How to Integrate
Community Based Surveillance
into Community Resilience Programs

Good practices report

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Acknowledgements

Abbreviations

CBHFA	Community based Health and First Aid
CBS	Community-based Surveillance
CHW	Community Health Workers
COVID	Corona Virus Disease
CR	Community Resilience
DRR	Disaster Risk Reduction
ECV	Epidemic Control for Volunteers
IFRC	International Federation of the Red Cross and Red Crescent Societies
KRCS	Kenya Red Cross Society
NCD	Non-Communicable Disease
NS	National Society
ORP	Oral Rehydration Points
ORS	Oral Rehydration Solution
PMI	Palang Merah Indonesia, Indonesia Red Cross
PPE	Personal Protective Equipment
RC	Red Cross / Red Crescent
SGBV	Sexual and Gender Based Violence
SMS	Short Message Service
UNISDR	United Nations International Strategy for Disaster Reduction
URP	Urban Resilience Project
VCA	Vulnerabilities and Capacity Assessment
WASH	Water Sanitation and Hygiene
WHO	World Health Organization

1. Introduction

Community resilience (CR) is "the ability of communities -and their members - exposed to disasters, crises and underlying vulnerabilities to anticipate, prepare for, reduce the impact of, cope with and recover from the effects of shocks and stresses without compromising their long-term prospects». The IFRC Roadmap to Community Resilience establishes 11 dimensions of a resilient community in line with areas of work of the Red Cross Red Crescent (RC) Movement such as disaster risk reduction, livelihoods, health, water, hygiene and sanitation (WASH), education, social protection.

Over the past years, the RC has moved towards a more integrated approach for these programmatic areas grounding them around the concept of community resilience and developed frameworks and tools for it.

Strengthening health in communities is a key pillar to increase community resilience. The International Federation of the Red Cross and Red Crescent Societies (IFRC) has developed guidelines, approaches and tools specifically for strengthening health and care in communities over the long term[1] and for responding to health in emergencies (e.g. health issues arising in the wake of natural disasters and conflicts) and health emergencies (e.g., epidemic outbreaks)[2].

Community Based Surveillance (CBS) is one of the approaches and tools developed in the past 10 years to better respond to outbreaks, as it empowers communities to detect potential infectious disease outbreaks or other threats in the community, alert the local authorities and RC National Society (NS), and start a community-based response while awaiting further investigation and action. Experience in the past years has shown that CBS is rarely a stand-alone approach, it works best when integrated into other community-based programs/projects.

To facilitate integration of CBS into community resilience projects – whether these have health or other components, the Danish Red Cross has requested the development of a Guidance Notes document that would serve as a simple, practical guide for staff supporting implementation of community resilience projects having a CBS component, in countries where Danish RC works bilaterally.

To develop these guidance notes, a first step was to identify and document challenges, good practices, and lessons learnt around integration of CBS into community resilience projects. This Good Practices Report provides the basis for the guidance notes by showing what works in the integration of CBS into CR programs and providing concrete examples. While the Guidance Notes is intended as a stand-alone document, users of the notes can refer to this Good Practices Report for examples.

Audience: This Good Practices Report is intended for Danish RC program delegates and NS staff implementing community resilience programs, to provide them with examples and good practices on how CBS can be integrated into community resilience projects.

Methodology: The full methodology is provided in Annex 1. This review draws on secondary data collected from a desk review (see References section) and primary data from key informants' interviews and consultative workshops (see Annex 2).

How to use this report. The report first provides the basics for understanding community resilience and CBS (chapter 2) and discusses challenges in integration of CBS to Community resilience programs (chapter 3). It then presents five examples of good practices from different countries and projects (chapter 5), finalizing with a set of lessons learned (chapter 6).

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[1] For example, IFRC. 2020. Care in Communities – Guidelines for National Red Cross and Red Crescent Societies. A community Health systems approach and IFRC. 2020. Community based Health and First Aid in Action
[2] For example, IFRC Epidemic Control for Volunteers v2

2. Community resilience and CBS

Understanding community resilience

The IFRC Roadmap to Community Resilience explains that resilience strengthening can happen through long-term development work to reduce vulnerabilities, and increase disaster and outbreak preparedness, and through emergency work carried out with a vision to build back more resilient communities.

The IFRC defines a **resilient community based on 6 characteristics which can be broken down into 11 dimensions** (see Table 1) that reflect the RC areas of expertise, and which can guide the work carried out by National Societies.

