

Sustaining and scaling up HWTS practices

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Introduction

- ❖ Household Water Treatment and Safe Storage (HWTS) practices are an effective interim solution if done correctly and consistently
- ❖ Limited research on how to sustain and scale up HWTS practices
- ❖ Over 2 billion people currently employ HWTS practices
- ❖ However, boiling is only practice to achieve scale
- ❖ Important to determine how other practices can be scaled and sustained
- ❖ HWTS products and technologies vary widely in key characteristics including treatment efficacy, ease of use, and cost.
- ❖ This presents a challenge in efforts to scale up practices

Introduction

- ❖ ***Sustainability*** refers to the ability to maintain an HWTS practice or technology in a community or country in a manner that does not require those donor contributions that are unsustainable in the long-term

- ❖ ***Scale-up*** refers to the extent to which HWTS can be made available to the target population as well as the extent to which it is adopted by that population and used correctly and consistently

Methods

- ❖ Conducted interviews and focus group discussions with key stakeholders
- ❖ Study participants had experience with HWTS implementation
- ❖ Experience spanned different countries and settings
- ❖ Respondents included:
 - ❖ Manufacturers
 - ❖ Wholesalers and retailers
 - ❖ Implementers
 - ❖ Researchers (with field experience)
 - ❖ Government officials

Methods

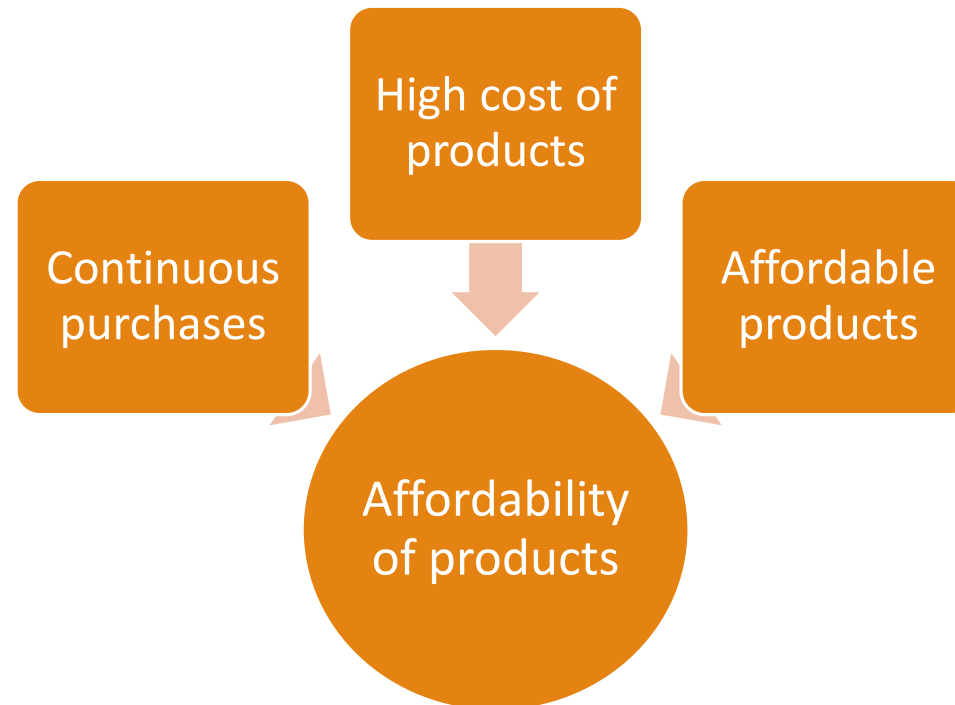
- ❖ Field interviews in Ghana and Tanzania
- ❖ Used a similar method as was used in a cook-stoves study
- ❖ Literature review to support interview responses

RESPONDENT DEMOGRAPHICS

Region	Africa	Asia	Latin America	Other	Total
Organization					
NGO (Implementing)	24	7	7	1	29
NGO (non-implementing)	2	2	1	0	2
Private sector organizations (implementing and sales)	7	5	1	1	10
Academia	7	6	2	1	10
Government	8	1	1	2	10
Sales (Retail and Wholesale only)	8	0	0	0	8
UN agency	1	1	0	1	3
Manufacturing	2	0	0	0	2
Other	3	2	2	3	7
Total	62	24	14	9	

Factors Identified

- ❖ 22 enablers and 25 barriers were identified by study participants
- ❖ Grouped into 23 distinct factors.
- ❖ Example:



