Digital for Maternal, Newborn & Child Health (MNCH)

Assessment of World Vision's mHealth projects in Asia and Africa: Focus on Scalability and Sustainability

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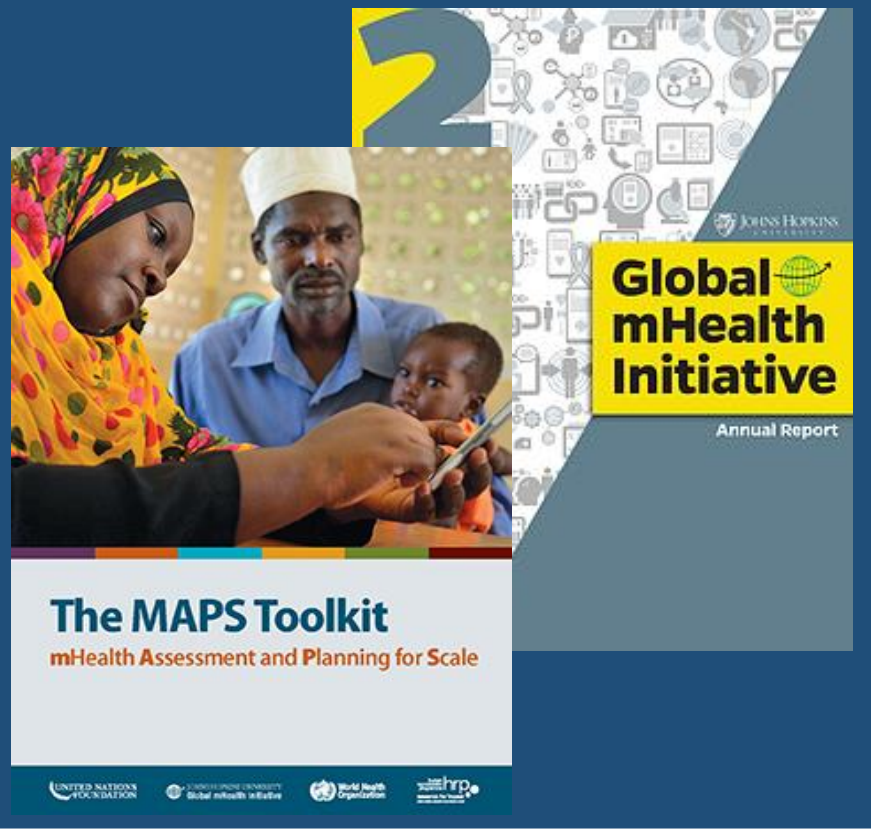
Johns Hopkins University
Advisor: Dr. Alain Labrique

BACKGROUND

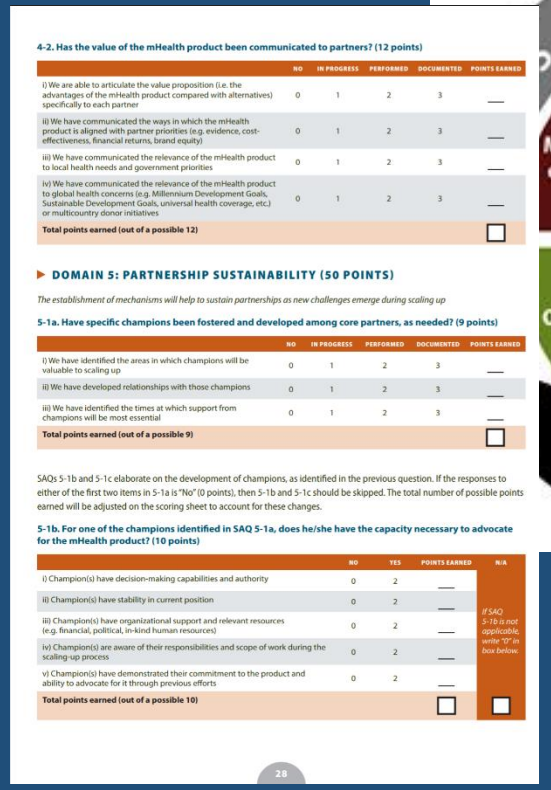
- Joint Collaboration between World Vision (WV) and Johns Hopkins University (JHU) Global mHealth Initiative
- JHU-WV Fellowship program to assess scalability
- potential in 3 mature mHealth deployments (India, Sierra Leone & Uganda)
- Exercise carried out between June and September, 2017
- mHealth Assessment & Planning for Scale (MAPS) Toolkit



METHODOLOGY- MAPS TOOLKIT

MAPS Toolkit components:

1) Groundwork
2) Partnerships
3) Financial Health
4) Technology & Architecture
5) Operations
6) Monitoring & Evaluation



4-2. Has the value of the mHealth product been communicated to partners? (12 points)

	NO	IN PROGRESS	PERFORMED	DOCUMENTED	POINTS EARNED
i) We are able to articulate the value proposition (i.e. the advantages of the mHealth product compared with alternatives) specifically to each partner	0	1	2	3	___
ii) We have communicated the ways in which the mHealth product is aligned with partner priorities (e.g. evidence, cost-effectiveness, financial returns, brand equity)	0	1	2	3	___
iii) We have communicated the relevance of the mHealth product to local health needs and government priorities	0	1	2	3	___
iv) We have communicated the relevance of the mHealth product to global health concerns (e.g. Millennium Development Goals, Sustainable Development Goals, universal health coverage, etc.) or multicountry donor initiatives	0	1	2	3	___
Total points earned (out of a possible 12)					☐

DOMAIN 5: PARTNERSHIP SUSTAINABILITY (50 POINTS)

The establishment of mechanisms will help to sustain partnerships as new challenges emerge during scaling up

5-1a. Have specific champions been fostered and developed among core partners, as needed? (9 points)

	NO	IN PROGRESS	PERFORMED	DOCUMENTED	POINTS EARNED
i) We have identified the areas in which champions will be valuable to scaling up	0	1	2	3	___
ii) We have developed relationships with those champions	0	1	2	3	___
iii) We have identified the times at which support from champions will be most essential	0	1	2	3	___
Total points earned (out of a possible 9)					☐

SAQs 5-1b and 5-1c elaborate on the development of champions, as identified in the previous question. If the responses to either of the first two items in 5-1a is "No" (0 points), then 5-1b and 5-1c should be skipped. The total number of possible points earned will be adjusted on the scoring sheet to account for these changes.

5-1b. For one of the champions identified in SAQ 5-1a, does he/she have the capacity necessary to advocate for the mHealth product? (10 points)

	NO	YES	POINTS EARNED	N/A
i) Champion(s) have decision-making capabilities and authority	0	2	___	*If SAQ 5-1b is not applicable, write "0" in box below.*
ii) Champion(s) have stability in current position	0	2	___	
iii) Champion(s) have organizational support and relevant resources (e.g. financial, political, in-kind human resources)	0	2	___	
iv) Champion(s) are aware of their responsibilities and scope of work during the scaling-up process	0	2	___	
v) Champion(s) have demonstrated their commitment to the product and ability to advocate for it through previous efforts	0	2	___	
Total points earned (out of a possible 10)			☐	☐

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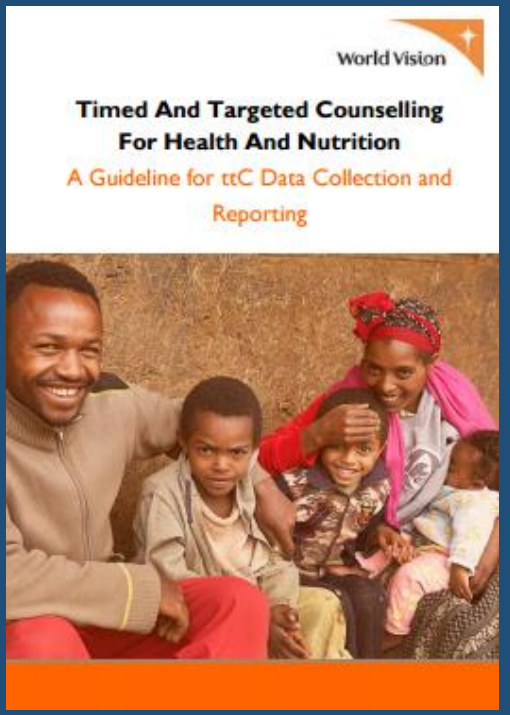
METHODOLOGY: DATA COLLECTION

- Individual and group interviews conducted of relevant World Vision employees (Technical, Administrative and HR officers)
- Interviews with externa stakeholders such as Ministry of Health, mHealth advocates and other local NGO’s deploying mHealth solutions taken whenever necessary
- Focused Groups Discussions (FGD) conducted with Community Health Workers
- Virtual engagement conducted in cases where direct interviews difficult

TIMED & TARGETED COUNSELING (ttC)

- World Vision's core Community Systems Strengthening intervention focused on Maternal, Newborn & Child Health and Nutrition
- Delivered by community health workers or volunteers; aligned with the national health strategies
- Targets pregnant women and caregivers of children up to 2 years of age
- Comprehensive behavior change counseling with key features
  1) Timed: Just in time messaging
  (pregnant mothers and children up to 1000 days)
  2) Targeted: Male involvement and family member support
  (broadening role of other members)
  3) Counselling: Barrier exploration and behavior change planning



WORLD VISION SIERRA LEONE

- Community management mobile & Health Data System
- Locations: Imperi, Sherbro islands, Bonthe
- Number of users: 215
- Number of beneficiaries: 500