The IFRC Framework for Community resilience recognizes that much of the work that National Societies have carried out over the decades has been geared towards strengthening community resilience, even if the use of the term and the development of the underlying theory is more recent[3].

The semantics issue is an important one, as many programs do not explicitly mention community resilience, and yet are working to

Table 1. Six characteristics and 11 dimensions of community resilience (Source: IFRC. 2021. A roadmap to community resilience v2

Six characteristics of a resilient community	Eleven dimensions of community resilience
1. A resilient community knows its risks, is healthy, and can meet its basic needs in terms of shelter, food, and water and sanitation	**1. Risk management** A resilient community knows and manages its risks.
	2. Health A resilient community is healthy.
	3. Water and sanitation A resilient community can meet its basic water and sanitation needs.
	4. Shelter A resilient community can meet its basic shelter needs.
	5. Food and nutrition security A resilient community can meet its basic food needs.
2. A resilient community has economic opportunities.	**6. Economic opportunities** A resilient community has diverse economic opportunities.
3. A resilient community has well-maintained infrastructure and accessible services.	**7. Infrastructure and services** A resilient community has well-maintained and accessible infrastructure and services.
4. A resilient community can manage its natural assets.	**8. Natural resource management** A resilient community has access to, manages and uses its natural assets in a sustainable manner.
5. A resilient community is socially cohesive.	**9. Social cohesion** A resilient community is socially cohesive.
	10. Inclusion A resilient community is inclusive.
6. A resilient community is connected.	**11. Connectedness** A resilient community is connected.

build it. Community resilience theory seems to have its roots in livelihoods and disaster risk reduction programming. Indeed, the UNISDR Sendai Framework for Disaster Risk Reduction (DRR) 2015-2020 can be considered an important document to guide resilience work[4]. Part of the challenges surrounding integration of CBS into Community resilience programming may stem from the fact that CBS has its roots in community health, health in emergencies and epidemic preparedness programming, which use a distinct language than that used in DRR and community resilience.

Interviews with key informants suggest that implementers and health technical staff are aware of this issue and have a good understanding of how their community health programs, including CBS, build resilience (see figure 1).

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[3] IFRC 2014. Framework for community resilience
[4] UNISDR. 2015. Sendai Framework for Disaster Risk Reduction 2015-2020

Figure 1. Community resilience as understood by key informants

The IFRC has developed a Roadmap to community resilience which aims to guide NS staff and implementing practitioners to operationalize the IFRCs Framework for Community Resilience. The Roadmap was developed in 2017[5] and later revised in 2021 based on its piloting in 12 countries[6].

These documents, as well as interviews with CR stakeholders highlighted that part of the challenge of community resilience programming is a real mindset change for the RC Movement, as "the RC cannot bring resilience to communities, but (communities) build it from within"[7]. This changes the specific role played by the National Society, -which has historically been seen as a service provider- to one of "**accompanying, enabling and connecting communities**"[8]

Understanding Community Based Surveillance

Epidemics, whether arising independently or linked to the conditions left after a natural disaster or conflict, are a huge challenge to families and communities, and can erode resilience. Outbreaks normally begin in the communities, with a cluster of sick people, or sudden deaths that are not detected early enough by traditional facility -based surveillance systems. Thus, no alert or response happens until more cases accumulate and are ultimately seen in healthcare facilities. This is aggravated in scenarios where there are gaps in traditional surveillance systems and/or in healthcare coverage.

The community is often aware of the health threat early on but does not have the means or tools to quickly alert key actors who can mobilize a response early enough to limit the spread

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[5] IFRC. 2017.Roadmap to Community Resilience.
[6] IFRC. 2021 Roadmap to Community Resilience v2.
[7] Key informant interview
[8] IFRC. 2021 Roadmap to Community Resilience v2.

of a disease and save lives. Community based surveillance (CBS) aims to close this gap. CBS is defined as "the systematic detection and reporting of events of public health significance within a community-by-community members."[9]

The basic premise of CBS in the RC movement is that community volunteers, chosen by the community, are trained to detect signs and symptoms (e.g., fever and rash) of diseases with epidemic potential that _are a concern to the community_. Volunteers are trained in appropriate community responses to these diseases, including community health promotion. They are also given a mechanism to notify the NS and/or health authorities when they see people in the community with these pre-agreed signs and symptoms of disease. This communication channel can be an SMS/text, a phone call, a smartphone app or even paper based. This notification triggers a cross check by a supervisor in the NS with the volunteer to corroborate the information, and if necessary, an investigation and appropriate response by the health authorities (e.g., case investigation, isolation, vaccination, etc.). The rapid action by the volunteers and the early investigation and response can prevent spread and save lives.

