

Fogarty International Center

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Fogarty International Center

# Needs Assessment and Asset Analysis: Framing ethical interventions with impact

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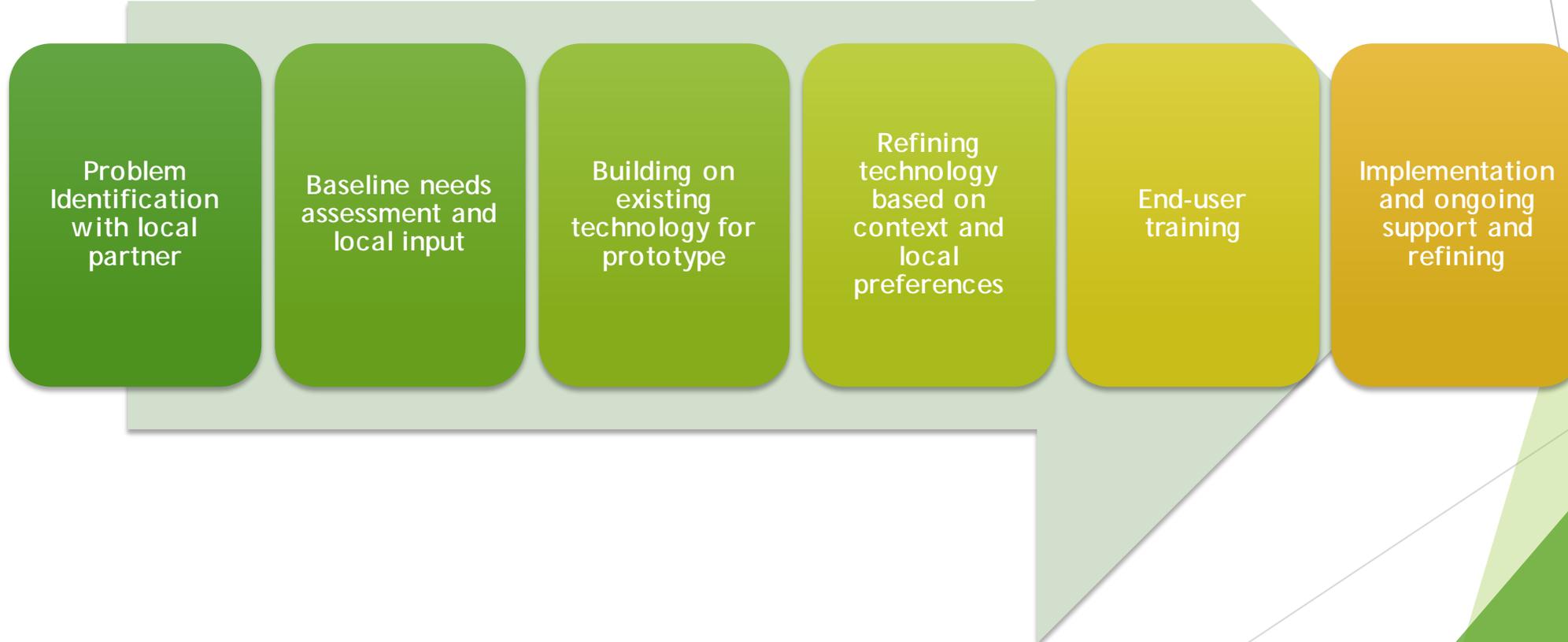


# Medical Anthropology in Public Health: What do we do?

- ▶ 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?



