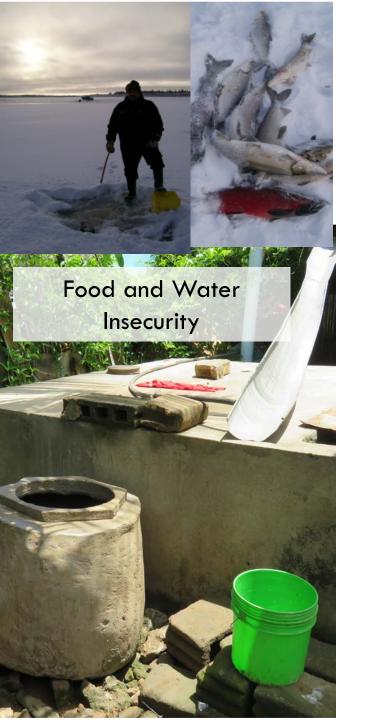


Roseanne Schuster, PhD, MSc

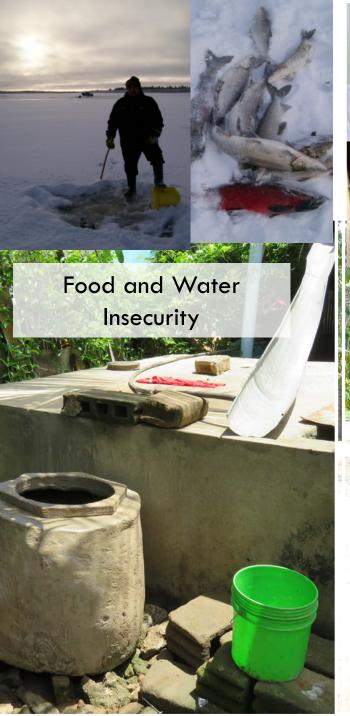
Director of MEL Practice & Innovation, Global Impact Collaboratory

Assistant Research Scientist, School of Human Evolution & Social Change











"TODAY IT HAS BECOME ALL TOO OBVIOUS THAT INTERVENTIONS SELDOM WORK AS INTENDED."

INNES & BOOHER. 1999.

JAM PLAN.

Community Responsive Evaluation



How do food & water insecurity shape health?

Food Environment
Indicators
Infant and young child
feeding



Fisherman showing his catch at the Niagara River

Bi (F) Ca La	Location & Tributaries (Chemical of Concern)	Fish	Men Over 15 & Women Over 50	Women Under 50 & Children Under 15		
	All waters NOT listed (Western Region)	All fish	Up to 4 meals/month	Up to 4 meals/month		
		Channel catfish	Up to 1 meal/month	DON'T EAT		
	Buffalo River and Harbor (PCBs)	Carp	DON'T EAT	DON'T EAT		
		All other fish	Up to 4 meals/month	DON'T EAT		
	Cayuga Creek (Dioxin)	All fish	DON'T EAT	DON'T EAT		
	Delaware Park Lake/Hoyt	Carp	Up to 1 meal/month	DON'T EAT		
	Lake (PCBs)	All other fish Up to 4 meals/month		DON'T EAT		
	Eighteenmile Creek, above and below Burt Dam (PCBs)	All fish	DON'T EAT	DON'T EAT		
	Erie Canal, between Lockport & Niagara River (PCBs)	Carp	Up to 1 meal/month	DON'T EAT		
		All other fish	Up to 4 meals/month	DON'T EAT		
	Lake Erie (PCBs)	Rock bass, Yellow perch, Burbot	Up to 4 meals/month	Up to 4 meals/month		
		Carp, Channel catfish	Up to 1 meal/month	DON'T EAT		
1		All other fish	Up to 4 meals/month	Up to 1 meal/month		
Ų.	Lake Ontario * (PCBs, Mirex, Dioxin)	White sucker	Up to 1 meal/month	DON'T EAT		
A STATE OF		White perch	East of Point Breeze, up to 1 meal/month; West of Point Breeze, DON'T EAT	DON'T EAT		
		Lake trout	Greater than 25", up to 1 meal/month; Less than 25", up to 4 meals/month	DON'T EAT		
		Carp, Channel catfish	DON'T EAT	DON'T EAT		
G		Brown trout	Greater than 20", up to 1 meal/month; Less than 20", up to 4 meals/month	DON'T EAT		
		All other fish	Up to 4 meals/month	DON'T EAT		
	Lewiston Reservoir/Power	Carp	DON'T EAT	DON'T EAT		
	Reservoir (PCBs)	All other fish	Up to 4 meals/month	DON'T EAT		
	Niagara River, upstream of Niagara Falls (PCBs)	Same advice as Lake Erie	NY State Dept.	of Health		





Plastic bottle filled with tap water from the city of Flint, Michigan, 2016.