MAPS TOOLKIT RESULTS

RECOMMENDATIONS

- Greater focus on taking leadership position in ‘E-health Hub’
- Improvement in communication with technology partner ‘Dimagi’
- Strengthen M&E activities for better program understanding and continuous quality improvement
- Solutions for challenges at the ground level

WORLD VISION INDIA

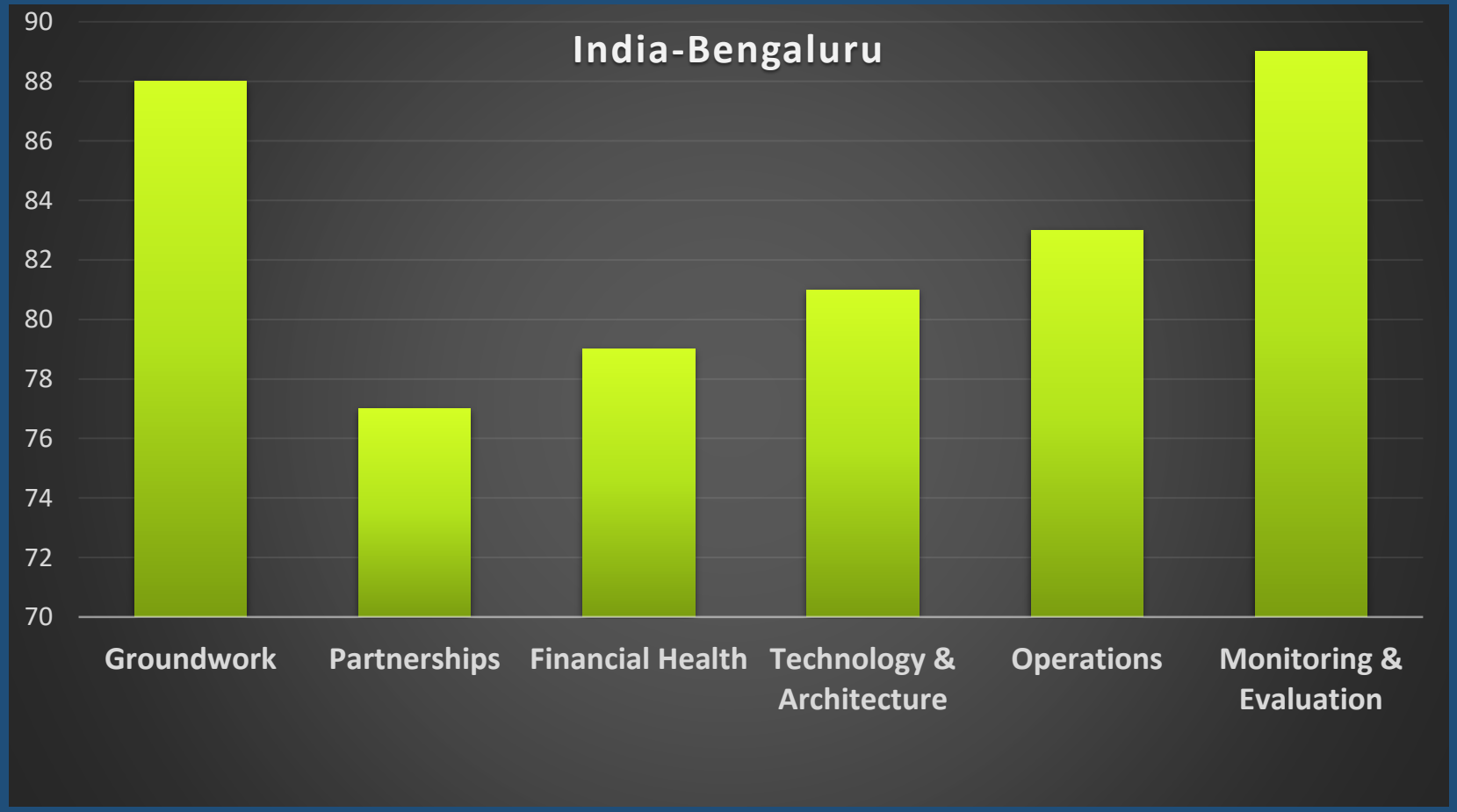
Shishu Janani Seva, Bengaluru

- Based in South & West zones of Bengaluru, Karnataka
- Number of users: 17;
- Number of beneficiaries: 988

Starting Strong, Narsinghpur

- Based in Narsinghpur block, Madhya Pradesh
- Number of users: 72;
- Number of beneficiaries: 4873

MAPS TOOLKIT RESULTS



MAPS TOOLKIT RESULTS

RECOMMENDATIONS

WORLD VISION INDIA, BENGALURU:

- Cultivate opportunities for Public-Private Partnership
- Diversify and develop cost-sharing opportunities

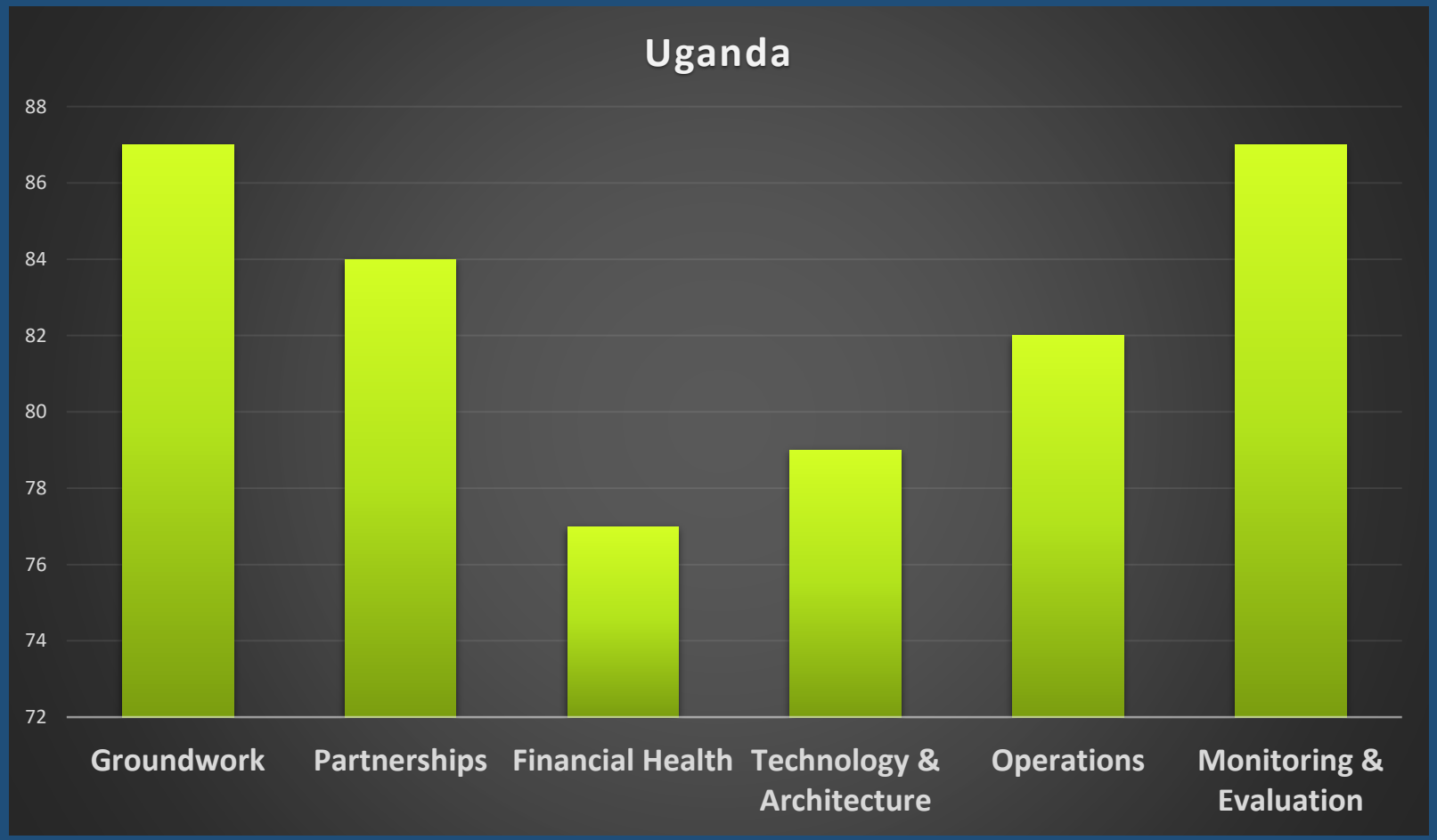
WORLD VISION INDIA, NARSINGHPUR:

- Finalize newer mHealth technology (SJS)
- Develop a concrete business plan with strategy to address scale-up
- Design the plan with timeline and associated benchmarks
- Quantify the scale up plan in terms of performance

WORLD VISION UGANDA

- Community based model focusing on MNCH, HIV and nutrition
- AIM mHealth project
- Location: Hoima and Busia districts
- Number of users: 896
- Number of beneficiaries: 48,125