Because of its wide network of volunteers in communities around the world, the RC Movement is uniquely placed to carry out CBS. The Red Cross Movement has developed a set of methodologies and tools for CBS assessment, implementation, and monitoring, available on the cbsrc.org webpage.[10].

The IFRC developed a three-tiered model which explains how CBS can integrate into other long term community health programs (see Figure 2).

The first tier at the base of the pyramid are the underlying RC core community programs, such as community health promotion, WASH, behavior change and risk reduction efforts. Volunteers undertake activities in their communities which lead to disease prevention, provide for basic health and WASH needs, build trust, and form a strong foundation for future mobilization.

The second (middle) tier reflects how CBS and outbreak control actions can then be added to the volunteer and community skillset during non-epidemic (preparedness) phases, to support early detection and early action through so-called "passive" surveillance".

During the course of routine activities in their community, volunteers see or receive reports on individuals with signs and symptoms of diseases which may pose an epidemic risk, and notify supervisors through a real-time notification system. Volunteers are trained on

Figure 2. IFRC epidemic preparedness CBS model

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[9] Guerra J et al. A definition for community-based surveillance and a way forward: results of the WHO global technical meeting, France, 26 to 28 June 2018. Euro Surveill. 2019 Jan 10; 24(2)

[10] CBS as carried out by the Red Cross may look slightly different than CBS carried out by the national health authority in a country. The main differences are that: i) RC volunteers trained and not Community Health Workers (CHW) carry out CBS (in practice though, many CHW are also RC volunteers and vice versa); ii) a RC supervisor cross-check notifications, filter out erroneous notifications, and send verified alerts over to health authorities and iii) the RC can provide support to health authorities for investigation and response.

the basic immediate disease control actions to take. CBS supervisors convey cross-checked alerts to the authorities and an early response is triggered.

The upper tier shows that through this preparedness, volunteers become equipped to rapidly ramp CBS and emergency response in the event of a major outbreak, through more active surveillance, where volunteers actively look for individuals with signs and symptoms of the disease, thus averting illness and deaths [11]

Based on the model above, it can be seen **how CBS could integrate into Community Resilience building programs, as these are part of the base of the pyramid** in Figure 2. CBS cannot be sustainable unless it is well embedded into longer term projects in the community. However, because CBS in the RC movement was first developed as an emergency initiative, the resource-heavy, often more top-down active surveillance approach used in emergencies is even today what is usually understood as CBS.

Since CBS is a relatively new methodology with yet limited spread inside the RC Movement, key informants highlighted that unclarity on what CBS is and what it is not, both from the local or national health authorities, from other partners (e.g., WHO) and from internal RC staff, is at the source of many of the challenges encountered for implementation and integration of CBS into other programs. Table 3 compiles some of the key misunderstandings related to CBS.

Table 3. Misunderstandings on CBS

CBS has been understood as	Why this is a misunderstanding
A software platform or app.	The tool Nyss developed for CBS is often misunderstood to be CBS. Data collection for CBS can be done in many ways, even on paper, and different existing data collection tools can be used.
A data collection tool or methodology	While the data collection tools used for CBS can collect data on many things, e.g. births, mental health, cases of any disease, or program monitoring data, data collection that doesn't serve as an early warning to prompt a public health response is not CBS. [12]
A parallel epidemic surveillance system to the national one	National epidemic surveillance systems are most often facility-based and data collected is usually **clinical cases**, diagnosed by a clinician. CBS uses volunteers to collects data on simple **community case definitions** using basic signs and symptoms of disease, and thus it is not collecting the same type of data.
	It's only when individuals with the signs and symptoms detected by volunteers are diagnosed by a clinician that they become clinical cases and are entered into national facility-based surveillance systems.
	CBS helps to extend the reach of facility-based surveillance into the community, without creating a parallel system.
A referral system or a system to provide clinical care	While part of the volunteers' response should always be to refer community members with severe signs and symptoms of a disease to an appropriate level of care, the response to a CBS alert is a public health response to stop an outbreak, not a clinical care response[13].

