>
<td>Grievance Management</td>
<td>Patient/Provider Communication</td>
<td>DHIS</td>
</tr>
</tbody>
</table>

- 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
Institutionalizing Community Health Conference

27-30 March 2017 | Johannesburg, South Africa

HealthForAll
ichc2017.org
<table>
<thead>
<tr>
<th>Key Topics</th>
<th>Moderator</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the session and panel</td>
<td>Krishna Jafa</td>
<td>1.00 PM – 1.10 PM</td>
</tr>
<tr>
<td>Context setting for application of digital tools for improved health and nutrition outcomes</td>
<td>Usha Kiran Tarigopula</td>
<td>1.10 PM – 1.20 PM</td>
</tr>
<tr>
<td><strong>Better performance through better planning: The Community Health Worker’s planning tool</strong></td>
<td>Vikas Gothalwal</td>
<td>1.20 PM – 1.30 PM</td>
</tr>
<tr>
<td>Digital job aids to improve CHW interactions at Scale</td>
<td>B Ramakrishnan</td>
<td>1.30 PM – 1.40 PM</td>
</tr>
<tr>
<td>Digital tools to empower and equip CHWs for improved communication for health impact</td>
<td>Priyanka Dutt</td>
<td>1.40 PM – 1.50 PM</td>
</tr>
<tr>
<td>Digitizing CHW payments for improving motivation</td>
<td>Ms. Yamini Atmavilas</td>
<td>1.50 PM – 2.00 PM</td>
</tr>
<tr>
<td>Discussion/Q&amp;A</td>
<td>Krishna Jafa</td>
<td>2.00 PM – 2.30 PM</td>
</tr>
</tbody>
</table>
Better performance through better planning: the community health worker’s planning tool

Vikas Gothwal,
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 curative 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)
<table>
<thead>
<tr>
<th>सारणी नंबर</th>
<th>नाम</th>
<th>उपलब्धि</th>
<th>जन्म संख्या</th>
<th>जन्म साल</th>
<th>वर्ष</th>
<th>जीवन स्तर</th>
<th>अंकन</th>
<th>जीवन स्तर संख्या</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>अंग्रेजी</td>
<td>प्रोफेसर</td>
<td>1234567890</td>
<td>1970</td>
<td>50</td>
<td>2</td>
<td>8765</td>
<td>1011</td>
</tr>
<tr>
<td>2</td>
<td>हिंदी</td>
<td>अध्यापक</td>
<td>9876543210</td>
<td>1980</td>
<td>30</td>
<td>1</td>
<td>4567</td>
<td>1234</td>
</tr>
<tr>
<td>3</td>
<td>गणित</td>
<td>शिक्षक</td>
<td>0987654321</td>
<td>1990</td>
<td>20</td>
<td>3</td>
<td>2345</td>
<td>5678</td>
</tr>
</tbody>
</table>
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)
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)
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

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

Mobilizes Adolescent girls for reproductive care (Section 12)

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

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

Mobilizes Adolescent girls for reproductive care (Section 12)
Increased line listing and registration of pregnant woman due to VHIR

Improved ante-natal coverage

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

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

27-30 March 2017 | Johannesburg, South Africa

#HealthForAll
ichc2017.org
## AGENDA FOR THE SESSION

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

<table>
<thead>
<tr>
<th>Blocks</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Subcentres</td>
<td>70 (35 Treatment, 35 Control)</td>
</tr>
<tr>
<td>Treatment Population Coverage</td>
<td>3,34,470</td>
</tr>
<tr>
<td>Treatment CHWs</td>
<td>569 (#ASHA: 240, #AWW: 272, #ANM: 45, # Lady Supervisor: 12)</td>
</tr>
</tbody>
</table>

**Innovation timeline**

- **Jan ’12** Formative work
- **Mar ’12** Baseline survey
- **Aug ’12** Training completed
- **Nov ’13** AWW application launched
- **Aug ’14** Endline survey completed
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

<table>
<thead>
<tr>
<th>Home Visit in Final trimester</th>
<th>Home Visit within 24 hours of delivery</th>
<th>Home Visit within 1 week of delivery</th>
<th>Family Planning Home Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>42 <strong>52</strong></td>
<td>39 43</td>
<td>60 <strong>73</strong></td>
<td>27 29</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At least 3 ANC visits</th>
<th>EIBF</th>
<th>STSC</th>
<th>Delayed bathing by at least 2 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.8 <strong>49.8</strong>*</td>
<td>62.2</td>
<td>57.8</td>
<td>47.6 45.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Child eats solid or semi solid food</th>
<th>Child began eating solid food by age 6 month</th>
<th>Children received DPT3 Immunization (except Measles)</th>
<th>Full Immunization</th>
</tr>
</thead>
<tbody>
<tr>
<td>54.7 63.6</td>
<td>31.8 41</td>
<td>76.7 77.7</td>
<td>55.3 59.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At least 3 ANC visits</th>
<th>EIBF</th>
<th>STSC</th>
<th>Delayed bathing by at least 2 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.2</td>
<td>36.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: CCS Endline; **/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test; Sample sizes are 1,527 to 1,553 (all women) 1,045 (children 5 months or older).
THE EVIDENCE HAS INFORMED THE DECISION OF GOVERNMENT OF INDIA TO ADAPT AND SCALE, BEGINNING WITH 100,000 CHWS
ADAPTIONS 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.
# AGENDA FOR THE SESSION