MAPS TOOLKIT RESULTS

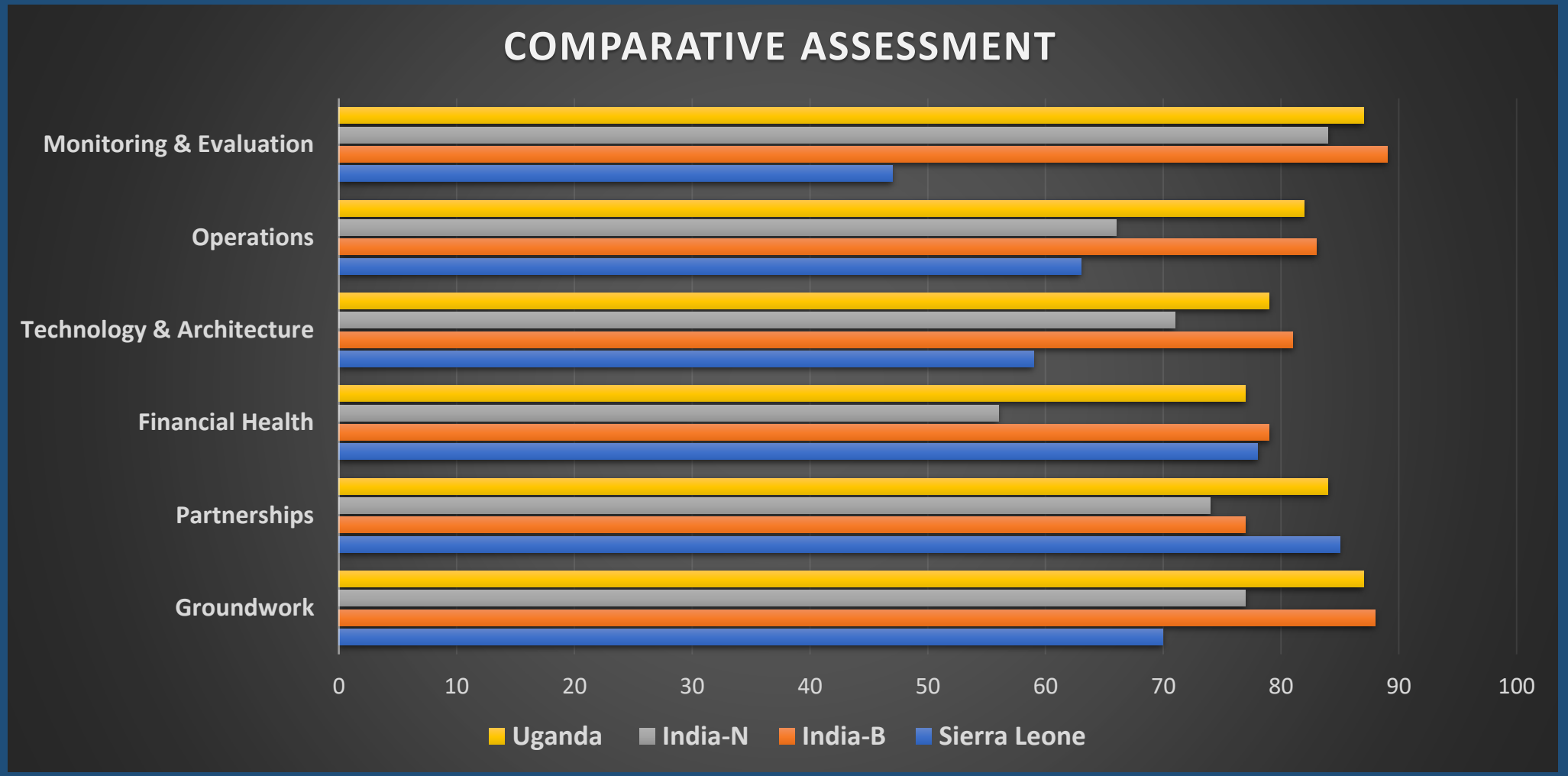


RECOMMENDATIONS

- Identify diverse funding streams for financial sustainability
- Focus on drafting comprehensive operational policy regarding ‘stolen/ lost’ mobile phones
- Perform technical tests like ‘Latency’ and ‘Stress’ test for determining scalability of technology
- Coordinate with Ministry of Health and other stakeholders for speeding up the Standards & Interoperability tracking process

INDIVIDUAL PERFORMANCE

AXES OF SCALE	SIERRA LEONE	INDIA (B)	INDIA (N)	UGANDA
Groundwork	70%	88%	77%	87%
Partnerships	85%	77%	74%	84%
Financial Health	78%	79%	56%	77%
Technology & Architecture	59%	81%	71%	79%
Operations	63%	83%	66%	82%
Monitoring & Evaluation	47%	89%	84%	87%


COMPARATIVE ASSESSMENT
Monitoring & Evaluation
Operations
Technology & Architecture
Financial Health
Partnerships
Groundwork
0
10
20
30
40
50
60
70
80
90
100
Uganda
India-N
India-B
Sierra Leone

SUMMARY

- Priority on developing Cost Sharing Opportunities to support deployments
- Strengthen health systems through greater focus on evaluating ‘Effectiveness’
- Perform technical tests such as ‘Latency test’ and ‘Stress test’ to evaluate status of technology
- Explore opportunities to develop common ‘mHealth’ platform with local partners for better coordination

ACKNOWLEDGEMENTS

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  Mr. Magnus Conteh
  Mr. Andrew Ogongo
- In-Country Advisors : Dr. Anita Victor, World Vision India
  Mr. Allieu Bangura, World Vision Sierra Leone
  Mr. Dennis Irongo, World Vision Uganda

THANK YOU

Republic of Zambia

Ministry of Health

What's Data Got To Do With Me?

Presented at the Global Digital health Forum – Washington DC- 4 to 6 December 2017

By: Brivine M. Sikapande

Presentation outline

- Introduction
- Situation Analysis
- Conceptual Framework
- Experiences on data use at service delivery level
- Benefits of Data Use to an individual at facility level
- Promotion of the key elements of data use regardless of the platform on which the data is generated
- Challenges

ZAMBIA'S DEMOGRAPHICS

- Population = 16.4 Million
- 10 Provinces
- 114 Districts
- Zambia covers 743,398 square kilometers

Introduction

- The Ministry recognises the opportunities that eHealth (Digital Health) brings to improve:
  - Health care provision
  - Planning for health care
  - Data quality, availability and use to inform decision making
- Over the years the use of ICTs in healthcare has evolved.
- The strategic priorities are;
  - Service delivery
  - Research
  - eLearning

Introduction

- Quality Data are essential to facilitating good decisions on policy and service provision
- Data is essential for tracking trends as well as effectiveness of interventions
- Digital health is therefore a health information system that is empowered and amplified by technology
- It encompasses data acquisition, storage, retrieval, analysis and use of the products to improve patient care and to achieve better health for communities
- Digital health facilitates access to multiple data sources, sharing visualization, quality assessments and improvement

Data Use

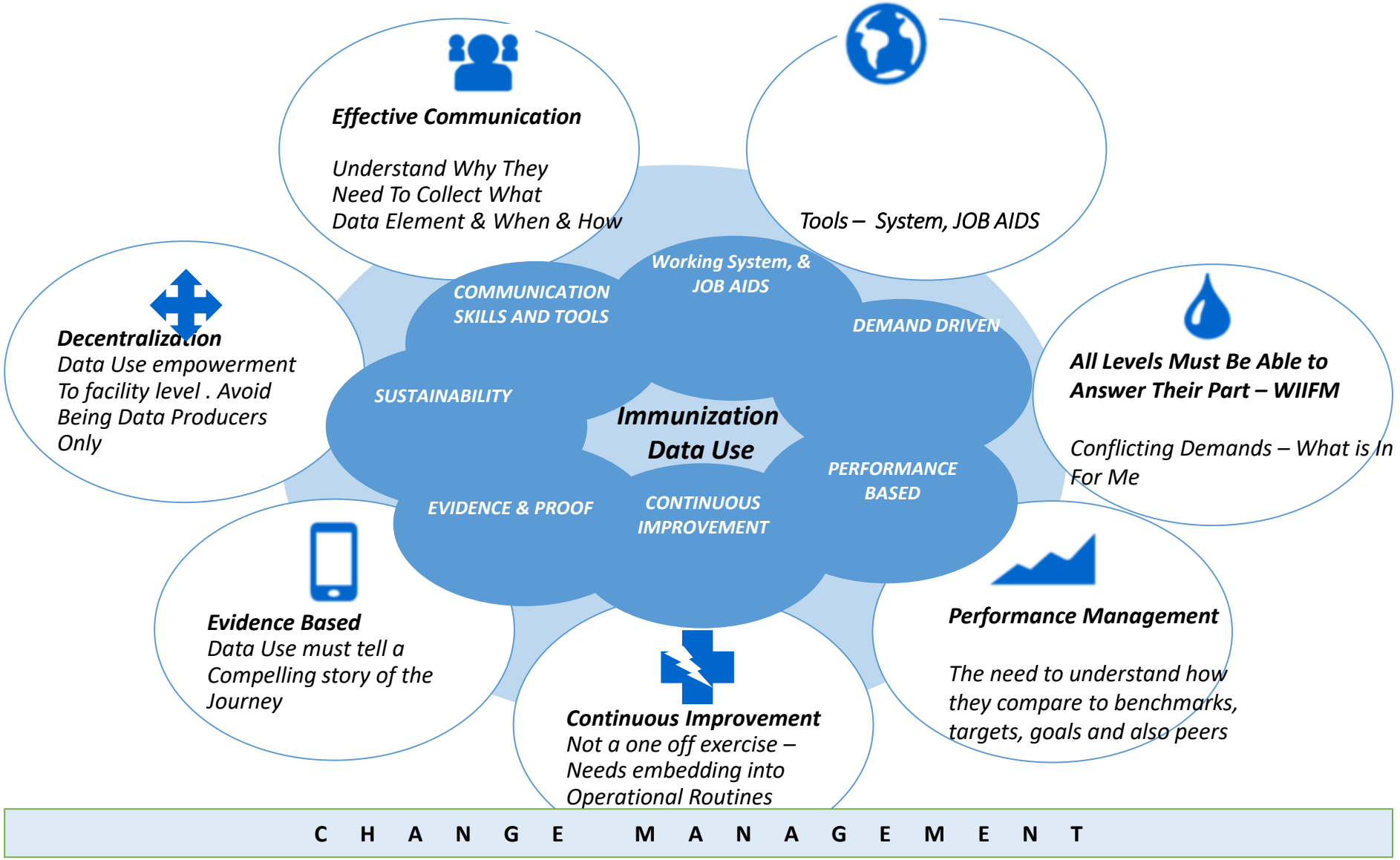
- Data use culture is when customs, dispositions and behaviours of a particular organisation support and encourage the use of evidence including facts, figures and statistics to inform decision making

