

NCD Symposium

Empowering sub-Saharan African communities to explore cardiovascular disease (CVD) risk perception and develop communication strategies for CVD prevention: the Citizen Science Approach

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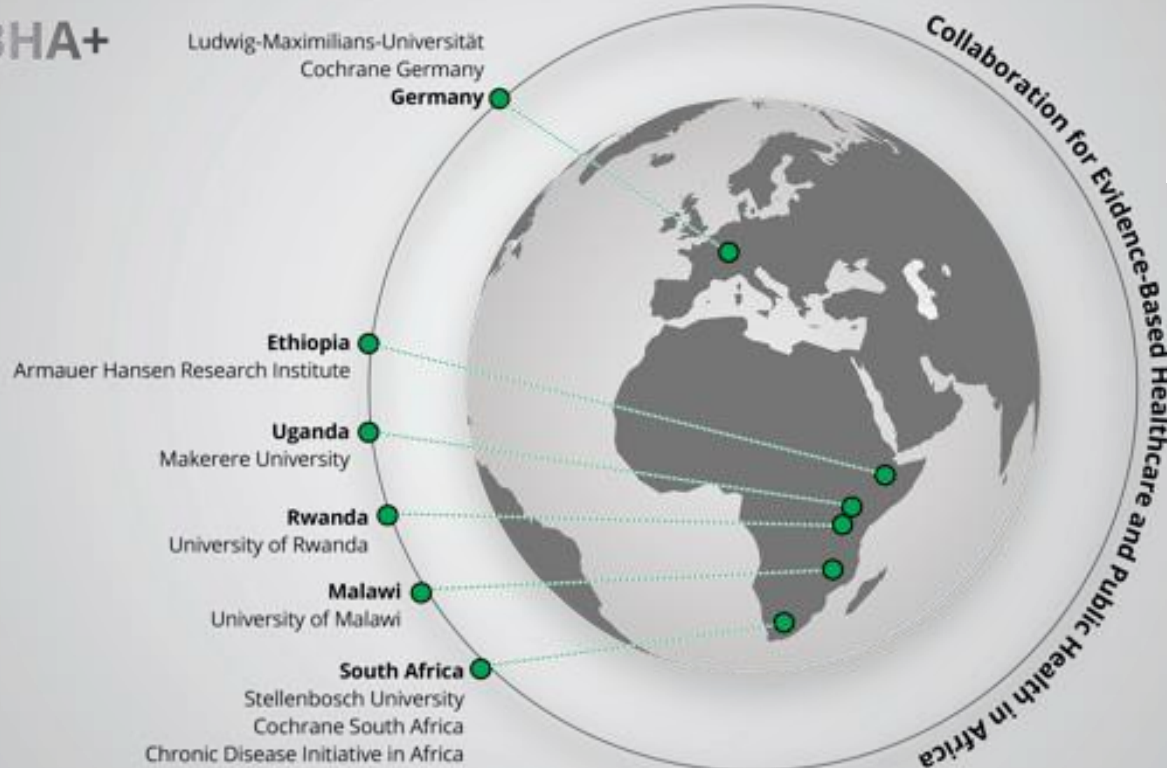


CEBHA+ Project Partners/Sites

(Collaboration for Evidence-Based Healthcare and Public Health in Africa)



Federal Ministry
of Education
and Research



CEBHA+



Background

- **Globally, cardiovascular disease (CVD) is responsible for > 18 million+ annually (1).**
- **8/10 persons with CVD live in poor communities in LMICs ,esp in sub-Saharan Africa**
- **Screening and referring at-risk persons for care is recommended**
- **Many in sub-Saharan Africa do not have knowledge about CVD(4)**
 - ***They are often not aware of what causes it, and how it can be treated and prevented;***
 - ***they equally have poor CVD risk perceptions and health seeking behaviours (5-6)***

Introduction: CEBHA+ Research Task 1

GOAL:

Provide evidence-informed policies and practices on screening approaches for those at risk of CVD in sub-Saharan African communities

Citizen Science Project Focus

Goal:

Engaging communities to explore CVD risk perception and developing communication strategies for CVD prevention in sub-Saharan African communities (Malawi, Rwanda, Ethiopia and South Africa)

Objectives:

- To explore how individuals in African communities perceive, interpret and communicate health risk.
- Training citizen scientists to gather, analyse and interpret data on CVD risk perception and communication in the community.
- Conduct citizen-scientist-led community advocacy with relevant stakeholders.

What is Citizen Science?

Citizen Science refers to a 'By the People' systematic approach to building healthy communities.

Community members are empowered to:

- document their physical and social environment,
- synthesize and analyze their own data,
- and use their findings to identify potential solutions to local challenges, and advocate for change.