- ❖ Further grouped into 6 domains that account for each of the distinct factors

Factors Identified

- ❖ User Preferences
- ❖ Integration and Collaboration
- ❖ Standards, Certification, and Regulations
- ❖ Resource Availability
- ❖ Market Strategies
- ❖ User Guidance on HWTS Products

Factors Identified

- ❖ **User Preferences**
- ❖ Integration and Collaboration
- ❖ Standards, Certification, and Regulations
- ❖ Resource Availability
- ❖ Market Strategies
- ❖ User Guidance on HWTS Products

Factors Identified

- ❖ User Preferences

- ❖ Identified by 51 participants

- ❖ Refers to preferences of the target individual, household or community with regard to HWTS practices

- ❖ Highly dependent on informal rules such as cultures and social norms.

- ❖ Technology preferences, time constraints, demand for HWTS

SAMPLE OF GROUPING OF FACTORS

Identified Factors (grouped by counterparts)			Domains
Enablers	Barriers	Counterpart factors ^a	
User demand for HWTS (20)	Lack of motivation to improve health (5)	User demand for HWTS (29)	User preferences (51)
	Lack of understanding of economic benefits of HWTS (2)		
Technology type (6)	Diarrhea not seen as a problem (2)	User technology preferences (20)	
	Not understanding user preferences (8)		
Aspirational products (2)	Difficulty in incorporating into normal routine (2)		
Field trials to gauge preferences (2)	Lack of aspirational products (1)	Field trials to gauge preferences (2)	
	Cultural barriers causing misunderstanding of individual needs (1)		

Factors Identified

- ❖ User Preferences
- ❖ **Integration and Collaboration**
- ❖ Standards, Certification, and Regulations
- ❖ Resource Availability
- ❖ Market Strategies
- ❖ User Guidance on HWTS Products

Factors Identified

- ❖ Integration and collaboration
 - ❖ Identified by 41 participants
 - ❖ Refers to the partnerships formed to ensure products get to consumers
 - ❖ Numerous people involved in getting HWTS product to consumer
 - ❖ Interactions are required for most practices
 - ❖ Community participation, integration into other programs, private sector participation, etc.

SAMPLE OF GROUPING OF FACTORS

Identified Factors (grouped by counterparts)			Domains
Enablers	Barriers	Counterpart factors ^a	
Partnerships (14)			Integration and Collaboration (41)
Leaders (community leaders, health workers, etc.) advocating HWTS (7)	Lack of partnerships (2)	Partnerships (23)	
Integration into other programs (e.g. health, schools etc.) (8)	---	Integration into other programs (8)	
Community participation (4)	Lack of community ownership (1)	Community participation (5)	
Longstanding residence of implementers in communities (4)	---	Integration of organization into community (4)	
Private sector participation (1)	---	Private sector participation (1)	

Factors Identified

- ❖ User Preferences
- ❖ Integration and Collaboration
- ❖ **Standards, Certification, and Regulations**
- ❖ Resource Availability
- ❖ Market Strategies
- ❖ User Guidance on HWTS Products

Factors Identified

- ❖ Standards, certification, and regulations
 - ❖ Identified by 32 participants
 - ❖ refers to the formal rules that guide individuals and organizations and are enforced by police and the courts; as well as voluntary standards by organizations that have been systematically developed
 - ❖ Numerous products on the market, need to ensure consumers are protected from ineffective products
 - ❖ Favorable political climate, home agency for HWTS etc.

SAMPLE OF GROUPING OF FACTORS

Identified Factors (grouped by counterparts)			Domains
Enablers	Barriers	Counterpart factors ^a	
Favorable political climate for HWTS (9)	HWTS not a government priority (5) HWTS not a long-term solution (3)	Political climate for HWTS (17)	Standards, certification, and regulations (32)
Quality control carried out on HWTS products (2)	Ineffective technology (6)	Product standards (9)	
---	Location & climate not conducive to technology (1)		
---	Import barriers (3)	Import regulations (3)	
Certification of HWTS products (2)	---	HWTS product certification (2)	
---	Lack of agency/ministerial home (1)	HWTS specific home-agency(1)	

Factors Identified

- ❖ User Preferences
- ❖ Integration and Collaboration
- ❖ Standards, Certification, and Regulations
- ❖ **Resource Availability**
- ❖ Market Strategies
- ❖ User Guidance on HWTS Products

Factors Identified

- ❖ Resource availability

- ❖ Identified by 32 participants

- ❖ refers to the availability of economic and human resources necessary for sustaining and scaling up HWTS practices

- ❖ Some of the target individuals are from poor households so resource availability is vital

- ❖ Affordability of products, organizational resource availability, etc..