- Information use is relevant when analysed, comprehended and employed by skilled decision makers who take and promote evidence based action

- Improves information use for effective programme implementation, advocacy and evidence based decisions and policy making

- Data is valuable if it is seen as relevant and useful by users and is more likely to be owned by those who need it to inform decision making

Shaping Data Quality and Data Use Practice
Digital Health – Immunization Use Case



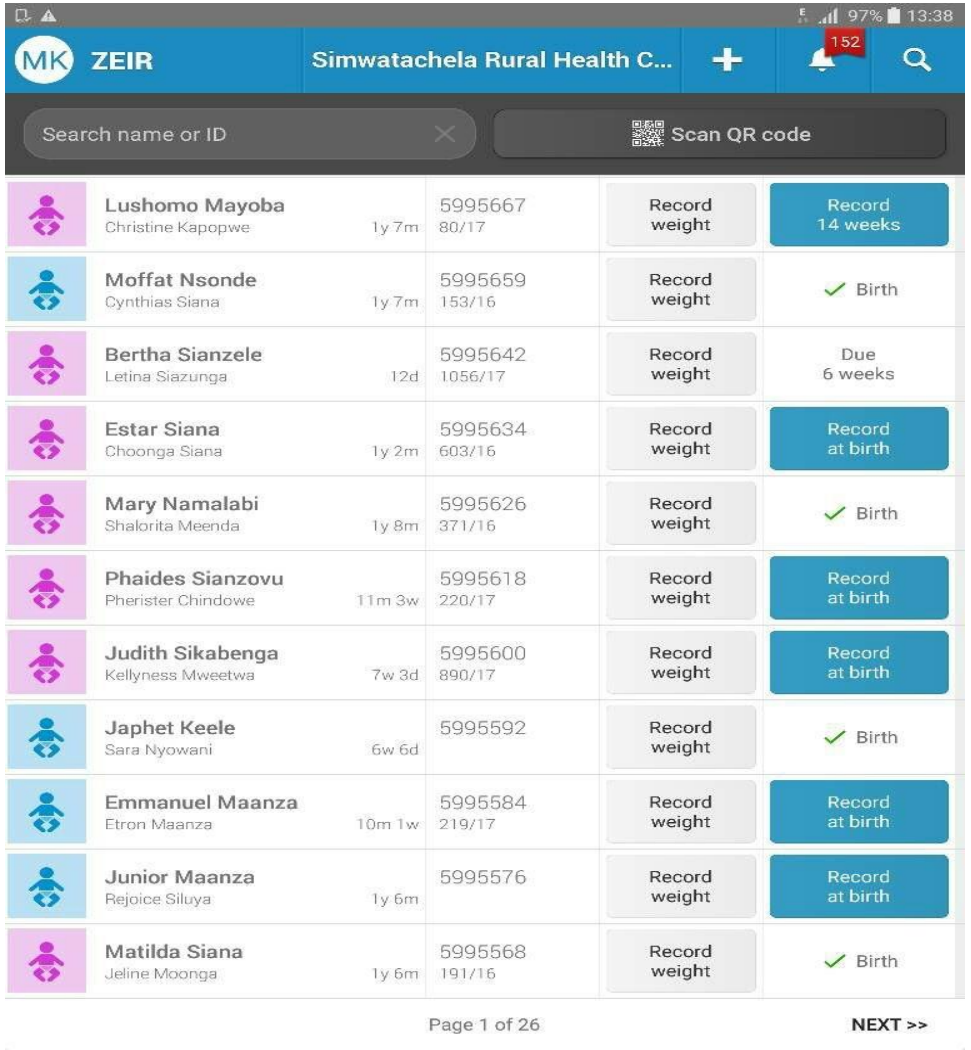
Experiences on Data Use at Service Delivery Level

- Data from the various systems is used for triangulation of immunisation data at health facility i.e. Stock data vs number of children immunised in a particular month. It is further used to re-order stocks of vaccines

Experiences on Data Use at Service Delivery Level

- mVaccination, ZEIR and Programme Mwana data is used to trace defaulters in immunisation through under 5 registries. With the contact details and regular monitoring of children receiving vaccines, health facility staff are able to track and reach out to children missing their routine immunisation sessions hence improving their immunisation coverages

- Immunisation schedules are produced giving enough information to health facility staff to plan for the next session with adequate stocks



Experiences on Data Use at Service Delivery Level

- mVaccination and ZEIR are also used as a decision-making tool with 1) dashboard for data analysis at multi-level and 2) case management tool to provide direct support to Health workers to solve specific cases/issues

- Application of Quality Improvement through Data Use(QIDU) techniques at health facility coupled with change management has enhanced data use to improve health service delivery. Staff are able to analyse data and interpret the results. Interventions and indicators are then developed based on the findings and progress monitored against set goals.

Benefits of Data Use to an individual at facility level

- Ability to understand the impact of programmes at facility/community level (awareness of need)
- Understand the environment around the health facility (access to information)
- Enhances analytical skills and capability to design interventions that will improve the health and livelihood of the community being served
- Gives satisfaction knowing one is able to contribute positively to his community
- Gives a sense of ownership to programmes, interventions and processes being undertaken
- Strengthens bonds between individuals and the community (community accepts the individual and buy-in to health programmes
- Gives competitive advantage over others (motivation to act)
- It improves efficiency
- Enhances ability to make informed decisions (empowerment to act)

Promotion of the key elements of data use regardless of the platform on which the data is generated

- Quality Improvement through Data Use (QIDU) is underway.
  - Staff trained in basic analysis using excel, plotting of graphs and being able to interprete the results
  - Develop performance indicators based on the findings of the data (these have goals)
  - This enables the health workers to review their performance from time to time and to relate the data to the current situation in their community
- Use of data for planning and budgeting at all levels
- Graphs are plotted and displayed in every health facility
- Use of the scorecards and district league tables embeded within the digital health technologies
- Use of stock data for re-order of immunisation supplies viz-a-viz data triangulation with other data sources

Challenges

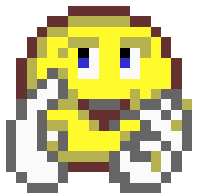
- Poor Government funding to support e-systems
- Inadequate infrastructure on point of data generation (mostly paper based)
- Lack of interoperability with other systems
- Poor Internet connectivity to enable real time data transmission
- Little engagement with data before submission to the next level
- Downward feedback, performance review and information use does not flow to health facilities
- Infrequent training on data use
- Information rarely presented in formats that are useable; little analytical and interpretation skills; data use in decision making, policy and advocacy not institutionalised

Success looks like this

- “I particularly like how the ZEIR displays growth monitoring. When a staff uses a pen to plot z-scores, it may not be done accurately as compared to what I can see on this screen”
- I am really enjoying this discussion as it is helping us address data gaps in our reports”
- “One of the things I have appreciated is the ability of the system to generate information to help us plan well”