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[11] Byrne, A., & Nichol, B, 2020

[12] There are discussions within the Movement on whether CBS should be redefined only for use with epidemic-prone diseases or whether it can be used for other illnesses or events that can still be linked to a public health response.

[13] The public health response may, if needed, include a clinical component such as case management.

	Collecting data on potential cases of a diseases or health condition that do not have an epidemic potential and are not amenable to a public health response is not CBS.
A contact tracing system	CBS detects signs and symptoms of disease based on simple community case definitions, and not clinical cases. Contact tracing is usually carried out by the investigation team or designated contract tracing teams once a clinical case has been diagnosed.

3. Challenges to integrating CBS into community resilience

Several challenges were either shared directly by the key informants or detected during the analysis of data for this report.

Organization of CBS and CR in the Movement

- Historically, there has been limited integration between DRR and health and WASH programs, and resilience building programs are usually considered to fall under the DRR sector. Since CBS has usually been considered a health activity, this issue also affects CBS, and is reflected in the language of tools and guidelines available, creating a divide.

- CBS in some NS and in the IFRC has been housed under Disaster Risk Management/Emergencies departments, instead of long-term programs, strengthening the divide. This is changing and the CP3 program of the IFRC as well as initiatives from a few NS, including the Danish RC, have provided more examples of CBS integrated into long term programs.

- Despite this operational divide, in communities, it is usually the same volunteers implementing community resilience, CBS, health and WASH activities. Thus, it is important to clarify how a health, WASH or CBS activity **contributes to resilience**, instead of presenting it as a separate project or initiative.

Variety of epidemic prone diseases

- A challenge for CBS is that some epidemic prone diseases are a rare occurrence in communities. Communities may not be so concerned about diseases such as polio, Ebola or measles – unless there has been a recent outbreak. Their pressing concerns tend to be about the more common illnesses like diarrhea and malaria, which are not necessarily amenable to CBS, as an alert won't change the course of the response. Integrating CBS into other programs ensures that the communities' main concerns are well addressed, while still warranting that a potential outbreak can be detected.

- A multi-hazards approach is needed for community resilience, including for outbreaks. However, experience from CBS has shown that having volunteers focused on too many community case definitions can be difficult. A good approach to palliate this is to focus on a few that are of key concern to the community and have, additionally, one "catch all" category (usually called in CBS "unusual events´) that can capture any other health concern in the community that does not fit the main community case definitions agreed for the CBS activity.

- To work, CBS needs to ensure that there a response capacity from the health authorities and responses are carried out. This can be a challenge. Integration to other community health projects to ensure a response at the community level, and managing expectations (i.e. clarifying to the communities when and why a response will happen) can help.

Challenges with available guidelines

- In an integrated approach, CBS, despite its many tools and packages, is only a component of a program aiming to build community resilience or strengthen community health. It addresses only one shock: epidemic outbreaks[14]. Thus, it needs to be simplified as much as possible for a better integration.

- Staff from NSs are usually very busy, long manuals or projects that require very long set up phases can be challenging. CBS usually falls under this category, but this can be palliated by a better integration in other projects and a phased implementation.

- Independent guidance documents on how to operationalize Community resilience and CBS already exist (the "Roadmap to community resilience" and the "CBS Assessment tool" and "Protocol tool" for CBS, respectively). However, the CBS tools are considered «a bit too big and ... too complicated if (people) don't have a previous background»[15]. What key informants feel is lacking is a document that highlights:

  o How can CBS best be integrated into CR *programmatically*, as opposed to how to "do" CBS. That is, from the point of view of staff designing and implementing a CR program, when, why and how would CBS be integrated as an activity.

  o The level of effort dedicated to CBS activities in different settings: a "business as usual" scenario (e.g., preparedness), and when there has been an emergency

4. Good Practices

In this section we have collected examples from the review that showcase good practices on aspects on how to integrate community-based surveillance into Community Resilience programming. A few of these examples are well documented, while others are only based on observations from key informants and could potentially benefit from further documentation and analysis.

In addition to this section, we have added in **Annex 3 an example from how the 11 dimensions of Community Resilience have been operationalized for COVID-19 pandemic response**.

