Barriers and Facilitators of Community Engagement in Dengue Interventions in Conflict- affected Aden, Yemen: An Implementation Research

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Introduction

Dengue Fever is a global health concern affecting over 100 countries, causing approximately 100 million cases and 25,000 deaths annually, the WHO describes dengue as **“the most important mosquito-borne viral disease in the world”**. It is transmitted by ***Aedes aegypti*** and *Aedes albopictus* mosquitoes, presents symptoms ranging from fever to severe complications, **with 80% of cases being asymptomatic.**

Rationale

In Aden governorate, dengue fever has **become the most common and deadly disease**, with 12,203 cases and 100 deaths reported (45% of total deaths) from 2020 till 7 August 2024 by the Ministry of Public Health and Population (MoPHP).

The available evidence emphasizes the importance of community engagement in conflict and post conflict context , and there is **lack of evidence-based information on the barriers and enablers for community engagement**

Objective

The General objective: To determine the barriers and facilitators for community engagement in dengue interventions and recommend evidence-based strategy for better implementation.

Specific objectives

To **explore the perceptions of key stakeholders**, to gain insights into their involvement in implementing dengue control and prevention strategies.

To **analyze the factors influencing both the hindrances and the success** of community engagement interventions in dengue prevention and control within Aden Governorate.

To **provide evidence-based recommendations** for improving the implementation of community engagement interventions for dengue prevention and control in Aden Governorate.

Research Intervention

- In this implementation research, to **identify barriers and facilitators associated with the current design of community engagement interventions for dengue control, which primarily relies on direct communication with community through door-to-door education by health workers and community volunteers.**

- **Door-to-door education strategy** are currently used for health education in different health issues such as, polio vaccine, malnutrition, and malaria

Methodology

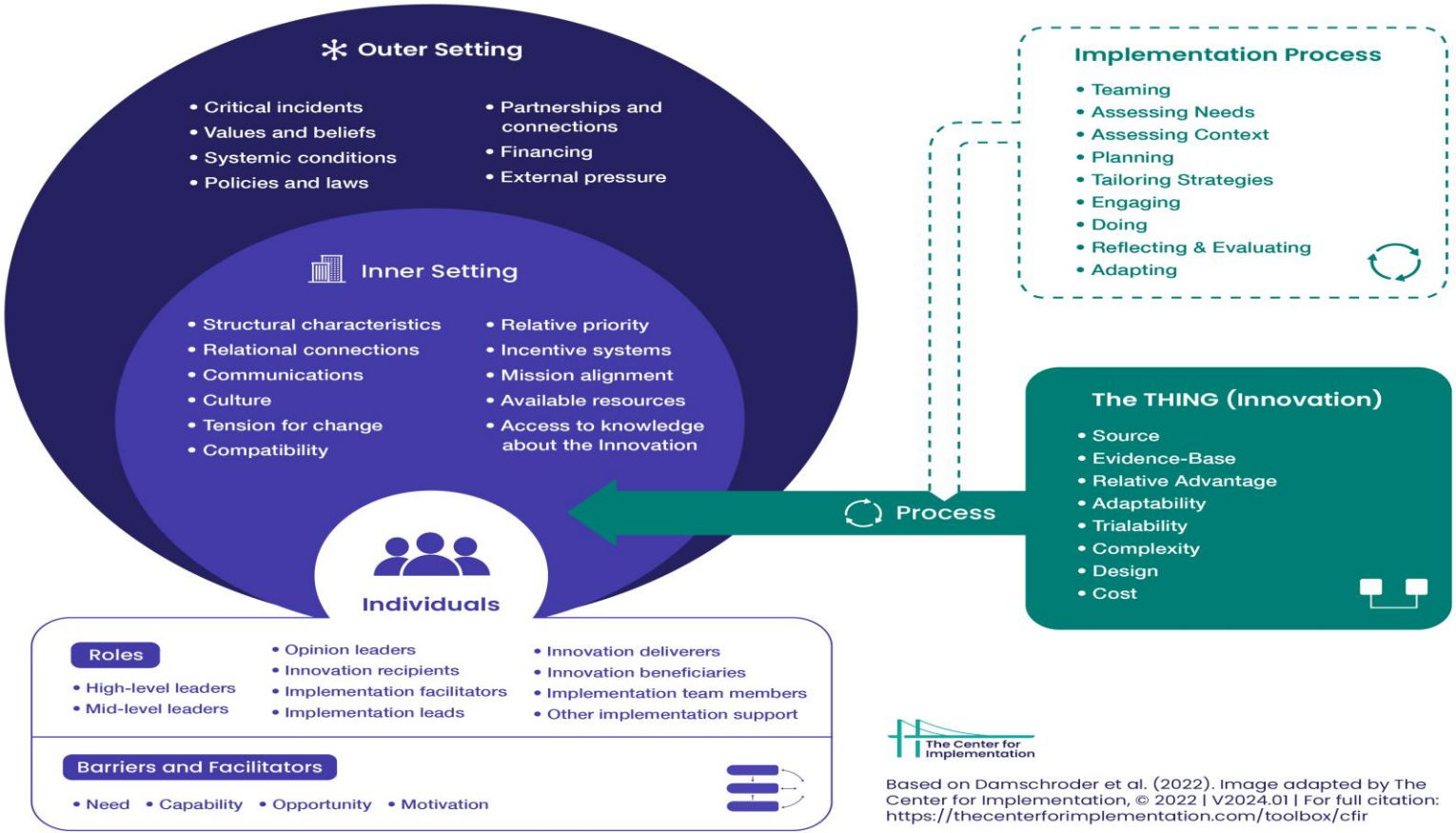
This is cross-sectional study using qualitative approach, conducted from February 2024 to July 2024.