Trained Facility Staff

THANK YOU



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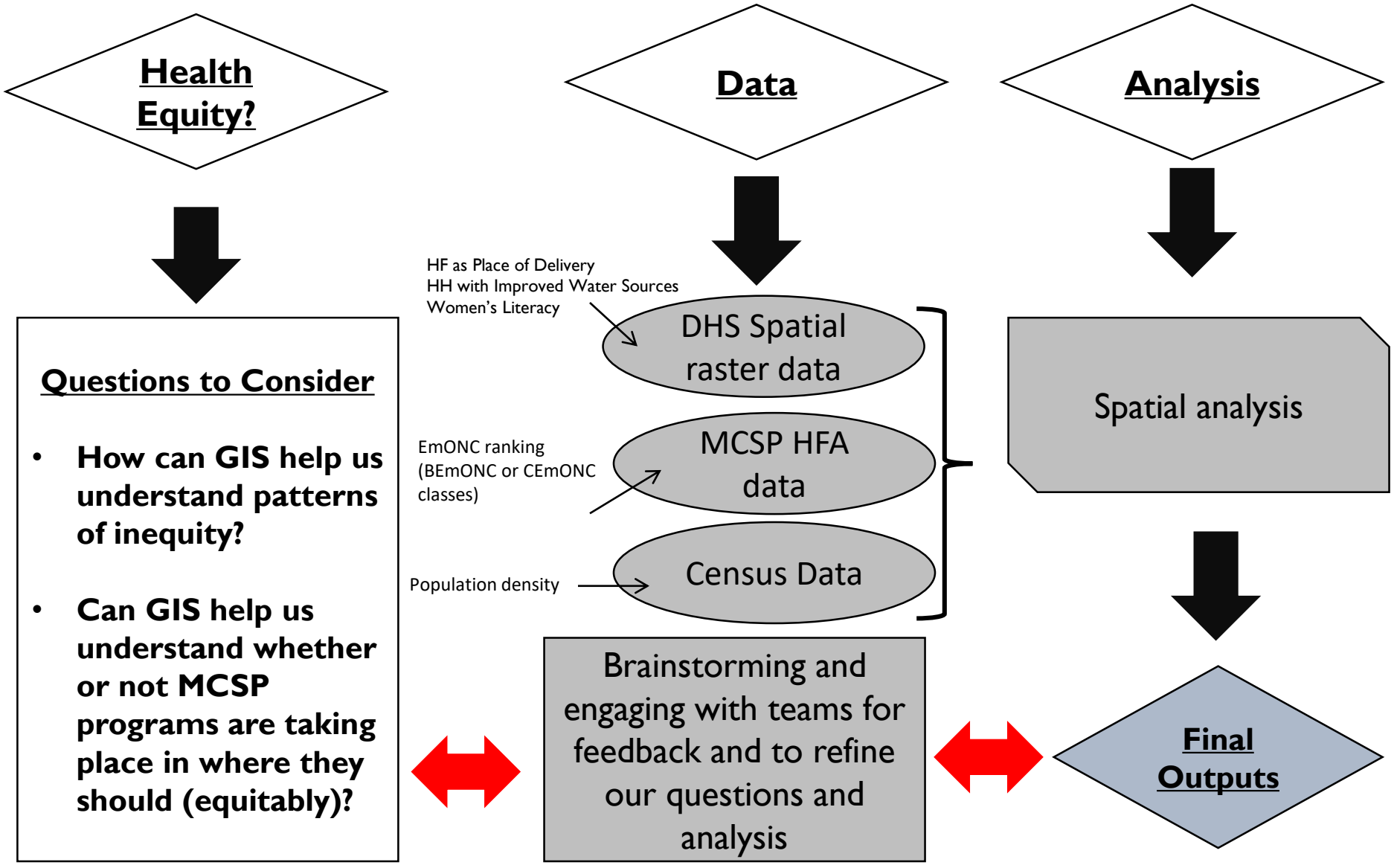
Maternal and Child Survival Program

Using GIS to Explore Equity in Sociodemographic Characteristics and Facility Distribution in Two Nigerian States: Ebonyi and Kogi

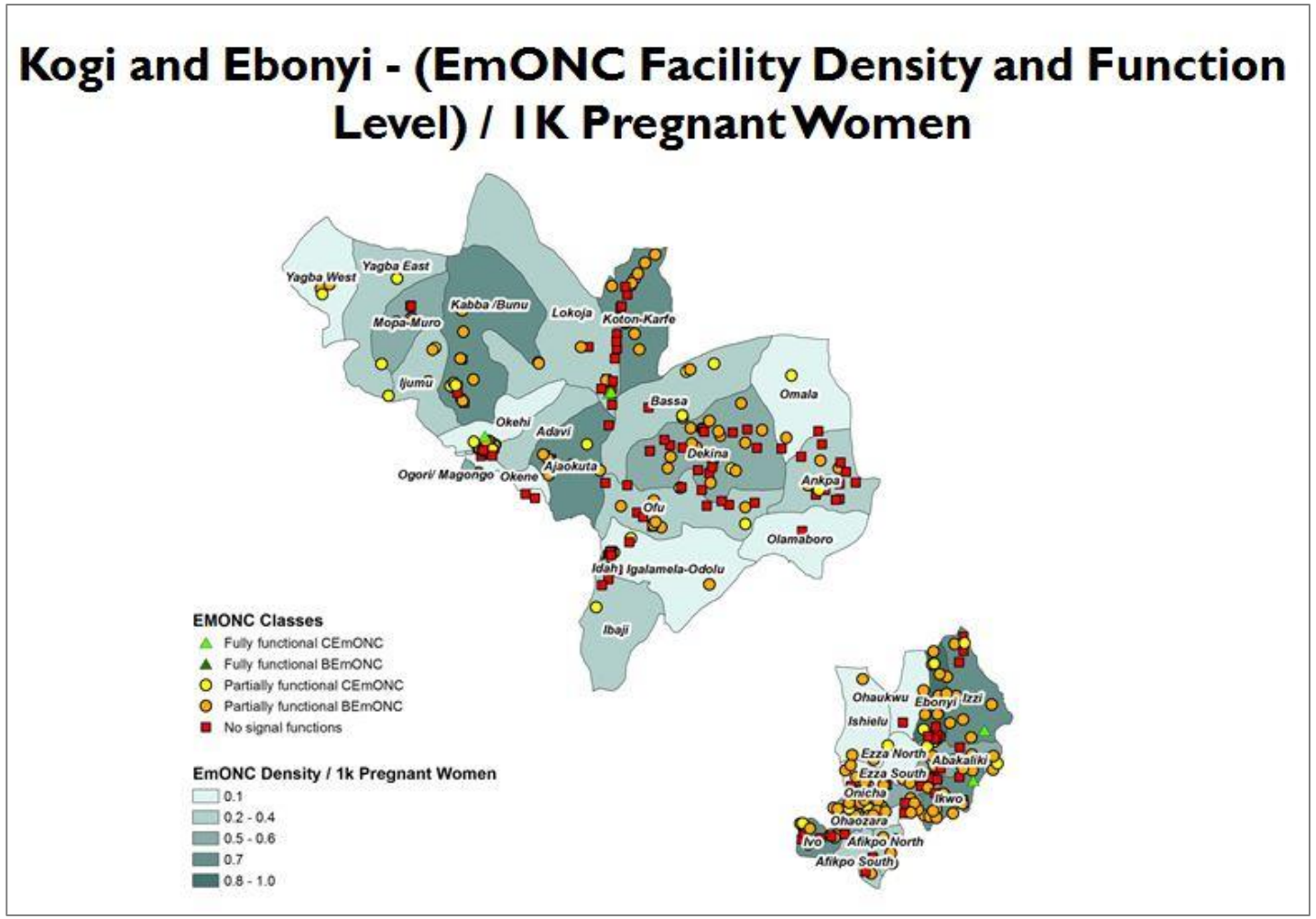
December 2017

Benjamin Picillo
Jennifer Duong
Tanvi Monga
Yordanos Molla

Process of exploratory analysis



Various Types of Data Overlaid for Exploration

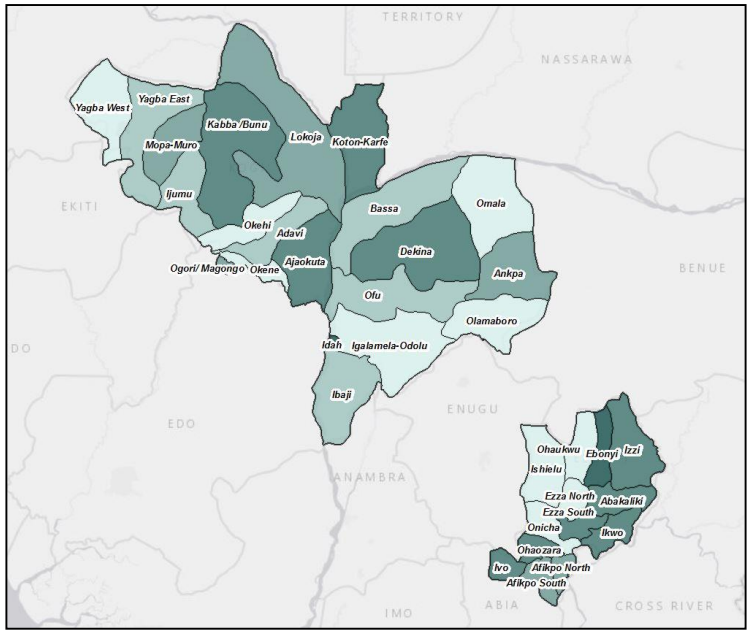


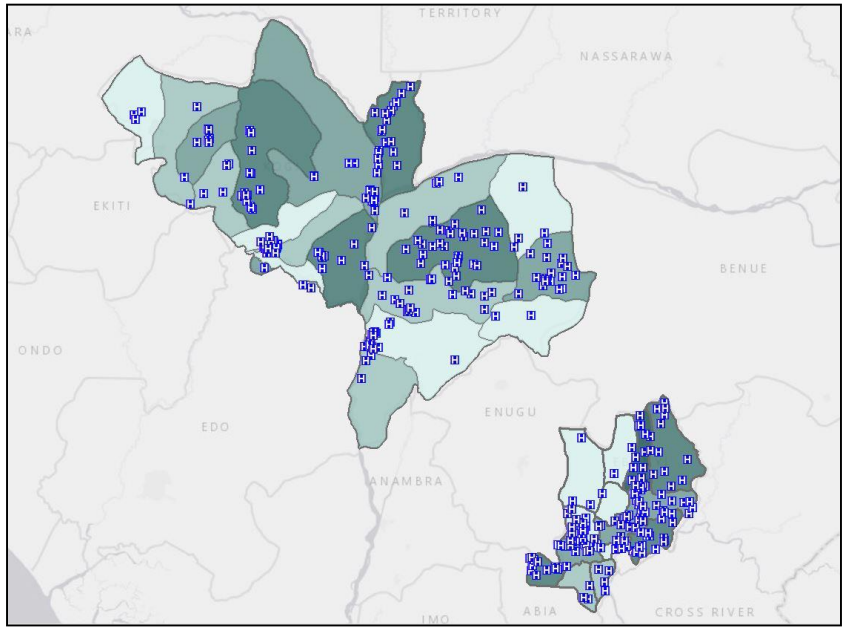
1. The Health Facility Assessment is a baseline survey

