SHARE II Symposium
Lilongwe Hotel, Malawi
30th July 2015

WASH CONTEXT IN MALAWI (FROM MDGs to SDGs)

Emma Mbalame

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Sanitation and Hygiene Applied Research for Equity

Malawi Epidemiology and Intervention Research Unit

University of Malawi

PRESENTATION OUTLINE

A. Introduction
B. Policies guiding and strategies the water sector
C. State of WASH in Malawi
D. Summary of some water supply and sanitation programs/ projects
E. Access to water supply
F. Access to water supply and sanitation in rural areas
G. Operation and maintenance
H. WASH Challenges and constraints

INTRODUCTION

- The sector's vision is 'Water and Sanitation for All, Always'
- Water and Sanitation sub-sectors in the country endeavor to ensure that every Malawian has equitable access to water and sanitation services for socio-economic development.
- Central Government together with Local Councils, Non-Governmental Organizations (NGO) and Development Partners (DP) and communities have been increasing availability and accessibility of safe water supply for domestic and industrial uses as well as access and use of improved sanitation services.

INTRODUCTION CONT.'

- These efforts are aimed at achieving goals as stated in the MGDS II and targets of the MGDs.
- The MGDS II aims at achieving, by 2016, water supply coverage of 75% and access to improved sanitation of 75% whereas the MDGs aim at halving, the proportion of people without sustainable access to safe drinking water and achieving 73 % access to improved sanitation services by 2015.

POLICIES AND STRATEGIES GUIDING THE SECTOR

a) **International policies and strategies**

- the Millennium Development Goals (MDGs)
- The New Partnership for Africa's Development (NEPAD)
- SADC's Regional Indicative Strategic Development Plan (RISDP)

b) **National policies and strategies**

- The Vision 2020
- Malawi Growth Development Strategy II (2011 – 2016)
- The Water, Sanitation and Irrigation Sector (WSIS) Strategic Plan (2012/13 to 2016/17)
- The National Water Policy (2005),
- The National Sanitation Policy (2008
- The National Decentralization Policy (1998)

STATE OF WASH IN MALAWI

- Access to safe water supply has improved throughout the country. E.g, access to water supply has improved from 68% in 2005 to 83% in 2015 exceeding the MDG target of 67% by 2015 and MGDSII target of 75% by 2016.
- Access to safe water supply has improved throughout the country. E.g, access to water supply has improved from 68% in 2005 to 83% in 2015 exceeding the MDG target of 67% by 2015 and MGDSII target of 75% by 2016.
- WMS by NSO in 2010 indicated access was 81% in rural areas and 98% in urban areas. Whilst this is a remarkable achievement by the Sector, there is a need to ensure the water sources are functional at

STATE OF WASH IN MALAWI CONT.'

- % of population using improved sanitation in Malawi in 2010 was 53% (rural being 53% and 50% urban). Open Defecation was reported at 6% (JMP, 2013).
- The Malawi Government regards water as key to socio-economic development of the country, as it has direct linkages with sectors such as agriculture, industry, natural resources, health tourism, energy and fisheries.
- Improved water supply and sanitation services also contributes towards public health and quality of education as it reduces the disease burden among school going children and staff.

SUMMARY OF SOME WATER SUPPLY AND SANITATION PROGRAMS/ PROJECTS

- NWDP is rehabilitating boreholes, piped water supply systems and constructing new ones and sanitation services in both urban and rural areas.
- Rehabilitation of boreholes and construction of market center water supply systems in Mchinji and Kasungu (JICA supported) to reach 120,000 people by 2016.
- UNICEF WASH program in the 15 districts (to reach 260,000 people by 2016 (actual planned).
- The enhancement of operations and maintenance in Malawi'rural water supply under pilot in Mchinji (JICA supported).
- Global Sanitation Fund Project in 5 Districts (RU, KK, BLK,CK, PE).
- Market center water supply in Phalombe, Ntchisi and Mzimba through the Local Development Fund (LDF).

ACCESS TO SAFE WATER SUPPLY

- A household is considered to safe water supply if has access to an improved water source within 500m (rural) or 200m (peri-urban) with a return trip of less than 30 minutes and a daily per capita consumption of at least 27 litres and 36 litres for rural and urban areas respectively.
- On average the number of users per water point in Malawi is 234.
- Planning criteria for provision of water services is 250 persons per borehole, 120 persons per communal tap.

ACCESS TO WATER SUPPLY AND SANITATION IN RURAL AREAS

- Access to improved water in rural areas increased by 33 percent from 2004 to 2010 (Sector Performance Report, 2014).
- The increase in access largely resulted from an increase in construction of facilities through the NWDP, DP and NGOs from 43 percent to 59 percent (a 35 percent increase).
- access to improved sanitation in rural areas increased 53% in 2011 from 37% in 1990 (21yrs). OD has decreased in the rural from 34% in 1990 to 7% in 2011.
- However there has been a very slow improvement as regards access to improved sanitation facilities and it is unlikely that the Mw will meet the MDG of 73 % access by 2015 and MGDS II targets of 75% by 2016.

OPERATION AND MAINTENANCE

- Operations and maintenance in Malawi's rural water supply is the responsibility of users.
- Point water sources (boreholes and shallow wells) are managed by water point committees as outlined in Community Based Management (CBM) Manuals and guidelines.
- Piped water supply systems are the responsibility of the Water Users' Associations (WUA).
- District level structures like the District Coordination Team, Extension Worker Teams have been established to facilitate and supervise the management.

OPERATION AND MAINTENANCE

The Water Users' Association concept

- The Ministry has adopted the concept of the (WUA) to empower the communities to own and manage the piped water supply systems in the market centres and rural areas on their own with minimum support from outside.
- WUAs are a paradigm shift from the traditional committees' style to the creation of "mini water boards" at community level with legal status and capacity to engage and monitor a utility operator on performance based arrangements.
- Malawi has 42 WUAs for both rural and market centers
- WUAs are guided by a constitution which stipulates functions, composition, selection criteria and financial management requirements and other relevant information.

WASH CHALLENGES AND CONSTRAINTS

- Very minimal progress in moving up the sanitation ladder (improved sanitation facility adoption).
- Capacity and human resource issues.
- Inadequate evidence based formative research to support policy formulation.
- Low functionality rate of water systems especially in rural piped water supply systems, which is depriving rural communities' access to safe water supply.
- The proliferation of non-VLOM hand pump technologies especially on shallow wells being implemented by some partners.
- Lack of legal instrument for regulation of the WASH sub-sector.

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CHALLENGES FACING WASH SECTOR IN MALAWI

Name: ELIZABETH CHINGAYIPE
Affiliation: MINISTRY OF HEALTH

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PRESENTATION OUTLINE

- ✓ Country background
- ✓ Sanitation coverages
- ✓ Challenges for the programe
- ✓ Post 2015 Challenges
- ✓ Opportunities

MALAWI

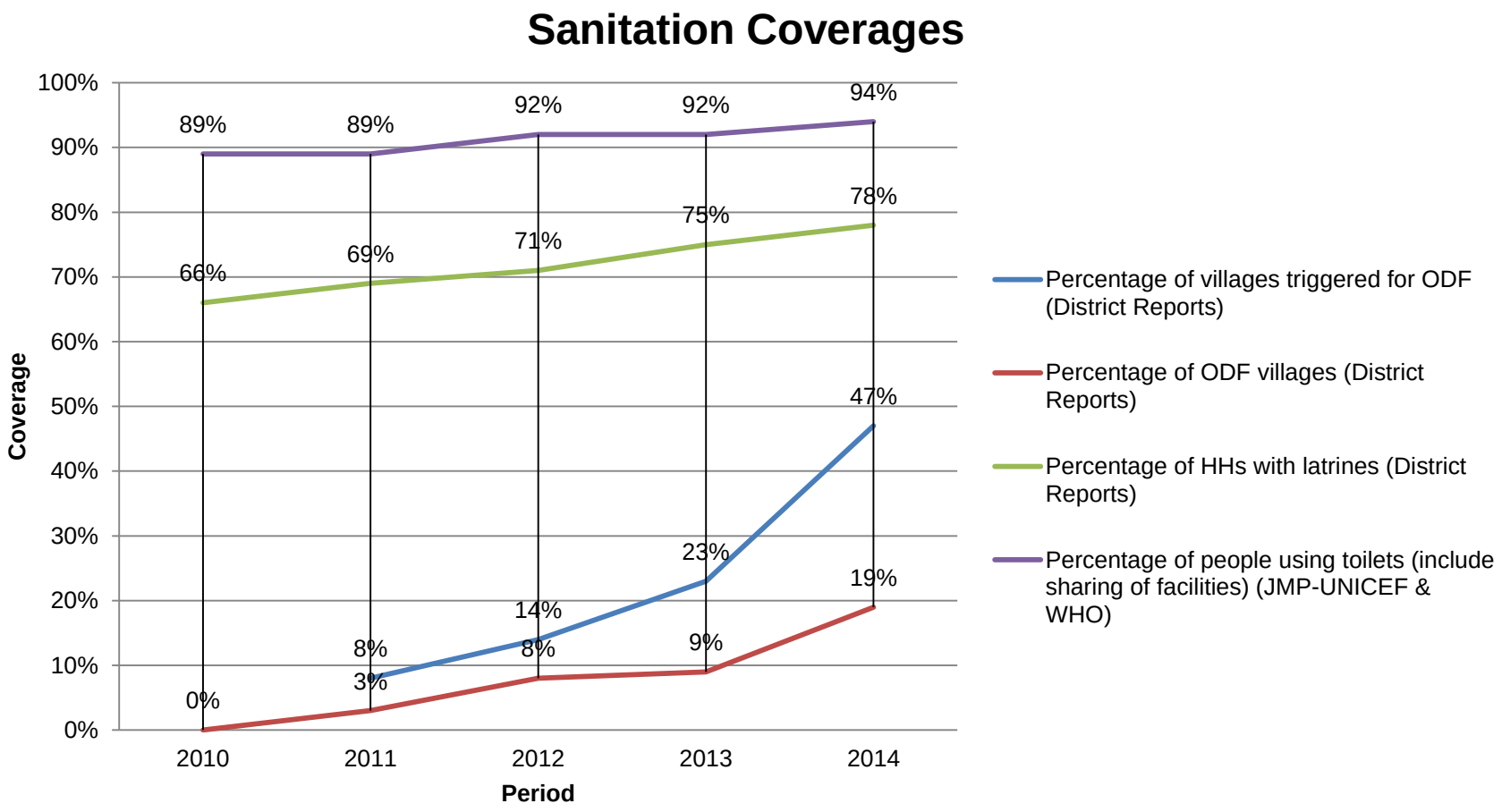
- Malawi is in the Southern part of Africa
- Borders with Mozambique, Zambia and Tanzania
- Population is 16.3M
- 28 Districts
- Sanitation coverage
- Basic latrine coverage is
- 95%
- Improved latrine coverage is 54%
- Villages with ODF-19%

WHY SANITATION

- Deuteronomy 23 ves 12-15

“Also you shall have a place outside the camp where you may go out…. And you shall have an implement among your equipment's and when you sit down outside and you shall dig with and turn and cover your refuse…….. That He see no unclean thing in thee and turn away from thee”.

SANITATION COVERAGES IN 2014



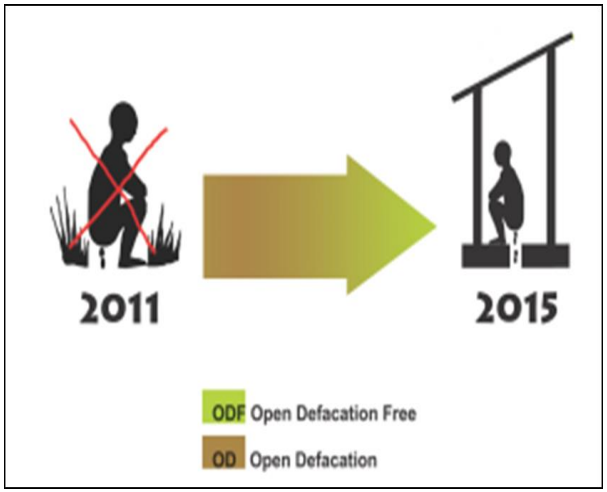
SANITATION COVERAGES

indicator	2010	2014
% of households with latrines	64	78
% People using toilets	89	94
% of villages triggered for ODF	8	42
% of ODF villages	0	19
% of households with hand washing facilities	10	24

ACHIEVEMENTS OVER THE YEARS

- National Open Defecation Strategy in place and rolled out in the country and the progress is monitored and reviewed annually.
- Established National Task force under National Hygiene and Sanitation Coordination Unit
- Now the 19% of the 33,000 villages have been declared ODF from none in 2011
- Declaration of ODF of TA Mwase in Kasungu
- The ten year Sanitation Master plan developed(2012-2022)

DECLARATION OF ODF OF TA MWASE



CHALLENGES

CHALLENGES

- Lack of full establishment and staffing of the Sanitation and Hygiene Department
- No mechanisms for coordinating financing Wash activities in the districts.
- Inadequate appropriate and affordable technologies to take people up the sanitation ladder
- Overdue Sanitation Policy and ODF Strategy(beyond 2015)

CHALLENGES Cont..

- Disintegrated information due to inadequate research on sanitation issues
- Poor Data management at all levels
- Sustainability of different approaches in Sanitation (PHAST,CLTS)
- Unavailability of safe water in some areas to completely cut oral fecal route transmission

POST-2015 CHALLENGES

- Securing sustainable hygiene behavior change to meet SDG 6.2
- With the resources a country has to achieve sanitation and hygiene for all-universal and equitable access
- Delivering the sanitation beyond the household e.g schools ,markets ,health facilities and all the surrounding areas to make the district/Malawi ODF to meet SDG 4.a and 3.8

OPPORTUNITIES

- Established structures like the VDC, ADC and DCT in the Districts which can spearhead sanitation activities in the communities
- Presence of Partners in the districts implementing Wash activities
- Availability of training institutions in the country who can assist in areas of Research

OPPORTUNITIES Cont..

- Availability of community based Extension workers
- Availability of structures at the central level like NHSCU and ODF

THANK YOU FOR YOUR ATTENTION

SuperAmma

Innovation in HWWS behaviour change

Jeroen Ensink (SHARE/LSHTM)

Overview

1. **HWWS - the challenge**
2. **Case study – SuperAmma**
3. **Behaviour-centred design**

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SHACK / SLUM DWELLERS INTERNATIONAL [SDI]

WaterAid

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The problem

HWWS is important...

1. **Impacts substantially on health**
   - Two main killers of children: diarrhoea & resp. infections (Liu et al., 2014, *Lancet*)
   - Impact of HWWS: 47% reduction in diarrhoea (Curtis & Cairncross, 2003, IJE 2010). 23% reduction in resp. infections (Rabie & Curtis 2005, updated with Luby & Sandora, 2005)
2. **Most cost-effective of WASH interventions** (DCPP2, 2006)

Most people know it is important

92% of respondents in Kenya knew that germs on hands cause diarrhoea (Curtis et al., 2009)

Yet HWWS is rarely practiced

Prevalence of HWWS after contact with faeces = 19% (Freeman, TMIH, 2014)

Behaviour is hard to change

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Our challenge

- To promote handwashing with soap at key times

- Using no health messages
- No mass media

- Ensuring potential for scaling up
  - Small intervention team
  - Limited contact time

- Evaluating behaviour change

MEDICINE

SuperAmma

http://www.superamma.org/campaign-film.html

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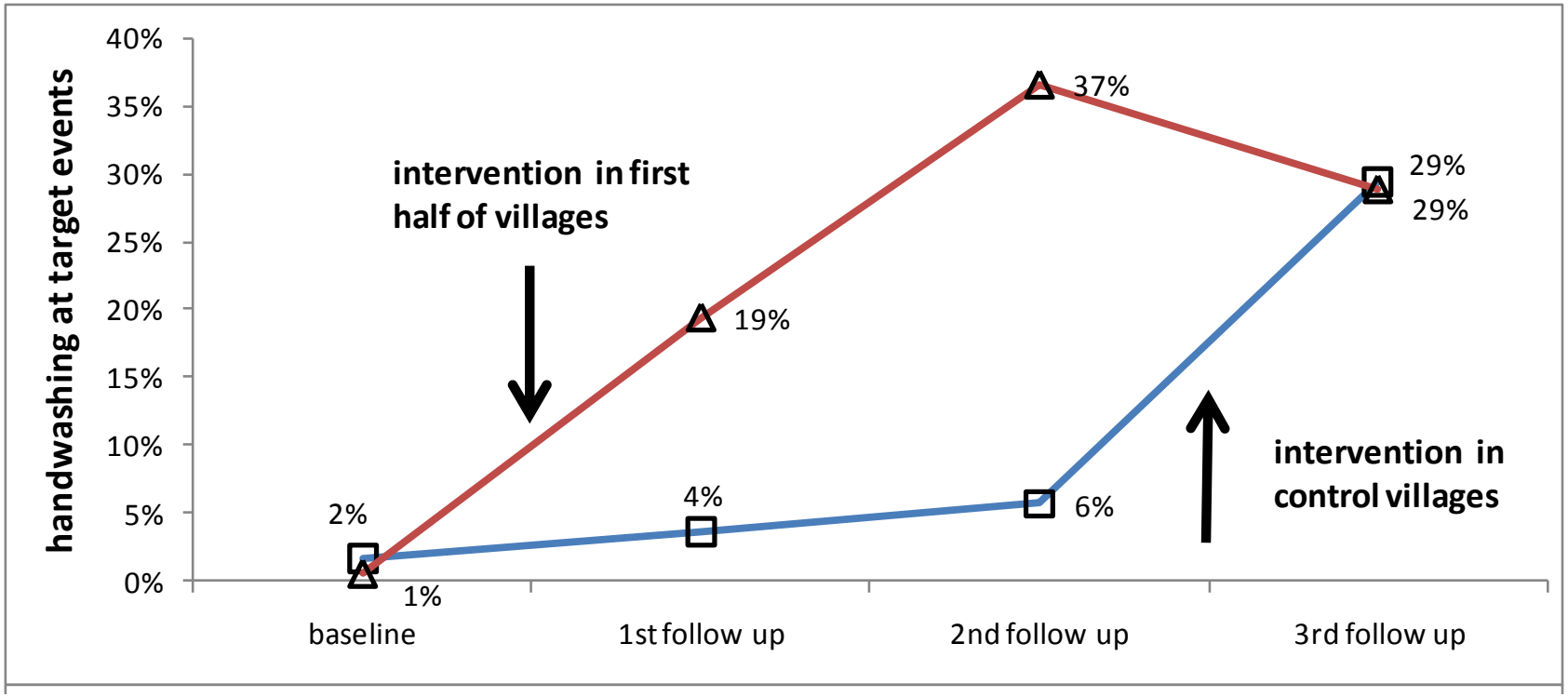
SuperAmma