CFIR framework

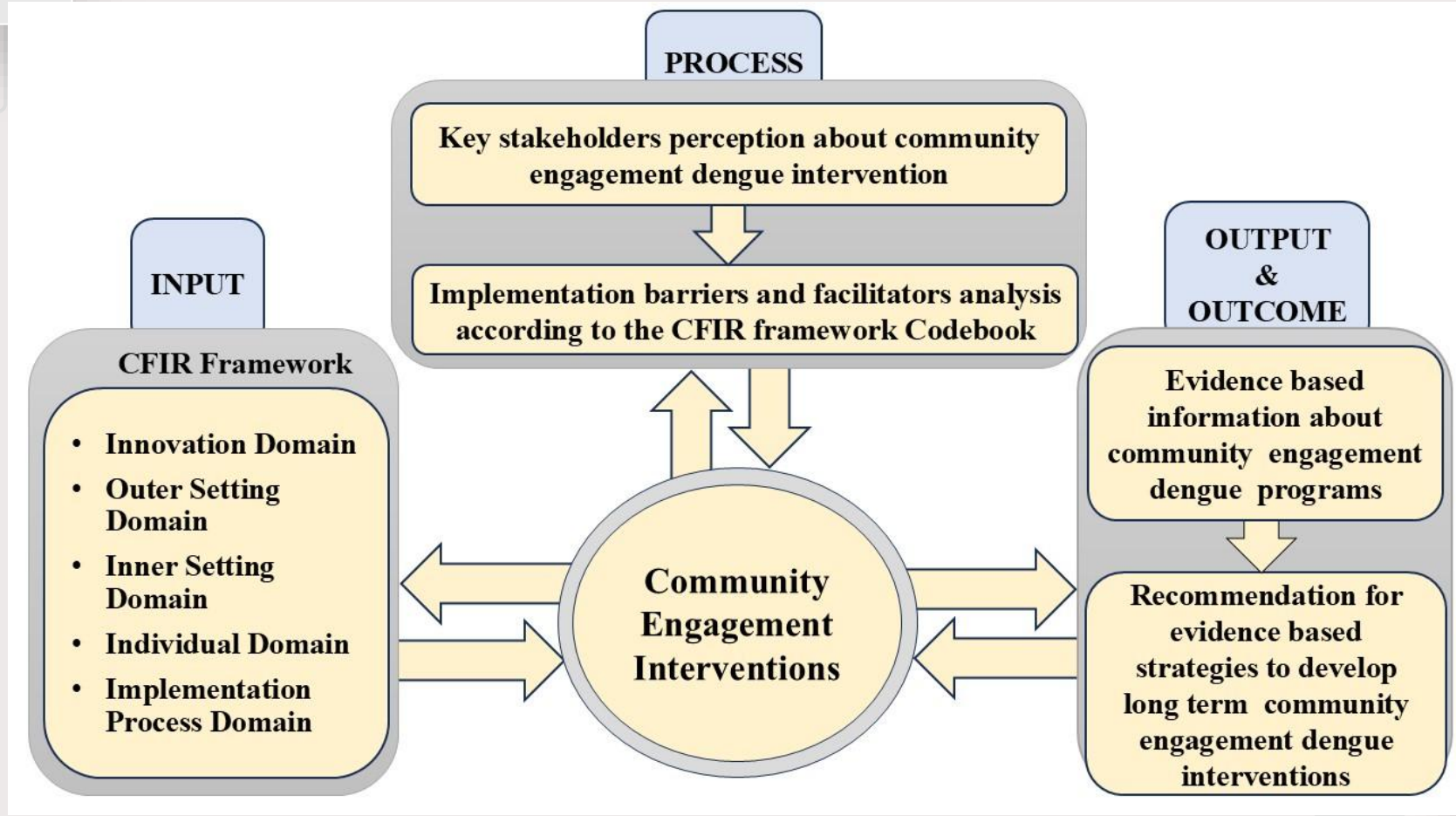
The CFIR Framework is one of the **commonly used tools in implementation science** for investigating the contextual barriers and facilitators of **actual or anticipated outcomes** to the intervention.

The use of CFIR framework started by selecting the constructs and sub-construct that are related to the research objectives which where **28 construct** out of the total 48, and **5 sub-construct** out of the total 19

Consolidated Framework for Implementation Research (CFIR) 2.0



The Center for Implementation



Conceptual Framework for CFIR & Community Engagement Interventions

Study setting:

- Aden governorate **is the largest city of southern Yemen** and it is also the **administrative center.**
- Since 2015, Aden has been the **temporary internationally recognized capital of Yemen.**

Population	**1.14 million**
Internally displaced people (IDPs)	**145,857 individuals**
Geographical location	**positioned along the coast of the Gulf of Aden, the city falls within the tropical region**

Study Population

key stakeholders involved in **community engagement activities** related to dengue prevention and control, including **policymakers, program managers, implementors and community leaders**

- Purposive sampling with snowball technique.

- The qualitative component included 15 IDIs and 4 FGDs to reach the saturation point.

Data collection

- The qualitative data for (IDI) and (FGD) were collaboratively conducted possessing **by the principal investigator and assistant**.

Data analysis

- The qualitative guides were developed in English and translated into Arabic for interviews, interviews have been recorded. The transcribed verbatim into English, and then coded using **NVivo 14 software**. **Content deductive analysis, by CFIR 2.0 codebook**

RE: [EXTERNAL] CFIRGuide: Inquiry

Inbox ×

Reardon, Caitlin M. <Caitlin.Reardon@va.gov>
to me, VHAANN

Fri, Jan 26, 7:58 PM

Hi Mostafa,

Some of these tools are still in process – I'm attaching a draft of the updated questions + codebook – please don't share outside of your team!

If Angie hasn't already, she can share with you codebooks in NVivo and for Dedoose.

Please reach out if you have further questions!

Best,
Caitlin

From: CFIRGuide Website <no-reply@cfirguide.org>
Sent: Friday, January 19, 2024 1:46 AM
To: VHAANN HSRD CFIR <VHAANNHSRDCFIR@va.gov>

CFIR: Interview Guide Questions & Coding Guidelines

ON	***Innovation:*** The "thing" being implemented (20), e.g., a new clinical treatment, educational program, or city service.	***Project Innovation:*** [Document the innovation being implemented, e.g., innovation type, innovation core vs. adaptable components, using a published reporting guideline (21–24). Distinguish the innovation (the "thing" that continues when implementation is complete) (20,25) from the implementation process and strategies used to implement the innovation (26,27) (activities that end after implementation is complete) (28).]		
me	**Construct Definition** *The degree to which:*	**Prospective Evaluation Interview Questions:** Assessing Determinants of Anticipated Implementation Outcomes	**Retrospective Evaluation Interview Questions:** Assessing Determinants of Actual Implementation Outcomes	**Coding Guidelines** These constructs are specific to the innovation itself, regardless of where it i implemented. As a result, teams must define the Innovation to code accurat Add constructs to capture additional Innovation characteristics not included
n	The group that developed and/or visibly sponsored use of the innovation is reputable, credible, and/or trustable.	Who developed* [innovation]? How credible** is the group that developed [innovation]? *Alternative wording: is sponsoring **Alternative wording: reputable, trustworthy	Who developed* [innovation]? How credible** is the group that developed [innovation]? *Alternative wording: sponsored **Alternative wording: reputable, trustworthy	Include statements about: • The type of innovation source, e.g., external sources, including academi governmental, or commercial entities; internal sources, including indivi groups in the Inner Setting; and/or external/internal sources, where the was co-developed and/or sponsored. • Characteristics of the innovation developers Exclude statements about: • Implementation support and/or facilitation that may be provided by the Source, and instead code to Individuals: Implementation Facilitators or appropriate Role.
se	The innovation has robust evidence supporting its effectiveness.	How robust* is the evidence that [innovation] will be effective in [Inner Setting]? • What are your sources of evidence?**	Thinking back to the time before implementation, how robust* was the evidence that [innovation] would be effective in [Inner Setting]?	Include statements about: • Different types and sources of evidence, e.g., published literature, guide anecdotal stories from colleagues, information from a competitor, previ

