Fogarty International Center

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Center for Global Health Studies
Needs Assessment and Asset Analysis: Framing ethical interventions with impact

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Medical Anthropology in Public Health: What do we do?

- **Medical anthropology**
  - A wide-ranging subdiscipline incorporating biological and social anthropology
  - Emphasis on understanding broad trends in human variation and health
  - The fallacy of the empty vessel
  - **Cultural relativism** - the body and its symptoms are interpreted through cultural lenses
  - **Disparities in health**, both globally and within countries, should not be blamed on sociocultural factors

- **Public health**
  - Intervention design with local populations in mind
  - Evaluation of interventions incorporating qualitative measures and lived experiences
mHealth Design: An iterative process

- When would input from medical anthropology be useful?

- Problem Identification with local partner
- Baseline needs assessment and local input
- Building on existing technology for prototype
- Refining technology based on context and local preferences
- End-user training
- Implementation and ongoing support and refining
What are needs assessment and asset analysis?

**Needs vs. Assets**

- Needs: Formal identification of gaps in knowledge, resources, or services
- Assets: Formal identification of strengths that may be harnessed to address the identified problem
- Dependency vs. Sustainability

**Questions to Consider**

1. Who generated your idea and why? Technologically interesting? Perceived need?
2. Does your target population NEED your innovation? Who determines this?
3. Does your target population WANT your innovation?
4. How open are you to changing your idea or innovation to correspond with local input?
Beginning Needs Assessment and Asset Analysis

- mHealth landscape analysis
  - Learn from what’s come before!
- What are the important contributory factors that affect your research problem?
  - Each domain of factors can be multilevel (e.g., individual through national)
- Clarify scope of project
Needs and Assets: Questions for Consideration

1. **What demographic data would you need?**
   - What data are existing/available?

2. **Who is your target population?**
   - Health staff, educators, community members
   - Estimate of the size of the population for sampling

3. **What infrastructure (physical and human) information would help you design your innovation?**
   - Technical skills, availability of electricity, current practices

4. **What beliefs, opinions, and practices would affect utilization of your innovation?**

5. **What local partnerships and stakeholders would you need to engage?**
Methods for Needs Assessment and Asset Analysis Research

- **Leverage existing data as far as possible**
  - Be careful not to assume your own knowledge base as an insider or ethnographer

- **Qualitative Methods**
  - Observation and participant-observation
  - Key informant interviews
    - Public officials, business leaders, members of the community, etc.
  - Focus group discussions

- **Quantitative Methods**
  - Survey instruments
    - Epilinfo for sample size
  - Review of public records
    - Health system, utilities, etc.
Case study: Train and support promoters in ORT and zinc in rural Guatemala

- Oral rehydration therapy and zinc supplementation to improve outcomes of childhood diarrhea
- Field testing of WHO guidelines
  - Adapting global to local in rural Guatemala
Case study: Needs and assets baseline research

1. Demographics
   - Census and departmental level diarrheal incidence/treatment data
   - Village level household map

2. Target population
   - Household survey - preferred sources of health info and care
   - Interviews with community health workers, community leadership

3. Infrastructure
   - Community survey of mobile network coverage, electricity
   - Household survey - phone ownership and frequency of use

4. Beliefs, opinions, and practices
   - Household survey
   - In-depth interviews
   - Previous ORT and community health ethnography in the region

5. Local partnerships and stakeholders
   - Village council
   - Civil society organizations for women and men
Structural and Political Factors

- National
  - Government corruption scandal
  - Employment opportunities and resources clustered in urban areas
  - Marginalized rural, indigenous population

- Community
  - Strong local governance and active village council
  - Male-dominated political participation
  - Subsistence farming and male travel outside of community for wage labor
Health Service Factors

- National
  - ORT/ZS adopted into Guatemalan national formulary in 2010
  - Large donation of zinc from international donor
  - Strong history of primary care delivery using trained community health workers

- Community
  - Existing health “promoters” - drug vendors
  - Zinc unavailable
Sociocultural Factors

- National
  - Bias in health service (and other public sector services) that indigenous populations do not desire access to biomedical services