A. How a Vulnerabilities and Capacities Assessment (VCA) can lead to selecting CBS as a program component

Urban Resilience Project in Mukuru slum in Kenya – Danish RC & Kenya RC 2016-2021

Project Description

The Urban Resilience Project is an integrated project to build the resilience against urban threats and risks in communities in Mukuru informal settlements. It covers five key areas i) knowledge and skills improvement to manage urban risks; ii) empowering communities to create a supportive and nurturing environment to enhance well-being, dignity and social cohesiveness; iii) increasing the community capacities to sustain and build good relationships with external actors to provide a supportive and enabling environment; iv) economic empowerment of communities; and v) improving the capacity of Kenya RC to implement urban resilience programs.

The CR building approach requires the NS to work differently focusing on accompanying, enabling and connecting the communities rather than being a service provider. For example,

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[14] Even though it has been used as an early warning system for floods in some projects.

[15] Key informant interview

the project supported establishment of functional community structures that are able to respond to urban threats, such as Community Based Disaster Response Teams, Young Men Resilience and support groups for People Living with NCDs.

What is the good practice?

Example of how a VCA led to choosing CBS as a component for a CR program:

How did they do it

A full VCA was carried out at the start of the project, to identify urban risks in the slum. The VCA identified several health risks that that were of concern to the community: poor hygiene (including poor sewage and water contamination) as the cause of cholera outbreaks and other diarrhea diseases, mental health issues, limited access to NCD treatment and care, as well as many non-health risks like fires, flash flooding, limited skills leading to unemployment, environmental degradation, and violence, including SBGV.

The high concern around sanitation derived risks – in particular for cholera, led to the incorporation of a CBS component later in the project. Integrating CBS also made sense in light of the government's community health strategy looking to include detect and respond to diseases that are a risk in the slums (including measles, polio, cholera, COVID-19) based on community case definitions. Thus, it was possible to escalate the alerts for cases seen in the communities to the relevant Ministry of health structures.

References

Reinit Consultants. Danish Red Cross Kenya Urban Resilience Project Description 2020, and interviews with Danish RC staff in Kenya.

B. Integrating CBS into community health promotion and risk reduction programs

Community Epidemic & Pandemic Preparedness Programme in Indonesia – IFRC 2018

Project description

IFRC's Community Epidemic and Pandemic Preparedness Program (CP3) is a whole of society, all-hazard approach to build epidemic and pandemic preparedness, of which CBS can form one element. CP3 is modeled under the One Health framework, a multi-sectoral approach that underscores the close link between the health of humans, animals, and their shared environment[16].

In Indonesia, the Indonesia RC (Palang Merah Indonesia, PMI) has piloted CP3 in eight villages and towns in four different provinces. PMI "builds on core community health promotion and risk reduction activities as a critical foundation in which to embed CBS, rather than have it as «stand-alone element", and this has increased community ownership and buy in, as well as CBS effectiveness.

What is the good practice?

Integrating CBS into community health promotion and environmental clean-up interventions. Embedding CBS into community health promotion programming led to stronger community engagement in disease surveillance

How did they do it?

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[16] One Health was first formally articulated as a distinct approach in 2003/4 by the Wildlife Conservation Society.http://www.oneworldonehealth.org/sept2004/owoh_sept04.html

One clear example provided in the case study relates how CP3 trained PMI volunteers in Sobokerto village reacted upon hearing the report of a child experiencing fever, with joint pain and red spots. Volunteers investigated the reports and alerted their CP3 supervisor the same day through WhatsApp chat. The CP3 supervisor discussed the signs and symptoms and details of the case with the volunteers, confirmed the alert through the Kobo app and informed the village midwife. Volunteers coordinated with the local village head and conducted household visits to look for additional signs and symptoms associated with dengue, provided health promotion information, and mobilized a community to clean mosquito breeding sites.

In a different example, in Tabanan Regency in Bali, seeing the growing number of dengue cases in the area, PMI volunteers engaged youth and neighborhood groups to share information with the community about dengue symptoms, where to get help if they become sick with dengue, and practical actions such as how to keep home and community water sources free of mosquito larvae.

References

IFRC & PMI. 2021. Community Based Surveillance - Indonesia Case Study. CP3

C. Integrating CBS into WASH and community health activities and dialing CBS up in an outbreak.

Cholera outbreak preparedness through WASH, health promotion and CBS activities in Cameroun and Democratic Republic of Congo – IFRC CP3 2019-2020

Project description

In 2019 and 2020, the Community Epidemic and Pandemic Preparedness Programme (CP3) supported cholera preparedness and response in Cameroon and the Democratic Republic of the Congo.