2. Majority MCSP selected facilities were poorly functional

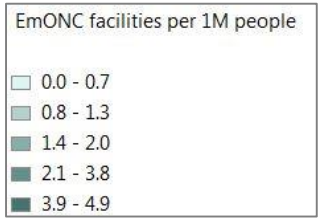
3. There is no clustering of facility by function

Chloropleth Map: 120 EmONC MCSP Facilities per 1M people



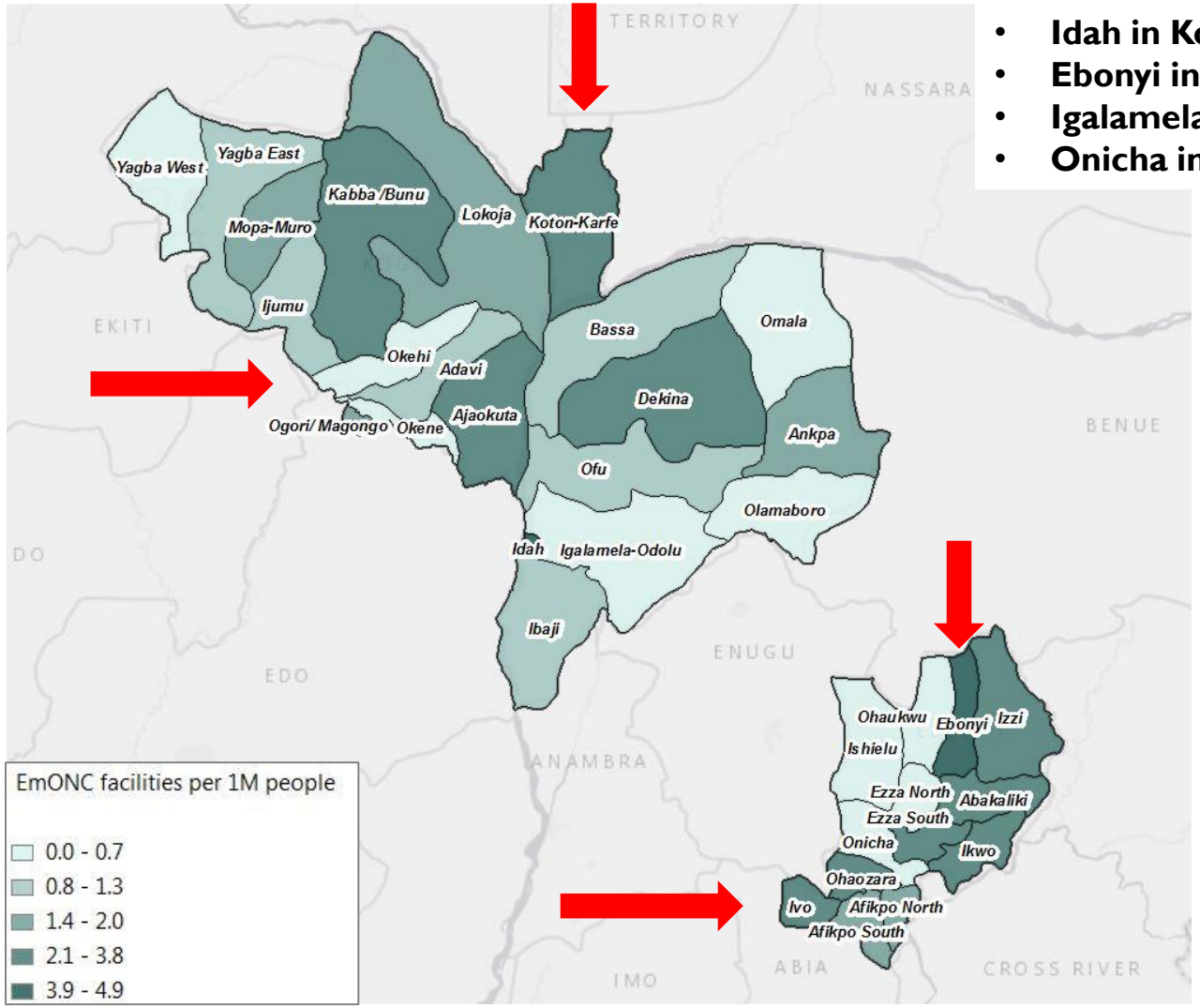


Legend



- Idah in Kogi has about **5** facilities
- Ugbodo in Ebonyi has about **5** facilities
- Igalamela-Odolu in Kogi has **0** facilities
- Onicha in Ebonyi has **0.3** facilities

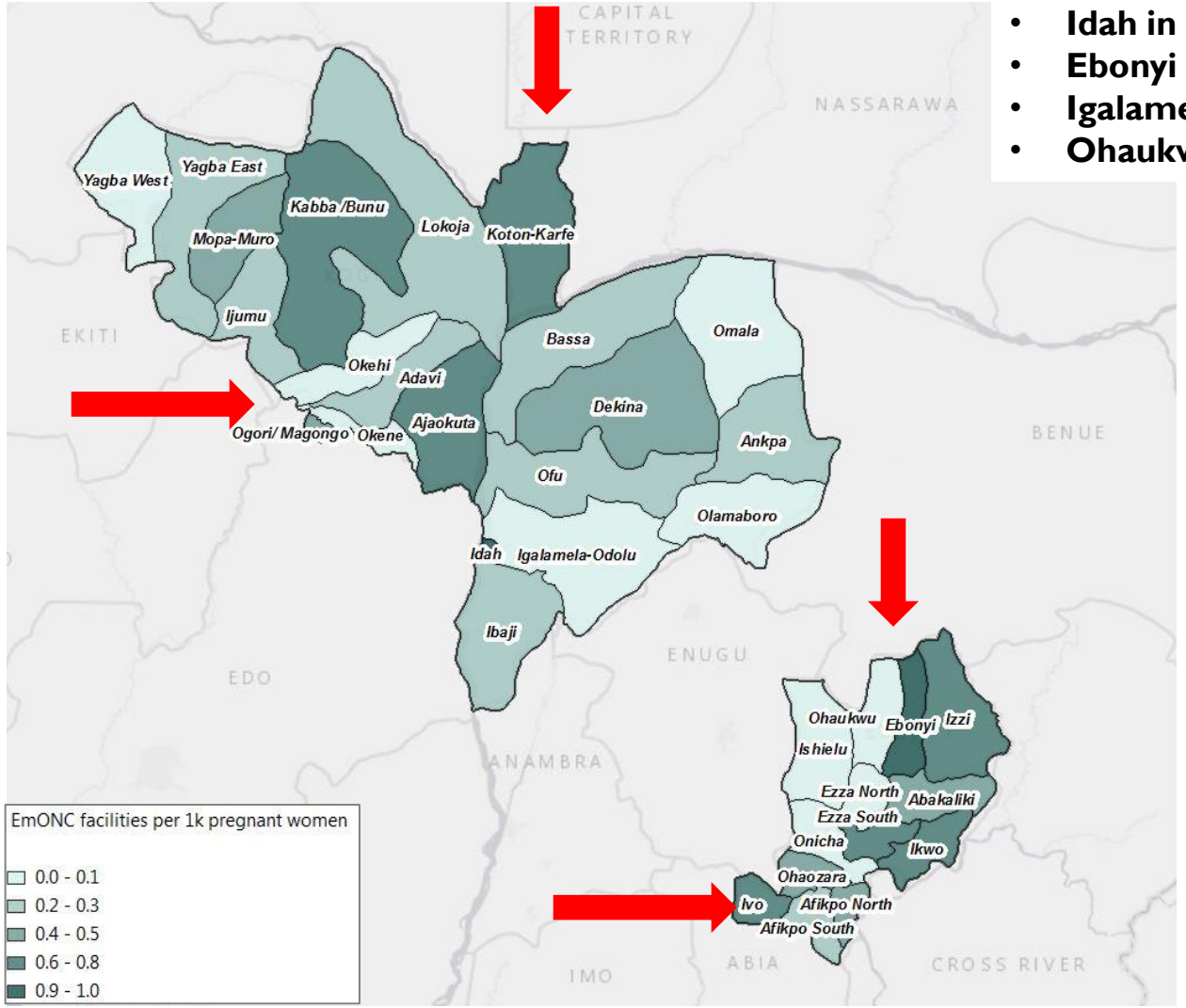
Cholorpleth Map: 120 MCSP EmONC Facility Density per 1M people



- **Idah in Kogi has about 5 facilities**
- **Ebonyi in Ebonyi has about 5 facilities**
- **Igalamela-Odolu in Kogi has 0 facilities**
- **Onicha in Ebonyi has 0.3 facilities**