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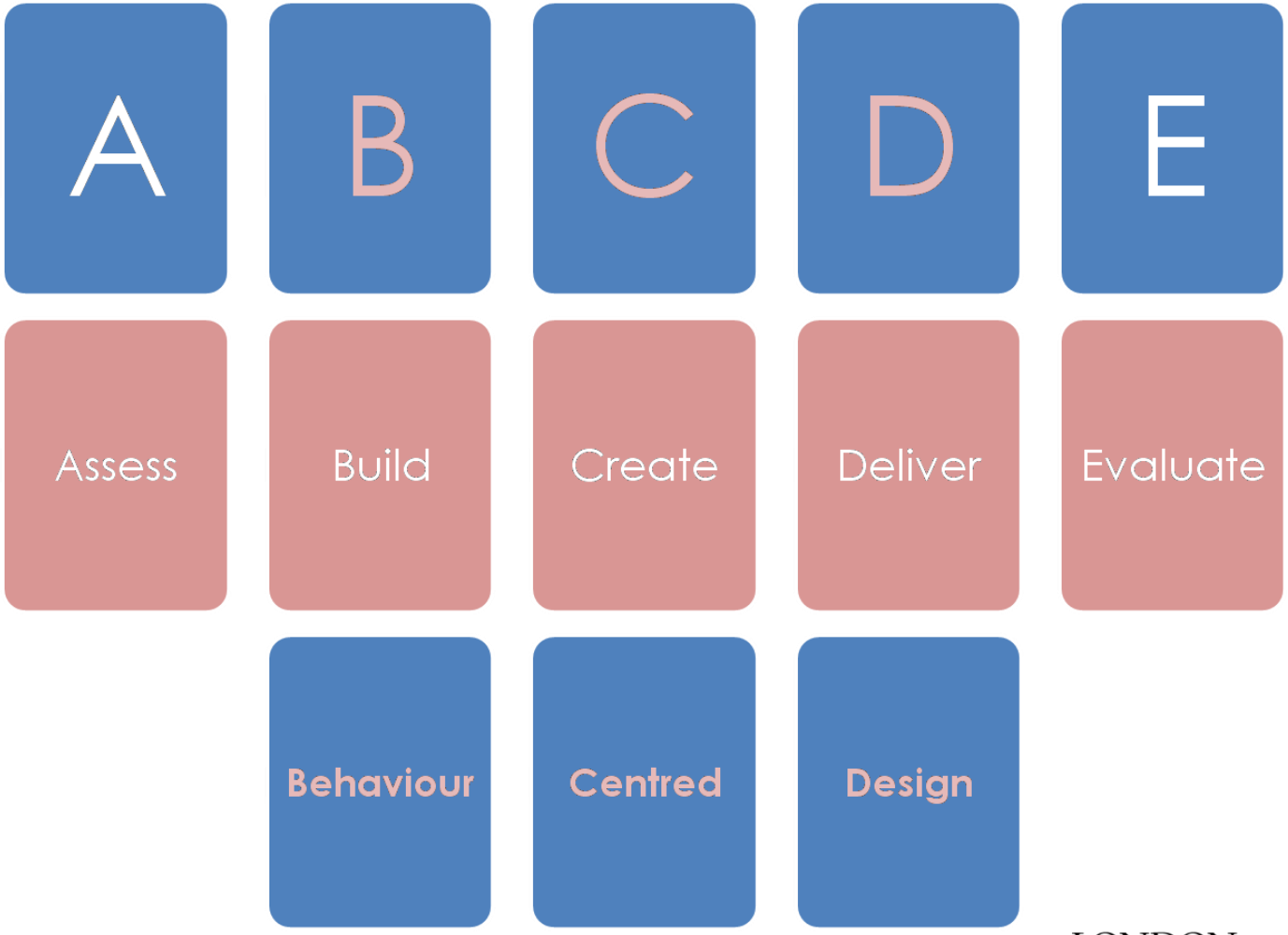
Behaviour-centred design



Hygiene Centre, LSHTM, SHARE
Wellcome Trust, Unilever

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Behaviour-centred design

Manners

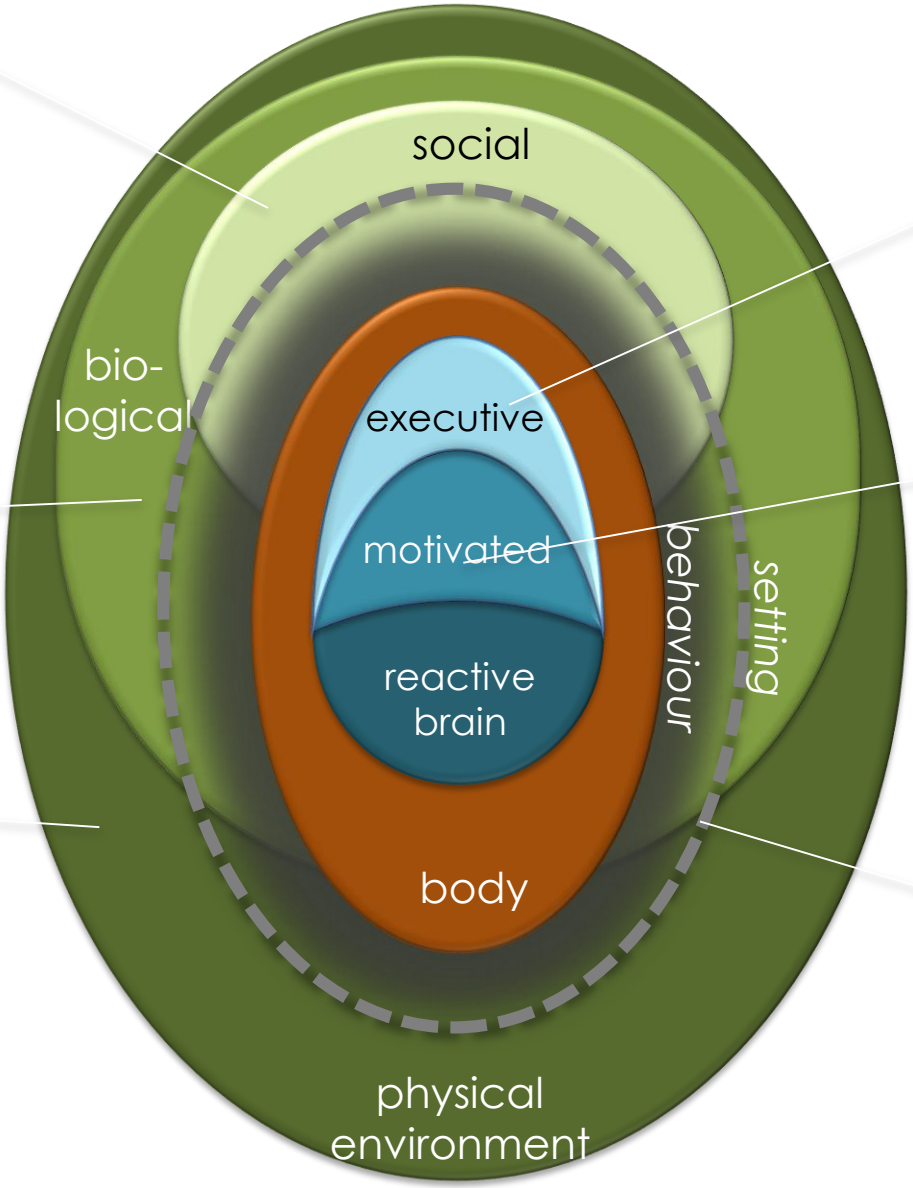
Pledging

Disgust
Nurture
Status
Affiliation

Contamination

Facilities
Cues

Routine



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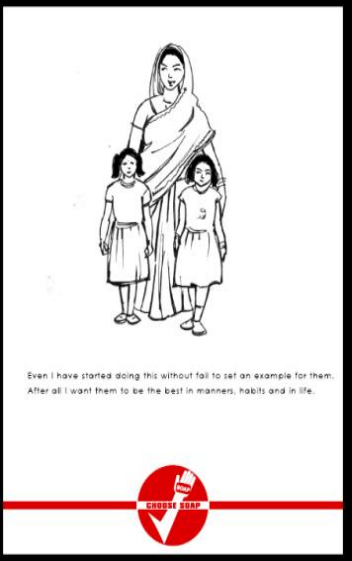
Vital: formative research

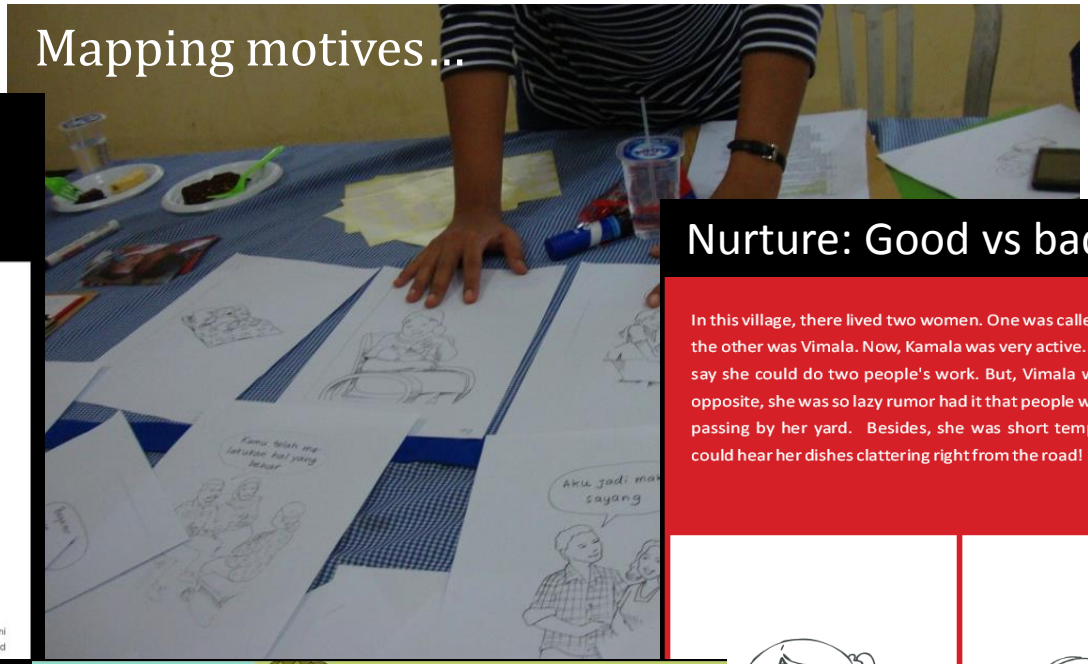
Testing motives…

nurture



status

Mapping motives…



Nurture: Good vs bad mum

In this village, there lived two women. One was called Kamala. And the other was Vimala. Now, Kamala was very active. Others used to say she could do two people's work. But, Vimala was exactly the opposite, she was so lazy rumor had it that people would yawn just passing by her yard. Besides, she was short tempered and you could hear her dishes clattering right from the road!

Style…

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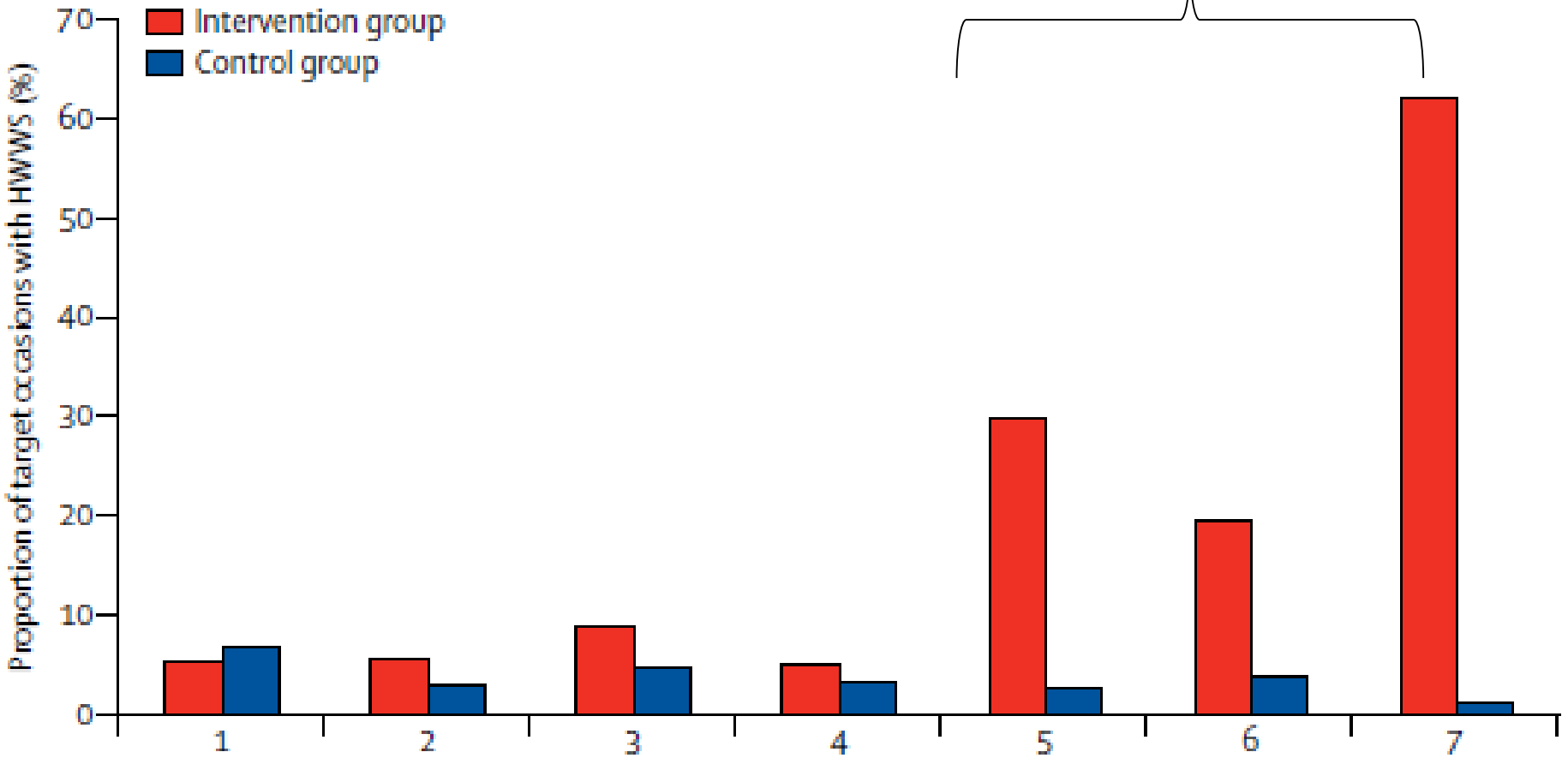
Vital: evaluation

Intervention effect varied by village

What could explain this?



Conclusions

Behaviour:

- is not all cognitive, rarely about health
- evolved for adaptive needs
- is outsourced to habit, settings

Behaviour change needs:

- new approaches to Formative Research
- powerful levers
- creative capacity
- Intervention science plus evaluation

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Useful links and references

- Biran et al (2014). Effect of a behaviour-change intervention on handwashing with soap in India (SuperAmma): a cluster-randomised trial. *Lancet Global Health, 2,* e145-154
- Curtis et al., (2011) Hygiene: new hopes, new horizons. *Lancet Infectious Diseases, 11,* 312-21
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Weaning food hygiene (SHARE's work to date)

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PRESENTATION OULTINE

I. CONTEXT/JUSTIFICATION
II. DEVELOPMENT USING HACCP
III. TESTING THE INTERVENTION
IV. REPLICATION; BANGLADESH & NEPAL
V. RECENT DEVELOPMENTS/PERSPECTIVES

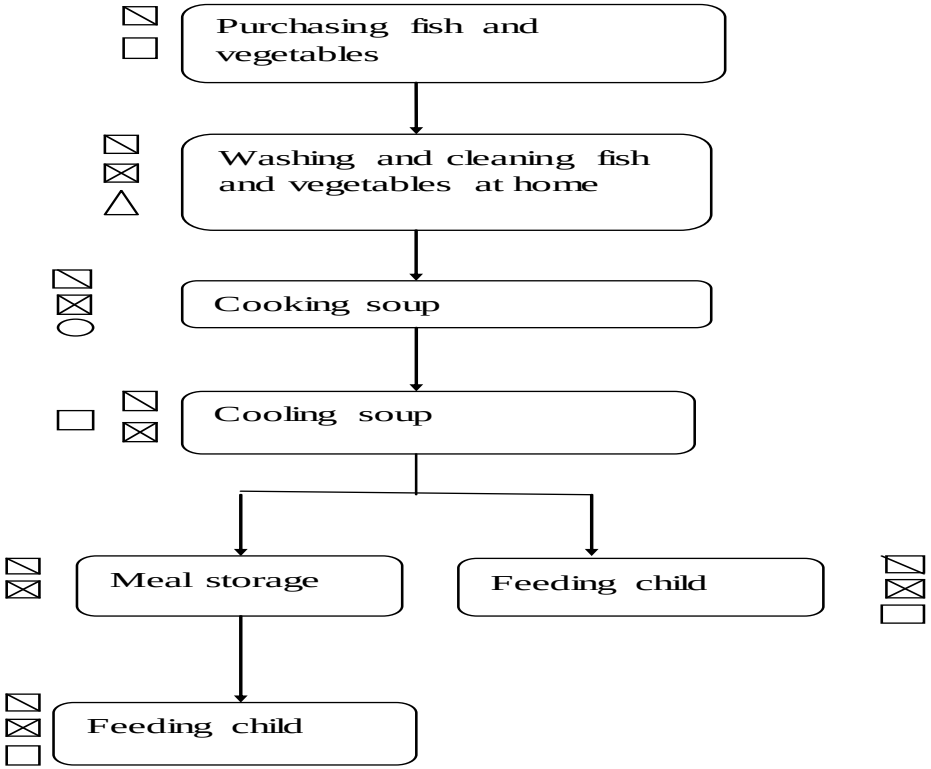
CONTEXT/JUSTIFICATION

- Diarrhoeal diseases mainly kill children under five years in developing countries;
- Diarrhoea control thus needs to stop young a children ingesting pathogens;
- Weaning foods are usually more heavily contaminated than drinking water;
- Weaning food hygiene deserves high priority.

EXPERIMENTAL STUDY, TO DEVELOP INTERVENTION

- 15 mothers of children aged 6 to 36 months;
- Selection of 2 commonest weaning foods - moni & fish soup;
- intensive observation of food preparation and handling hygiene;
- Implementation of HACCP Method.