# 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

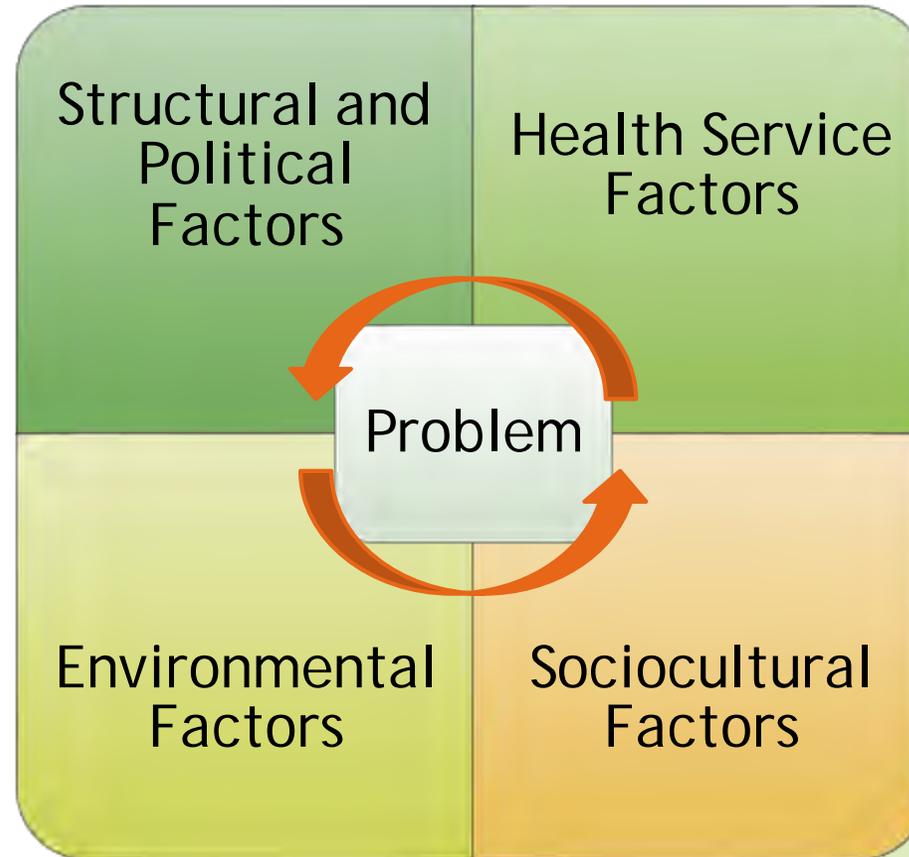


## Questions to Consider

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
    - ▶ EpiInfo for sample size
  - ▶ Review of public records
    - ▶ Health system, utilities, etc.

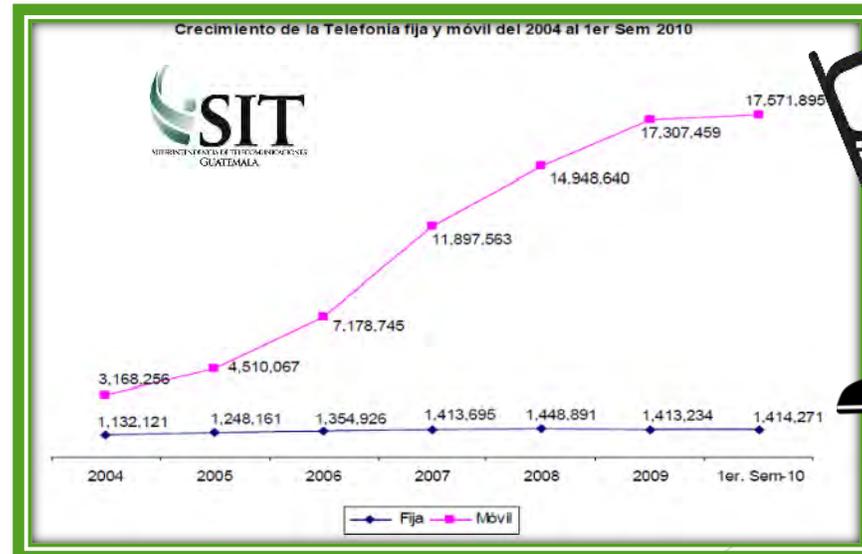


# Case study: Train and support promoters in ORT and zinc in rural Guatemala

- ▶ Oral rehydration therapy and zinc supplementation to improve outcomes of childhood diarrhea
- ▶ Field testing of WHO guidelines
  - ▶ Adapting global to local in rural Guatemala



Project Location:  
4,000 pop.