Light = Less density
Dark = More density

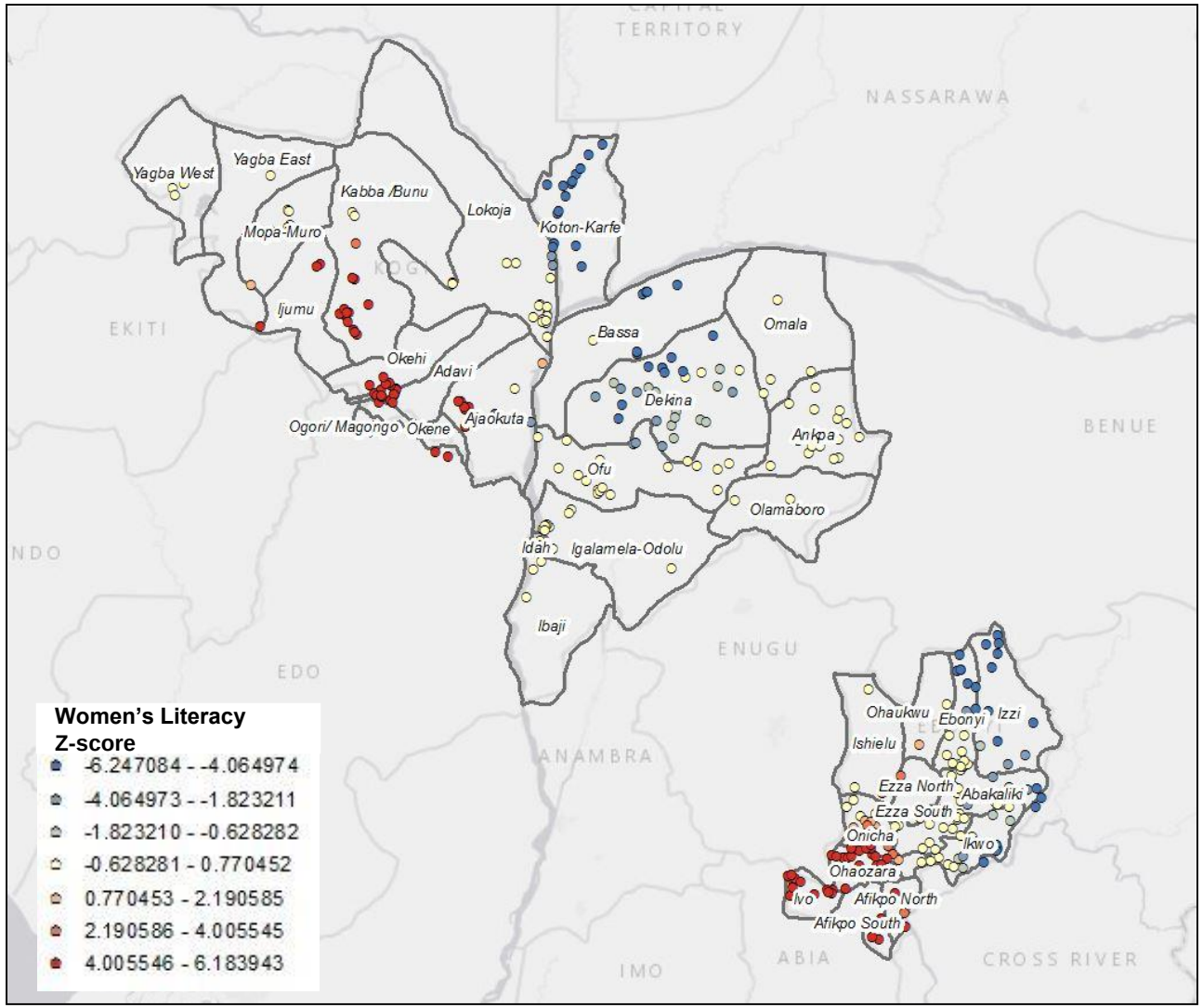
Cholorpleth Map: 120 MCSP EmONC Facility Density per 1K Pregnant Women



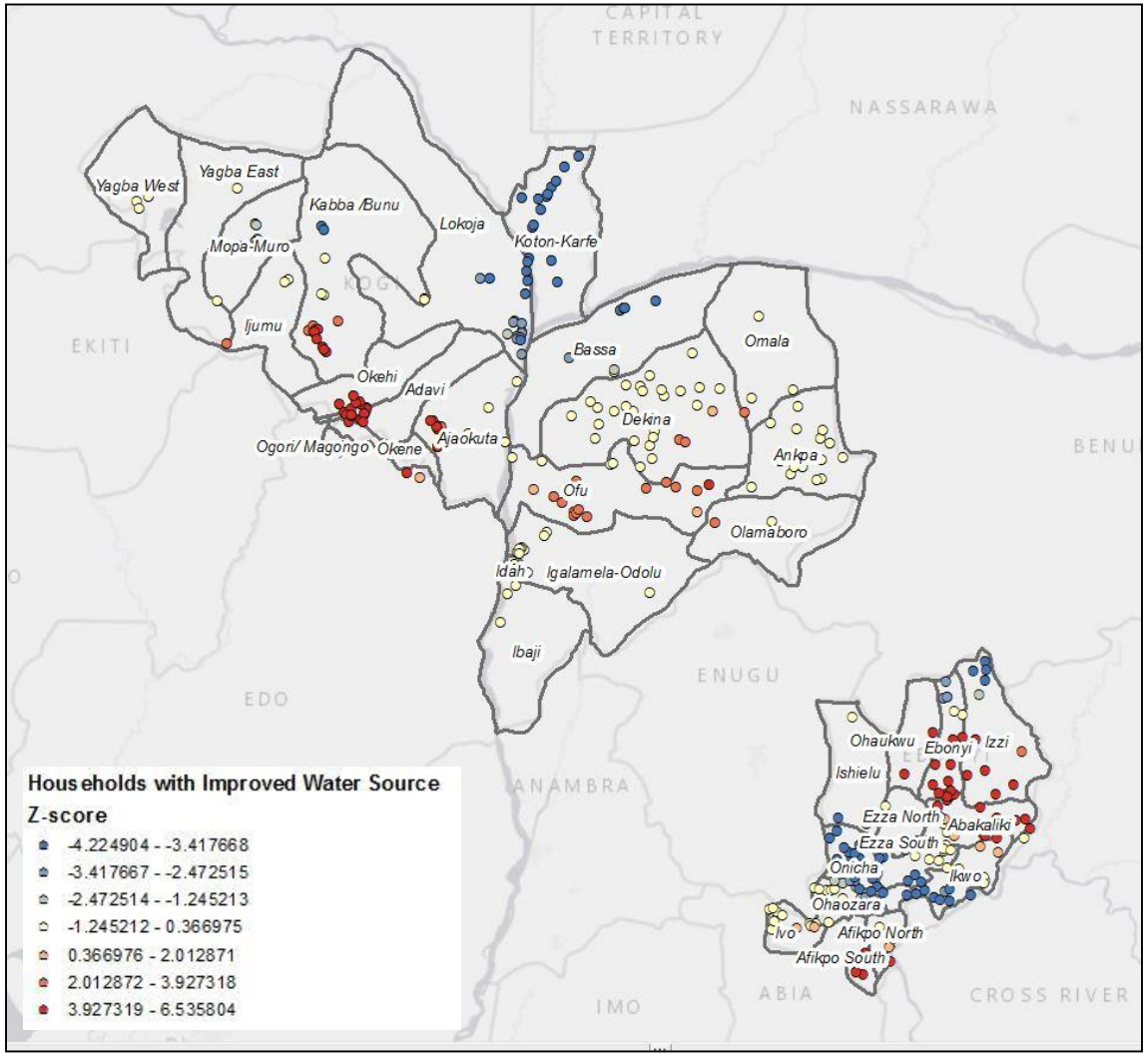
- **Idah in Kogi has about 1 facility**
- **Ebonyi in Ebonyi has about 1 facility**
- **Igalamela-Odolu in Kogi has 0 facilities**
- **Ohaukwu in Ebonyi has 0.1 facilities**