Ethical Considerations

The study obtained ethical approval **from University of Aden Research Ethic Committee,**
informed consent from the participants. The study ensured confidentiality, anonymity, privacy, and safety of the participants and their data, in accordance with the **Helsinki declaration**

Results

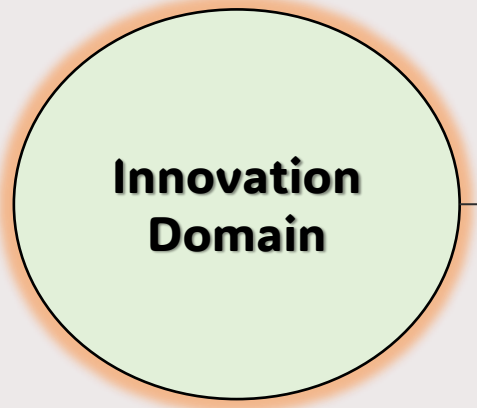
The research results are organized according to the CFIR framework domains and construct related to each domain. which systemically analysed and categorized according to the updated CFIR framework 2.0 codebook

Innovation Domain	Outer Setting Domain	Inner Setting domain	Individual Domain	Implementation process Domain
Evidence-Base	Critical Incidents	Work Infrastructure	Policymakers	Adapting
Relative Advantage	Local Attitudes	Relative Priority	Policymaker need	Teaming
Innovation Complexity	Local Conditions	Incentive Systems	Policy maker capability	Assessing Needs
Innovation Cost	Partnerships & Connections	Available Resources	Policy maker motivation	Assessing Context
	Policies & Laws	Access to Knowledge & Information	Implementation Team Members	Planning
	Financing	Communications	Implementation team Capability	
	External pressures	Culture	Implementation team motivation	
		Tension for change	Opinion Leaders	
		Relational		

Participants description

Data collection method	Participant Category	Number of Participant
IDI	Organization consultant	3
	Organization employees	2
	Ministry of public Health and population (MoPHP) employees	10
FGD	Female Community Committee	2
	Male Community Committee	2

Conflict Influence



1. Evidence-Base
2. Relative Advantage
3. Innovation Complexity
4. Innovation Cost

The innovation domain theme is investigating perceptions of key stakeholders about four core component of community engagement intervention

1- Evidence-Base

Participants acknowledge the importance of community engagement interventions, citing their personal experiences. However, no scientific evidence has been cited and most of the participants expressed lack of evidence-based knowledge.

2- Relative Advantage

Participants think, community engagement interventions **as community-driven, and aligned with community needs.** Nevertheless, community committee members and MoPHP employees **expressed doubt about the effectiveness and the purpose of current community engagement activities**

> *." it is just a formality, nothing more or less "*
>
> MoPHP

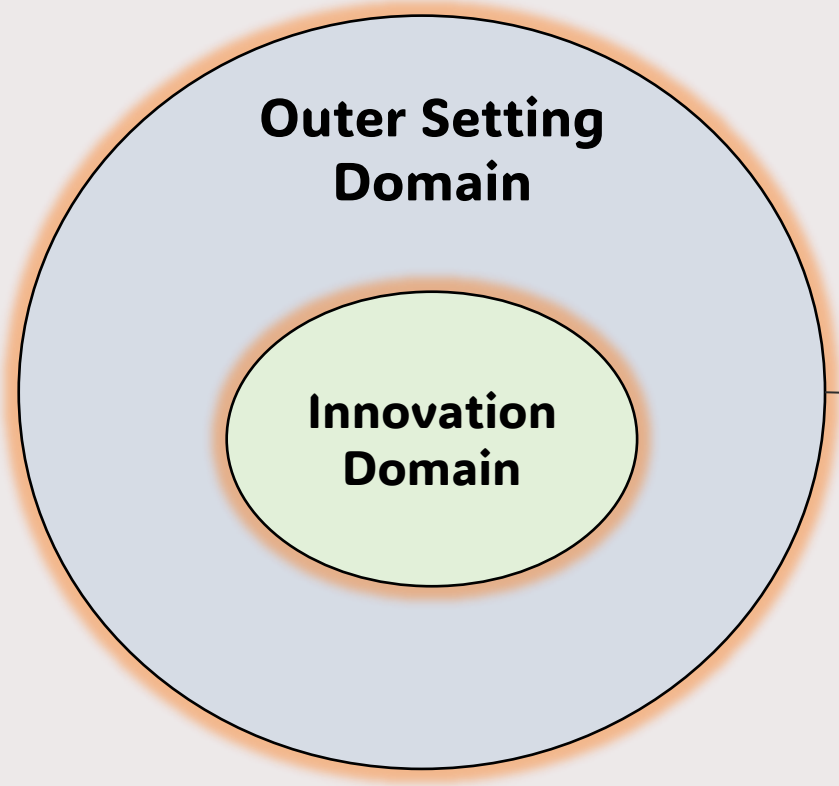
3- Innovation Complexity

Did not perceive complexity, and **they identified external complexity factors** including : *lack of financial budgets, negative impact of social media, and* ***lack of trust*** which is **interestingly, connected from the community committees' participants with the presence of different health problems such as health serves availability, patient doctor relationship, hygiene of health centres and price /quality of difference of drugs.**

4 Innovation Cost

Generally considered as low-cost intervention compared to other dengue prevention and control methods

> *"Involving the community is easy and difficult at the same time and is **considered the cheapest cost**"*
>
> NGOs Consultant



1. Critical Incidents
2. Local Attitudes
3. Local Conditions
4. Partnerships & Connections
5. Financing
6. Policies & Laws
7. External pressures

This theme is to determine the macro-level elements that influence intervention and shaped of or from inner setting theme

1- Critical Incidents

Critical incidents that's may lead to stop the community engagement interventions.

The conflict situation and its effect on community engagement through the following five reasons:

1- **Security problems**

2- **Duality of Government Authorities**

3- **Internally Displaced Person (IDP) Movement and Illegal Immigration**

4- **Sewage and WASH Services Problems**

5- **Interrupted Funding**

2- Local Attitudes. (Good Attitude but…)

The **conflict situation negatively impacts community behavior**

Participants **debated the root causes** of this behaviour change.

Economic need created from conflict

MoPHP
Community Committee

Consequence of negative humanitarian interventions design

NGOs Constant
Community Committee

3- Local Attitudes ⟷ Local Conditions

Economic need created from conflict

Politicization of health

Environmental causes

3- Local Attitudes ⟷ Local Conditions

Politicization of health

"Politicization of healthcare is a problem. It becomes a battleground for different parties. For instance, if a particular party controls the health sector, individuals manipulate it for their party's benefit."