In cholera-endemic countries, preparedness activities implemented by NS to combat cholera epidemics mainly involve: the deployment of trained volunteers for community health promotion and manning oral rehydration points (ORPs); the provision of WASH services and the pre-positioning of cholera kits (ORPs, including water treatment solutions, oral rehydration salts (ORS), chlorine, etc.). If cases of acute watery diarrhea are closely monitored, cholera epidemics can be detected at an early stage. Between 80% and 90% of cholera cases are mild or asymptomatic and can be treated in the community. Volunteers provide oral rehydration therapy and hygiene promotion, using the cholera kits and ensure the timely referral of severe cases to health centers. This helps to prevent the spread of cholera, saves lives, and decreases the pressure on the health facilities.

What is the good practice

Adding CBS to a cholera preparedness and response program consisting of multiple WASH and health promotion, as well as cholera community treatment activities is a good practice because:

a) Well-trained volunteers can raise the awareness of community members about the signs and symptoms of acute watery diarrhea, the seasonal pattern of cholera outbreaks and the need to report cases to volunteers or health centers as quickly as possible.

b) CBS can enable a rapid response that makes all the difference when a cholera outbreak occurs. Setting up oral rehydration points can be done quickly by the NS and significantly increases the effectiveness of the response and contributes to saving lives and containing the spread

c) For cholera and acute watery diarrhea, a community treatment response is actually possible. Treatment of cases of acute watery diarrhea by volunteers in the ORPs set in the community

strengthens CBS because volunteers are aware of any significant rise in cases in the community and can immediately alert the health authorities to better redistribute resources.

c) WASH components are essential in any cholera intervention, as access to safe water and proper sanitation facilities is key to reducing transmission.

How did they do it

When cholera was announced, trained volunteers in different areas implemented one or several of these activities.

Supporting active search for cases

Giving demonstrations on techniques for making water safe to drink and for preparing ORS and training women associations on how to prepare ORS,

Supporting disinfection of public and private places, chlorination of water points and distributing water purification tabs,

Broadcasting spots and shows on cholera health promotion in the local language.

Pre-positioning anti-cholera kits.

Providing treatment to mild dehydration cases in the community and referring severe cases to healthcare facilities.

Additionally, in some cases, volunteers supported social mobilization to inform households about the upcoming cholera vaccination campaign before and during the visit from the vaccination teams

Reference

IFRC. Case study: Community Cholera Epidemic Preparedness in the Democratic Republic of the Congo and Cameroon. 2021.

D. Building community trust by focusing on what is vital to communities - Integrating CBS to protect livelihoods

One health in Action Kenya Red Cross and IFRC – CP3 2018-2021

Project description

Kenya RC started implementing the Community Epidemic and Pandemic Preparedness Program (CP3) in partnership with International Federation of Red Cross and Red Crescent Societies (IFRC), the Kenya Ministry of Health, the Ministry of Agriculture, Livestock and Fisheries, the Ministry of Education, and the Teachers Service Commission in October 2018. The program has targeted over 2,355 villages within six sub-counties in four high-risk counties selected based on the close interaction and fluid movement of people, livestock and wildlife across national game reserves, international borders, and geographical hotspots.

Part of the communities covered included Maasai semi-nomadic herding communities as well as non-nomadic farmers who rely on their livestock for subsistence. The loss of livestock due to anthrax, rift valley fever or other animal epidemic diseases can severely impact these communities as it becomes harder to purchase food, health services and education. During animal outbreaks, livestock markets can be closed to control the spread, leading to economic losses even for those whose livestock are not infected. Some of these diseases can also jump to humans through slaughtering or handing of animals.

What are the good practices:

Aligning the interventions with the main concerns of the specific community – in this case – its livestock - which is a key principle of the Community Resilience approach.

Strengthening human and animal health by using a variety of community health promotion strategies and adding CBS as a tool to for raising alerts on community health concerns.

How did they do it

One clear example provided in the case study talks about a volunteer who received news from a community member that a local young herder and two students had eaten meat from a dead cow and became sick. Anthrax was diagnosed at the nearest health facility. Goats and sheep nearby were also showing signs of illness. The volunteer reported the cases through the CBS system, which sent an alert to the supervisor and the designated County Veterinary Officer. Both came to investigate the health of livestock in the area, and within days, the county vaccinated 10,600 cattle and 14,000 sheep.