Women lining up to collect water in Puerto Rico after Hurricane Maria devastated the island in September, 2017.





Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access: Indicator Guide

VERSION

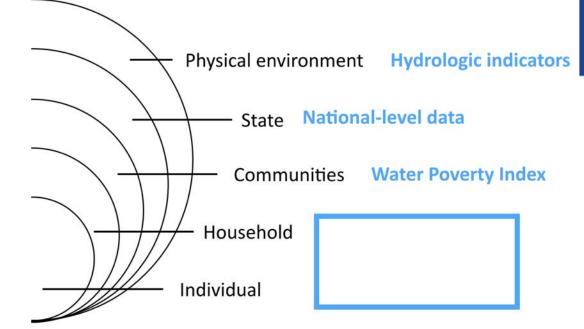
August 2007

Jennifer Coates Anne Swindale Paula Bilinsky

WATER INSECURITY & MEASUREMENT

A condition when at least one of these variables related to water (affordability, reliability, adequacy, and safety) is significantly reduced or unattainable so as to threaten or jeopardize well-being (Jepson et al., 2017, WIRES).

Gap in measurement of water security at household and individual levels









Innovative Methods and Metrics for Agriculture and Nutrition Actions





BACKGROUND: WATER INSECURITY & INFANT AND YOUNG CHILD FEEDING

Breastfeeding

Perceived barriers

Gap: chronic dehydration

- Gambian lactating women fasting during Ramadan (Prentice, 1984)
- Lactating women in Amazon (Rosinger, 2014)

Complementary Feeding

Water insecure women - less foods, less diverse foods, feed breastmilk longer (Collins et al., under review)

Hypothesis that **environmental enteric dysfunction** is driving stunting (Mbuya & Humphrey, 2015)

ASSESSING UNDERSTANDING OF WATER INSECURITY ON INFANT FEEDING

Open-ended survey question: "Can you tell me some ways that the water situation here affects how infants (under 12 months of age) are fed?"

Preliminary analysis: 11 of 30 sites

- Female~72% (n=2,377)
- Male ~28% (n=924)

Thematic & Content Analysis



Enumerator training and survey pretesting in Dushanbe, Tajikistan



BREASTFEEDING

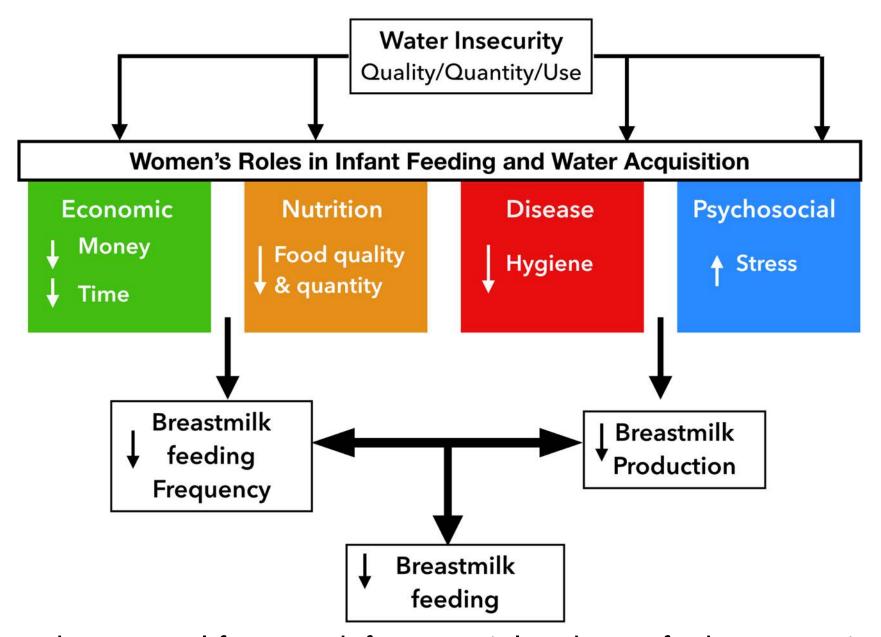
Economic: "Mothers take a long time looking for water, so the baby stays 'unbreastfed' " (Woman, Kenya)