Fish Soup flow diagram



Legend

- Initial contamination
- Hand contamination
- Utensils contamination
- Ingredient contamination
- Water contamination

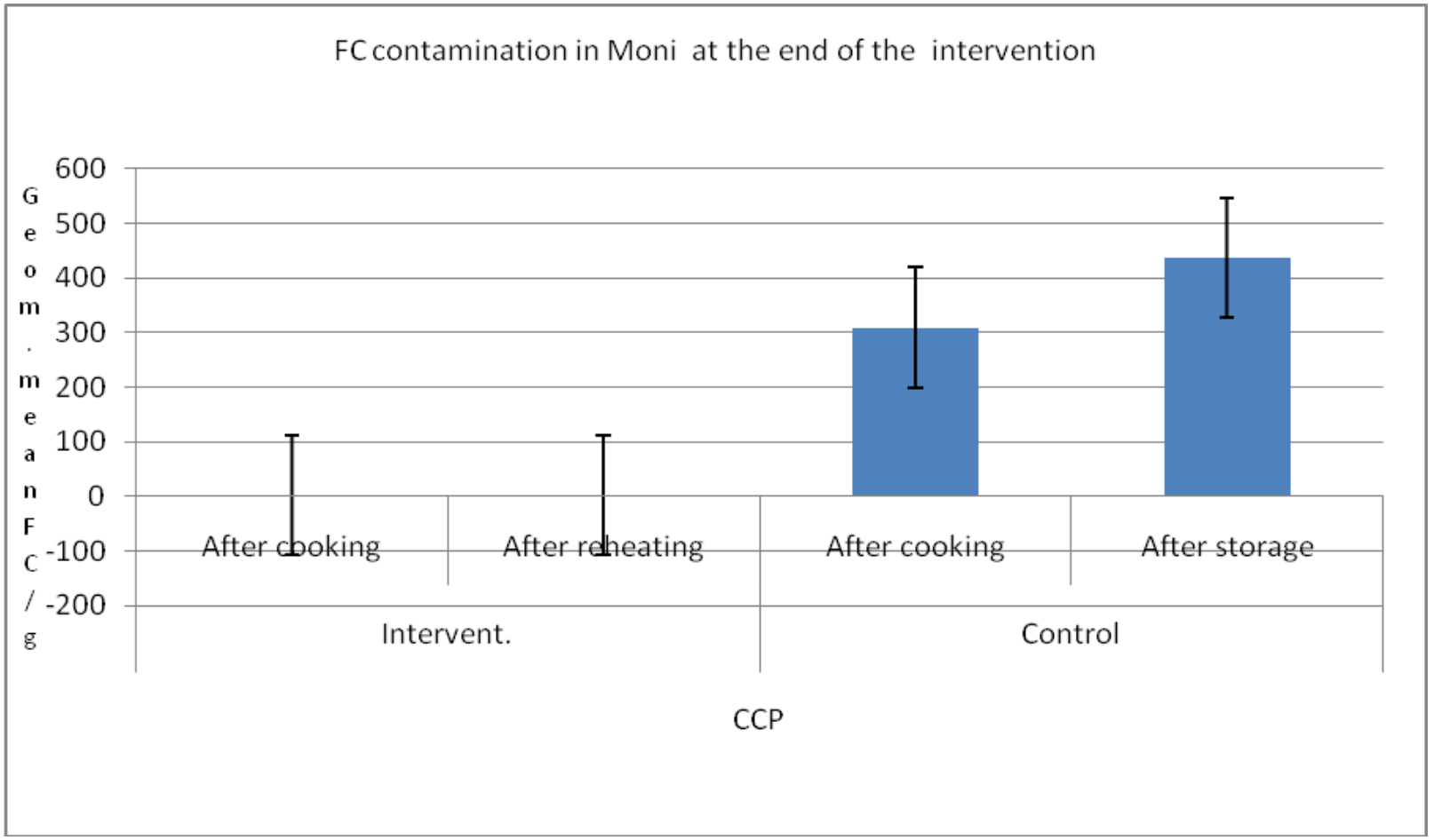
PILOT STUDY, TO TEST THE INTERVENTION

60 mothers; 30 Intervention, 30 control;
3 weeks'training for intervention group;
samples examined for faecal coliforms.

Intervention key messages:

- Reheating meals to boiling point, even if for only a few seconds;
- Handwashing with soap after faecal contact and before handling food;
- Running water and soap to wash dishes

FC CONTAMINATION OF INTERVENTION GROUP'S FOODS AT THE END OF THE INTERVENTION



LESSONS LEARNT FROM THE INTERVENTION

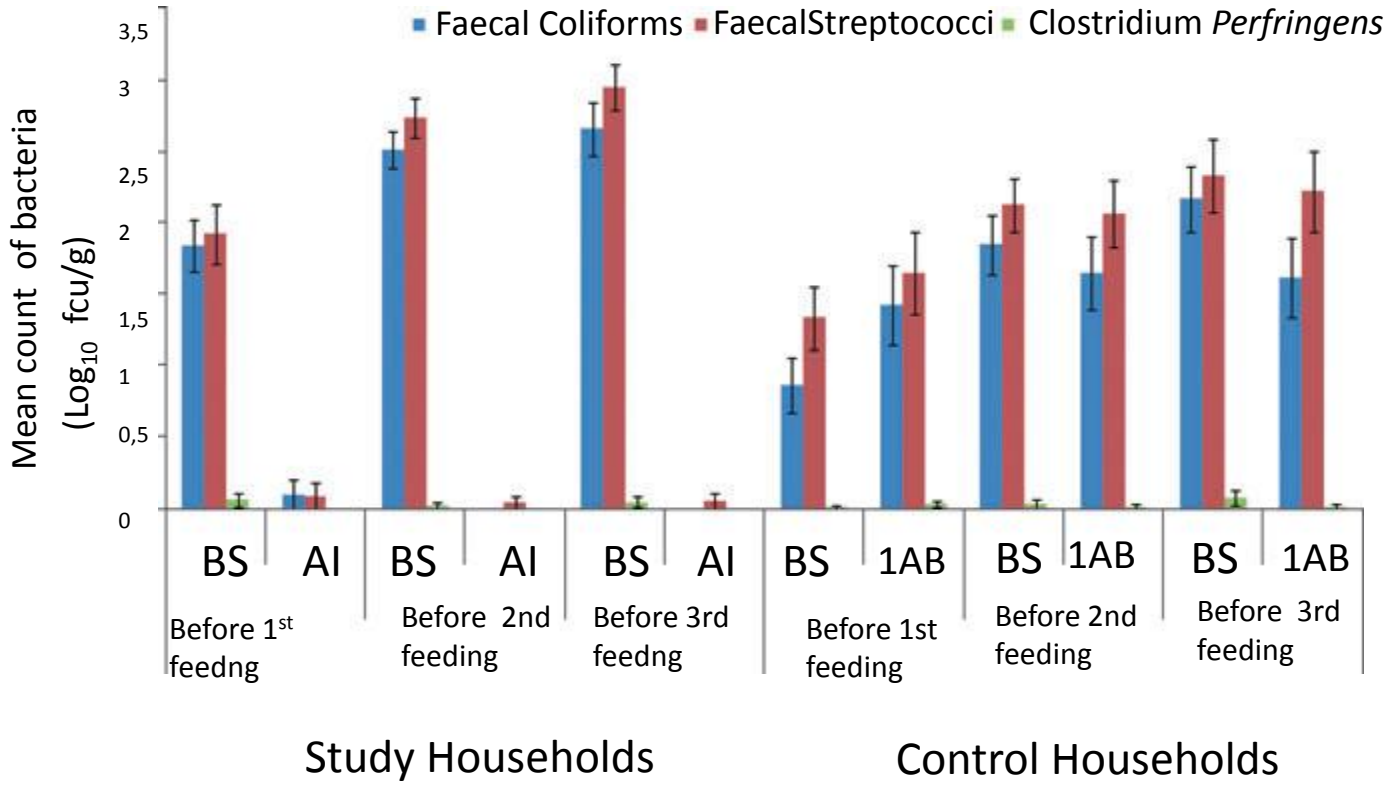
- The intervention was very effective in FC contamination reduction; it resulted in a very high performance in meeting the quality standard of less than 10 fcu/g;

- Behaviours acquired lasted for at least three months after the intervention.

REPLICATION STUDY

- Bangladesh, rural setting;
- Copied Bamako protocol with 2 local weaning foods (Suzi & Khishuri)
- Same result!
- ***The method has already been integrated into the National Diarrhoea Prevention Strategy of Bangladesh (Dr S. Islam, ICDDR,B)***

INTERVENTION IMPACT ON BACTERIOLOGICAL WEANING FOODS SAFETY



Recent developments, future perspectives

- **Replication in Nepal**:

- at District scale, reduced cost to US$ 17 per mother (Om Gautam);
- Impact on diarrhoea incidence discernible, though study under-powered.

- **In the Gambia:**

- Similar study due soon (Buba Manjang, Ministry of Health) & University of Birmimgham;
- Unicef Gambia considering implementation at national level.

“Disgust exercise” using glo-germs in mother’s hands during “Safe Food, Healthy Child” campaign in Nepal, 2013.

Photo credit: Om Pd Gautam, DCD/ITD, LSHTM

CONCLUSION/RECOMMANDATION

- The HACCP Approach is effective in FC contamination reduction through hygiene intervention;
- Behaviours acquired last for at least three months after the intervention.
- These very encouraging findings need to be translated into Health Education Programs' guidelines;
- The Approach reserves to be scaled up to assess its impact in diarrhoea prevention/reduction.

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Hand Washing with Soap - People's Perception and Mindset on Hand Washing

Save Kumwenda

University of Malawi, The Polytechnic

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Outline of Presentation

- Introduction and Background to the Study
- Study Objectives
- Methodology
- Findings
- Recommendations

Introduction and Background to the Study

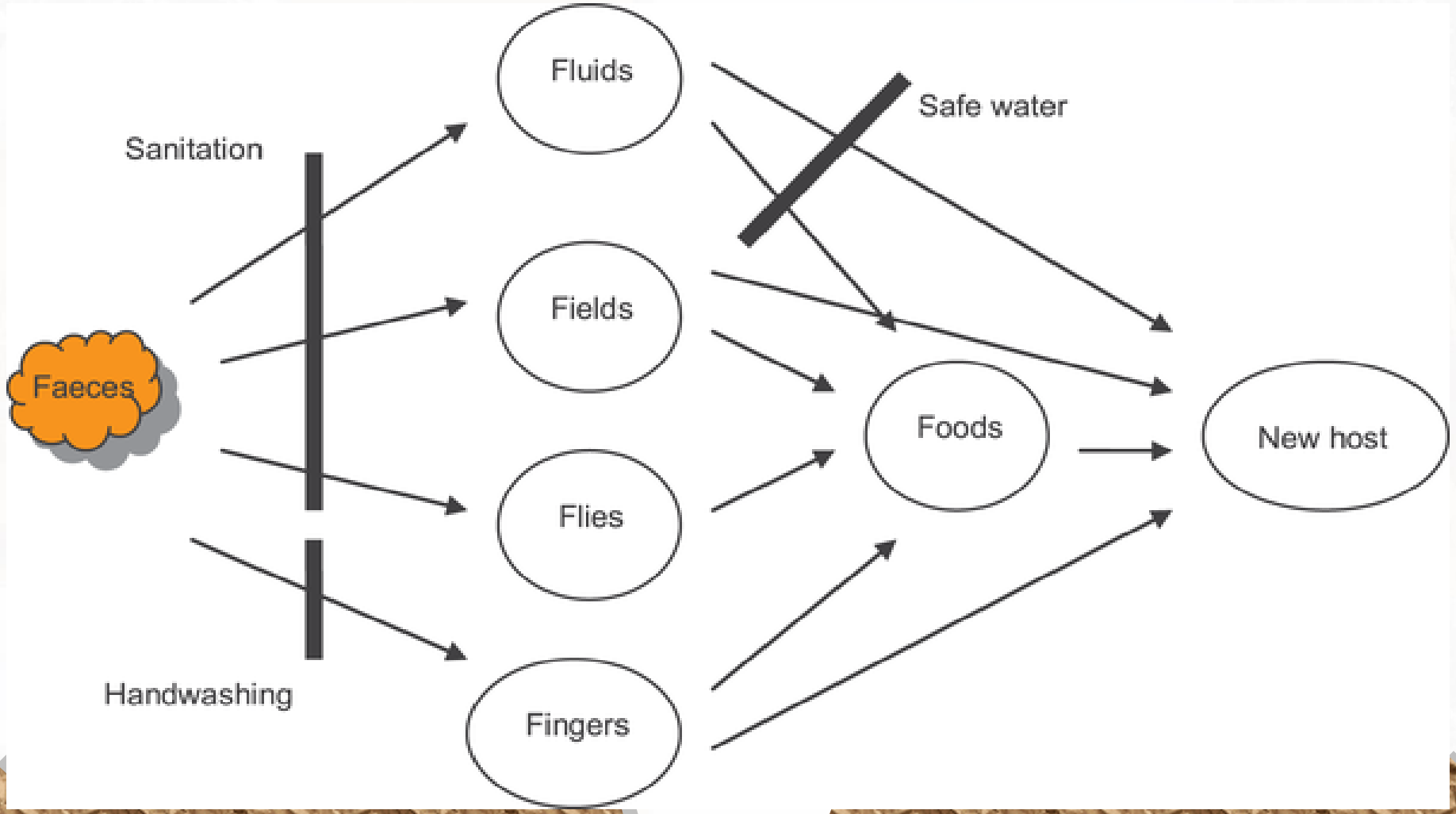
- Malawi: 24.1% (vs 18% MDHS 2010) of u/5 children had diarrhoea two weeks preceding the 2014 MDG endline survey

- NSO (2006): 1.5 million children die each year due to diarrhea; IMR of 69 per 1000 CMR of 118 per 1000

- One of major risk factor of IMR & CMR is lack of hand wahing at critical times including after latrine use and during preparing food and feeding babies.

- HW is a key practice in food, water and sanitation hygiene

Faeco-oral disease transmission pathways and interventions to break them.



Mara D, Lane J, Scott B, Trouba D (2010) Sanitation and Health. PLoS Med 7(11): e1000363. doi:10.1371/journal.pmed.1000363
http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1000363

Impact of HWWS on diseases

- Curtis and Cairncross (2003) found that handwashing with soap, particularly after contact with faeces, can reduce diarrhoeal incidence by 42-47%.

- Ejemot-Nwadiaro RI et al (2008) found that interventions promoting HW resulted in a:
  - 39% reduction in diarrhoea episodes in children in institutions in high-income countries and
  - 32% reduction in such episodes in children living in communities in low- or middle-income countries.

Objectives of the Study

- Determine current levels of hand washing with soap among different communities in Malawi

- Determine factors that lead to failure to practice washing hands consistently at critical times (Before preparing food, before eating before feeding a child, after using a toilet (defection) and after attending to a child who has defecated)

Methodology and Implementation

- Desk study and literature review (Policy documents and academic literature on WASH
- Consultations and workshops with major WASH stakeholders and workshops (district focused)
- Structured observations and field trials
- Semi-structured interviews & FGDs (Chiefs, HSAs, DEHAs, NGOs, Communities, Schools, Pupils)
- Household survey: Levels and perceptions (2543)

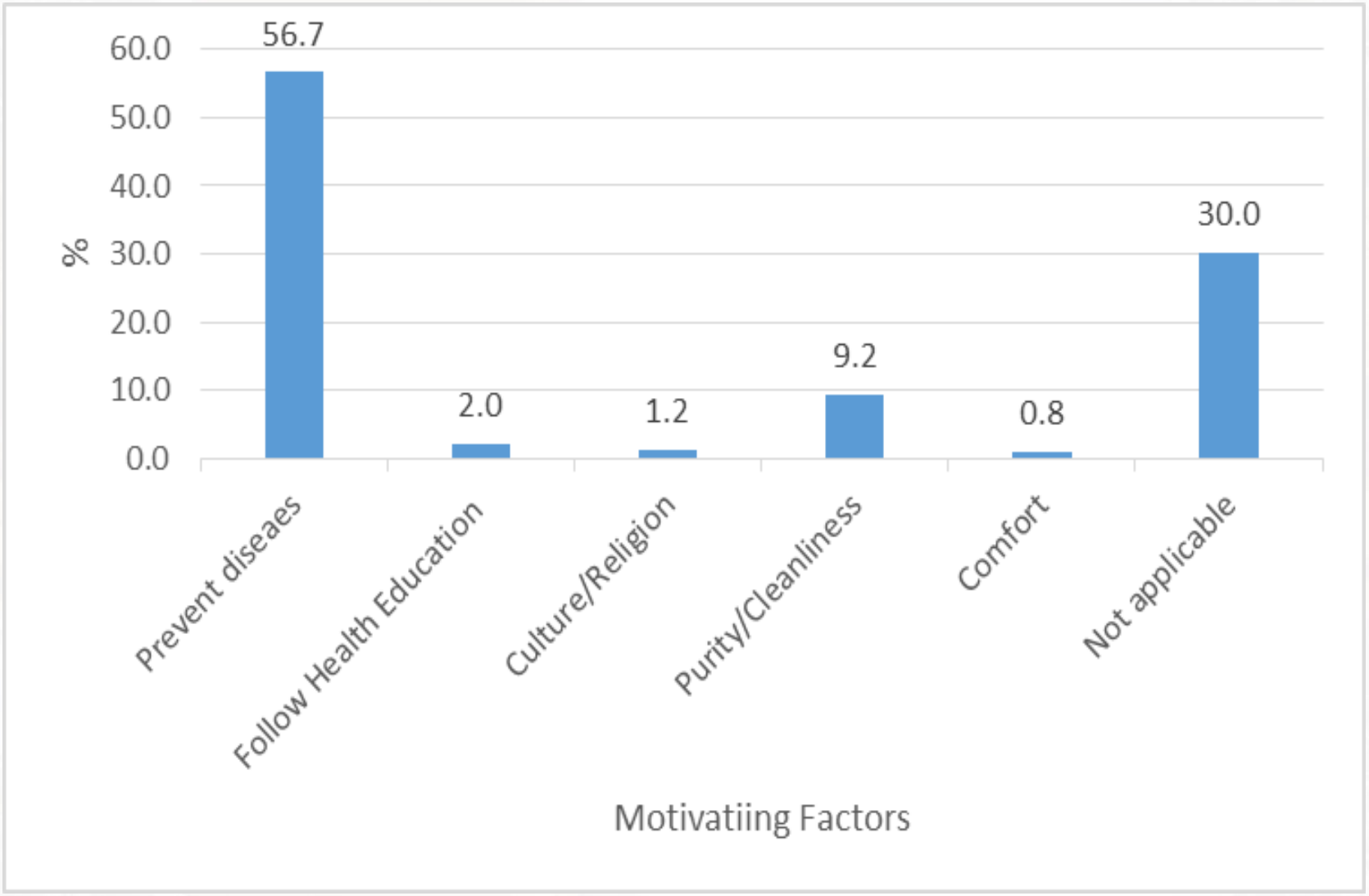
Results
Distribution of Respondents

	Frequency	Percent
Mangochi	400	15.7
Mzimba	342	13.4
Lilongwe	307	12.1
Blantyre	303	11.9
Kasungu	271	10.7
Dedza	253	9.9
Mulanje	251	9.9
Chikwawa	244	9.6
Mzuzu	172	6.8
Total	2543	100.0

Appropriate Hand Washing Practices (%)

Indicator	Male	Female	Total
Wash hands after using a toilet	27.2	25.0	25.4
Washing hands before eating	34.9	24.4	26.5
Wash hands before feeding a child	25.7	26.3	26.2
Wash hands after attending to a child who has defecated	19.5	33.0	31.5
Wash hands before preparing food	33.2	30.0	30.6

Reasons for Hand Washing



Level of hand washing between male and female

- Study found that levels of intentional hand washing with soap is relatively higher among males (11.1%) than females (8%)

- But females reported to be more in contact with water and soap for other purposes and wash hands because of the other activities hence have cleaner hands

Cup for drawing water

Soap tied to rope

Some quotes showing why people hand wash

"We have been taught to clean our hands before cooking for our children, feeding our children and after changing their nappies. We do this to protect our children from contracting water borne diseases".