SAMPLE OF GROUPING OF FACTORS

Identified Factors (grouped by counterparts)			Domains
Enablers	Barriers	Counterpart factors ^a	
Affordable products (2)	Cost of products (11)	Affordability of products (15)	Resource availability (32)
	Continuous purchase of consumables (2)		
Available resources (human, money etc.) (7)	Limited resources (8)	Organizational Availability of resources (15)	
Cost effective implementation (1)	---	Cost effective implementation (1)	
---	No land tenure (negatively influencing HWTS investment) (1)	Household land tenure (1)	

Factors Identified

- ❖ User Preferences
- ❖ Integration and Collaboration
- ❖ Standards, Certification, and Regulations
- ❖ Resource Availability
- ❖ **Market Strategies**
- ❖ User Guidance on HWTS Products

Factors Identified

- ❖ Market strategies – Product supply

- ❖ Identified by 30 participants

- ❖ refers to process of bringing products to consumers, particularly the aspect of an effective supply chain

- ❖ Success of HWTS implementation depends on availability of raw materials, skilled human labor, dependable transport system, etc.

- ❖ Import regulations and tariffs, clear supply chain, etc.

SAMPLE OF GROUPING OF FACTORS

Identified Factors (grouped by counterparts)			Domains
Enablers	Barriers	Counterpart factors ^a	
Presence of a supply chain (10)	Lack of available spare parts (9)	Supply chain (22)	Market strategies (30)
Products made with local materials (3)	Undermining competing technologies (6)	Competition between technologies (6) ^b	
----	Free distribution (1)	HWTS financing (2)	
Financing (no free distribution) (1)			

Factors Identified

- ❖ User Preferences
- ❖ Integration and Collaboration
- ❖ Standards, Certification, and Regulations
- ❖ Resource Availability
- ❖ Market Strategies
- ❖ **User Guidance on HWTS Products**

Factors Identified

- ❖ User guidance on HWTS products

 - ❖ Identified by 24 participants

 - ❖ refers to the ability of individuals/households to carry out technical activities related to HWTS practices

 - ❖ Effects of employing HWTS practices is dependent on consistent and correct usage

 - ❖ Training on use of products, maintenance of products

SAMPLE OF GROUPING OF FACTORS

Identified Factors (grouped by counterparts)			Domains
Enablers	Barriers	Counterpart factors ^a	
Training on how to use HWTS products (8)	Lack of capacity building activities (3)	Training on product use and HWTS practices (12)	User guidance on HWTS products (24)
--	Limited information to make decisions (1)		
Carrying out behavior change programs (4)	Long time behavior change takes (3)	Behavior change activities (7)	
Household follow-ups (specifically for interventions) (5)	---	Household follow-ups (5)	

Factors Identified

- ❖ User Preferences
- ❖ Integration and Collaboration
- ❖ Standards, Certification, and Regulations
- ❖ Resource Availability
- ❖ Market Strategies
- ❖ User Guidance on HWTS Products

Diffusion of Innovation Theory

- ❖ Theory explains
 - ❖ how new ideas and technologies are taken up by a population
 - ❖ motivations for adoption of products and technologies
- ❖ Used the theory to support the results from the study
- ❖ Found that the six domains identified fit into the 4 main elements of the theory:
 - ❖ Innovation
 - ❖ Communication channels
 - ❖ Time
 - ❖ Social system

Limitations of the study

- ❖ Confirmation bias could have led to interviewees wrongly attributing positive or negative outcomes to specific factors.
- ❖ The study could also have benefited from increased access to under-represented categories of interviewees, particularly manufacturers
- ❖ Interview and survey responses could not be independently verified

Tools Developed

- ❖ Product/technology feasibility tool

- ❖ Quick and easy to use tool that helps in assessing the feasibility of introducing a product in a community. Based on supply chain and human resources.

- ❖ National assessment tool

- ❖ Assessment of government policies and systems related to HWTS

- ❖ Individual and community assessment tool

- ❖ In-depth tool used for a preliminary assessment of the individual and community for which the products would be introduced.

Conclusion

- ❖ Results support Rogers' Diffusion of Innovation theory
- ❖ All domains are important – at least one of the most identified factors fell in one domain
- ❖ Relevant factors are dependent on context
- ❖ To prioritize domains, a suitable method and evidence base is required
- ❖ Important to assess the different stakeholders that would be involved in the intervention

THANK YOU!