Male Community Committee

4- Partnerships & Connections

Occurs through **health clusters**, The **legalization policy of connection and partnership is not activated**. Each participant category **have their own issue with connection**

Issue of trust and communication between government sectors (One data base)

NGOs Constant

One district are satisfied about their connection with district health office and the others are not

Community Committee

Partnerships & Connections

*“ We have a **WhatsApp group** whose members are from relevant supporting organizations and specialized government agencies. We started it in 2022, and the response to it was great during the vaccination campaigns.”*

MoPPH-NEIP

5- Policies & Laws

Unaware of any information related to current health policy or regulations related to community engagement.

Public health law that regulate health system.

Old regulation explained in details the role of community in health

NGOs Constant

New regulation from Aden governor to establish community committee work as partnership between community and Aden governorate

MoPPH- Aden Health Office

6- Financing

Opportunities **for securing funding from NGOs and business owners**. Concerns about **lack of interest and vison** from MoPHP on SBC and **low quality of interventions proposals**.

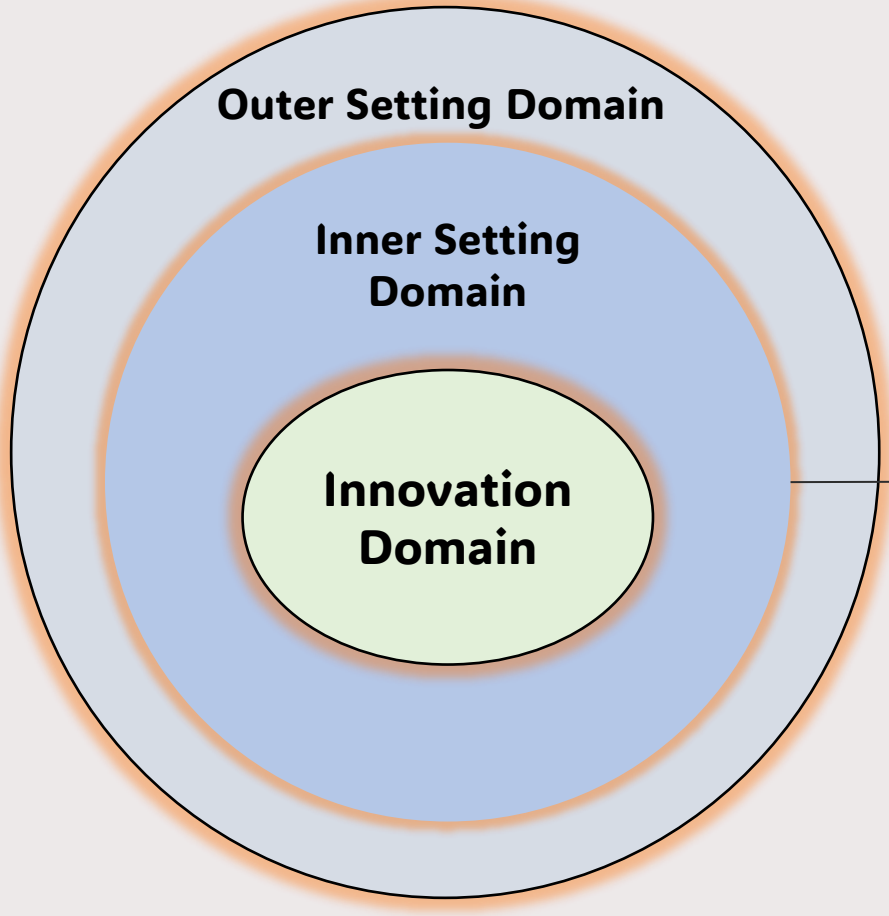
7- External pressures

Increase dengue incidence and **NGOs** interest on SBC interventions in addition the **availability of community** participation **concepts** before.

Positive pressure

Financial problems and spread of **rumors**.

Negative pressure



Conflict Influence

1. Work Infrastructure
2. Relative Priority
3. Incentive Systems
4. Available Resources
5. Access to Knowledge & Information
6. Communications
7. Tension for change
8. Culture
9. Relational Connections

The inner setting referring to the micro-level where the community engagement intervention implemented

1-Work Infrastructure

Lack of institutional work for community engagement interventions.

This lack of structure led to **conflicts between health bodies.**

Challenges in selecting community **volunteers, such as, favoritism, friendship, relative or money benefit** . **40-50%** of the total health volunteers

1-Work Infrastructure

"This issue arises due to living conditions. When volunteers are needed to spread a health message, we find that people ***bring their relatives****. We try as much as possible to make the percentage less than 50%,.* ***I do not say that there is no corruption*** *or deficiencies in Aden Governorate, this thing exists."*

MoPHP – Aden Health Office.

2- Relative Priority

Priorities differed between **health authorities**, this is affecting the **work of funding organizations**

The NMCP **priorities prevention effort** and fogging and considering the community engagement interventions as a secondary option.

WHO is mainly supporting the prevention effort through fogging and bed net distribution

Health Education and Information Program **prioritized community engagement .**

UNICEF priorities community engagement and SBC interventions on diseases other than vector-borne diseases

3- Incentive Systems

Depending on community volunteers, who receive incentivize for their work. Participants think **moral incentives and personal recognition** workshops and training for the people participating on community engagement interventions can also play role to motivate community volunteers

3- Incentive Systems

*“Success in campaigns often reaches high levels. **Why don't we see recognition and appreciation for those who contributed to this success?** We see plenty of recognition ceremonies, but those contributing to achievements are overlooked. We don't seek personal glory, but some are rewarded financially, **while others would appreciate a certificate of appreciation to motivate their efforts**.”*

Male - Community Committee

4- Available Resources

Reliance on international funding for community engagement.

Participants suggested that government could provide additional funding ***through taxes, and that community participation could encourage business owners and charitable to contribute to health interventions***

5- Access to Knowledge & Information

Participants **expressed their need of training and resource, including toolkits and guidelines** on community engagement

*"We have **not received any training in this area**, but we have acquired knowledge and **skills through self-improvement**."*

Academic NGOs Consultant

6- Communications

Friendly communication is more dominant, However the communication intensity increased when the dengue season start

7- Tension for change

Conflict consequence makes community engagement the best solutions and absence of operational budget make more tension to that.