Ref:

Citizen Science Approach

Discover



cover aspects of the community that impact

Discuss



Discuss findings with

Advocate

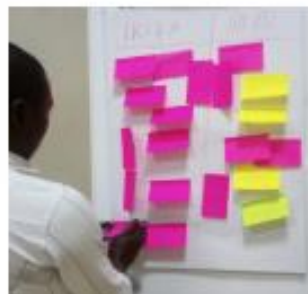


Advocate for local

Change



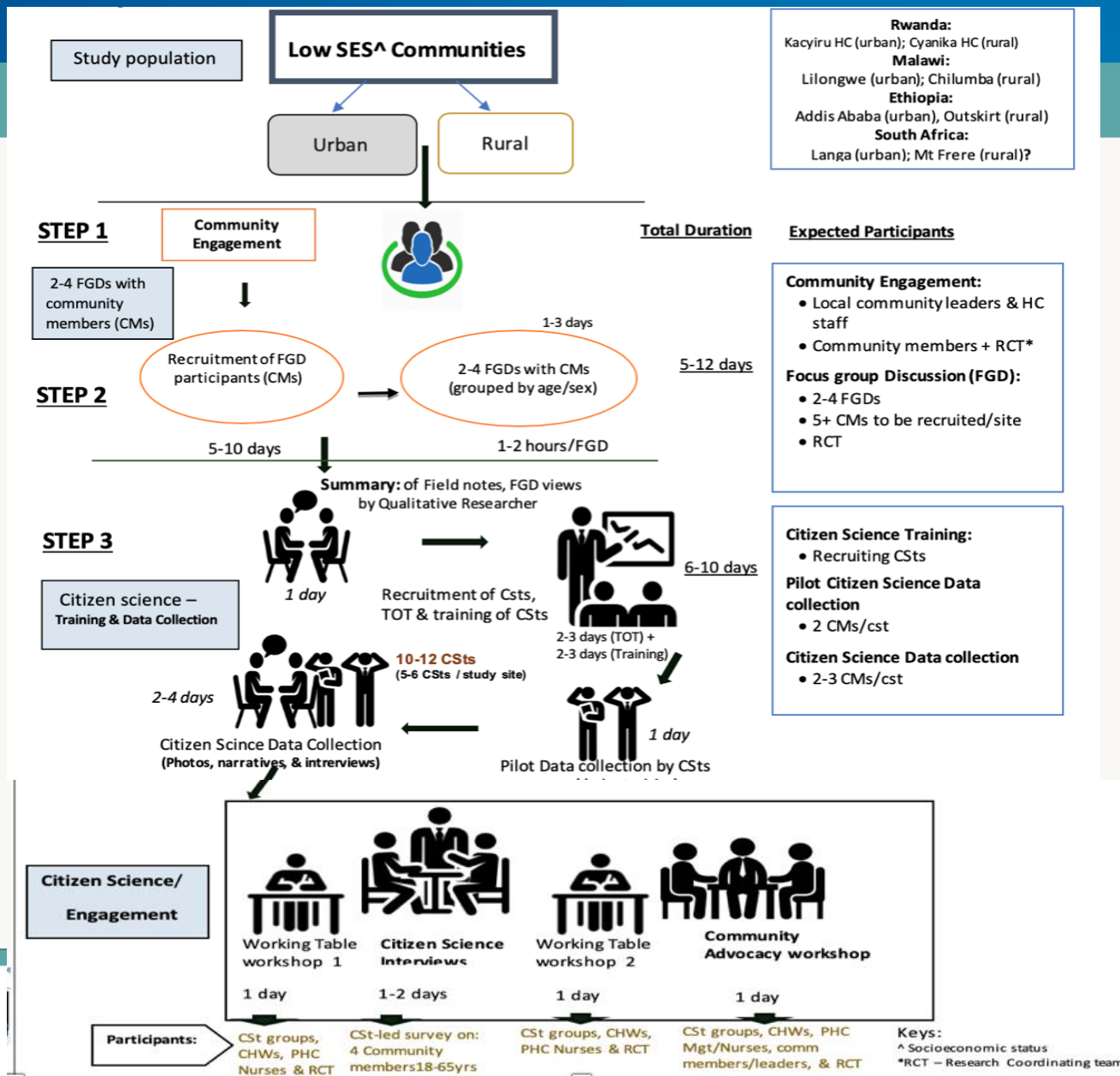
Create healthier communities



We acknowledge:

Abby King and her team - Global Citizen Science Network for Health Equity ("Our Voice") led by the Stanford Prevention Centre, Stanford University, USA. <http://med.stanford.edu/ourvoice/the-global-network-right.html>

DESIGN/METHODS [FLOWCHART]



Citizen Science Process – for CEBHA+

CDIA – RT1 CEBHA Tool – Date Revised – FINAL Version, Sept 2019

Lead Citizen Scientist in Adama Urb
Risk perception, communication St



CEBHA+ CVD Risk Perception and communication Study

Citizen Science Questions (EpiCollect Data Collection)

Instruction: We should not take picture(s) of a person showing his/her face. Permission should be taken– if picture would involve one's part of the body example the hands, leg, etc.

Study Unique ID: _____ Name of your community: _____ Location: _____
Sex: Male, Female; Age (years): _____

1: Take a picture of anything around you that you think can affect the health of your heart or that of others?

Why do you take this picture? Is it good or bad?

2: Do you know any heart-related disease? Please, name some you may know of.