Nutrition: "When there is water we feed them porridge and everything, and when there is no water we feed them just breastmilk" (Woman, Ethiopia)

Disease: "The infant does not drink water, but if his or her mother will drink dirty water, it affects the infant through breastfeeding." (Woman, Tajikistan)

Psychosocial: "Water scarcity stresses mothers and they lack enough breast milk to feed their infants" (Woman, Uganda)

Maternal caregiving capabilities: "I have water to care for my children; a real mother should always have water at home" (Woman, Nigeria)



Condensed conceptual framework for potential pathways for how water insecurity affects breastfeeding

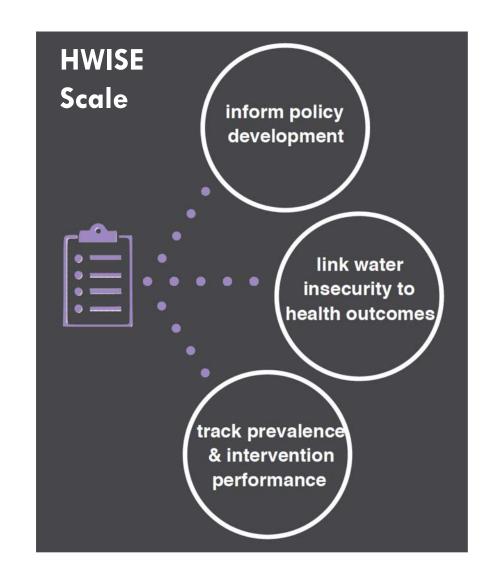
Next Steps

Complete coding and thematic analysis Hypothesis Testing

Breastmilk quantity: Households that go to sleep thirsty more frequently report concerns about breastmilk insufficiency

Breastmilk quality: Households with members that more frequently go without washing hands/body parts more frequently mention concerns of breastfeeding contributing to child illness

Maternal caregiving: Sites where women have longest times to obtain water have less negative perceptions about maternal caregiver capabilities





How can delivery of care be enhanced to improve service uptake and health outcomes?

Cancer screening
Maternal health
HIV/AIDS



ABOUT THE PATIENT VOICES NETWORK Patient Voices Network is a group of patients from two family practices in Buffalo, Jefferson Family Medicine and Jericho Road Family Practice. Our vision is to create "a community of educated and involved patients working hand in hand with physicians in making decisions about their own health care." We were formed in 2010 in partnership with the Primary Care Research Institute in the Department of Family Medicine at UB. We have taken part in lots of different projects over the last three years. In October, we are hosting the Concerned About You: Breast Cancer Awareness Walk & Wellness Event - check out the News & Events Page for more information! For the first Patient Voices project, we designed an intervention to increase colonoscopy screening among people like us. In order to participate in the project, we had to have multiple chronic diseases such as diabetes. Living with those conditions gives us a unique perspective into what is good, and bad, about medical care. We also understand that there are many other things that influence health care.

"A community of educated and involved patients working hand in hand with physicians in making decisions about their own health care"

Initially focused on cancer screening, now including chronic health conditions

Evolved to be an Advisory Board

Sub-study on refugee understanding of cancer (life course theory)

PI: Laurene Tumiel-Berhalter, Director of Community Translational Research, SUNY Buffalo Department of Family Medicine

Schuster et al. Perceptions of cancer and cancer prevention among Somali Bantu and Karen refugees in Buffalo, NY *Under review*. Kahn...**Schuster**, et al. *Chronic Illness*. 2013;9:43-56. Vest...**Schuster**, et al. *Chronic Illness*. 2013;9:145-155.