8- Culture

Organization employees **generally reported positive experiences**, while government employee **expressed concerns about lack of collaboration, commitment to policies and qualified people.**

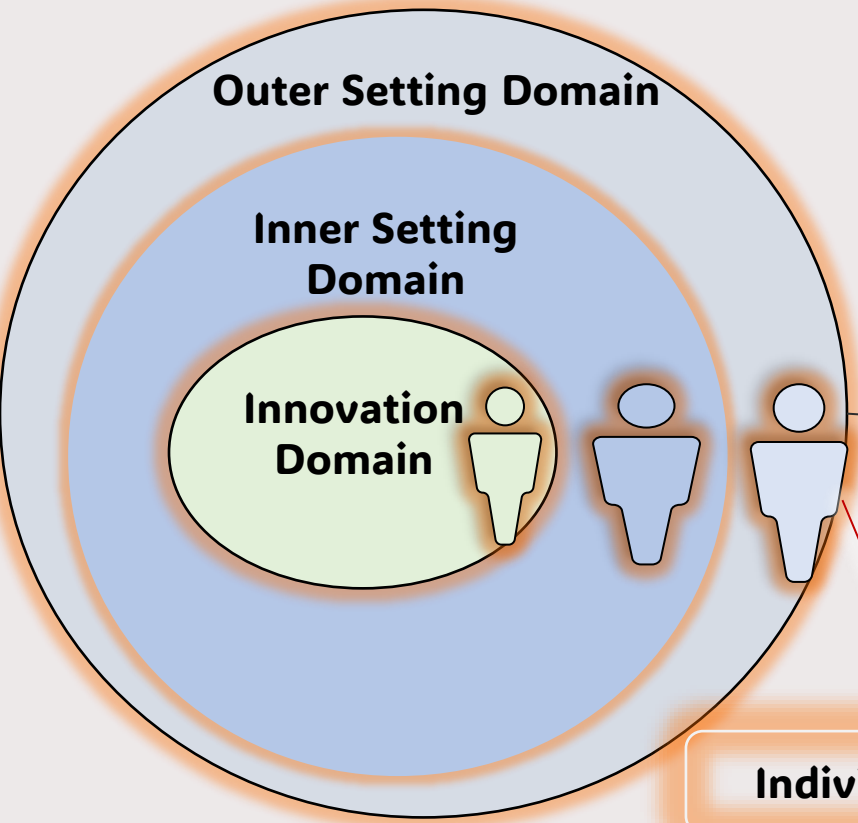
9- Relational Connections

The relationship at the inner setting of community engagement interventions various from one level to others and from different people at the same level of work, generally it appears there is a kind of good friendship and mutual respect

9- Relational Connections

“We are working to create a team spirit where the work is friendly, but I don't think we have reached the point of working as one team yet.”

MoPHP-NMCP



1- Policymakers
- 1.1 -Need
- 1.2 -Capabilities
- 1.3 -Motivation

2- Implementation Team Members:
- 2.1 - Capabilities
- 2.2- Motivation

3- Opinion Leaders

Individual domain

This theme is focusing in the roles of individuals and characteristic of people involved at community engagement interventions

1-Policymakers

Considered the decision of implementing community engagement intervention as multisectoral responsibility

MoPHP category

It's a Ministry of Public health and Population MoPHP responsibility then Aden health office and local authority (governor) responsibility

Community committee category

1.1 Policymakers - need

Community engagement intervention **aligned with policymakers needs** and serve their interest **because it will decrease morbidity and mortality rate.** With **doubt in the implementation aspect because of financial burden.**

1.2 Policymakers - capability

Organizations consultant believe in lack capability of policymakers, While others not

“I think there is a gap here, especially the gap with a high probability of not understanding the new approach adopted by many countries, which is behavior change communication. There is a strong possibility that a need for capacity building in this area is present”

Academic NGOs Consultant

1.3 Policymakers – motivation

Participants **opinion fluctuated;** some believe policymakers are **not motivated**, while others think **they motivated** or **conditionally motivated** if the financial aspect is present or the epidemiological condition shows high incidence

“They are only motivated when external entities like NGOs incentivize them”.

Committee members

1- Implementation Team Members

Participants identified **health volunteer and community committees as key players** with importance of collaboration role with governorate and district health office and other related sectors

1.1 Implementation Team - Capability

Participant opinions **change from one to another** some of them believe they have the capability and others don't
(they need training)

"As a government, they are experienced, each in their field. As for organizations, the situation is different. They may be experienced and competent, but they may also be young and hardworking. These differences exist in any system.

NGOs Employee

1.2 Implementation Team - motivation

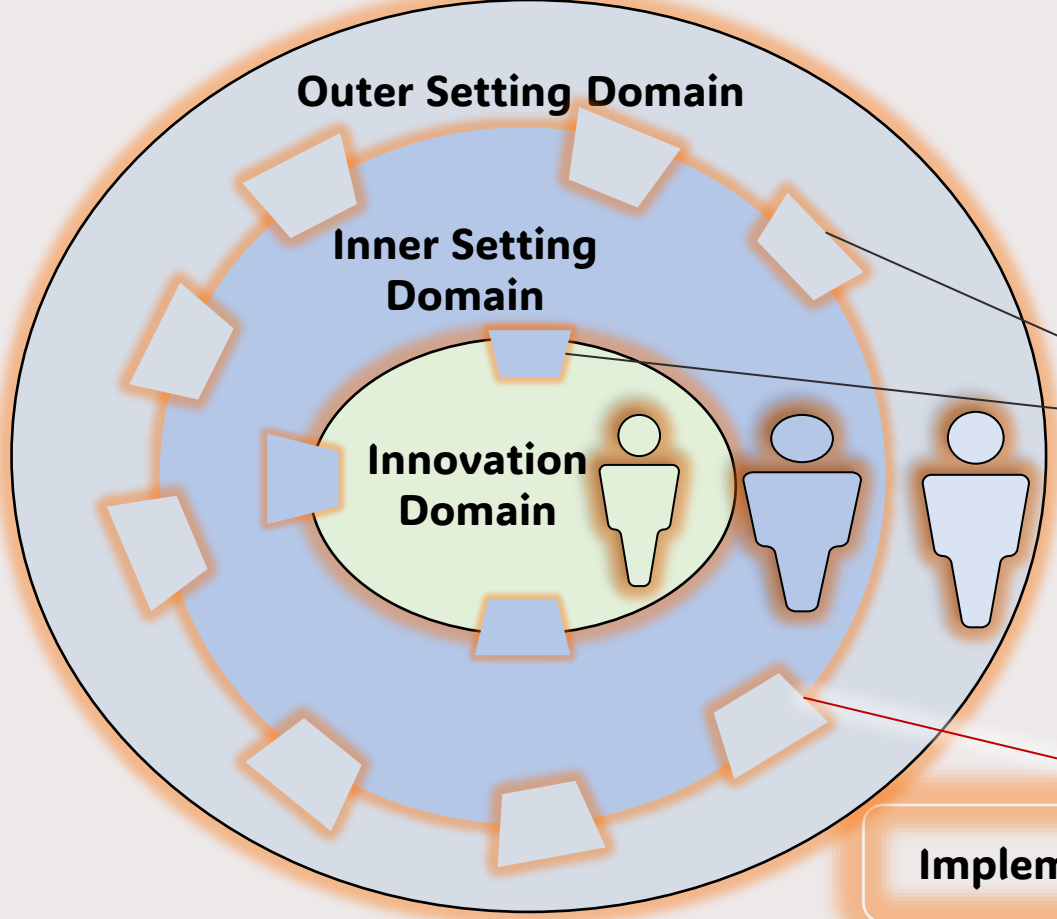
Participants think that **implementation team are generally motivated with effect of the financial return and epidemiological** situation on their motivation level