Traditional community dialogue sessions were set up to gain the trust and participation of local farmers, School teachers were shown how to determine signs and symptoms of the disease in children and report to public health officers or area volunteers. CP3 also conducted radio broadcasts, school activities, household visits and community group education sessions to improve community health knowledge and practices on safe disposal of animal carcasses, reporting unusual animal illnesses and general information on disease outbreaks. The outreach efforts helped the community recognize the risks and prioritize mitigation efforts, resulting in the community taking over financing its own animal vaccinations.

Reference

Resolve to Save Lives and IFRC. 2021. Epidemics that didn't happen.

E. Engaging varied community groups for health promotion: Integrating CBS into schools

School Health Clubs in Kenya as part of One health in Action Kenya Red Cross and IFRC – CP3 2018-2021

Project description

Kenya RC started implementing CP3 in partnership with the IFRC, the Kenya Ministry of Health, the Ministry of Agriculture, Livestock and Fisheries, the Ministry of Education, and the Teachers Service Commission in October 2018.

One of the activities chosen as part of the program was setting up school health clubs to empower students to help prevent, detect, and respond to disease outbreaks in their communities. Kenya RC is supporting 250 schools in the targeted community.

In this set up, one more layer is added to CBS where children become important community messengers, both relaying information of cases to designated volunteers at schools (e.g., school health focal points) and sharing back health promotion messages with their families.

The Kenya Red Cross is currently documenting a success story for Kenya, whereby children are the change agents. Children have proven to be good peer leaders and communicators. They share information with family and friends, they can perform role plays, participate in community services, and have the school structures to support them in turn (e.g., school health focal point).

What are the good practices?

Integrating CBS into school-based health promotion and empowering children as agents of change. This can be seen also as embedding CBS in education approaches.

How did they do it

School health clubs were set up in schools drawing membership from different classes. Volunteers used visuals aids in schools to transmit health promotion messages for selected

human and animal diseases, describing what the diseases looks like (signs and symptoms), why they are dangerous, what are the immediate actions to take upon seeing a potential case, where to report, etc. For example, for rabies, they might have a picture of a dog biting a child, running water as the first aid, alerting health authorities, and vaccinating the person, as well as vaccination of dogs. The schools have sometimes used these visual aids, usually obtained from the IFRC Epidemic Control for Volunteers cards to create wall murals.

Examples of successes shared by key informants included children noticing an animal dying of potential anthrax at home and convincing the family to not slaughter and eat the animal, as well as alerting the school health focal point who in turn alerts the health and veterinary authorities. Local authorities have shared that they are receiving more alerts thanks to the school programs.

Reference

Kenya RC and IFRC-One Health in Action- Kenya Red Cross Community Epidemic and Pandemic Preparedness Programme. 2021

6. Lessons learned

The main lesson learned from this review is that integration of CBS into community resilience building through health promotion, community health action or WASH activities can strengthen community trust, ownership, and sustainability of the initiatives.

While there is still much to learn, some key lessons learned can already be gleaned from the challenges and good practices, on integrating CBS into Community Resilience projects.

- o **Ensure CBS is demand-driven, and implementation is aligned with community concerns** – incorporate CBS if it can address key priorities in the community. And integrate it into adequate programs that provide solutions to these concerns (for example, well-being of livestock, concern over cholera in urban slums)

- o **Showcase how CBS can contribute to community resilience building**. Use clear and simple language that makes it obvious to community members how detection and reporting of human or animal signs and symptoms of disease can bring benefits important to them (e.g., vaccination of cattle to prevent disease and death, clean water and ORS to treat acute watery diarrhea in children). There is no need to even use the term CBS.

- o **Create community ownership.** Use existing community structures as a conduit or building block for the integrated program or support the development of adequate community structures when these are not present (e.g., the urban resilience project in Kenya creating Community Based Disaster Response Teams). Engage the community from the beginning, for example in mapping out the risks, vulnerabilities, and capacities.

- o **Adopt a One Health approach.** In many settings the interlinks of human and animal health and the state of the environment are very high: animal diseases can spill over into humans apart from causing economic losses due to the death of cattle. Environmental degradation can create exposure to new or reemerging diseases by creating more contact opportunities between wildlife and communities. Environmental conditions in the community can increase known diseases (e.g., mosquito breeding sites in water filled abandoned containers in the community are a risk for dengue, lack of sewage or latrines create a risk for cholera). In addition, concerns over animal health or damage in the environment can be high priorities to the community.