# Case study:

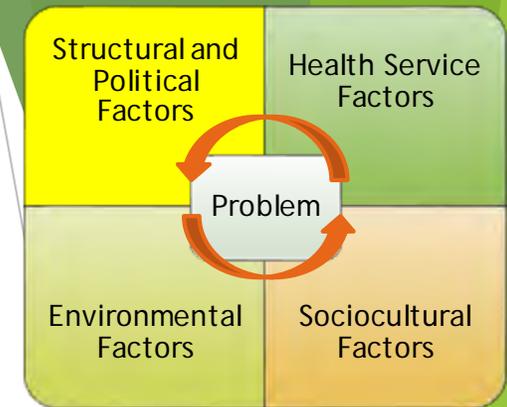
## Needs and assets baseline research

- 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



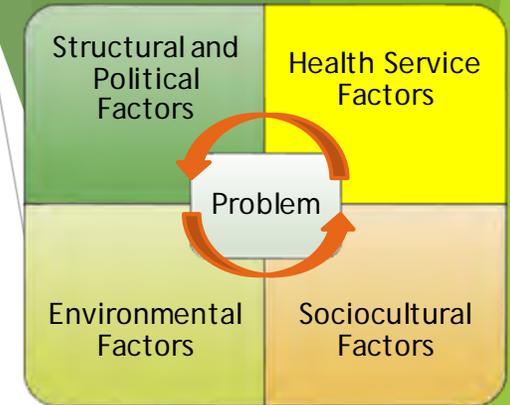
# Health Service Factors

## ► 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

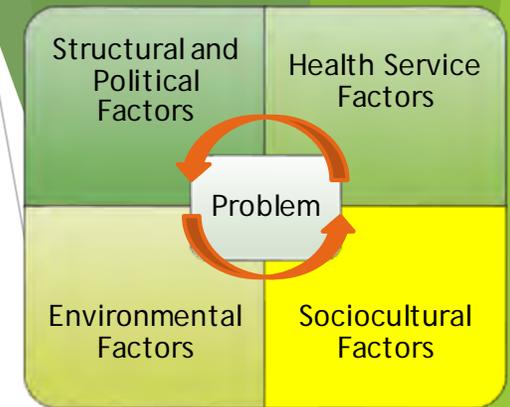
## ► Community

- Existing health “promoters” - drug vendors
- Zinc unavailable



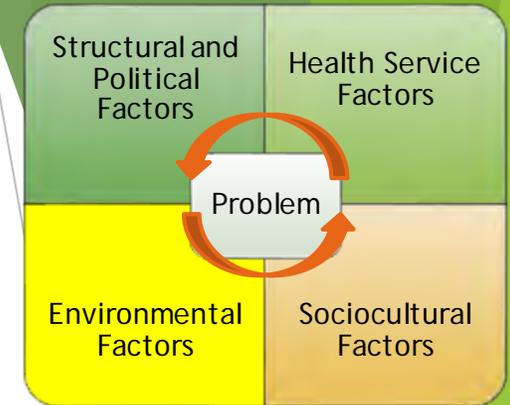
# Sociocultural Factors

- ▶ 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



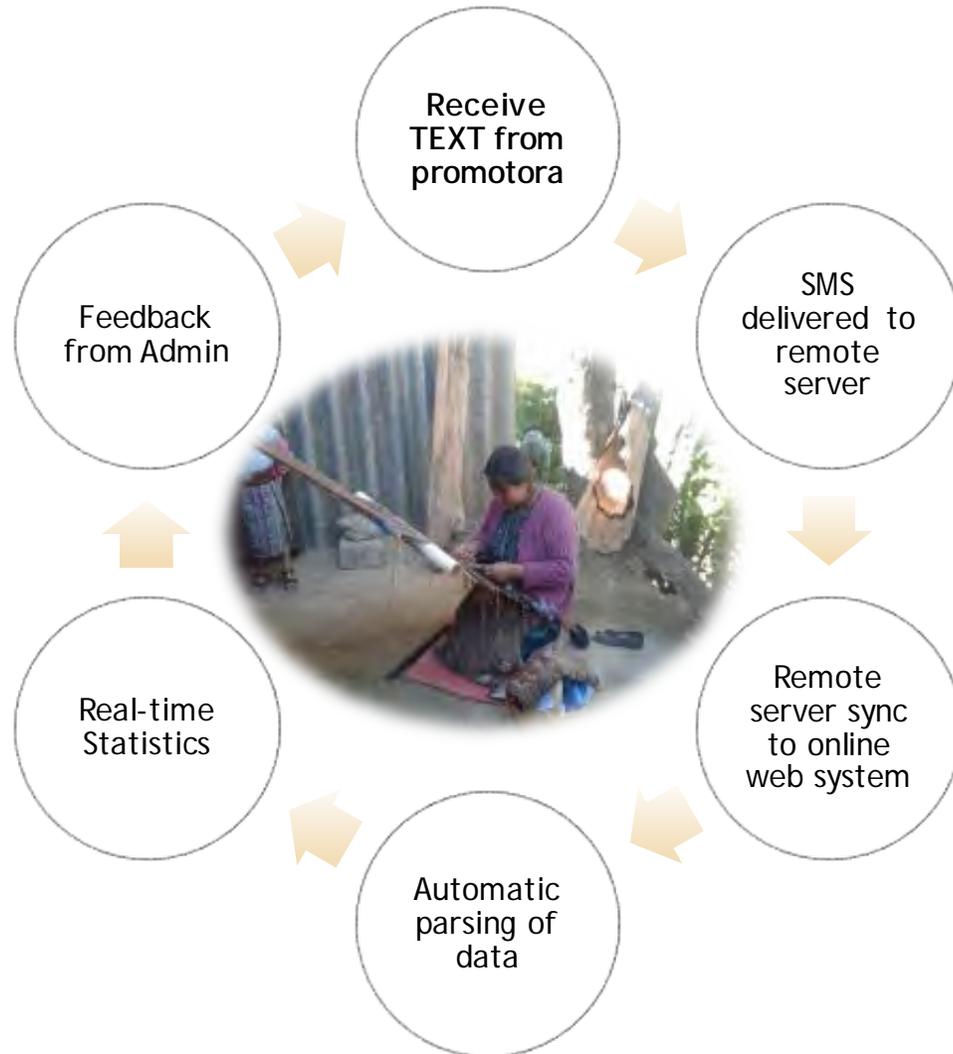
Practical  
assessment



Support  
after  
completion



# SMS-to-database system: Ongoing promoter support



## 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

- ▶ Corlien M. Varkevisser, Indra Pathmanathan and Ann Templeton Brownlee, *Designing and Conducting Health Systems Research Projects*.  
<https://www.idrc.ca/en/book/designing-and-conducting-health-systems-research-projects-volume-1-proposal-development-and>
- ▶ Scrimshaw, Nevin S., Gary R. Gleason, *Rapid assessment procedures: Qualitative methodologies for planning and evaluation of health related programmes*, 1992  
<http://www.unu.edu/unupress/food2/UIN08E/UIN08E00.HTM>
- ▶ Pertti J. Pelto and Gretel H. Pelto, *Studying Knowledge, Culture, and Behavior in Applied Medical Anthropology*, Medical Anthropology Quarterly, New Series, Vol. 11, No. 2, Knowledge and Practice in International Health. (Jun., 1997), pp. 147-163.  
[http://links.jstor.org/sici?sici=0745-5194\(199706\)2%3A11%3A2%3C147%3ASKCABI%3E2.0.CO%3B2-A](http://links.jstor.org/sici?sici=0745-5194(199706)2%3A11%3A2%3C147%3ASKCABI%3E2.0.CO%3B2-A)