Preventing vertical transmission of HIV in Mozambique

At time of formative research (2012-13):

- 13.7% HIV prevalence women of reproductive age
- 20% rate of vertical transmission (mother-to-child)

Severe health worker shortage

- Centralized health system
- Concern about worker motivation











Health workers who prevent vertical transmission of HIV

Maternal & child health nurses, midwives



Community volunteers (HIV-specific)





Community health workers

Traditional birth attendants



Performance-based incentives (PBI)

Definition: Transfer of money conditional on service delivery

Goal: To align workers' motivations with that of the health system's

Gap: Lack of attention to and description of implementation makes PBI studies incomparable (Cochrane review)



Ministry of Health-sponsored meeting about PBIs in Mozambican health system







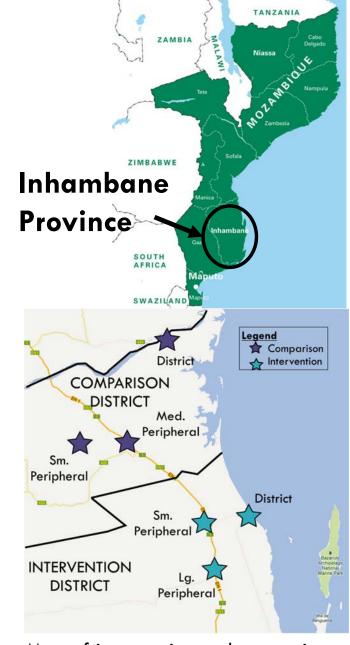


Graphics by Cordaid

Overarching research question

Can performance-based incentives improve workplace environment and increase services delivered to pregnant and lactating women living with HIV/AIDS? (Motivation-opportunity-ability framework)

- Phase 1: Formative research
- Phase 2: Intervention design
- Phase 3: Implementation (longitudinal comparison) & mixed methods evaluation



Map of intervention and comparison districts, Inhambane Province

Goal Setting and Incentives

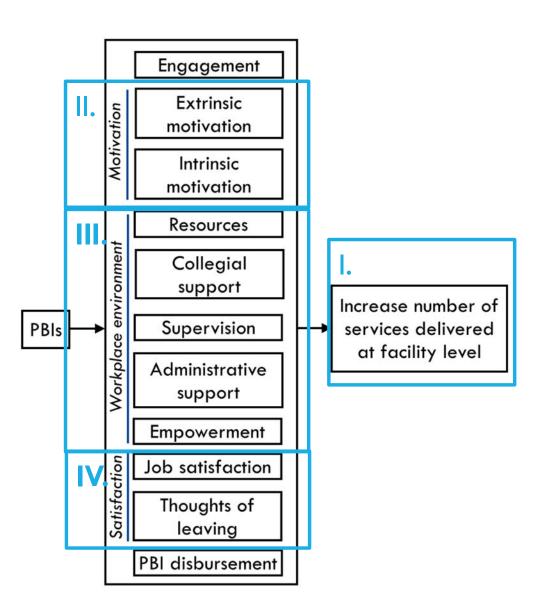
Health facility committee/entire association

- Chose indicators, set goals
- Autonomy to prioritize incentive use
- Split between personal incentives and for facility/association





Community volunteer association



Intervention objectives

Assess impact of incentives on:

- Number of services delivered
- II. Health worker motivation
- III. Workplace environment factors
- IV. Satisfaction and intention to leave

Workplace environment & thoughts of leaving

- Structured supervision
- Collegial support
- Autonomy and empowerment



Community volunteers summarizing discussions

"start to see by themselves what was working or not, and what they could do to improve it in order to receive their [incentive] amount. That was a way of giving...autonomy. And that's a good thing" (Facility leader, Exit interview)

Thoughts of leaving

NEXT STEPS

Coercion in prevention of vertical transmission of HIV care (Mozambique)

Exploring collaborations with the Women's Refugee Health Clinic





Community Responsive Evaluation

Cultural consensus models in international development

Global Impact Collaboratory

What: Partnership between implementers & methodologists

Goal: Assess if the projects are actually designed for and "working" from the perspectives of the target population

My role: Apply social science methods, support faculty across university in developing MEL plans for development projects





Overarching Research Question



Can we apply social science methods to standard evaluation practices to make programs more responsive to communities they are intended to help, with better data collected quicker and cheaper than current practices?



Coastal City Adaptation Project. Chemonics colleagues discussing erosion that washed away a house. **Mozambique**.



Enhanced Palestinian Justice Project (EPJP). Women's empowerment and gender-based violence. West Bank.