“experience pain or feel and touch the pain experienced by individuals and families through these infections, their level of enthusiasm increases somewhat. However, reservations, motivation, readiness, and willingness increase even more when you make their need a priority. Also, when they work in the field, their personal income increases “

NGOs Consultant

3- Opinion Leaders

Participants recognize individuals as **Prime Minister office, Aden Governorate local council and Aden Governor** have the current influence on the policy makers and implementers. In addition, participants think **religious people** have the influence in the community engagement



1. Teaming
2. Assessing Needs
3. Planning
4. Assessing Context
5. Adapting

Implementation process Domain

The goal of this domain is to measure the extent to which specific activities and strategies occur during implementation and how they influence outcomes

1- Teaming

Participants noted a **lack of consistent coordination** and collaboration among sectors. **A major issue affecting teaming during implementation is implicit nomination** of some individuals to be part of the implementation team ,their relatives, friends, or from political parties.

*“Yemen is going through several problems, the most important of which are **primarily political**. As a result, some individuals do not prioritize the public interest over private interests, and this constitutes a major obstacle in the matter of coordination.”*

NGOs Employee

2- Assessing Needs

Participants emphasized the **importance of having clear plan** and objectives for engaging the community in dengue control , and **importance of having capacity building** on community engagement for dengue control.

*"The first priority is **good coordination** between the National Malaria Control Centre and the Health Education and Information Center. Second, **building the capacity** of the National Health Education and Information Center staff to combat vectors in general. Third, training volunteers and community figures on dengue fever."*

MoPHP

3- Assessing Context

Conflict consequences.

Low knowledge of community engagement and SBC concepts.

Barriers

Increased awareness about the importance of community engagement

Increase international organization interest to SBC activities.

Facilitators

4- Planning

“If you look at the plans, some of the most wonderful plans exist in Yemen, ***but they are not realistic or implementable****. However, when making a simple and implementable plan, the situation can be adapted accordingly.”*

MoPHP – Aden Health Office

5- Adapting

Enhancing collaboration and social behavior change concept by developing clear policies .

Encourage Community Ownership by increasing community roles in health

Inner setting adaptation

Utilize available human and material resources .

Improve community communication methods

Intervention adaptation

Discussion

Discussion

Exploring the perceptions of key stakeholders regarding their involvement in implementing community engagement interventions for dengue prevention and control	Innovation domain
Analyzing the factors influencing barriers and facilitators of these interventions within Aden Governorate	Outer, Inner, and Individual domains
Providing evidence-based recommendations for improving the implementation of community engagement interventions	Implementation Process domain and other research studies

Innovation Domain Summary

National and international evidence **supports community engagement for dengue control**, ***particularly in conflict and post-conflict settings***, where it helps prevent infectious disease epidemics. However, participants indicated a lack of evidence-based knowledge and mixed personal experiences with community engagement**. They acknowledged its advantages**, such as sustainability, but also highlighted **challenges like the infodemic, distrust, and financial constraints,** which align with findings from other conflict regions. ***In Yemen, door-to-door education faced issues due to mistrust, infodemic, and security concerns, raising questions about its effectiveness, especially in urban vs. rural areas.***

Outer Setting Domain Summary

The conflict in Aden governorate presents significant barriers to health interventions. These challenges have contributed to increased vector-borne diseases, water and sanitation issues, and the spread of infodemic information, reducing the effectiveness of health interventions.

Local attitudes and economic hardships, such as poverty, have further impacted community interest in health efforts.

Inappropriate intervention designs have negatively affected community cohesion and collaboration, echoing findings from South Sudan and Haiti.

Yemen’s politicized and fragmented health system, weakened partnerships, and reliance on donor support highlight the need for clear political backing and empowerment plans for sustainable health financing. Social media, particularly WhatsApp, has been a successful tool for communication, though challenges such as lack of resources, corruption, and stakeholder uncertainty remain.

Outer Setting Domain Summary

The conflict in Aden governorate presents significant barriers to health interventions, including security issues, transportation problems, and unstable political conditions These challenges have contributed to increased vector-borne diseases, water and sanitation issues, and the spread of infodemic information, reducing the effectiveness of health interventions.
Local attitudes and economic hardships, such as poverty, have further impacted community interest in health efforts.

Outer Setting Domain Summary

Inappropriate intervention designs have negatively affected community cohesion and collaboration, echoing findings from South Sudan and Haiti.
Yemen’s politicized and fragmented health system, weakened partnerships, and reliance on donor support highlight the need for clear political backing and empowerment plans for sustainable health financing. Social media, particularly WhatsApp, has been a successful tool for communication, though challenges such as lack of resources, corruption, and stakeholder uncertainty remain.

Inner Setting Domain Summary

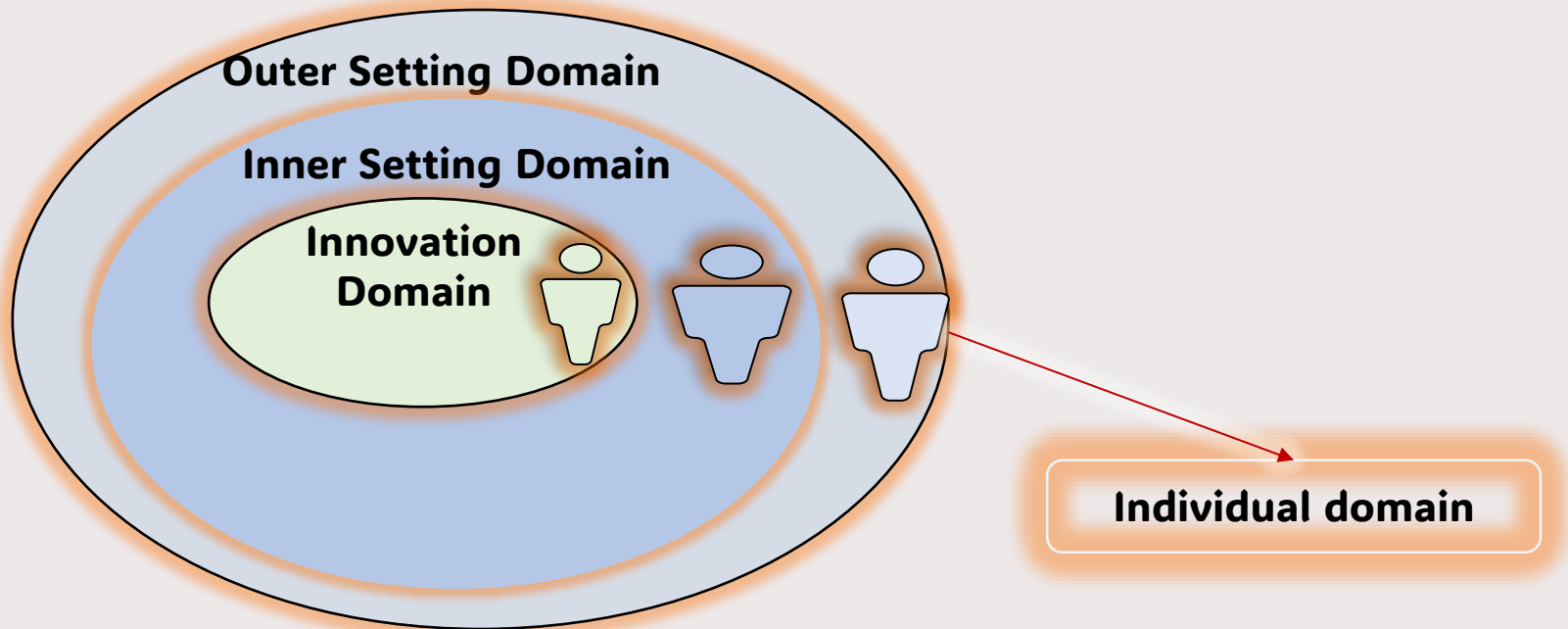
Governance fragmentation between the Houthi in Northern Yemen and the Southern Transitional Council (STC) in the south has weakened the health system, leading to poor communication, management, and institutional inefficiencies. Increased workloads, stress, and economic pressures have further impacted the working culture. In conflict settings, community engagement interventions are often deprioritized. Offering high incentives to volunteers or exceeding salary limits for health workers has negative long-term effects, similar to over-dependence on external aid. While capacity building is emphasized in conflict contexts, national evidence reveals significant gaps. No evidence was found regarding relational connections or tensions to change.