- Community
  - Women as caregivers, men as decision-makers
  - Respected women as sources of health knowledge
  - Acceptable ORT solutions
Environmental Factors

- National
  - Strong mobile phone network coverage

- Community
  - Households widely dispersed
  - Limited transportation
  - Phone credits available for two major service providers in local shops
Project Implementation: Promoter Training

- Peer teaching
- Practical assessment
- Support after completion
SMS-to-database system: Ongoing promoter support

- Feedback from Admin
- Real-time Statistics
- Automatic parsing of data
- Receive TEXT from promotora
- Remote server sync to online web system
- SMS delivered to remote server

**BENEFITS**

- Harness everyday technology for health care delivery
- Regular contact and feedback
- Accountability of promoters
- Ability to respond to changing conditions
- Ability to reward active promoters
SMS System Implementation Challenges

- Literacy and language issues for SMS use
  - Future development of voice-to-text system
- Age differentials in use by promoters
- No uniformity in promoter mobile handsets
- Community participants were unwilling to share their phone numbers
  - “People badly interpret the use of messaging and don’t want to give [their] numbers.” (PR2)
- Keeping the server online
Needs Assessment and Asset Analysis as Empowerment

- mHealth solutions can democratize health care but can also exacerbate existing inequalities
  - Careful needs assessment can minimize risk of harm
  - Ethical obligation to understand local realities and power dynamics
- The social suffering of underserved and marginalized groups requires social solutions
Further Resources


- “Five Reasons to Embrace Logic Models” [Clip](http://www.ccmcentral.com/?q=about)

- Standard IMCI surveys: [http://www.ccmcentral.com/?q=about](http://www.ccmcentral.com/?q=about)

- Guidelines for Informed Consent Forms [https://www.agnesscott.edu/irb/request-review.html](https://www.agnesscott.edu/irb/request-review.html) *Provides template forms*
Acknowledgements

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  - Sana Fatima, Niclas Palmius, Gari Clifford - Biomedical Engineering, University of Oxford
- Contact info: rhallclifford@agnesscott.edu
Breakout Discussion Questions

1. How do you approach your team's problem, given what you have just learned?

2. What did you incorporate into your project from what you learned?

3. What new subject matter experts do you need to work with? Why?
Case Study: Promoter Training

- Week-long intensive training of women
  - Participation requirements
- Co-design of curriculum
- Topics:
  - Diarrhea
  - Dehydration
  - Oral rehydration and zinc supplementation
  - Referrals
  - Adult Education
  - Text Messaging
### Case Study Results: Community Experience

<table>
<thead>
<tr>
<th>Most common treatments for diarrhea in their community (listed in order of frequency; some respondents gave more than one answer)</th>
<th>Community Baseline (n=24)</th>
<th>After Training with Local Promoter (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicines (n=12)</td>
<td>ORT (n=15)*</td>
<td></td>
</tr>
<tr>
<td>Herbs/natural remedies (n=9)</td>
<td>Medicines (n=7)</td>
<td></td>
</tr>
<tr>
<td>Health professional (n=4)</td>
<td>Health professional (n=6)</td>
<td></td>
</tr>
<tr>
<td>ORT (n=3)</td>
<td>Herbs/natural remedies (n=5)</td>
<td></td>
</tr>
<tr>
<td>Percentage who have heard of ORT</td>
<td>79%</td>
<td>100%*</td>
</tr>
<tr>
<td>Percentage who have used ORT</td>
<td>63%</td>
<td>95%*</td>
</tr>
<tr>
<td>Type of ORT used (listed in order of frequency; some respondents gave more than one answer)</td>
<td>Dry packets (n=14)</td>
<td>Homemade (n=11)*</td>
</tr>
<tr>
<td>Bottled (n=7)</td>
<td>Dry packets (n=10)</td>
<td></td>
</tr>
<tr>
<td>Homemade (n=0)</td>
<td>Bottled (n=5)</td>
<td></td>
</tr>
<tr>
<td>Percentage who have heard of zinc as treatment for childhood diarrhea</td>
<td>0%</td>
<td>24%*</td>
</tr>
</tbody>
</table>

“I liked learning and talking with women from my community.” (CP18)
Case study 2: Male Circumcision

Evidence from over 35 cross-sectional studies, 14 prospective studies and 3 randomized controlled trials have demonstrated that male circumcision provides approximately 60% protection against HIV [3].
WHO/UNAIDS
Montreux

MC Policy
Approved by
MOH

Luo Council of Elders
Consulted

Nyanza Provincial Task
Force on MC

> 90,000 men
circumcised
**Opinion**

When a stitch in time really saves nine

Tightening the stitch in time really saves nine. This is a universal statement that applies to many aspects of life, including health, education, and personal well-being. In the context of health care, it reminds us of the importance of preventive measures and timely interventions.