Light = Less density
Dark = More density

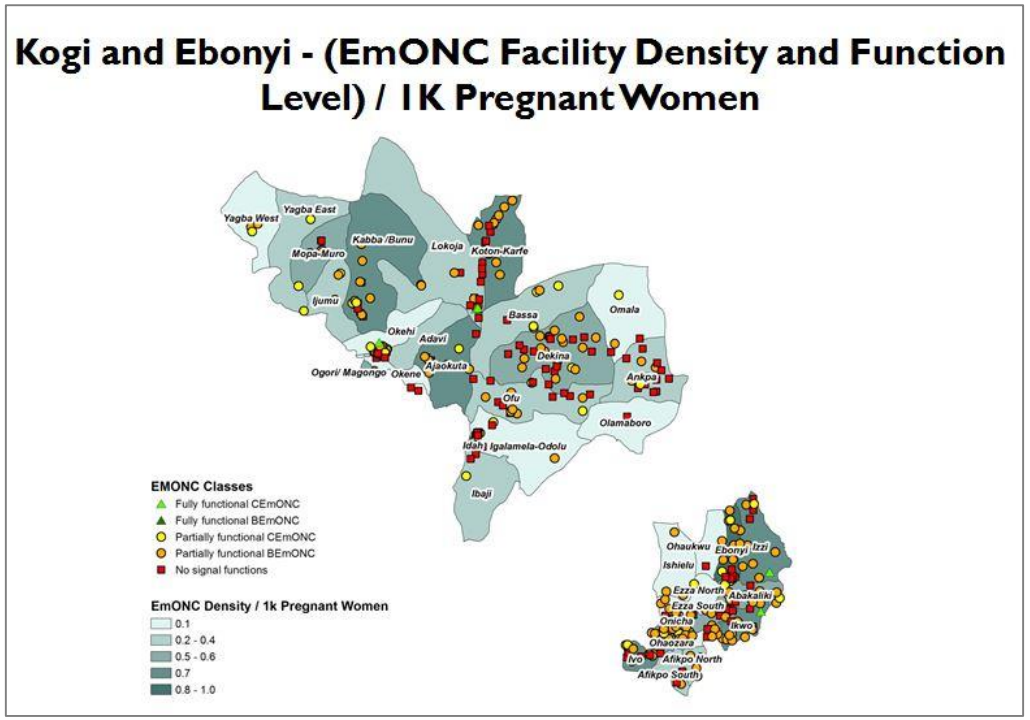
Hotspot Analysis: Women's Literacy



Hotspot Analysis: Improved Water Sources

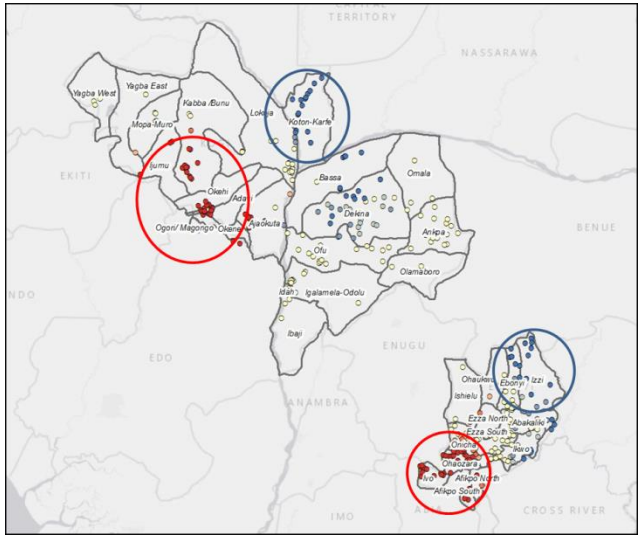


What do we learn about the LGAs when we bring all of the information/analyses together?

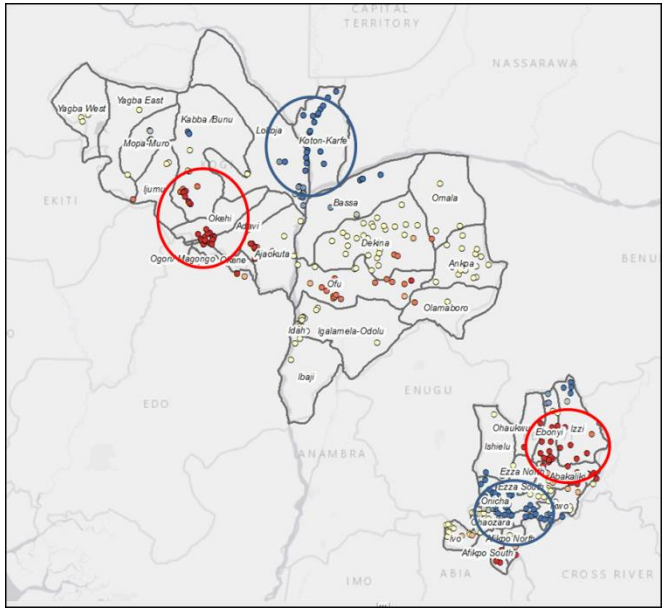


The first phase of EmONC facilities that MCSP selected covers diverse sociodemographic group (level of education and poverty)

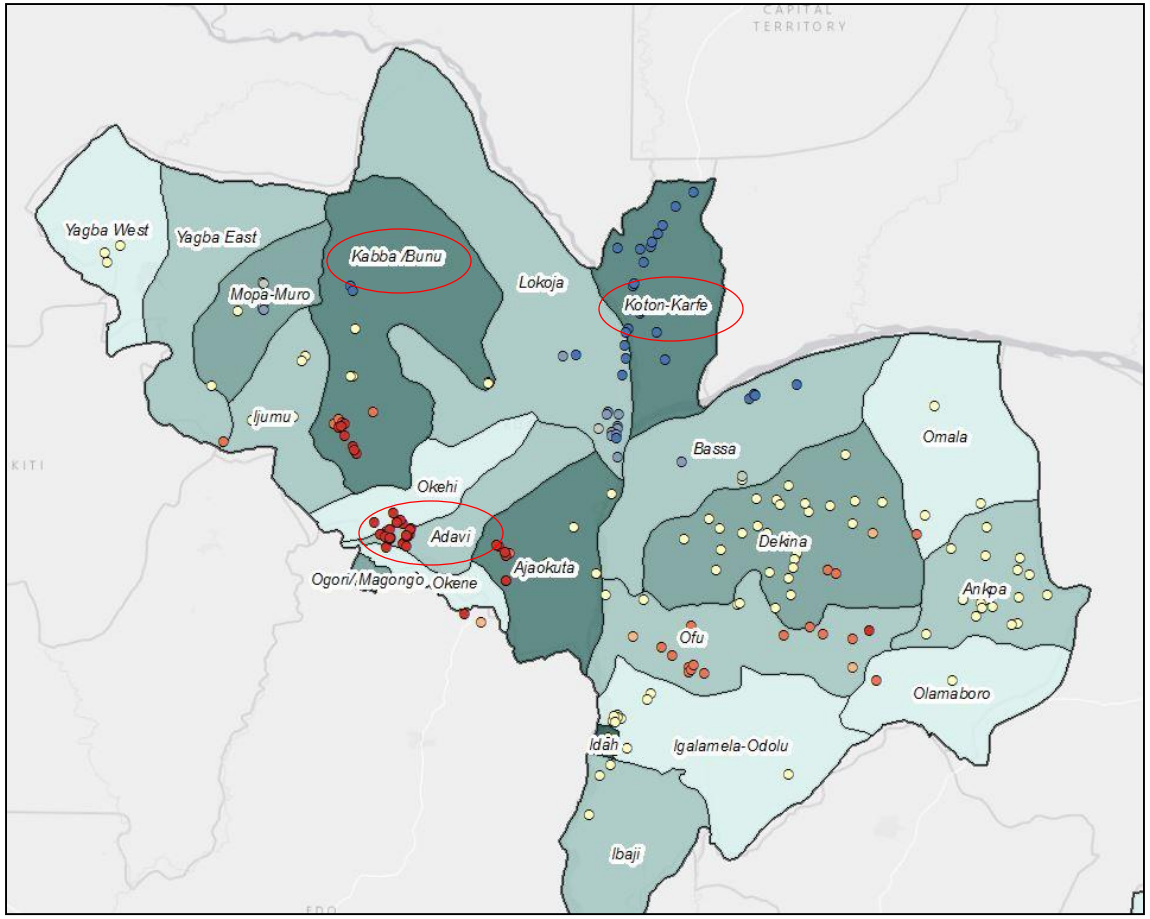
Women's Literacy



Improved Water Sources



Kogi: Pairing Facilities Information and Characteristics About the Population (Access to improved water sources)



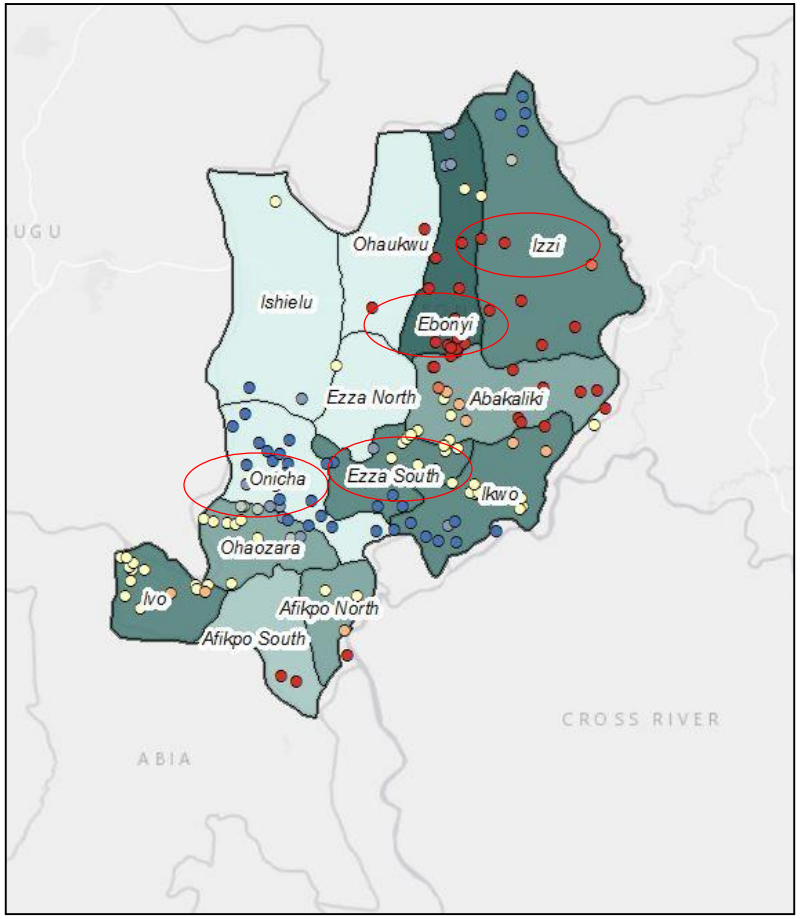
Kabba/Bunu:
High/Med/Low Access to Improved water
High # EmONC Facilities

Koton-Karfe:
Low Access to Improved water
High # EmONC Facilities

Okehi and Adavi:
High Access to Improved water
Low # EmONC Facilities

Finding: MCSP EmONC facility density were high in areas where access to improved water were high and low

Ebonyi: Pairing Facilities Information and Characteristics About the Population (Access)



Ebonyi and Izzi:
High/Med/Low Access to Improved water
High # EmONC Facilities

Ezza South:
Low Access to Improved water
High # EmONC Facilities

Onicha:
Low Access to Improved water
Low # EmONC Facilities

Finding: MCSP EmONC facility density were high in areas where access to improved water were high and low

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Thank you for your time!