"We are already practicing hand washing. Hand washing is part of our religion. We are taught that we have to wash hands after using the toilet and that is our culture. If you go into that shelter, you will find water to use in hand washing after visiting the toilet". Female Participant". FGD 3

Some quotes showing why people don't hand wash with soap

"We do not generally wash our hands with soap. The practice of washing hands with soap is new in this area. Time is changing and we will get used to it as you continue educating us about its importance. What we used to know is that we should wash hands with water but not soap". FGD 2

"We wash hands with soap when it is necessary, when we see we have dirt, you cannot be washing hands anytime then you will not work". FGD 6

Factors Leading to Failure to Practice HWWS

Factor	FQ	%
Shortage of soap to use for hand washing	512	20.1
Inadequate access to safe water	315	12.4
Culture	1086	42.7
Inadequate Knowledge on the importance of hand washing with soap	443	17.4
Inconvenient and Time consuming to wash hands with soap	187	7.4

Motivators of hand washing among learners

- Presence of hand washing facility - *"I normally don't wash hands after using the latrine, but presence of the HWF at the toilet made me to wash my hands"*
- Availability of soap - Introduction of the soap added the excitement of the pupils about the hand washing facility. This is in agreement with what Chittleborough et al (2012) observed in primary schools in Nigeria
- Knowledge about the benefits of using soap Influence from others

Important findings that may guide design towards improving HWWS

- HW levels is relatively higher in areas with WASH projects or has had WASH project
- HW levels is relatively higher in areas where WASH projects are driven by local institutions of governance i.e. in CLTS areas
- Behaviour change in HWWS is effective when it constantly appeals to impact of failing to practice
- HWWS was a temporary behaviour because implementers were not intensifying follow-ups (stages of beh. Change)

Recommendations

- Min. of edu. in conjuction with other Govt ministries and NGOs to develop strategy on how to promote hand washing in schools as learners are good drivers of change
- MoAI&WD in collaboration with NGOs to build capacity among communities on how to tackle hand washing challenges
- Ministry of Agriculture, irrig. And Water Dev. And MoH should develop behavioural change strategies in collaboration with NGOs
- The District, Town and city councils should make sure there is coordination among WASH actors

THANKS FOR LISTENING

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water for people
everyone | forever

SANITATION AS A BUSINESS ~
CATALYZING A MARKET FOR SANITATION MICROFINANCE IN PERI-URBAN BLANTYRE

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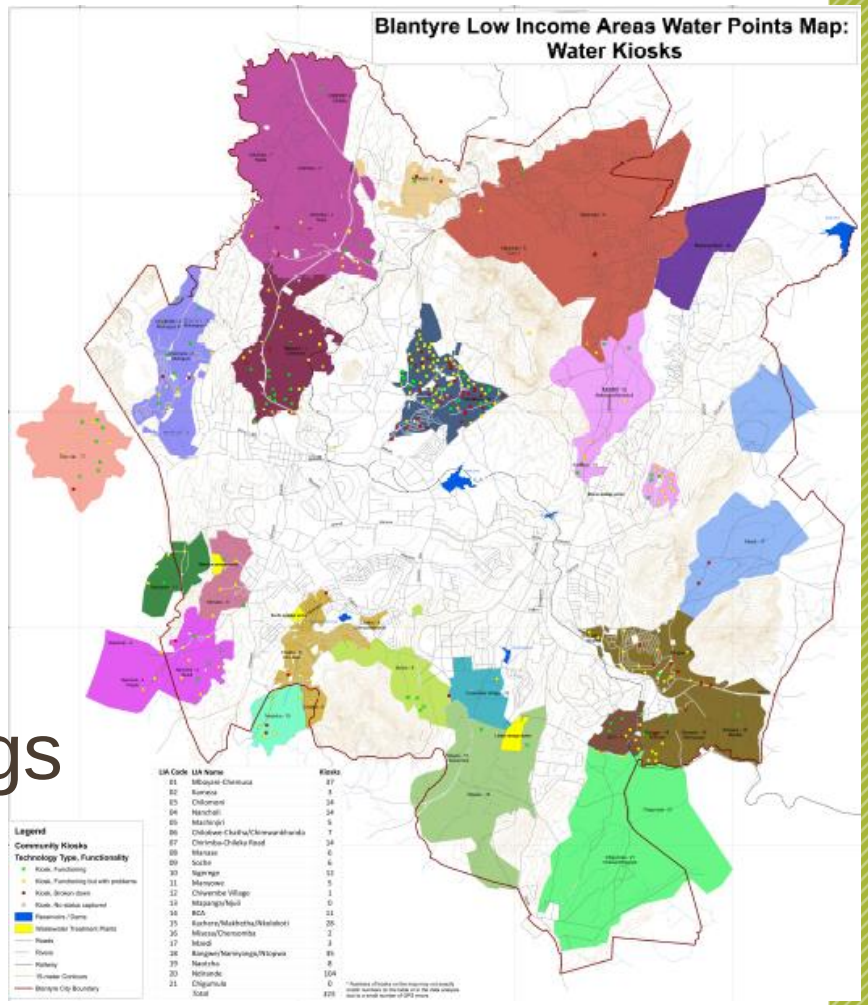
PRESENTATION OUTLINE

- Urbanisation Context
- Methodology
- The Results
- Lessons Learnt
- Way Forward

URBANISATION CONTEXT

- Pop ≈ 800 000
- Urbanization rate of 2.08% per annum (≈ 2 people/hr)
- 70% live in high density, unplanned slum dwellings
- 36000 households in need of toilets



SANITATION IS A FINANCE ISSUE

- 36000 latrines x MWK 25000 =
- MWK 900, 000, 000.00
- USD 2, 000, 000.00
- GBP 1, 250, 000.00
- Who will pay for this?

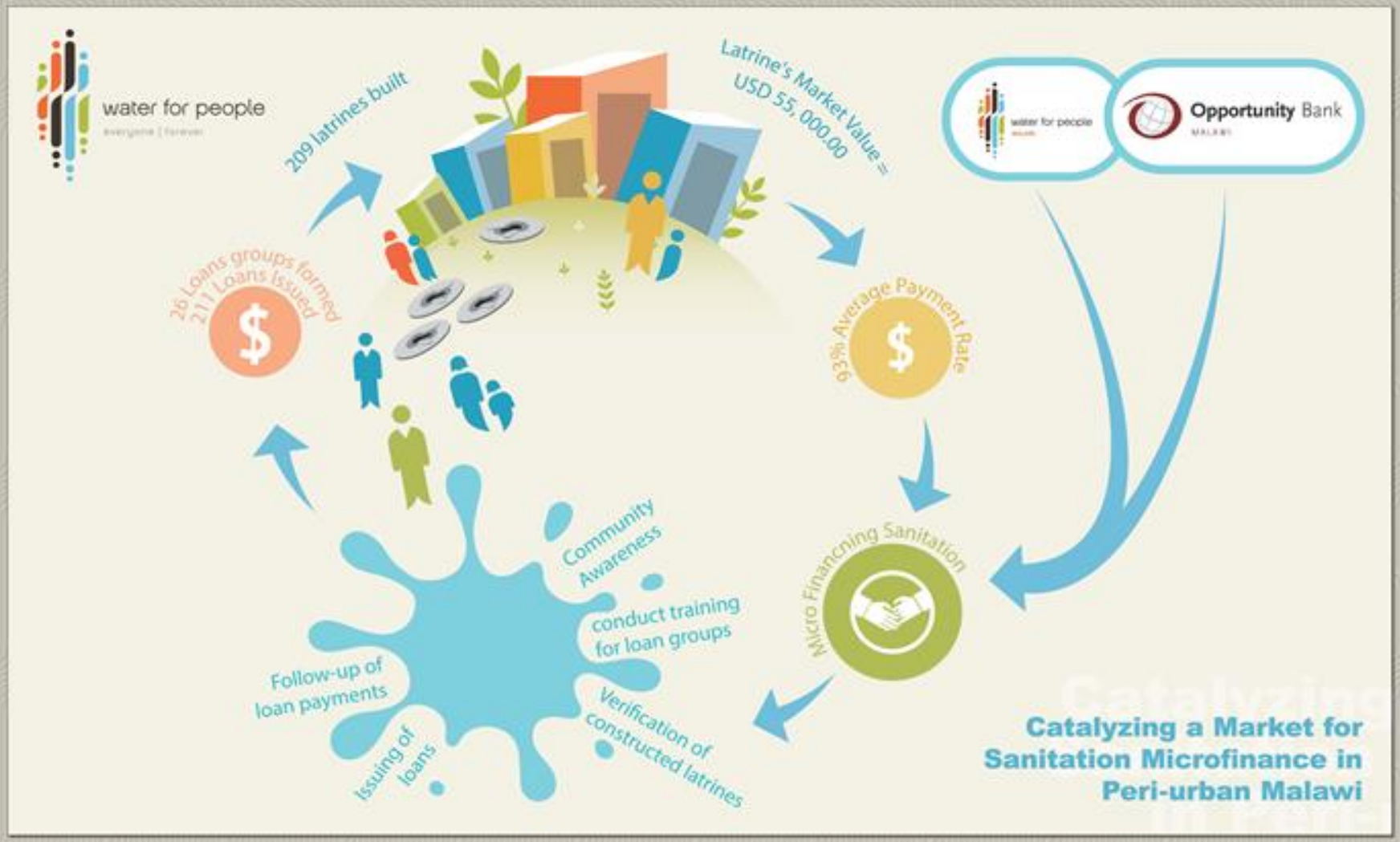
METHODOLOGY

- Partnered with Opportunity Bank in 2011
- Microcredit lending to low income households
- Used social group loan model – trust is the collateral
- 2%-5% default rate
- Loan guarantee was offered to minimize default losses to the value USD 10, 000.00
- Interest rate kept at 2% per month
- 20% of loan deposited with bank as collateral

METHODOLOGY: ROLES AND RESPONSIBILITIES

	W4P	OIBM
Mobilize communities into social loan groups	X	
Conduct training of loan groups in group dynamics, loan repayment and leadership	X	X
Issue the loans to households		X
Follow-up of loan payments		X
Verification of constructed latrines	X	

THE RESULTS


water for people
everyone | forever
209 latrines built
Latrine's Market Value = USD 55, 000.00
water for people
Opportunity Bank
MALAWI
26 Loans groups formed
211 Loans Issued
93% Average Payment Rate
Micro Financning Sanitation
Community Awareness
conduct training for loan groups
Verification of constructed latrines
Issuing of loans
Follow-up of loan payments
Catalyzing a Market for Sanitation Microfinance in Peri-urban Malawi

LESSONS LEARNT

- People look for value
- NGOs distort expectations – Commercial partner must be the face of product
- Partners must have shared definitions of what success looks like
- Exclusive sanitation financing is not feasible

MOVING FORWARD

- Explore small upgrades that add prestige and sexiness e.g. flapper
- Explore alternative financing e.g. urban savings and loans
- Understand income prioritization at household level (research!)

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Lilongwe Hotel, Malawi
30th July 2015

The Research Institute

Water Pricing Strategies For Low-income Urban Areas in Malawi—the Case Of Blantyre City

Name: **Austine Charles Jere**
Affiliation: **Senior Research Officer**

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Malawi Epidemiology and Intervention Research Unit

University of Malawi

Contents

- Research Background
- Research Objectives
- Methodology
- Findings and Discussions
- Recommendations/Conclusion

Research Background/Introduction

- Water Resources Management Policy and Strategies Document (WRMPSD)
  - World Bank financed Water Services Sector Study
  - weak legislation; poor institutional arrangements; incoherent policy, investment framework
  - Commodification of water
- 1995 Waterworks Act: decentralization and commercialization
- National Water Development Programme (NWDP)
  - Rehabilitate & renewal
  - Private Public Partnerships (PPPs)
- Water Pricing Strategies and their effect on access to clean water

Research Objectives

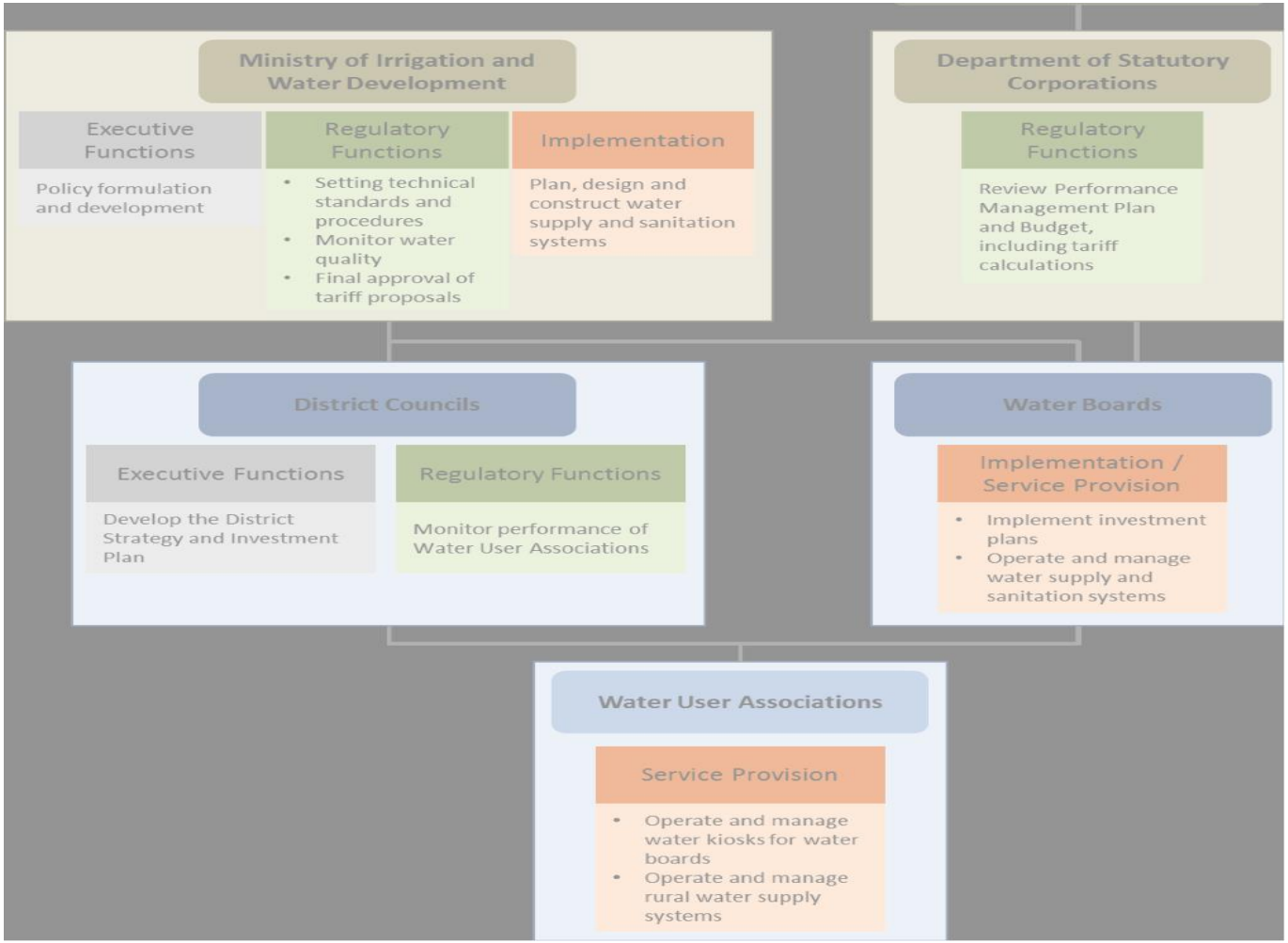
- **Main:** Assess water-pricing strategies for low –income urban areas.
- **Specific**
  - Outline water governance arrangements in Cities
  - Identify water pricing strategies in cities
  - Assess how pricing strategies affect accessibility to water in low-income areas
  - Investigate alternative water sources and how they facilitate/hamper access to water in low-income areas.
  - Identify factors that account for water users' failure to pay water bills

Methodology

- Study Area: Blantyre. Why Blantyre?
- Qualitative Approach
- **Literature Review:**
  - enumeration and profile reports ; policies, strategic papers, reports on water situation in Malawi. etc.
  - Water bills (WUAs and individuals)
- **Focus Group Discussions**
- **In-depth interviews**
  - Water4People, WUAs, BWB, CCODE, BCC, etc.
- **Data Analysis:** Content analysis (messages assigned a meaning/a frame of reference for interpretation purposes.

Findings and Interpretations

Water Governance Arrangement



Findings Cont'd

Water Pricing Strategies

Pro-poor strategy	**Pro-investment strategy (Rising block tariff)**
◆ Cheapest ◆ Targets low-come areas ◆ WUAs operate as 'mini' water boards ◆ WUAs pay 141/cubic meter ◆ Individuals pay K12-K20 per 20-litre bucket ◆ BWB gets K200/cubic meter	◆ Relatively expensive ◆ Targets domestic consumers, institutions, commercials, industrial purposes. ◆ Pricing based on Market segmentation and more consumption equals more charges i.e. ◆ K1,446.40 plus fixed charge of K800 (<5000 litres)

Effect of Pricing Strategies on Accessibility in Low-Income Areas

Households with piped water in their yard

- Price affected by family sizes;
- Ration water usage
- Charge extra bills (for tenants)
- Sell water; disconnections
- Chained to the fixed costs

Households using water kiosks

- Kiosk operators (fixed cost, minimum 'survival' sales)
  - ✧Capitalize on traffic
  - ✧Forgot repairs
- Kiosk User (cheaper, inconvenience, low potability)

Findings cont'd

Alternative Water Suppliers and Access to Water in Low Income Areas

Source	Reasons for using it
Shallow Wells	✧ Erratic water supply ✧ Economic hardships ✧ Kiosks sparsely located ✧ Avoiding queues
Boreholes	
Neighbours with households piped water	
Electric wells	

Findings cont'd

Factors that account for water users' failure to pay water bills

- Unexplained increases in water bills
- Unforeseen circumstances such as death
- Late reception of water bills
- Over-consumption i.e. using household water pipe as kiosk
- Distance to water bill payment centres
- Frustrations resulting from intermittent water supply
- Lack of pressure to settle a water bill.