- ▶ Patricia M. Hudelson, *Qualitative research for health programmes*, World Health Organization. Division of Mental Health. WHO Doc No.: WHO/MNH/PSF/94.3.  
[http://whqlibdoc.who.int/hq/1994/WHO\\_MNH\\_PSF\\_94.3.pdf](http://whqlibdoc.who.int/hq/1994/WHO_MNH_PSF_94.3.pdf)
- ▶ “Five Reasons to Embrace Logic Models” [Clip](#)
- ▶ Standard IMCI surveys: <http://www.ccmcentral.com/?q=about>
- ▶ Guidelines for Informed Consent Forms <https://www.agnesscott.edu/irb/request-review.html>  
\*Provides template forms

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- ▶ Funding for ORT/ZS case study from: NIH, Balliol College Oxford
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- ▶ Contact info: [rhallclifford@agnesscott.edu](mailto: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

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

“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 ].





# STAKEHOLDER ANALYSIS

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

# STAKEHOLDER ANALYSIS

Stakeholder	Basic characteristics	Interest in the issue	Capacity and motivation	Possible strategies to address interests
Women	Sexual partners or mothers	Benefits for women; infant male circumcision	To protect themselves (HIV-); to protect their infants	Involvement in mobilization activities
Men – circumcised and uncircumcised		Uncircumcised – need to be circumcised; Circumcised – low risk behavior		Involvement in mobilization and scale-up efforts
Religious Groups				
Advocacy Groups; youth groups				
NGOs/implementation partners				
Media				

# POLITICAL MAPPING

Stake-holder	Support			Neutral	Opposition		
	High	Med	Low		Low	Med	High
Government							
Donors							
Politicians							
Council of Elders							
Women							
Uncircumcised Men							