3a: Do you know relatives or friends ever sick of any heart-related disease – such as hypertension, stroke, heart attack? Yes/No. If say 'No', move to Question 4a.

3b: Take a picture of something that you think could cause these heart diseases. Tell us more about this picture. Is it good or bad?

4a: What do you think could make you feel strongly that you may develop heart-related disease – hypertension, heart attack or stroke? Take a picture, if possible.

4b: What do you think can make you feel strongly that you may NOT develop these heart diseases?

Please **take a picture of any** of the things mentioned in 4b. Tell us more about these pictures.

5a: How would you want the message to be presented to you about the possibility that someone your age, who is healthy today might be very sick (or die) of heart-related disease later in life?

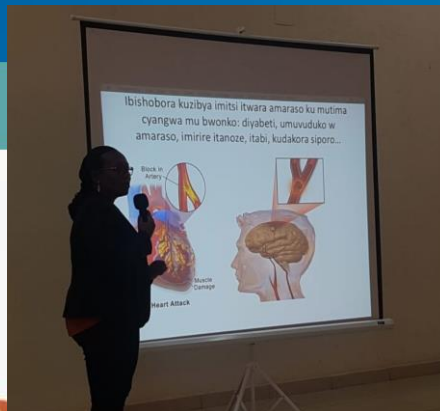
**5b: If a community health worker refer you to a nearby health centre after screening you for heart disease, would you be willing to go for some check-up?
Give us a reason for your answer.**



a walk-along interview at Adama Rural



1-DAY ADVOCACY WORKSHOP/MEETING



Following data extraction and presentation of findings:

Stakeholders, CSTs & project team discuss implications and strategies on how to communicate risk

RESULTS/ EXPECTED OUTCOMES

Qualitative findings (FGDs/Pilot survey)

Ethiopia

Themes	Rural	Urban
General: Disease, health, Heart, CVD	*Malaria, Typhoid, skin disease, etc. *Awareness/ knowledge regarding CVD is very low	*Malaria, hypertension, diabetes. *High awareness/ knowledge regarding CVD *limited knowledge regarding CVD - among
Perceived threat: Vulnerability/Threat	*Heavy work (farm work/long hours in the sun, hauling loads) *Majority – Not vulnerable	*People are exposed to various factors *Unbalanced diet (fatty foods), drinking Khat, and high intake of coffee are considered as possible risk
Concept of Risk: (Disease and possible harm)	*Concept of risk was difficult to understand *People do not perceive risk of disease	*Concept was difficult *learned ones had associated risk with CVD
<div> <ul style="list-style-type: none"> Conceptualizing health risk was unclear. CVD risk perception was poor: CVD was associated with witchcraft, hard work and poverty, especially in rural communities. </div>		
...harmful – if it affects daily routine activity; make one bed ridden ; clinical impact (urban); long time to recover; incurable ; potential to result in death		
Health Seeking Behaviour (Behavioural responses)	Visit traditional healers and religious places for heart related diseases/issues (including psycho-social challenges)	
Communication: (Interpretation/Presentation)	Attached colours to specific diseases Yellow – jaundice (liver disease) White – paleness (anaemia) Red – vitality (blood)	Red colour – life threatening , very harmful event Green/white - indicates less harmful

Malawi

Themes	Rural	Urban
General: Disease, health, Heart, CVD	*Blood pressure (hypertension), and stroke considered harmful. good knowledge of NCDs generally - cancer, epilepsy/Asthma	*Heart disease, CVD
Perceived threat: Vulnerability/Threat	Low understanding of risk Dietary intake/behaviour Poverty considered a health risk/risk factor CVD	Smoking, alcohol are looked as harmful to the heart *Poverty – intake of cheap food
Concept of Disease (Disease as harm)	• Colours were associated with specific diseases and severity levels; Red colour - attributed to life threatening events; could mean vitality and good health (in one rural community). • Green, amber, white were attributed to specific diseases, whereas black colour often link with death.	Risk presentation/communication - difficult Heart is likened to a motor vehicle? A person's body Knowledge on risk, prevention and treatment limited
Health Seeking: (Behaviour intentions)	High risk/harm is associated with death and severe signs and symptoms	Short term or frequent illnesses, HIV/AIDS,
Communication: (Interpretation/Presentation)	Heart disease is associated with witchcraft. Health seeking - Traditional and religious healers Green = low risk or least harm ; Red = High risk Health workers were the preferred source of communication relating to heart disease.	Through community meetings gatherings/funerals. Community/household outreach/

Participants were willing to attend a clinic if referred by CHW

OUTCOMES: Engagement & Advocacy

- **Trained up to 10 project staff and 25 community members in each country on Citizen science, mobile data collection, advocacy**
- **Over 210 stakeholders in relevant sectors engaged with/ participated in advocacy workshop**
- **Created CVD risk awareness in communities**
- Stakeholders' engagement/advocacy led to planned community-based health promotion campaigns including screening for hypertension
- **Impact was felt at local, regional and national levels**

Overall:

- **Participatory Stakeholders' /community engagement and advocacy using Citizen Science approach can be harnessed to support community-led advocacy for CVD intervention**

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