Recommendation and Conclusion

- Policy discourse on affordability of water
- Price discrimination (for low income areas) on the rising block tariff
- Enactment of a regulatory/policy framework for WUAs

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The Federation of the Rural and Urban Poor

CCODE

City Wide Sanitation – focus on EcoSan

Mariana Gallo – Knowledge Management Officer (CCODE)

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Malawi Homeless People's Federation

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Sanitation and Hygiene Research in Malawi, Blantyre City

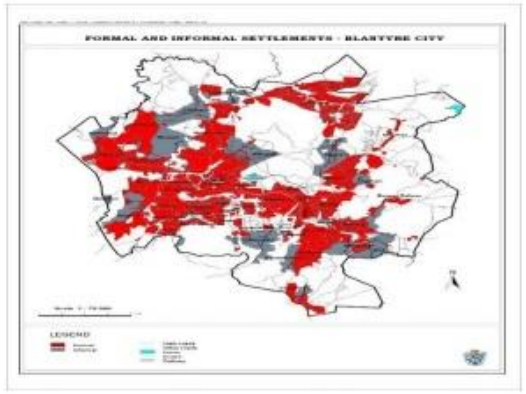
1. Background

Urban sanitation has been one of the major challenges affecting people living within low income urban settlements, both in Africa and the world beyond. A lack of understanding on the main factors surrounding sanitation has resulted in limited impact of sanitation programmes. Community participation in identification of effective strategies has in most cases been overlooked in addition to a lack of community organization; overly sectoral and technical approaches; unaffordable technologies and payment systems; and poor community-government relations. It is from this background that with support from SHARE, Centre for Community Organization and Development (CCODE), and Malawi Homeless People's Federation (Federation) conducted an action research with the purpose of developing an evidence-based model for the realization of pro- poor citywide sanitation in Blantyre City. The following were specific objectives;

1. To develop a better understanding of the principal obstacles to city-wide sanitary improvement, and how they can be overcome.
2. To develop and test an approach to pro-poor city-wide sanitation strategies that can be widely adopted.

2. Implementation Strategy

Figure 1: Map of Blantyre City



The study revealed very poor water and sanitation infrastructure, with widespread use of unimproved pit latrines and reliance on water kiosks. 69% of informal dwellers from the seven settlements sourced water from water kiosks, 24 boreholes, the majority of which were not operational, were identified across the seven settlements. The frequent breakdown of the existing water sources pushed households to use a range of unsanitary sources, such as contaminated streams and unprotected wells. The research also found that water connections in informal settlements were largely unaffordable to residents due to poor accessibility and high connection costs. There was also a lack of communication and coordination between the agencies, including government departments, community-based organizations and NGOs involved in water and sanitation in Blantyre.

- Unimproved pit latrines
- Challenges for pit emptying
- Problems with water kiosks
- No hand washing facilities
- Lack of coordination of organizations working in the sector/government/etc.

Year 1 – Action Research

- Household toilets
- Public Sanitation
- DEWATS
- Water connections

Year 2 – Setting Precedents

- Revolving Fund loans
- Long-term sanitation solution
- +750 household toilets built to date
- + 25 builders trained in EcoSan construction + contractors
- CCODE provides design, supervision, and capacity building

EcoSan Toilets

- Six in Blantyre: Ndirande (2), Manase, Manje, Chigumula, Chemusa
- 9 female constructors employed

EcoSan Public Toilets

Sanitation Committees


CCODE
Federation
Councillors
Community Leaders
BCC
Communities

- Quality of life
- Capacity building + income
- Development of partnerships
- Land acquisition (public toilets)
- Natural disaster – increase in demand
- Reduction of disease

Impact

- Building capacity to manage infrastructure locally
- Community leaders
- Revolving Funds – stretching resources further
- Appropriate for space-limited urban settlements
- Land contribution = ownership

Lessons Learnt

Thank you.

Mariana Gallo
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CCODE

The Federation of the Rural and Urban Poor

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Research in Private Sector Participation in the delivery of Sanitation and Hygiene Services

Name: Dr. Rochelle Holm, Elijah Wanda & **Dr. Victor Kasulo**
Affiliation: Mzuzu University Centre of Excellence in Water and Sanitation

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Malawi Epidemiology and Intervention Research Unit

University of Malawi

Introduction

- Lack of adequate sanitation - a human health and environmental problem
- Need new and innovative approaches
- Sanitation marketing
  - where the private sector actively participates
  - provides sanitation products and services directly to the people.
- Public funds strengthen the supply and demand of the sanitation market
- The role of the private sector in Nkhata Bay District

Objectives of the study

- Identification of:
  - Private sector institutions and their roles in N/Bay district.
  - Potential opportunities, barriers and threats within the sector in taking up sanitation as a business.
  - Funding mechanisms for private sector participation and provision of household sanitation facilities,
  - Initiatives undertaken by district council in encourage entrepreneurs to take up sanitation as a business
  - Reasons why lending institutions are unwilling to provide financial services.

Methodology

- Document review: policy documents, journal articles, briefs etc.
- In-depth interviews with key informants using checklist
- Focus Group Discussions
- Household surveys (311 HHs)
- Non-participant observation
- Stakeholder consultative meetings (4 Meetings).

Roles of the private sector in sanitation and hygiene

- Pit emptying,
- Construction and management (rental) of public pay toilets,
- Construction of household ecosan and non-ecosan toilets,
- Fabrication of ecosan products for sale,
- Integrated waste management using 3rs (reduction, re-use and recycling),
- Rural sanitation packages (latrine + rubbish pit + compost),
- service for district tourist lodges in human solid waste.

Reported opportunities in taking up sanitation as a business

1. Low cost technologies suitable for rural areas.
2. Improved sanitation for public facilities.
3. Pit latrine emptying.
4. Tourist facilities.
5. Entrepreneurs.
6. High population growth rates.
7. Partners.
8. Monitoring and evaluation.

Reported barriers and threats

Barriers	Threats
Willingness to pay	Population growth.
Culture.	Lack of financing mechanisms.
Physical environment.	Limited research.
Political interference.	Available national and district policies and structures
Funding.	
Collaboration.	

Financing mechanisms towards sanitation and hygiene

- The financial models include:
  - Donor-Malawi Government-NGOs-Communities
  - Donor-NGOs-Communities
  - Donor-Communities
  - Donor-NGOs-Private Sector
  - Government-NGOs-Community (SWAPs)
  - Government-Community
  - Private Sector
  - Private Sector - Private Sector

Initiatives undertaken by Nkhata Bay District Council

- Capacity building - Entrepreneurs in sanitation technologies and marketing
- Sanitation marketing - Through sanitation promotion exercises
- Sanitation promotion - Community sensitization, IEC material
- Entrepreneurship support - rents out its public toilets
- Water and sanitation investment – through public construction works

Why institutions are unwilling to provide financial services

- High level of risk
- Lack of sufficient collateral
- No fast return on sanitation investment
- Lack of role models
- High administrative costs

Recommendations

- Move sanitation up the priority for District Development Funds
- Set-up sanitation demonstration areas
- Make a directory of district/national sanitation and hygiene entrepreneurs.
- Develop promotional materials, for both entrepreneurs and households
- Link entrepreneurs to communities in CLTS triggering
- Link entrepreneurs to banking institutions for sanitation loans
- Setting-up national/district sanitation fund or loan guarantee fund
- Entrepreneurs to expand councils sanitation initiatives through MOUs (PPPs)

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Faecal Sludge Management in peri-urban Lilongwe and Blantyre, Malawi

Name: Kadewa, W., Nalivata, P., Kamoto, J. and Mapondera, A.
Affiliation: LUANAR

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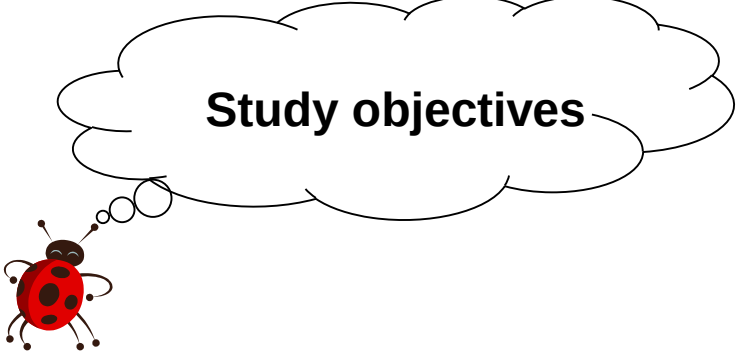


- Main objective:
  - To analyse current status of pit emptying and faecal sludge management
- Specific objectives
  - Identify risks associated with the faecal sludge management chain
  - Evaluate and recommend appropriate and cost effective technologies

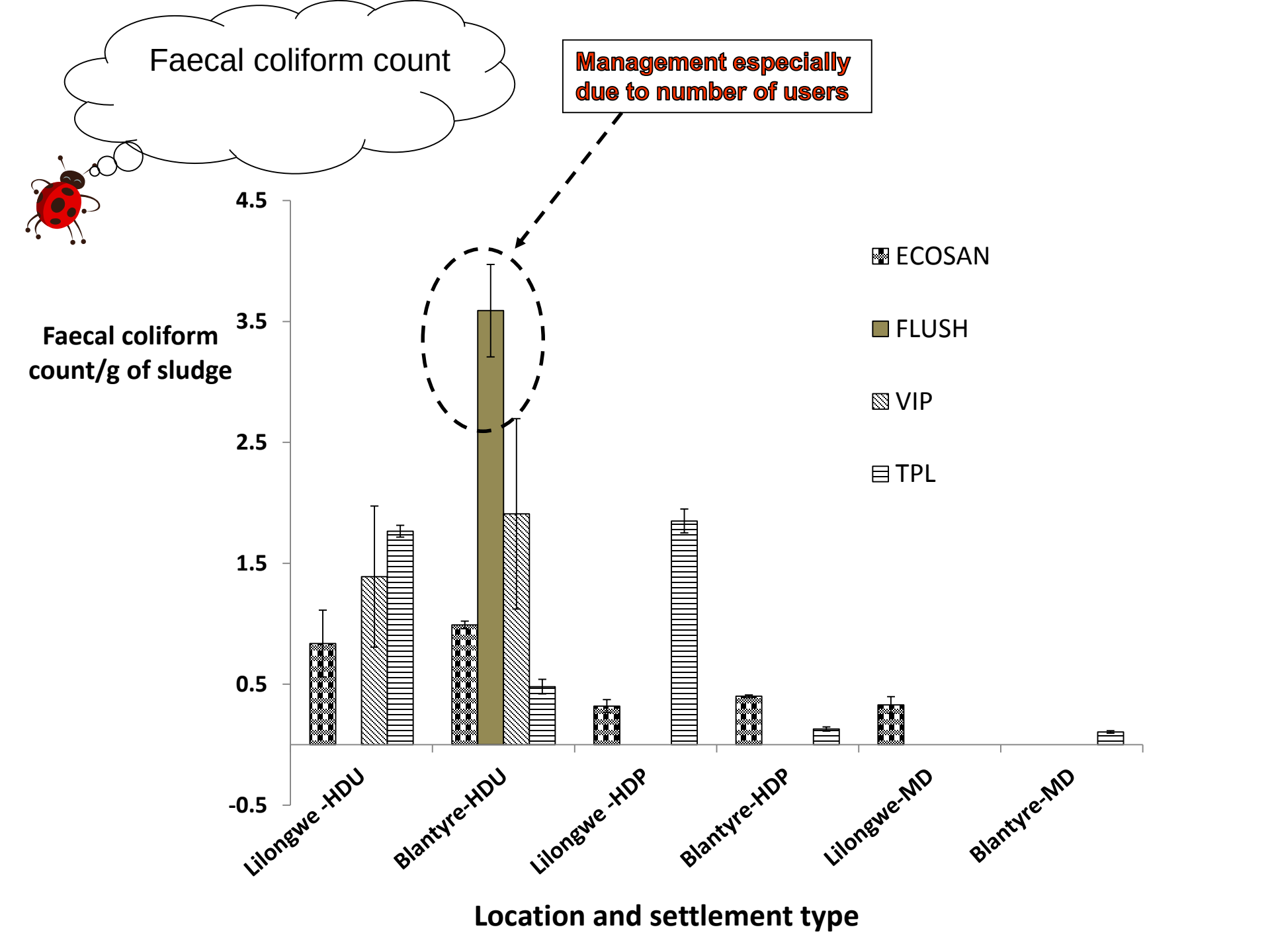
SAMPLING FRAMEWORK BASED ON POPULATION DENSITY AND ALTITUDE

City	Altitude	Socio-economic stratum		
		HDU	HDP	MD
Blantyre	Upper	Kachere		Chigumula
	Medium	Ndirande	Chimwankhunda	
	Lower	Mbayani	Angelo-Govea	Naperi
Lilongwe	Upper	Area 25		Area 38
	Medium	Chinsapo	Area 36	
	Lower	Mgona	Area 44	Area 49

Study approach -
Risk assessment

Biological analysis

Chemical analysis


Faecal coliform count
Management especially due to number of users
Faecal coliform count/g of sludge
4.5
3.5
2.5
1.5
0.5
-0.5
ECOSAN
FLUSH
VIP
TPL
Lilongwe -HDU
Blantyre-HDU
Lilongwe -HDP
Blantyre-HDP
Lilongwe-MD
Blantyre-MD
Location and settlement type

Viable hookworm ova per gram of emptied sludge

Sludge age > 70 months

Heaped in the open under direct sunlight

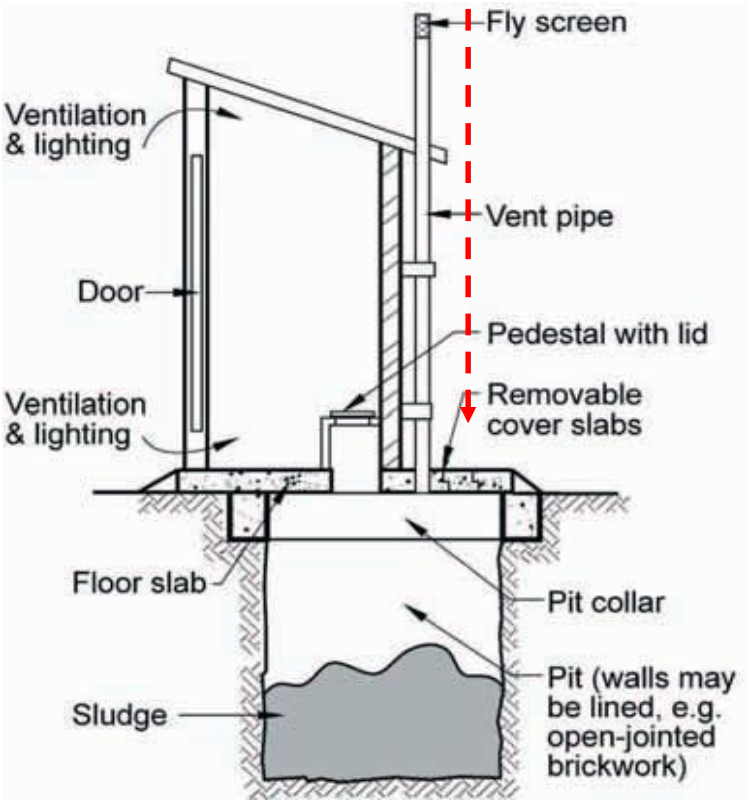
Location	TPL	VIP	Skyloo	Fossa alterna
Mgona			2.88 ± 0.25	2.38 ± 0.85
Chinsapo			1.75 ± 0.04	0.00
Phwetekele	3.50 ± 0.12	2.50 ± 0.04		
Area 25			2.13 ± 0.48	
Area 36	1.75 ± 0.06		1.75 ± 0.65	3.25 ± 0.16
Area 44	1.00 ± 0.17		1.38 ± 0.14	2.25 ± 0.35
Area 49			1.50 ± 0.08	1.75 ± 0.06
Ndirande		3.00 ± 0.71	1.33 ± 0.75	
Mbayani	3.70 ± 0.35	10.09 ± 0.01	2.62 ± 0.23	
Kachere	1.40 ± 0.05			
Angelo-Govea			2.33 ± 0.03	
Chimwankhunda	3.25 ± 0.35			
Chigumula	2.50 ± 0.0			

