Potential for uptake of diagnostic testing services along the continuum of care: Landscape assessment of community and providers

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Objectives

1. Identify patterns of:
   • Women’s care-seeking behaviors
   • Provision of maternal health care services

2. Community and provider receptivity of common testing modalities

3. Determine a preliminary set of product requirements and functional specifications for diagnostic devices

Overview

• Field Sites
• Methods
• Results
  • Care-seeking and care provision along the continuum
  • Dx Testing: Community Perceptions
  • Dx Testing: Provider Perceptions
• Implications for scaling up diagnostic technologies

Field Sites: Bangladesh

• Dhaka
• Nilphamari
• Habiganj
• Bandarban

Field Sites: Uganda

Apac
Bushenyi
Kampala
Iganga

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Methods

Focus group discussions
- Pregnant women and new mothers
- Key influencers

In-depth interviews
- “Lowest denominator” of formal sector providers
- Informal providers

Sample

- Focus group discussions with pregnant women and new mothers (N=22/n=169)
- Focus group discussions with key influencers (N=23/n=157)
- In-depth interviews with formal providers (n=24)
- In-depth interviews with informal providers (n=19)

Key Providers in the Community: Bangladesh

- Traditional Birth Attendants (TBA)
  - Informal or little training (~20 days)
  - Community member of village
  - Receive gifts or small payments
  - Home visits
- Family Welfare Assistants (FWA)
  - Formal training (2 months)
  - Employee of Family Welfare Centre/government
  - Free
  - Home visits
- Family Welfare Visitors (FWV)
  - Formal training (2 years)
  - Employee of Family Welfare Centre/government
  - Free
  - Works from Family Welfare Centre
- Village Doctors
  - Informal or little training (variable)
  - Community member of village
  - Runs a profitable business
  - Works from store in village

Key Providers in the Community: Uganda

- Traditional Birth Attendants
  - Informal or little training
  - Community members
  - Receive small payments
  - Operate from their own homes
- Community Health Workers (CHW)
  - Short training (7-10 days)
  - Health education
  - Home visits
Key Providers in the Community: Uganda

- Nursing Officers
  - HC III-IV
  - Nursing degree
  - Maternal health care and postnatal care
  - Health education and curative care

- Midwives
  - HC II-IV
  - Formal midwifery training
  - Maternal health care
  - Postnatal care
  - Health education and curative care

Care-seeking Along the Continuum:
Determinants

- The role of key influencers:
  - Facilitators and gatekeepers
  - Govern choice of provider and facility
- Direct and indirect costs
- Perceptions of provider and quality of care
- Distance
- Transport

“Some pregnant women have no money and fear to deliver on the way. So they go to the TBAs. Others deliver on the way to the hospital due to long distances and exhaustion. It is sad. No ambulance and no money to hire cars. Even then, there are no roads to be used by vehicles.”

Key Influencer, Bushenyi

Care-seeking Along the Continuum of Care – Antenatal Care

- Antenatal care often consists of a single visit with a skilled provider
- ANC with a formal provider is at a government health facility
- Visits usually occur in the second trimester or later
- Danger signs are a frequent trigger for additional visits
- HIV testing is a major driver for formal antenatal care in Uganda

“The other thing is that when your wife is pregnant you must come with her at the health facility so that both of you get tested for HIV so that in case any of you has the disease they can find a way of protecting the child from not getting infected.”

Husband, Iganga

Care-seeking Along the Continuum of Care – Labor and Delivery and Postpartum Care

- Home deliveries preferred
- TBAs providers of choice in both settings
- Danger signs major determinant of seeking formal care
- Postpartum care is perceived outside the maternal health continuum
- Confinement of mother and neonate following delivery is the norm
Care Provision Along the Continuum

- Providers currently rely on physical examination and signs and symptoms for diagnoses
- Moving patients up the referral chain most common strategy for complications
- Strong recognition of logistic limitations
- Providers familiar with diagnostic testing as a concept but limited experience with actual use

"Except the reason the health facilities has no running water, equipment, bathroom, separate deliveries room, bed and other security. That’s why they do not want to come, rather they like to do delivery at home by the Traditional Birth Attendant (TBA).”

Medical Assistant, Dhamrai

Diagnostic Testing: Community Perceptions

Logistics of Testing: Timing

Common themes included:
- Antenatal care testing a familiar concept to varying degrees
- Testing during labor and delivery almost universally unacceptable
- Postpartum testing an unfamiliar concept, especially in Bangladesh, but fair degree of receptivity, with caveats

Logistics of Testing: Where and Who

- Ugandan respondents often preferred facility-based testing
  - Better infrastructure, more privacy, better trained health workers
- Respondents from Bangladesh overall preferred home testing
  - Privacy, restriction in movement, distance, actual and opportunity cost
- Respondents prefer trained, formal sector health workers in both settings

Logistics of Testing: Turnaround Time

- Almost universal preference for immediate turnaround time
- Variability in the definition of “immediately,” ranging from point of care to 2 hours to 1 day
- Some concerns that rapid turnaround indicates compromised quality
Logistics of Testing: Specimen Type

- High levels of acceptability for:
  - Blood sample via fingerstick and/or venous blood draws
  - Urine testing
- Low receptivity to providing vaginal/cervical swabs
- Key influencers less open to testing unless indicated

Diagnostic Testing: Provider Perceptions

Provider Preferences

- Facility-based testing
- Antenatal and postpartum testing
- Testing during labor and delivery not viewed as feasible
- Fingerstick and urine tests viewed as optimal
- Venous blood draws fairly acceptable
- Vaginal/cervical swabs not very feasible
- Heterogeneity in specific tests desired

Provider Perceptions: Opportunities

- Perceived need for testing in pregnancy
- Advantages in terms of improved perceptions of quality of care
- Improved patient management
- A potential “peg” for improved uptake of maternal and newborn services

Provider Constraints

- Training related
- Logistics
  - Very little use of Dx currently*
  - High patient volumes
  - Inadequate facilities and provider capacity to deal with specimen collection
  - Concerns about added workload

* HIV testing in Uganda was a notable exception to this norm

“...more faith in their providers and if this trust was in place (by providing good care more often) then if a problem arose women will be more likely to seek care for a problem.”

Family Welfare Visitor, Banderban
Implications for Diagnostics Development and Roll-out

- Women often have a single antenatal care contact with formal sector providers
  - Bundled or multiplexed diagnostics
  - Administered at a single visit
  - Bundling of therapeutics with diagnostics

- Formal providers aware of common diagnostic tests but limited experience of actual use
  - Should be accompanied by visual, text-free instructions
  - Require limited, simple training for successful use
  - Provide clear results to providers and patients, removing possible ambiguity

- Women generally willing to provide biological specimens; concerns about confidentiality and competence
  - Diagnostics should be administered by formal providers (for whom trust levels are high)
  - Optimally in facility settings
  - Female providers should preferably administer tests in gendered settings

Challenges

- Postpartum confinement and options for testing
- Direct and associated costs
- Management and follow-up
- The for-profit sector as an early adopter

Thanks!