Individual Domain Summary

Limited literature is available to interpret the individual domain in our research. However, participants indicated that health planning and donor fund allocation are primarily managed by policymakers. National evidence emphasizes the role of local health offices and authorities in implementing health interventions, while international evidence stresses involving traditional and community leaders. A lack of motivation among volunteers due to economic needs is noted.

Individual Domain Summary

In conflict settings, the Individual domain is the most dominant due to systemic weaknesses, lack of infrastructure, and governance fragmentation, heavily influenced by policymakers' control of international funds.



Implementation Process Domain Summary

The implementation process is influenced by the four other CFIR domains. Weak coordination between different authorities responsible for community engagement is mainly due to health system politicization and political unrest. Participants emphasized the need for better planning and capacity building to enhance community engagement interventions, echoing barriers found in other conflict settings. Key barriers include lack of resources and personal benefit-seeking, common in conflict contexts. Facilitators include increased interest in community engagement and its proven effectiveness in humanitarian settings. However, long-term planning and clear vision remain challenging in fragile contexts, as noted by participants.

Conclusions

Conclusion

Innovation Domain:

- Community engagement and Social and Behavior Change (SBC) interventions are affordable, resilient solutions for health issues in conflict-affected countries.
- Determining the best strategy based on resources is crucial, with sustainability considered from the early stages.

Outer Setting:

- Aden's outer setting is impacted by political instability, but cultural and religious values align with community engagement.
- Barriers: Weak institutional capacity and heavy reliance on external funding.

Interrelationship of Inner and Outer Settings:

- Conflict affects all constructs, leading to health system fragmentation and corruption.
- Facilitators: Moral incentives, personal recognition, business donations, and training can improve settings.

Individual Domain:

- Dominant role due to systemic weaknesses.
- Policymakers, implementers, and opinion leaders are key to community engagement.

Implementation Process

- External pressures affect team spirit; need for a clear plan and supportive policies.
- Barriers: Conflict impact and disbelief in SBC effectiveness.
- Facilitators: Global interest, cultural values, and successful experiences.

Recommendation

Participants' Recommendations:

Participants emphasized strategies to implement and adopt community engagement interventions:

Inner Setting Adaptation Strategy:

- Foster political commitment.
- Secure support from business owners.
- Establish a clear communication and coordination plan.

Innovation Adaptation

- Utilize available human resources, including students, religious leaders, community leaders, and political parties.
- Improve community communication methods.

Evidence-Based Recommendations:

1. **Early Initiation**: Start community engagement and social behavioral change (SBC) interventions early
2. **Engagement Approach**: Involve community members in intervention design and planning.
3. **Security Concerns**: Strengthen local communities by engaging individuals able to collaborate with all stakeholders despite security challenges.
4. **Cohesion Focus**: Promote cohesion between local communities and IDPs, considering the local context to avoid exacerbating issues.
5. **Policy Enhancement**
6. **Government-Donor Agreement**
7. **Building Capacity**
8. **Monitoring and Evaluation**

Research Strengths & Limitations

Strengths:

- This is the first implementation research in Yemen utilizing the CFIR framework.
- The research investigator's experience as a malaria program coordinator significantly facilitated the proposal development and data collection process, providing continuous motivation throughout the study.

Limitations:

- **The research faced challenges in data collection, notably the inability to meet with the Social and Behavioral Change (SBC) team at the UNICEF office in Aden, despite multiple requests from February to May 2024.**
- Data analysis was conducted solely by the researcher, with guidance from advisors, and was constrained by time and resource limitations.

Field Memory

1

VAHEDI, Mahn... Thu, Mar 30, 2023, 11:27 AM

to me

Please contact my colleague, Dr AL-ERYANI, Samira aleryanis@wl
who is also Yemeni to assist you with local supervisor and mentorsl
your project as part of your Masters programme.

Thank you and kind regards

Mahnaz

Mar 2023

2

Research Findings on Dengue and Secondary School Engagement - Seeking Your Advice and Comments

mostafa deban <mostafa.d2012... Sun, Jun 18, 2023, 5:01 PM

to Adel, Abdullah

,Dear Dr. Adel and Mr. Abdullah

Jun 2023

I hope this email finds you well. I wanted to share with you some research fi
I recently discovered regarding the relationship between dengue and second
school engagement. Additionally, I have attached a first draft of an interventi
proposal and would greatly appreciate your advice and comments on it

3

TDR master student candidate-Dr. Mustafa Deban Inbox ×

AL-ERYANI, Samira <aleryanis@who.... Sun, Nov 12, 2023, 1:11 PM

to me, Abdullah, Adel, Ghasem

Dear Dr. Mustafa,

I hope this email finds you well.

It was a pleasure meeting you in Aden last month and discussing the important work/project for community engagement/schools in vector control activities namely source reduction of mosquito breeding. Yesterday, I met with Dr. Hoda Basaleem in Cairo, your local supervisor in Yemen, who has informed me that the proposal/project for implementation is progressing. As discussed we are available to provide the technical guidance needed during the preparation and implementation phase and we would like to have a call for further discussion and update sometime next week if possible or early December.