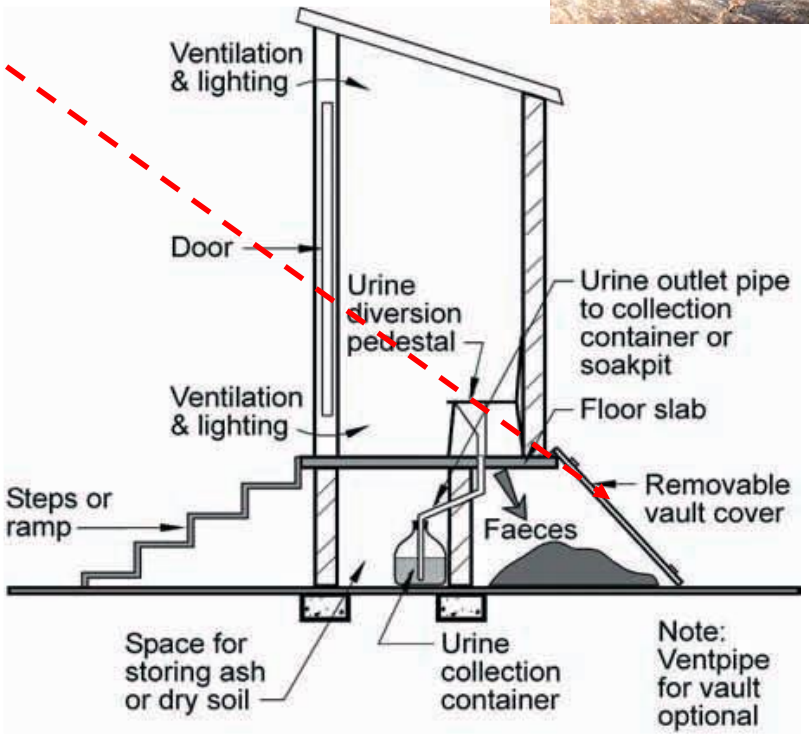
Emptied between 1 -3 months

Management - emptying

Concentrate on substructure

Ease in emptying



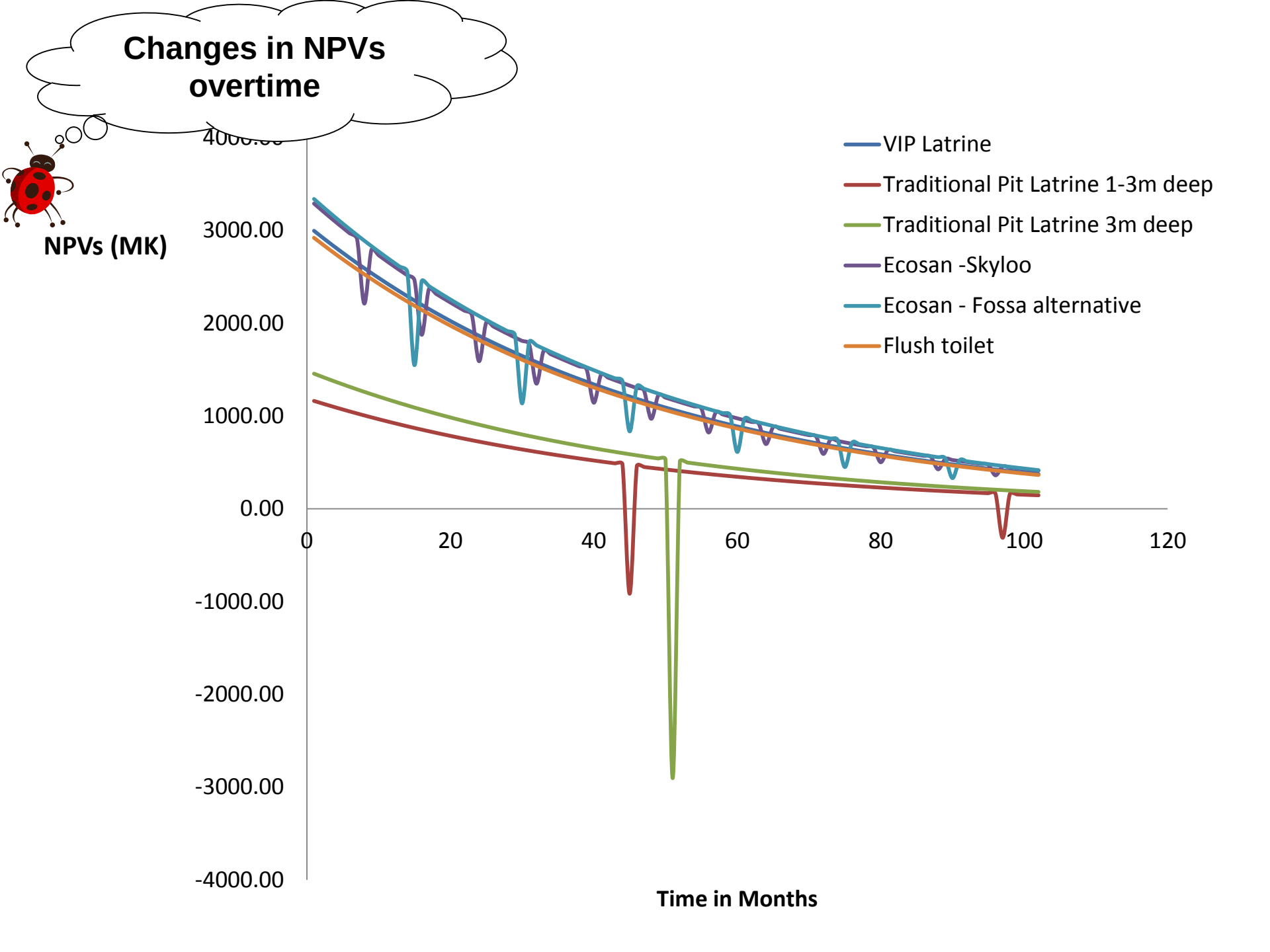


Management - transportation

Awareness and investment in PPE

Loans or subsidy for construction

Loans or subsidy for the emptying and transportation


Changes in NPVs overtime
NPVs (MK)
3000.00
2000.00
1000.00
0.00
-1000.00
-2000.00
-3000.00
-4000.00
0
20
40
60
80
100
120
Time in Months
VIP Latrine
Traditional Pit Latrine 1-3m deep
Traditional Pit Latrine 3m deep
Ecosan -Skyloo
Ecosan - Fossa alternative
Flush toilet

Conclusions

- toilet sanitation types and designs that auger well with pit emptying.
- use of bicycles and tricycles seems to be the cost effective mode of transporting sludge.
- special training is necessary for those involved in pit emptying and sludge management especially the need for investment in protective gear.
- there should be collection points or mini-treatment sites for sludge to avoid fraudulent dumping of sludge in rivers and other important ecosystems.

Thank You

Acknowledgments

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30th July 2015

Polytechnic

Pit Sludge Management, Sludge Biochemical Degradation, & Impacts on Public Health in Unplanned Settlements of Malawi

Name: Bernard Thole
Affiliation: Applied Sciences - Polytechnic- UNIMA

Sanitation and Hygiene Applied Research for Equity

Malawi
Epidemiology and
Intervention
Research Unit

WATER RESEARCH COMMISSION

Introduction and Objectives

- Aim _ to guide policy & practice in FSM for on-site dry sanitation in unplanned settlements

Specifically:

- *Examine legal provisions for FSM in Malawi*
- *Characterize existing pit sludge management*
- *Identify characteristic changes in sludge,*
- *Determine water-pit sludge interactions,*
- *Propose a model for Malawi*

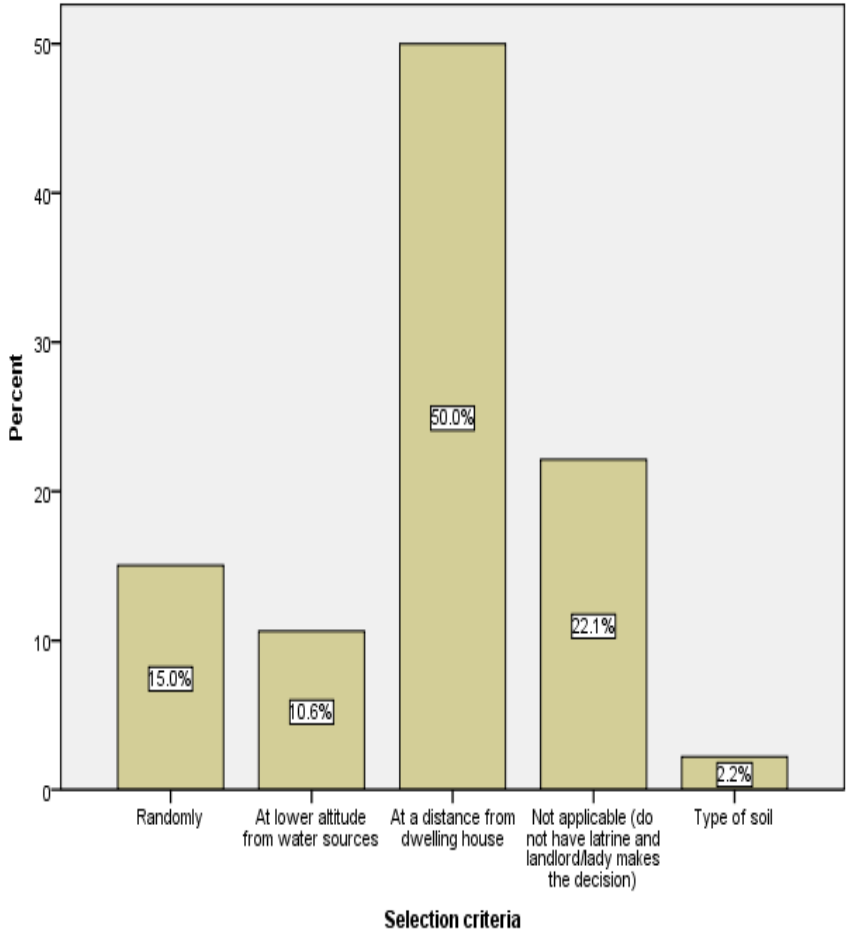
Materials and Methods

- Literature review & key informant interviews,
- Structured questionnaire administration_ KAP,
- Sludge sampling in 4 areas & lab. analyses,
- Four depths: 0.0, 0.5, 1.0 & 1.5 metre depths,
- Informed consent for both KAP & FS sampling,
- APHA & AOAC standard methods _ analyses,
- Data analysis _ excel spreadsheet & SPSS,
- Progress _ deliverable reports to WRC _Papers

Legal Framework for FSM

- Legal framework for FSM in Mw not explicit,
- Implicit reference in National Sanitation Policy,
- Environmental Management Act, 1996
- A number of acts; Local Government, 1998, Water Works, 1995, Land Act, 1965, Health Act, Town and Country Planning Act, 2006,
- Policies: NHP,1996; NEP, 2004, NWP, Land, '02, Urbanisation, 1987, Decentralisation, 1998
- Administrative documents: MDGs, Vision 2020

Knowledge, Attitudes & Practices



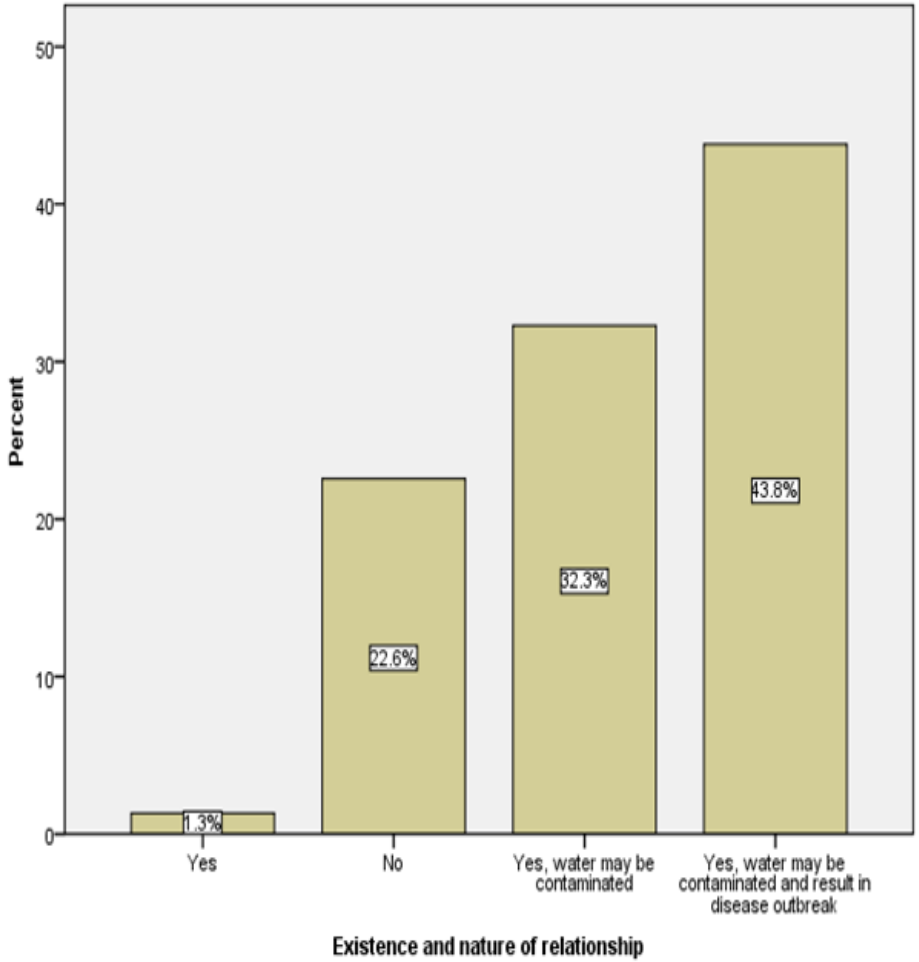
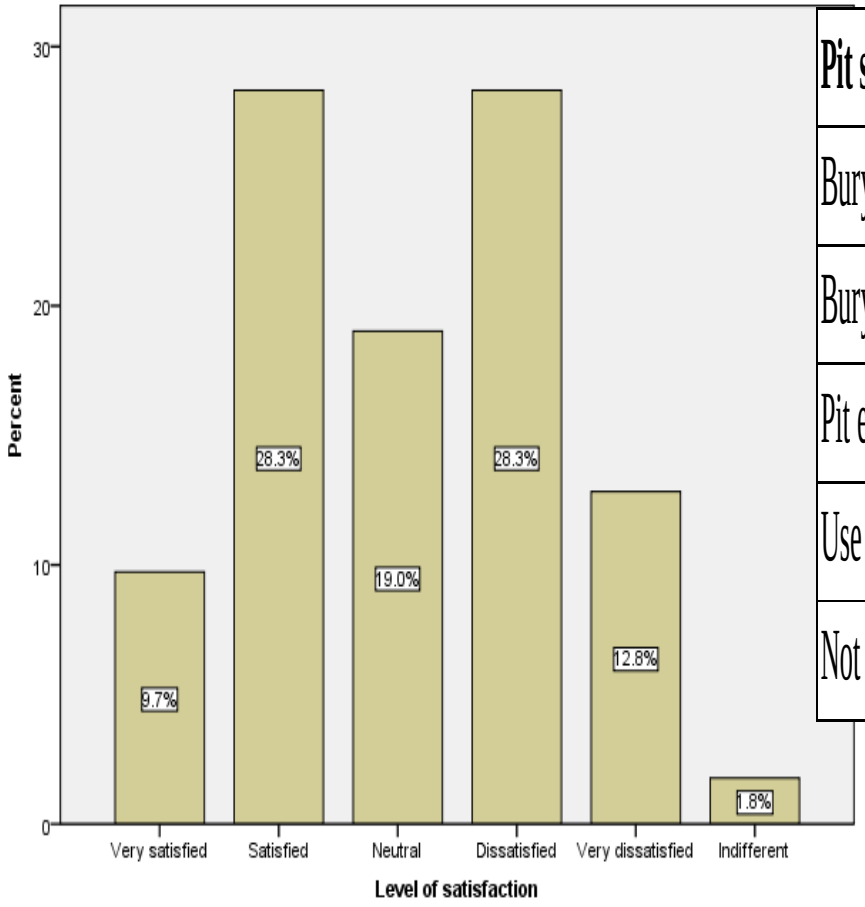


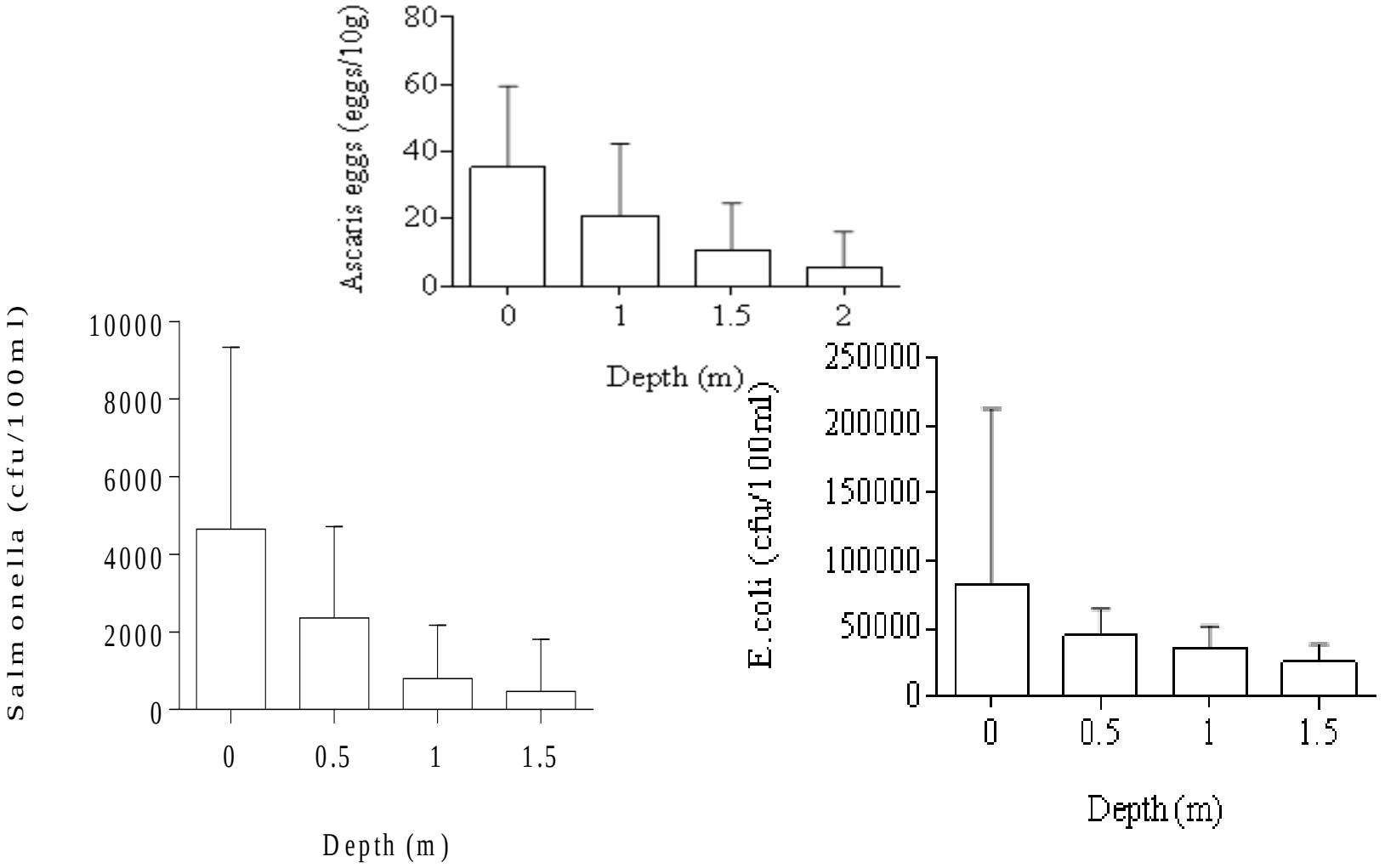
Figure 1: Latrine site selection

KAP

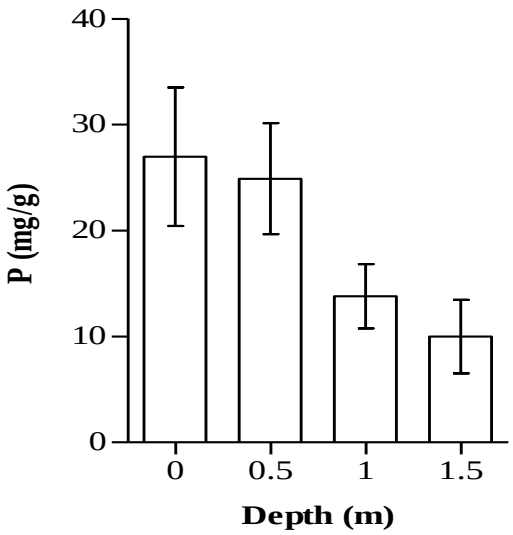


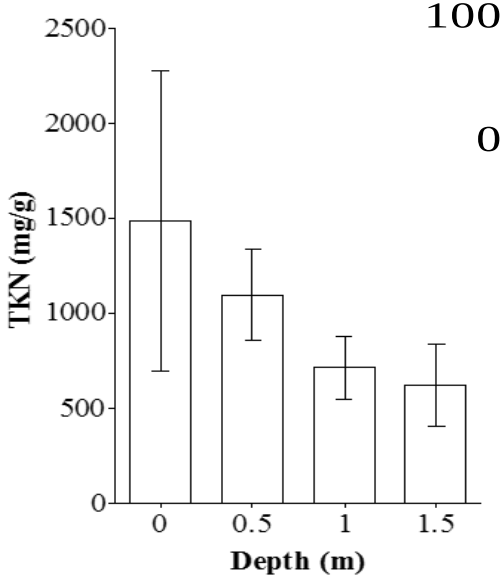
Pit sludge management technique	Frequency	Percentage
Burying and abandoning the pit when it is full	164	72.6%
Burying the pit and plant tree/crop when it is full	10	4.4%
Pit emptying/desludging	26	11.5%
Use of chemicals to dehydrate the sludge	24	10.6%
Not applicable to household as household does not own a latrine	20	8.8%