Cultural consensus analysis

Derives "cultural models" through factor analysis across participants

Measure **shared** knowledge and estimate **variations** in knowledge through respondent agreement

Individuals whose answers are closest to the answer key have highest loading on first factor and considered the most "culturally competent"

Enhanced Palestinian Justice Project Objectives



Confidence in the Palestinian
Authority

Trust in justice sector institutions

User satisfaction with justice sector institutions and services

EPJP interventions achieved

(modernization, capacity building & outreach)



Our case study objectives

- 1. Validate assumptions in program documents
- 2. Examine assumptions about women's empowerment

Data collection

60 yes/no items: structural barriers, economic empowerment, genderbased violence



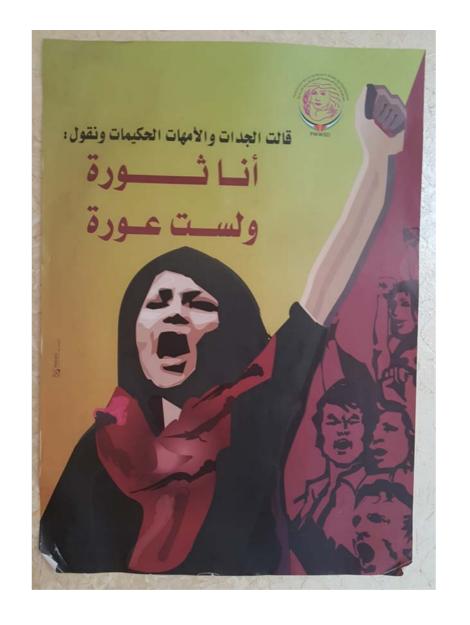
Public purposive sampling	City Location			Village Location			Refugee Camp				Total		
Region	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
	<35	<35	>35	>35	<35	<35	>35	>35	<35	<35	>35	>35	
Bethlehem	5	5	5	5	5	5	5	5	5	5	5	5	60
E. Jerusalem					5	5	5	5	5	5	5	5	60
Hebron	5	5	5	5	5	5	5	5	5	5	5	5	60
Jenin	5	5	5	5	5	5	5	5	5	5	5	5	60
Nabulus	5	5	5	5	5	5	5	5	5	5	5	5	60
Ramallah	5	5	5	5	5	5	5	5	5	5	5	5	60
Tulkarem	5	5	5	5	5	5	5	5	5	5	5	5	40
Total	30	30	30	30	35	35	35	35	35	35	35	35	400

Key Findings

Confirmed (vast majority) of program assumptions

Different cultural models by gender, type of municipality

- No agreement: among men, cities
- Low/moderate agreement among women, villages, refugee camps, some regions



Implications

Cultural consensus useful for program targeting

 Identifies people most/least knowledgeable

May not be appropriate where norms are rapidly shifting

Training students, community based providers

 Training and analysis challenging for program staff to take over





CERTIFICATE OF COMPLETION

Global Impact Collaboratory Training in Cultural Consensus Models for Quantitative Research

this certifies that

has successfully completed the Quantitative Methods for Cultural Research Training



Trained 50 university students and 10 professors in research ethics and qualitative and quantitative survey methods in Mozambique

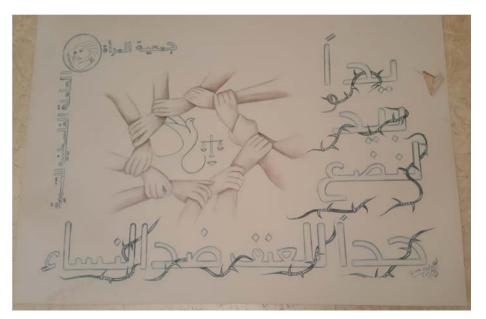
Next Steps

Test cultural consensus for monitoring

Webinars



Supporting evaluation capacity in international development across ASU





Meeting with community leader in a refugee camp

Acknowledgements

Partners:



























Funders:





MARIO EINAUDI
Center for International Studies

















American University of **AUB**













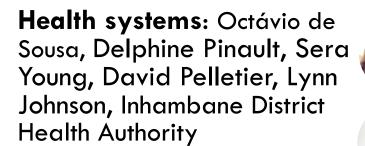
Ashley Hagaman



Š

Participants!