<table>
<thead>
<tr>
<th>Key Topics</th>
<th>Moderator</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the session and panel</td>
<td>Krishna Jafa</td>
<td>1.00 PM – 1.10 PM</td>
</tr>
<tr>
<td>Context setting for application of digital tools for improved health and nutrition outcomes</td>
<td>Usha Kiran Tarigopula</td>
<td>1.10 PM – 1.20 PM</td>
</tr>
<tr>
<td>Better performance through better planning: The Community Health Worker’s planning tool</td>
<td>Vikas Gothewal</td>
<td>1.20 PM – 1.30 PM</td>
</tr>
<tr>
<td>Digital job aids to improve CHW interactions at Scale</td>
<td>B Ramakrishnan</td>
<td>1.30 PM – 1.40 PM</td>
</tr>
<tr>
<td><strong>Digital tools to empower and equip CHWs for improved communication for health impact</strong></td>
<td>Priyanka Dutt</td>
<td>1.40 PM – 1.50 PM</td>
</tr>
<tr>
<td>Digitizing CHW payments for improving motivation</td>
<td>Ms. Yamini Atmavilas</td>
<td>1.50 PM – 2.00 PM</td>
</tr>
<tr>
<td>Discussion/Q&amp;A</td>
<td>Krishna Jafa</td>
<td>2.00 PM – 2.30 PM</td>
</tr>
</tbody>
</table>
“Keep 3 phone numbers in mind. Hospital, car and community health worker. To keep tension at bay. Plan as we say!”
## AGENDA FOR THE SESSION

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

1. ANM updating MCH Registers
2. MCTS Updation of Information/Bank Details
3. MCTS ID Generation & Register Updation
4. Details of IFA and TT updated in format (MCH register) and in MCTS
5. Delivery details entered in Labor room register and delivery register
6. Case Details Taken from Delivery Register
7. Incentive payments details prepared by accountant
8. BHM and MOIC verifies incentive payments in delivery register
9. Approval of payments by MoIC
10. Cheque details recorded in Cheque issued register
11. Payment recorded and certified by beneficiary thumb impression/ signature in JBSY payment register
12. Incentive expenditure entered in tally and updated in FMR register
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

Survey covered 971 FLWs and 1,113 JBSY beneficiaries
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

Payment Engine

Automate Health Payment Processes

Real-Time Fund Monitoring and Info Dissemination

Remote data entry

Fund management, UC generation

Over Time
HOPE SYSTEM IS IMPROVING PAYMENT PROCESSES & BUILDING ACCOUNTABILITY…

1. ANM updating MCH Registers
2. MCTS Updation of Information/Bank Details
3. MCTS ID Generation & Register Updation
4. Details of IFA and TT updated in format (MCH register) and in MCTS
5. Delivery details entered in Labor room register and delivery register
6. Case Details Taken from Delivery Register
7. Incentive payments details prepared by accountant
8. BHM and MoIC verifies incentive payments in delivery register
9. Approval of payments by MoIC
10. Cheque details recorded in Cheque issued register
11. Payment recorded and certified by beneficiary thumb impression/signature in JBSY payment register
12. Incentive expenditure entered in tally and updated in FMR register

Steps Eliminated when using HOPE
1. ANM updating MCH Registers
2. MCTS Updation of Information/Bank Details
3. MCTS ID Generation & Register Updation
4. Details of IFA and TT updated in format (MCH register) and in MCTS
5. Delivery details entered in Labor room register and delivery register
6. Case Details Taken from Delivery Register
7. Event Created in HOPE System
8. BHM and MOIC verifies & approves payments in HOPE
9. Payment directly into Bank Account of Beneficiary

...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

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Patna</th>
<th>Sheikhpura</th>
<th>East Champaran*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre intervention</td>
<td>63%</td>
<td>68%</td>
<td>85%</td>
<td>13%</td>
</tr>
<tr>
<td>Post intervention</td>
<td>96%</td>
<td>95%</td>
<td>80%</td>
<td></td>
</tr>
</tbody>
</table>

% ASHAs reporting JBSY payments within 30 days

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Patna</th>
<th>Sheikhpura</th>
<th>East Champaran*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre intervention</td>
<td>9%</td>
<td>12%</td>
<td>10%</td>
<td>3%</td>
</tr>
<tr>
<td>Post intervention</td>
<td>68%</td>
<td>70%</td>
<td>70%</td>
<td>17%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Patna</th>
<th>Sheikhpura</th>
<th>East Champaran*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre intervention</td>
<td>192</td>
<td>36</td>
<td>106</td>
<td>82</td>
</tr>
<tr>
<td>Post intervention</td>
<td>240</td>
<td>27</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

68% of payments processed within 30 days (versus 9% before HOPE)

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

Source: HOPE Assessment

* In East Champaran, very few payments made to ASHAs through HOPE within the blocks where pre-intervention survey was conducted.
# AGENDA FOR THE SESSON

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

27-30 March 2017 | Johannesburg, South Africa

HealthForAll
ichc2017.org