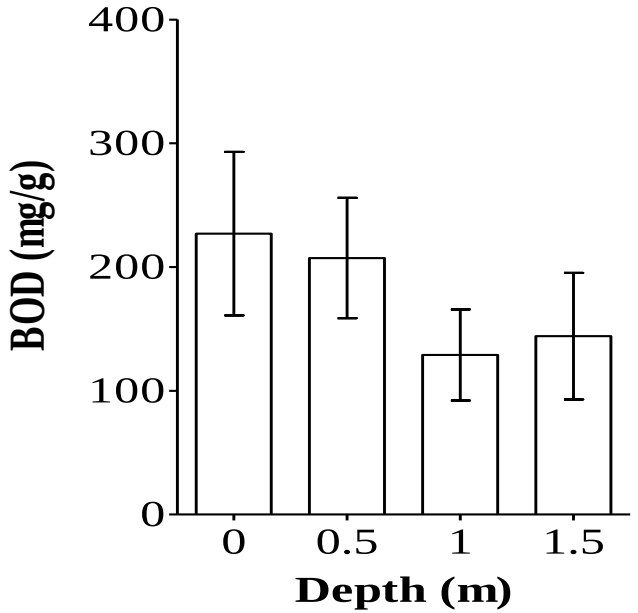
Characteristic Microbiology



Chemical Characteristics







Lessons Learnt

- Inferential legislative framework for FSM in Mw
- Some knowledge of FSM, however rudimentary practices are typical _ *resources, attitudes*, *info.*
- Fairly high levels of satisfaction with FSM, ?
- FS stabilisation appear to occur in pit over time
- Decline in P & N over time _ implications - OM,
- Very variable sludge characteristics over sites & within a site, complexity of research output.

Way Forward

- Sludge characterization in Chikanda – Zomba
- In-depth & comparative data re-analysis,
- Proposing model for FSM in Malawi
- Publications – 14 research papers (draft stage)
- Policy briefs – 2: CA's, relevant Ministries – Water, Agriculture, LoG, relevant NGOs & CSO
- Outreach – media - press conferences (2), newspaper articles (4).

THANK YOU FOR YOUR ATTENTION

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30th July 2015

Challenges and Opportunities in Solid Waste Management: The Case of Malawian Cities

Name: Fredrick Munthali

Affiliation: National Commission for Science and Technology

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Outline of Presentation

1. Overall Objective

2. Methodology

3. Key Findings

4. Key Recommendations

1. Overall Objective

The overall objective of the research was to analyze the current challenges and opportunities in SWM in the Malawian cities in an attempt to come up with better mechanisms to manage the solid waste.

The research was conducted in the cities of BT, LL, MZ and ZA from July to December 2014.

2. Methodology

Both primary and secondary data through:

- ✓Literature review (policies, regulatory frameworks, similar studies, reports)

- ✓ Focus group discussions (market committees, waste pickers, community members etc)
- ✓ In-depth Interviews (heads of health and education institutions).
- ✓ Administration of questionnaires (commercial, industry, HHs, NGOs, etc).
- ✓ Observations of waste practices at all levels.
- ✓ Waste generation study – sampling and analysis of waste from HHs, commercial entities, industry, health and education institutions and markets .
- ✓ The study identified problems in SWM on whose basis recommendations were made for the improvement of SWM in the Malawian Cities.

3. Key Findings

3.1 Sources of Waste

Sources of solid waste - HHs, commercial entities, educational and health institutions, markets and industries.

3.2 Waste Characteristics

Waste densities ranged from 69.6Kgs/m^3 for day schools to 933.8Kgs/m^3 for food waste from industries.

In all the cities 68% of the waste generated is organic with the rest accounting for the balance.

MC for selected waste categories varied from 20.4% for Leather, Textiles and Rubber 72.4% for organic waste.

The overall waste generation rates were:

- Blantyre - 0.479Kgs/ day/ capita
- Lilongwe - 0.493 Kgs / day/ capita
- Mzuzu - 0.479Kgs/ day/ capita
- Zomba - 0.433Kgs/ day/ capita

More than 70% of solid waste comes from HHs (in all the cities).

This is important for planning and implementation of SWM programmes

3.3 Solid Waste Management Practices

Sorting of SW at source was found to be very low at all levels ranging from 30% for HHs to 35% at industry level.

Waste reuse and recycling is carried out mainly for glass, plastic, cardboard, metal and paper. Plastic is the most reused waste at 76% at HH.

Very little composting is carried out at all levels.

At market, health and education institutions level no composting is carried out.

At community level composting is almost non-existent except for a few CBOs and NGOs.

3.4 Solid Waste Collection

SW collection services are mainly provided to the high income and medium income areas and to commercial, industry, health and markets.

Waste collection services are mainly provided by city councils and to some extent private operators.

Waste collection rates are very low - with BT at 18.6%, LL at 14%, MZ at 16.2% and ZA at 14.2%.

3.5 Solid Waste Disposal

Waste disposal methods at all levels range from: burning (highest at 63% for HH level) to dumping in open space, burying and disposal at dump sites. At dump sites waste is scavenged by waste pickers to recover reusable materials.

3.6 SWM Performance

The study assessed the performance of SWM based on technical, institutional, social and economical factors. The results showed that the performance was low.

Main problems that contributed to low performance are summaried as follows:

- ✓ Residents do not take responsibility for SWM.
- ✓ City councils lack adequate resources.
- ✓ Limited participation of Private sector, NGOs, CBOs, Development Partners, financial institutions and research institutions.

- ✓ Low levels of waste separation, reduction, recycling, composting and resource recovery.
- ✓ Ineffective regulation and lack of compliance by stakeholders
- ✓ Limited PPPs for the provision of solid waste management services

4. Key recommendations

- ✓ City residents - to take responsibility in managing own waste and within the cities.
- ✓ City councils - should take lead in SWM and develop appropriate strategies
- ✓ CCs - Actively engage stakeholders and promote workable PPPs.

4. Key recommendations

- ✓ CCs - Lobby for support from partners and stakeholders for SWM activities.
- ✓ Government – strengthen representation of city councils at central government level.
- ✓ NGOs and CBOs – conduct civic education, awareness campaigns and training in SWM.
- ✓ NGOs/ CBOs - Engage residents to actively participate in SWM activities.
- ✓ NGOs/ CBOs - Promote and support linkages between producers of solid waste products and buyers.

4. Key recommendations

- ✓ Commercial and industries – Actively engage employees and stakeholders to promote good SWM practices
- ✓ Promote good SWM practices for their operations
- ✓ Explore low cost technologies for SWM.
- ✓ Developing partners – support SWM

THANK YOU FOR YOUR ATTENTION

SHARE II Symposium
Lilongwe Hotel, Malawi
30th July 2015

WASH as An Entry Point For Improved Maternal and Newborn Health, and Infection Prevention and Control

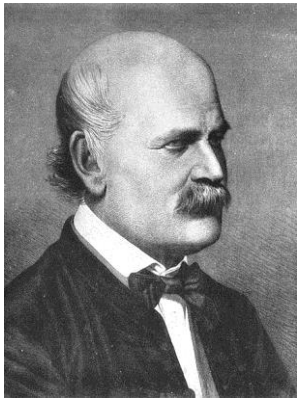
Presenter: Catherine Kahabuka

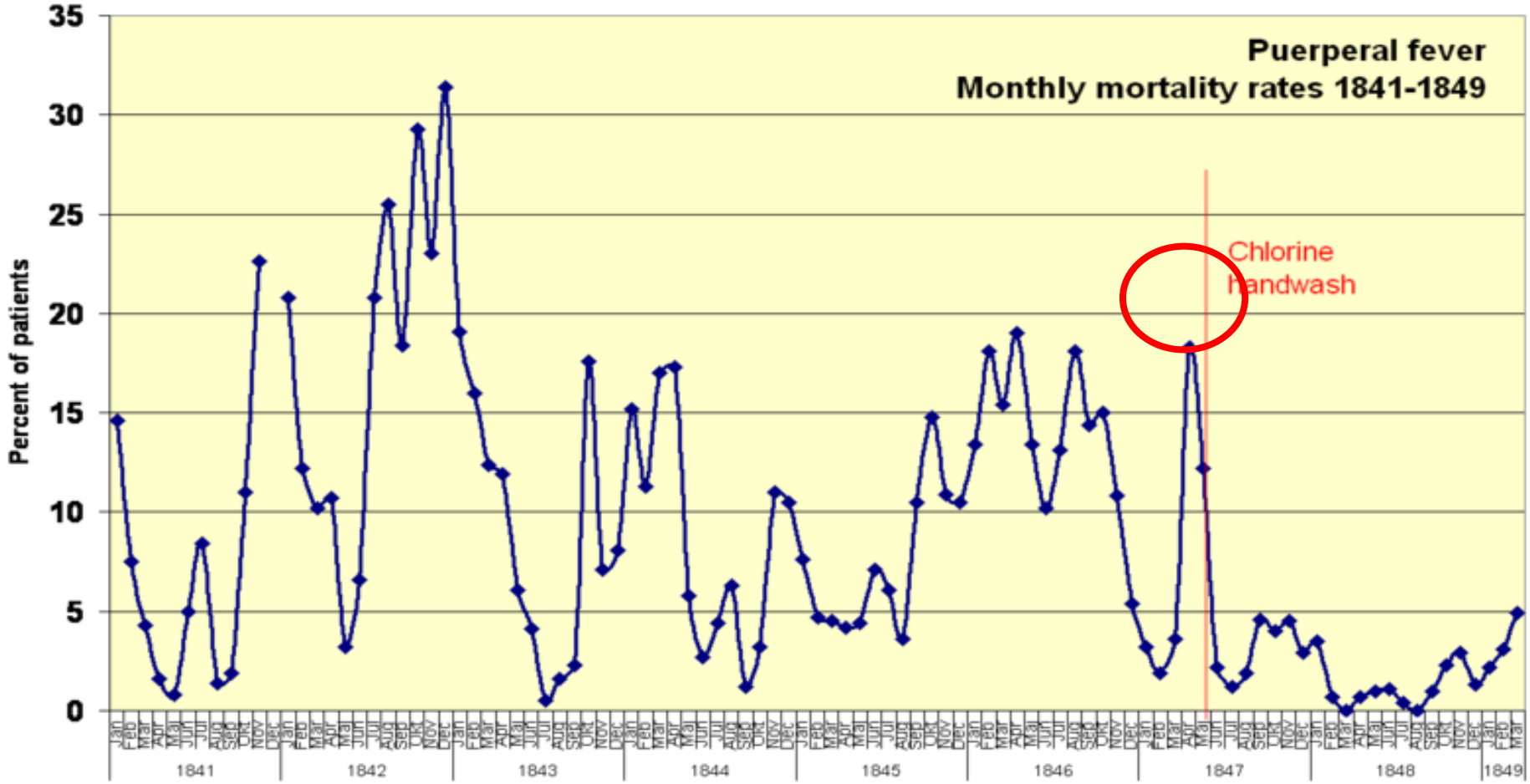
Affiliation: CSK Research Solutions

Malawi Epidemiology and Intervention Research Unit

University of Malawi

- **A long discovered path breaking solution still ignored today!**





Since 2010, SHARE has funded several studies aiming at advancing understanding on the relationship between WASH and MNH;

1. An exploration of the links between WASH and MNH (A Conceptual framework).

Methods:

A systematic mapping and evaluation of the direct and indirect pathways between WASH and MNH via a conceptual approach and a scoping review.

Key Findings:

- Two main ways poor WASH could lead to adverse outcomes; 1) 'In-water' associations, and 2) 'Behaviour' associations.
- 67 biological/chemical and 10 behavioral risk mechanisms linking WASH to maternal and perinatal health outcomes.

2. A systematic review of evidence on effect of water & sanitation on maternal mortality

Methods:

A systematic review and meta-analysis of published literature in Medline, Embase, Popline and Africa Wide EBSCO since 1980 (14 articles were found).

Key Findings:

- Women in households with poor sanitation had thrice the odds maternal mortality (OR = 3.07 : 95% CI 1.72–5.49).
- Poor water environment also significantly associated with higher maternal mortality (OR = 1.50, 95% CI 1.10–2.10).

3. An assessment of the water and sanitation environments of birth settings - Tanzania

Methods: Secondary data analyses;

- 2010 TDHS: to characterize the delivery location of births occurring between 2005 and 2010.
- 2006 SPA survey: to characterize the WATSAN environment of facilities that conduct deliveries.

Key Findings:

- Only 44% of facilities overall and 24% of facility delivery rooms were WATSAN safe.
- Only 1.5% of all births that occurred in homes were WATSAN-safe (42.9% of all births occur in homes).

** WATSAN-safe: fulfilling international definitions of improved water and improved sanitation access.*

4. Needs assessments of infection prevention control and WASH in maternity units: Zanzibar Case Study

Methods:

- Facility questionnaire: **Coverage** of WASH & IPC (n=37).
- In-depth assessment: **Status** of WASH & IPC (n=7)
  - visual, photographs, microbiological swabs & water samples (n=7), and IDIs.

Key findings:

- Frequent water interruption a huge challenge.
- Hand washing water for staff and drinking water for clients highly contaminated.

4. Needs assessments of infection prevention control and WASH in maternity units: Zanzibar Case Study

Non-supportive infrastructure for proper hand hygiene.

*In **30% of PHCUs, no functional** hand washing stations in the maternity area (n=29) .*

Insufficient no. of toilets (75%) & **broken** toilets facilities (100%)

*Only **12%** of toilets observed had a functioning **flushing system**.*

4. Needs assessments of infection prevention control and WASH in maternity units: Zanzibar Case Study

Five major challenges facing maintenance of WASH facilities in maternity units (**IDIs)**;

1. Insufficient **no. of cleaners.**
2. Lack of **WASH training** – highly contaminated surface swabs.
3. **Clinical tasks** vs. cleaning tasks.
4. Poor **WASH maintenance** strategies**.**
5. **Poor knowledge** among women clients.


Dirty


Blocked


Broken


Broken
Odex
LIQUID
BLEACH

Conclusion

- Leveraging WASH to support efforts on MNH is a significant **missed opportunity**, which must now be seized.

- SHARE's work provides **evidence-base** both to guide **action**, and **advocacy** for high-level political recognition that WASH is a critical component of MNH strategies.

- While building more proper WASH facilities seem to be an obvious & immediate solution, other **sustainability** factors need to be considered.

SHARE II Symposium
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30th July 2015

The Salience of Research to Meeting the Sustainable Development Goals (SDGs)

Emma Mbalame

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PRESENTATION OUTLINE

- Introduction
- Background on the Sustainable Development Goals (SDGs)
- Salience of Research to meeting the SDGs
- Conclusion

INTRODUCTION

- The Sustainable Development Goals (SDGs), as they stand now, constitute 17 different goals and 212 target areas.
- Within the SDGs there are quite significant areas where research could contribute or has already been contributing in terms of shaping the agenda items.
- The SDGs have four dimensions: economic, social, environmental, governance and establishing peace and security.
- When countries develop their strategies, its important to integrate dimensions of sustainable development into their national development strategies.

INTRODUCTION CONTINUED…

- So research support should start by looking at how these issues can be addressed in an integrated fashion.
- Research can help to develop these capacities by developing the relevant data and information systems to supplement indicators, establishing economic benefit linkage to the GDP or other economic parameters.
- Research should also look for solutions that are customised based on a specific country’s demand.

BACKGROUND ON THE SDGS

- The Government of Malawi adopted the Millenium Development Goals (MDGs) strategy in 2000 to be implemented in 15 years.
- The MDGs were adopted with an effort to reduce poverty and improve welfare of people.
- The Millennium Development Goals (MDGs) established a benchmark for global development policy expiring 2015.
- Although much of progress have been made many targets will not be met in a number of areas.
- With 2015 coming to an end the implementation of the MDGs is also coming to and end.

BACKGROUND ON THE SDGS continued…

- The United Nations, its development partners and its implementing partners are looking at what development priorities countries should focus on beyond 2015.
- Consultations on post 2015 were done to draw lessons on what has happened in the implementation of MDGs and MGDS in terms of what has worked and what has not worked.
- The lessons drawn and consultation done forms the new Sustainable Goals and targets to the road 2030.
- The new SDGs which are in draft form have about seventeen (17) goals which will be adopted by countries globally in September this year.

SALIENCE OF RESEARCH TO MEETING THE SDGs

- One of the Goals in the *SDGs* is to ensure availability and sustainable management of water and sanitation for all. Under this goals there are about six(6) sub goals most of which are carried over from the MDGs.
- Implementation of SDGs and targets will require mobilisation of financial resources, capacity building and a wide range of other supportive policies and measures.
- Investing in research studies is one of the measures which will smoothen the implementation of the SDGs.
- Investing in Research is also one of the goals outlined in the sanitation policy.

SALIENCE OF RESEARCH TO MEETING THE SDGs Continued…

- According to MDG end line survey 2014, Malawi is lagging behind by 41% on the access of improved sanitation and hygiene practices, in order for the country to succeed with the SDGs there is need to learnt from the challenges met during the implementation of MDGs.
- Some of the challenges can be established and addressed through thorough research studies.
- Research studies in sanitation will assist in coming up with theories and approaches that works best for case of Malawi.

SALIENCE OF RESEARCH TO MEETING THE SDGs Continued…

- In addition in depth investigations through research studies will reveal significant findings which enables the government to make decisions, formulate or revise policies and strategies to suit the case of Malawi.
- Reducing pollution, dumping, recycling and safe use of waste are some of the issues in the SDG. Which are also serious issues faced by the country.
- These issues can be well address only if evidence is establish on how best to handle them. This can be done through research studies.