Food & Water Insecurity: Paula Dehn, Laurie HM Chan, Maggie Butler



MEL: Alex Brewis-Slade, Peggy Ochandarena, Amber Wutich, Deborah Freitas, Gilberto Muai, Sereen Hso, Khaled































UNIVERSITY OF MIAMI









Patrick Cortbaou









Hugo Melgar-Quiñonez

















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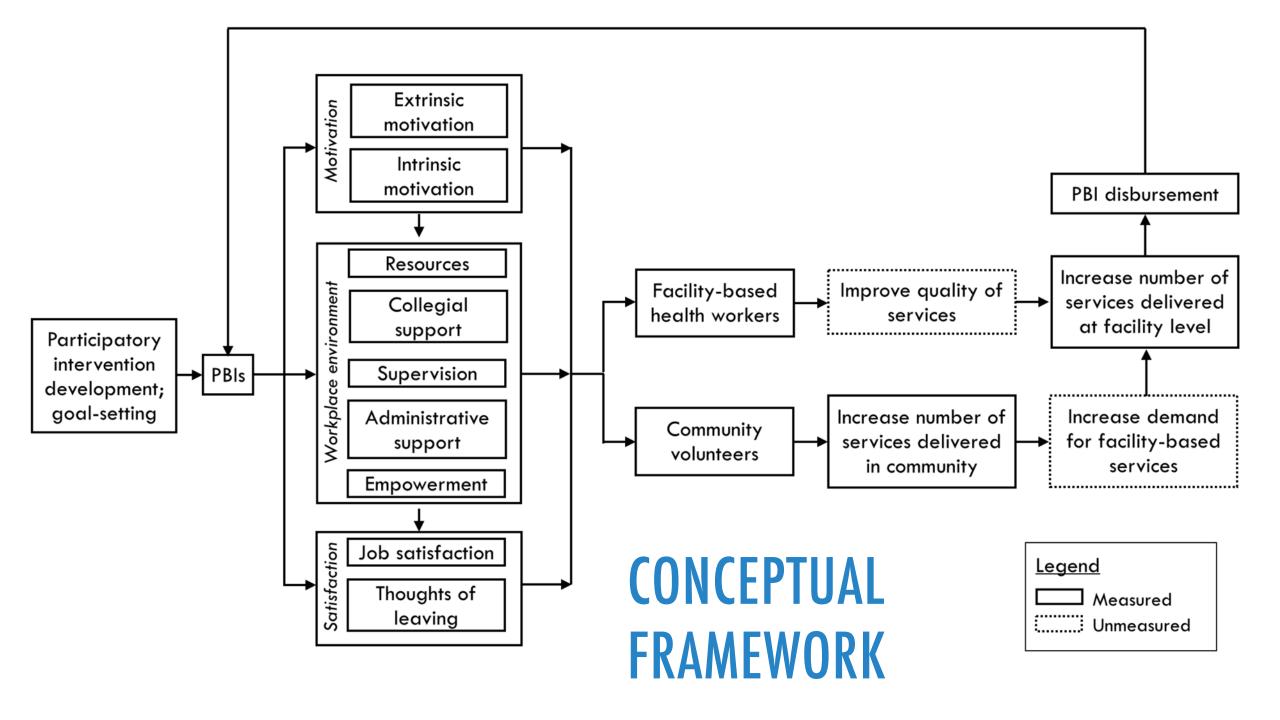


WORKMAN

Thank-you!

Roseanne.Schuster@asu.edu





Coastal City Adaptation Project (CCAP)

Social & behavior change intervention to increase adaptive capacity to climate change threats

- Community-based disaster risk management committees
- Climate smart latrines
- Protected water catchment areas
- Safe disposal of waste
- Climate smart houses
- Mangrove protection





House built on beach in frequent flood zone

Cultural data collection



Student enumerator on random walk to select households

Stratified random sampling (neighborhood vulnerability to climate change)

- 70-item cultural surveys (n=433)
- 11-item semi-structured interviews (n=46)



Trained 50 university students and 10 professors in research ethics and qualitative and quantitative survey methods

Key Findings

Climate change is a threat

- Current adaptation strategies insufficient
- Living on a floodplain acceptable
- Harvesting mangroves is way of life



Trash in a river flow-through, which floods, in Pemba, Mozambique

Differences in cultural models by cities, religion, gender

Not neighborhood vulnerability to climate change*