Nov 2023

4

Discuss the master project for community engagement for Dengue control in Aden Inbox ×

AWASH, Abdullah <awasha@who.int> Wed, Nov 22, 2023, 3:32 PM

to Samira, Adel, me, Huda, hudabasaleem92@yahoo.com, Ghasem

Nov 30 Thu

Discuss the master project for commun...

View on Google Calendar

When Thu Nov 30, 2023 11:30am – 12:30pm (GMT+3)

Where Microsoft Teams Meeting

Who AL-JASARI, Adel, Huda Basaleem, ZAMANI, Ghasem, AL-ERYANI, Samira, hudabasaleem92@yahoo.com

Agenda

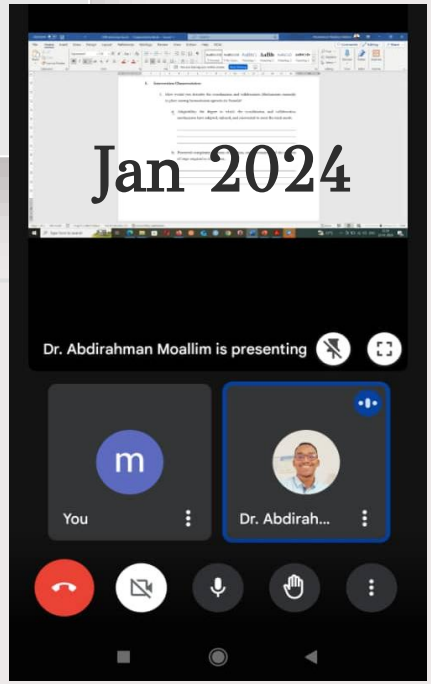
Thu Nov 30, 2023

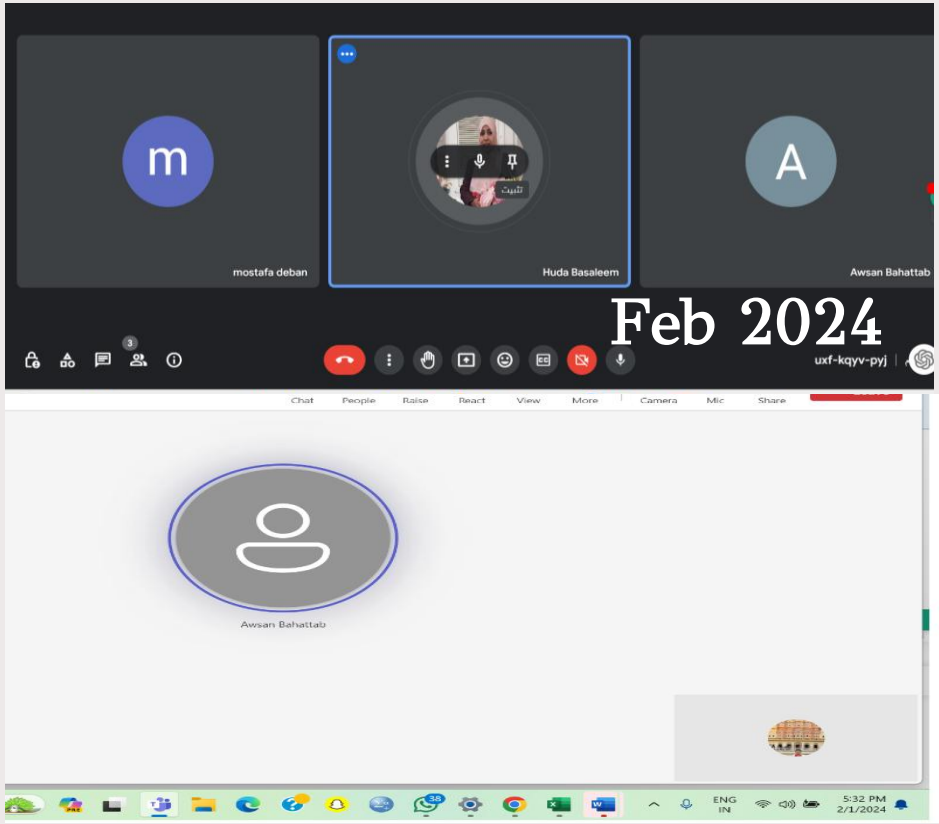
No earlier events

11:30am Discuss the master project for commun...

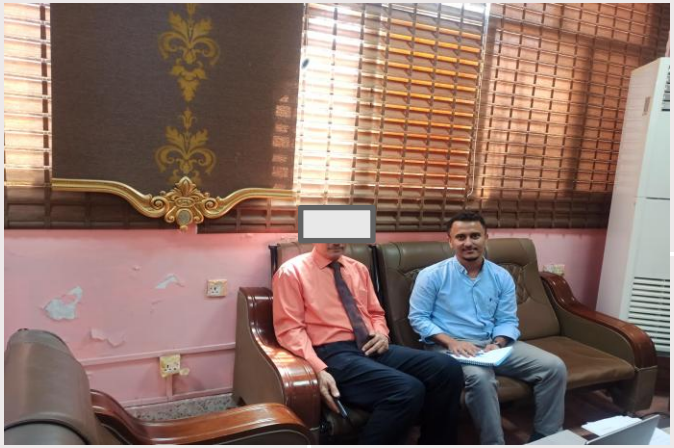
No later events

Nov 2023


Jan 2024
Dr. Abdirahman Moallim is presenting
You
Dr. Abdirah...


mostafa deban
Huda Basaleem
Awsan Bahattab
Feb 2024
uxf-kqyv-pyj
Chat
People
Raise
React
View
More
Camera
Mic
Share
Awsan Bahattab


Rimaz Dawelbait
صباح الخير
1:16 PM
هو انا لسه م كملت كتابه طبعا متأخرة جدا... بس
مستخدمه CFIR
1:16 PM
طيب حلو..
اشرحلي شويه كيف ال
Individual domain
عامل كل التأثير ده؟؟ يعني ايه اللي خلاه من دون
بقيه الدومينزز انه يعمل الحيرة دي او السؤال ده؟
7:01 PM
Monday
طيب جميل.. بدأت افهمك اكتر
2:40 PM
Oct 2024
Message



Field Picture


participation
included
including
policy
organization
interventions
education
resources
healthcare
humanitarian
children
population
national
participants
affected
framework
research
response
review
however
implementation
conflict
evidence
analysis
programs
medical
studies
settings
government
treatment
study
conflict
water
impact
information
system
control
disease
access
cluster
yemen
political
outcomes
public
facilities
women
among
covid
local
level
sector
social
areas
fever
child
needs
based
table
world
within
using
years
quality
results
health
populations
human
article
cases
number
community
armed
mental
related
country
development
dengue
https
people
service
accessed
available
workers
program
services
systems
countries
intervention
engagement
international
challenges
participant
process
prevention
support
global
governorate
approach
communities
reported

Thank You..