CONCLUSION

- There are a lot of opportunities that can be served best by research.
- Research institutions should look at the new development agenda and new development goals and come forward in developing or sharing the knowledge they have acquired through past research.
- Research can help the ideas of south-south partnership, generating new knowledge in unknown areas.
- Research contribute to unpacking the emerging development areas under the SDGs and bring the results more towards global policy advice.

Thank you for listening

SHARE II Symposium
Lilongwe Hotel, Malawi
30th July 2015

ROLE OF WES NETWORK IN WASH RESEARCH

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OUTLINE

- **Introduction**
- **WES Network Vision and Mission**
- **Area of Operation**
- **Role of WES NETWORK IN WASH RESEARCH**

INTRODUCTION

- WES NETWORK: **Water and Environmental Sanitation Network**
- **MEMBERSHIP: 60 INGO/NGOS/PRIVATE/ACADEMIA**
- Established: 2005
- Registered with Malawi Government in 2011.

WES NETWORK

VISION

- WESNET envisions sustainable access to safe water and improved sanitation for all in Malawi.

MISSION

- Our mission is enhanced coordination, advocacy and knowledge sharing among Network membership for provision of high quality standards and sustainable water and environmental sanitation services in Malawi guided by universal right to safe water

WES Network key Areas of operation

- **WASH NGOs Coordination**
- **Expertise and Knowledge Sharing/ Learning Alliances**
- **Advocacy and Lobbying**

  This is achieved through, Research, budget tracking and Citizens actions.

- **Compliance to Quality Standards**
  - Promotes adherence to high standards in provision of services among its members in line with existing government policies.

THE ROLE OF WES NETWORK IN WASH RELATED RESEARCH

INFORMATION

- Link with all NGOs and Government and provide information
- Thematic Working Groups

COORDINATION

- Link with all WASH NGOS, consultants, private sector, Academic Institutions, Government and Donors

THE ROLE OF WES NETWORK IN WASH RELATED RESEARCH

LEARNING AND SHARING

- Learning forums
- Exchange visits
- District coordinations
- Research sharing

INFLUENCING AND ADVOCACY

- The TWG for Research, Influencing and Advocacy would like to take issues of SDG as a main agenda for advocacy
- Evidence based advocacy and taking issues to scale

THANK YOU FOR LISTENING

SHARE II Symposium
Lilongwe Hotel, Malawi
30th July 2015

University of Malawi

University of Malawi/SHARE's research proposal 2015-2018

Kondwani Chidziwisano
University of Malawi - Polytechnic

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Sanitation and Hygiene Applied Research for Equity

Malawi Epidemiology and Intervention Research Unit

University of Malawi

share
Sanitation and Hygiene Applied Research for Equity

- Consortium of LSHTM – 2010
- Immediate goal - to accelerate progress on the Sustainable Development Goal target for sanitation
- Developed research and synthesis on sanitation and hygiene that has contributed to changes in policy and practice at the national and global level

Phase 1

2010 - 2015

- Hand Washing
- Waste Management
- Pit Emptying
- Menstrual Hygiene

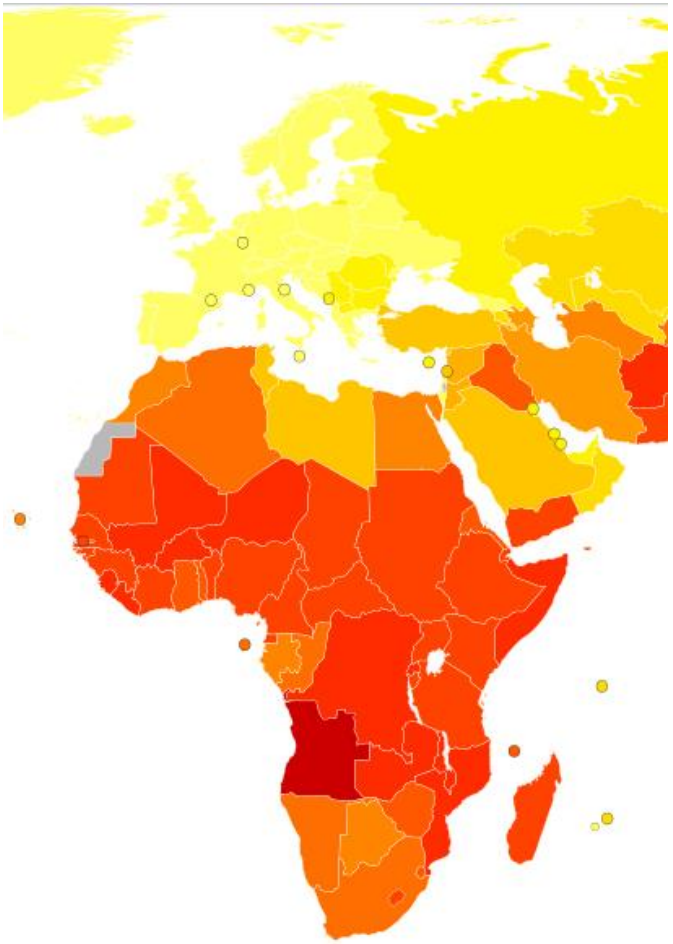
Phase 2

2015 – 2018

WASH and Nutrition
Equitable and Universal Urban Sanitation
Complementary Food Contamination
WASH and Vaccines

Background

- Diarrhoeal disease
  - Still one of the biggest killers in the world claiming over 1.5 million children a year.
  - In Malawi 135 cases per 1000 under five population being treated for diarrhoea with 3 deaths per 1000 new cases in 2009/10



Background

- **Known causes of diarrhoeal disease isolated in Malawi to date include:**

- *Salmonella* sp.
- *Clostridium perfringens*
- *Bacillus cereus*
- *E coli*
- Staphylococci
- Rotavirus and enteroviruses
- *Cryptosporidium*
- *Giardia*
- *Shigella*
- *Vibrio cholerae*
- Schistosomiasis

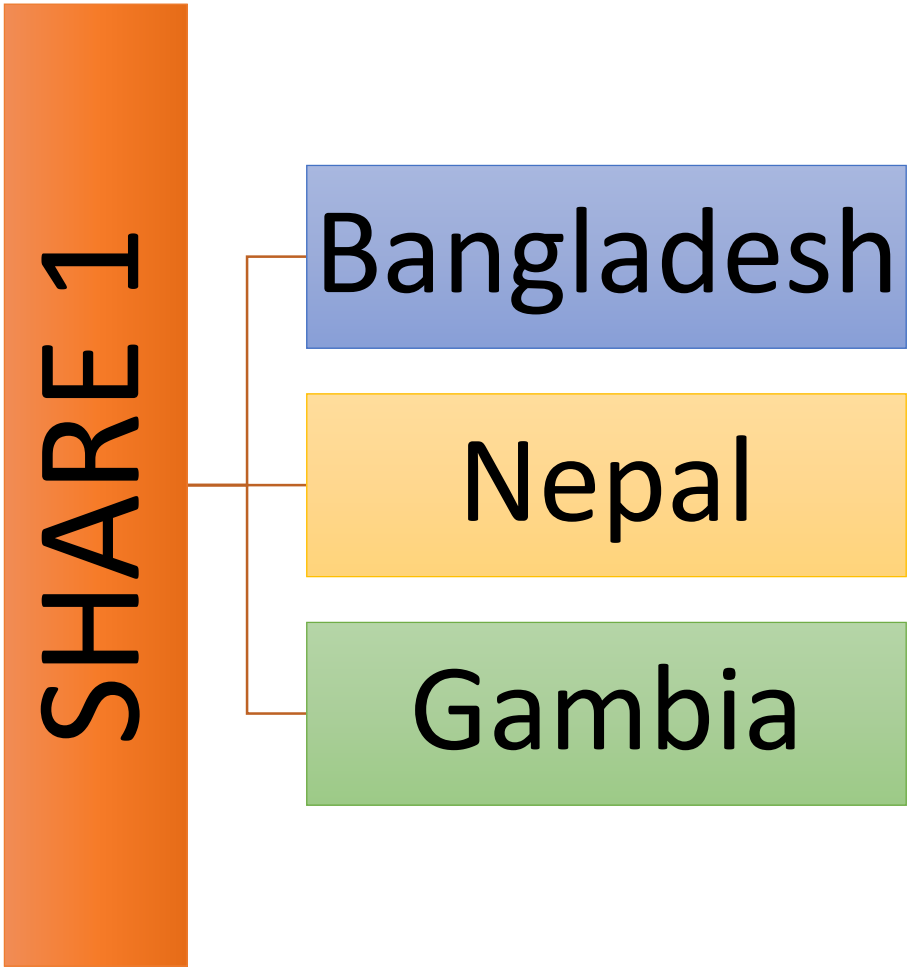
Pavone et al 1990; Cunliffe *et al.,* 2002; 2001; 1999; Gatei *et al.,* 2003; Cranendonk *et al.,* 2003; Peng *et al.,* 2003; Morse *et al.,* 2007 Gordon *et al.,* 2001; Roberts *et al.,* 2001; Swerdlow *et al .,*1997. Pitman *et al.,* 1997; Bowie et al 2002; Taulo et al., 2008)

Justification

- Poor food hygiene practices might be causing more diarrhoeal disease than exposure to contaminated water (Lanata, 2003).
- Exposure to poor water, sanitation and hygiene conditions are compounded by early weaning, lack of exclusive breastfeeding and feeding with water at an early age.
- We have no conclusive data for contamination of food at domestic level.
- International evidence shows a high level of contamination of weaning foods

Kung'u, et al., 2009; Toure, et al., 2011; Ghuliani, et al., 1995; Sajilata, et al., 2002; Taulo, et al., 2008; Henry, et al., 1990; Imong, et al., 1995

SHARE I: Complementary Food Hygiene



Demonstrated that simple, scalable behavioural interventions can significantly reduce exposure to sanitation and hygiene related pathogens transmitted through complementary foods

Lessons from SHARE I

1. Need to better characterise pathogen transmission and how it differs across settings, to better target intervention approaches.

2. Need to better understand how this contamination affects child health during this critical point in life
    - How it contributes to infection from key pathogens and how it influences child nutrition

3. Need to develop and test alternative strategies for scaling up

National research priorities

Diarrhoeal diseases

- Assessment of burden and aetiology of diarrhoeal diseases in the community
- Strategies to improve coverage of hygiene and sanitation interventions
- Assessment of models for community and social mobilization towards diarrhoea disease control, especially in the rural and high density urban areas
- Efficacy, effectiveness and feasibility of preventive interventions against diarrhoeal disease

Nutrition

Extent of and barriers in the infant and young child feeding practices

Environmental Health

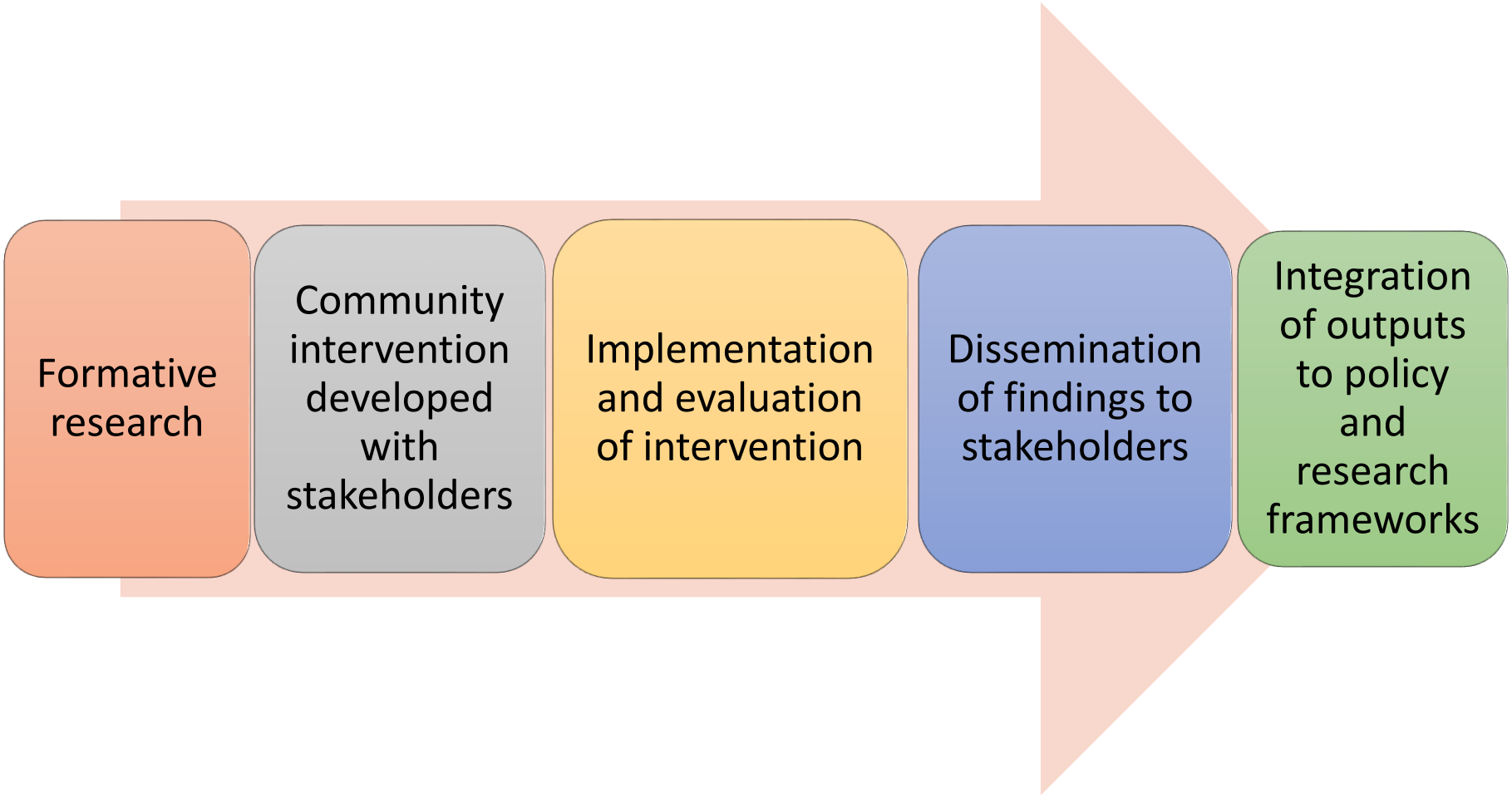
Assess the safety of food in terms of microbiological and chemical contamination

Proposed Outline

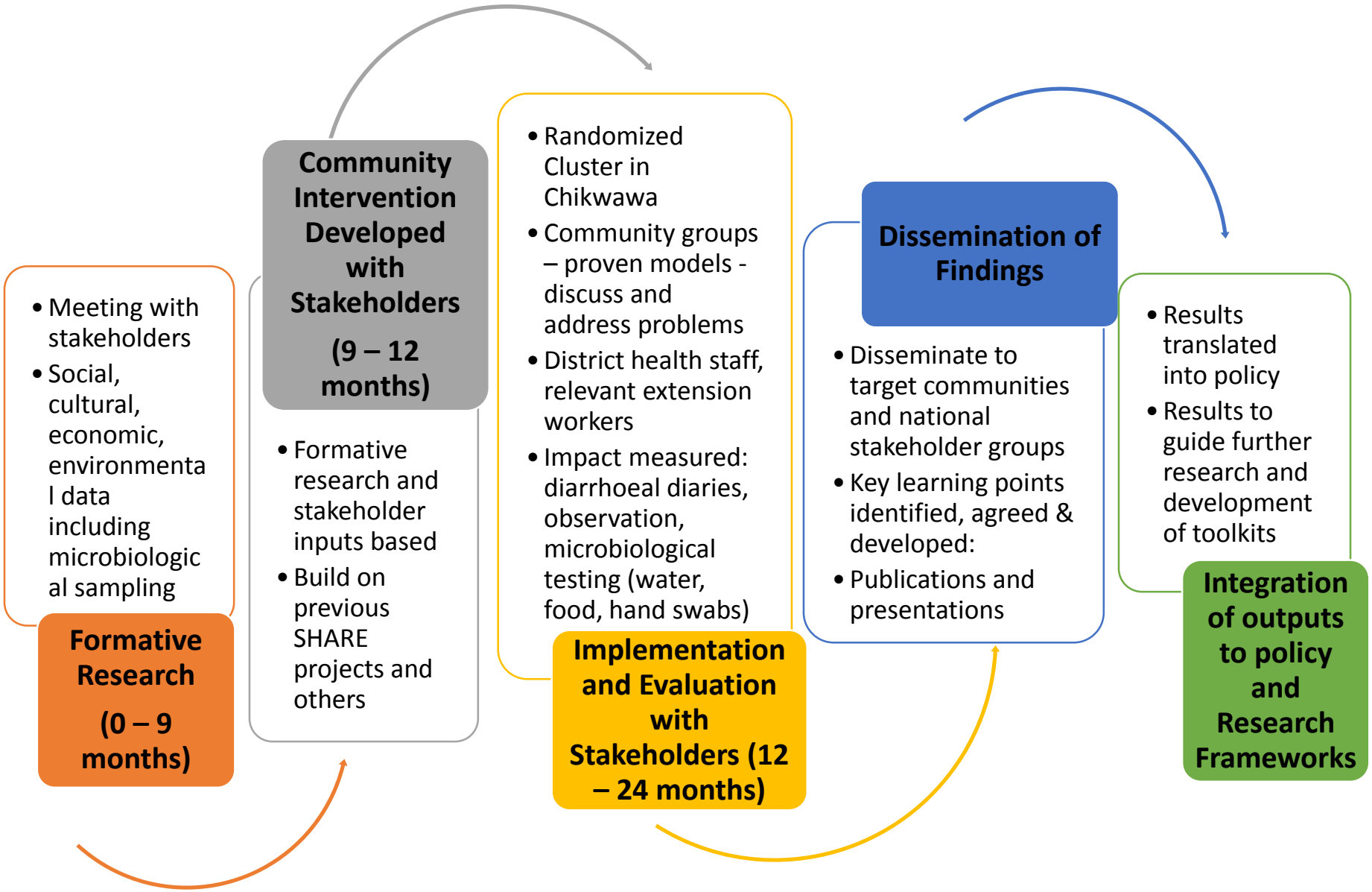
Develop and test a model for improving WASH and hygiene of weaning foods at community level

- Identify sources and causes of diarrhoeal disease in sample population of under 5 children
- Develop an integrated community based model for improving water, sanitation, and food hygiene, to reduce diarrhoeal disease in under fives.
- Test and assess an integrated community based

Proposed process



Proposed Steps in detail



Key areas for discussion

- Linkages and lessons learned from previous work and existing studies
- Methodology
- Relevance to sector priorities
- Other small research areas which should be aligned and explored based on the morning's discussions