The principle of 'when a stitch in time really saves nine' is rooted in the idea of proactive action. Just as a single stitch can prevent a tear from spreading, early intervention in health care can prevent major complications or diseases from developing.

In the field of preventive health care, this principle is exemplified by campaigns to promote healthy behaviors, such as regular check-ups, vaccination programs, and health education. By focusing on preventive measures, we can avoid the need for more intensive and costly treatments later on.

For instance, in managing chronic conditions like diabetes or hypertension, early detection and management can significantly reduce the risk of complications such as kidney failure or heart disease. Similarly, in cancer prevention, regular screening tests are crucial in identifying tumors at an early stage when they are more treatable.

In conclusion, the principle of 'when a stitch in time really saves nine' serves as a reminder to always be proactive in our health care efforts. By taking small but significant steps now, we can avoid larger issues in the future, just as a single stitch can prevent a tear from spreading. This principle applies not only to individuals but also to public health strategies at a larger scale, emphasizing the importance of ongoing vigilance and intervention.
## STAKEHOLDER ANALYSIS

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Basic characteristics</th>
<th>Interest in the issue</th>
<th>Capacity and motivation</th>
<th>Possible strategies to address interests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government: Ministries of Health &amp; Education; National AIDS Control Council</td>
<td>Researchers, medical personnel,</td>
<td>Reduced HIV incidence</td>
<td>Healthy population Save costs</td>
<td>Should provide policy direction and leadership</td>
</tr>
<tr>
<td>Donors</td>
<td>Multilateral Bilateral</td>
<td>Provide funding</td>
<td>Reduce burden of HIV/AIDS</td>
<td>Provide regular progress reports</td>
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<tr>
<td>Politicians</td>
<td></td>
<td></td>
<td></td>
<td>Involve them in all stages of scale-up</td>
</tr>
<tr>
<td>Councils of Elders/Traditional Leaders</td>
<td>MC is a culturally sensitive issue</td>
<td>To maintain cultural norms while keeping up with science</td>
<td>Involve as patrons for proposed introduction of MC</td>
<td></td>
</tr>
</tbody>
</table>
## Stakeholder Analysis

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<th>Possible strategies to address interests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>Sexual partners or mothers</td>
<td>Benefits for women; infant male circumcision</td>
<td>To protect themselves (HIV-); to protect their infants</td>
<td>Involvement in mobilization activities</td>
</tr>
<tr>
<td>Men – circumcised and uncircumcised</td>
<td></td>
<td>Uncircumcised – need to be circumcised; Circumcised – low risk behavior</td>
<td></td>
<td>Involvement in mobilization and scale-up efforts</td>
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<tr>
<td>Religious Groups</td>
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<tr>
<td>Advocacy Groups; youth groups</td>
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<tr>
<td>NGOs/implementation partners</td>
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<tr>
<td>Media</td>
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## POLITICAL MAPPING

<table>
<thead>
<tr>
<th>Stake-holder</th>
<th>Support</th>
<th>Neutral</th>
<th>Opposition</th>
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<tbody>
<tr>
<td></td>
<td>High</td>
<td>Med</td>
<td>Low</td>
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<tr>
<td>Government</td>
<td><img src="image" alt="Support" /></td>
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<td>Politicians</td>
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<tr>
<td>Council of Elders</td>
<td><img src="image" alt="Support" /></td>
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<tr>
<td>Women</td>
<td><img src="image" alt="Support" /></td>
<td></td>
<td></td>
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<tr>
<td>Uncircumcised Men</td>
<td><img src="image" alt="Support" /></td>
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