- o **Use the pyramid model** to build preparedness CBS on top of community health, WASH and risk reduction programs. Use phased implementation approaches as needed to ensure that each block is strong before adding the next layer of activities.

- o **Tune CBS activities to the current needs/risks.** Simplify and minimize CBS activities when the community is experiencing normal times, dial up activities in response to forecasts or in an actual outbreak.

- o **Integrate operations**: Silos between CBS or health programs and DRR or community resilience programs are enhanced when these fall under different departments.

- o **Integrate implementation**: Use a single assessment, project description and monitoring tools where CBS is one more component of a community resilience program. Integrated training and ongoing supervision support with CBS as one aspect of community health or WASH.

- o **Ensure every community member is empowered to report a health concern.** Use creative communication and activities to reach different sectors of the community with information about signs and symptoms of diseases of concern, how to report them and how to act to protect themselves and their loved ones. For example, social media for younger more connected urban populations, school clubs for children, meetings of community leaders, radio, community influencers, etc.

- o **Use existing community structures to amplify the messages**. Participate and share messages in regular community gathering such as local government meetings, community health events, women's associations, and youth groups, farmers' cooperative meetings, religious gatherings, etc.

- o **Create supporters.** Recruit key community influencers as supporters of the integrated program. For example, farmers, traditional healers, religious leaders, teachers, community leaders, etc.

In conclusion, CBS can impact several of the dimensions of community resilience, and not only the most obviously connected ones like health and WASH. Thus, integration of CBS into community resilience projects can have many advantages, for the community, and for facilitating implementation of the program. It can also increase ownership and sustainability. Integration to community resilience efforts is in line with other initiatives integrating CBS into a wider epidemic preparedness and risk reduction approach.

How the integration will look like and what different program components are included will be dependent on the context, and especially on the needs and priorities of the specific community. Programs will look different in more rural farming communities, nomadic herder communities, and urban communities in densely populated areas.

The intensity of CBS activities can be modulated depending on the need, from a more "passive" approach where volunteers receive and relay reports from community members during their other activities, to more targeted activities in an actual outbreak, where volunteers will be dedicating more time and actively looking for individuals with signs and symptoms of a disease while ramping up health promotion messages.

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Annexes

Annex 1. Methodology

The methodology is based in the Terms of Reference for the assignment, as well as on the proposal document sent by Alanda and approved as a response to the ToRs, and the methodology delinated in the Inception Report. This methodology applies to the development of the Good Practices Report as well as the Guidance Notes.

Data collection tools

Desk Review

A desk review is an important first part of the assignment to become familiar with the literature and to identify gaps. An initial desk review was carried out to inform the inception report, followed by an in depths desk review for the development of the Good practices report and guidance notes. Several documents were reviewed including guidance documents on CBS and Community resilience, as well as a few available reviews or evaluations on community resilience and CBS projects, mainly from the RC movement that were provided by the Danish RC. Additional documents were collected and reviewed during the interview process through recommendations from key informants. All documents are listed in the References section of this document.

Key Informant Interviews

Key informant interviews (KIIs) are needed to develop a clear picture of what is happening on the ground, as opposed as to what exists on paper. Danish RC identified key stakeholders that were included in interviews. A few additional interviewees were included through snowball sampling after recommendations from interviewees. Stakeholders include field teams implementing CBS and Community building resilience projects and relevant support staff at HQ level, in both the Danish RC, the IFRC and the Norewegian RC. These interviews had two main objectives: a) gather primary information on what has worked and where do the challenges lie when it comes to integrating CBS into Community resilence projects, and b) understand the current thinking and needs for the guidance notes. The interviews also explored people´s experiences of CBS and resilience programming and how these can be integrated. The full list of interviewees is provided in Annex 2.

Consultative workshop

The inception report originally proposed an After Action review (AAR) methodology to collect lessons learned from field teams integrating CBS into community resilience projects, as well as a brainstorming workshop is to obtain feedback and have a participatory process on how the draft guidance notes could look like from the perspectives of the people that use them.

However, due to the success in collecting this information from the key informant interviews, and in consideration of the limited time availability of key stakeholders, these methodologies have been changed to a single consultative workshop with three objectives: - present and corroborate the findings of the Good Practices Report, Create a common understanding on where the challenges lie when it comes to integrating CBS into Community Resilience, and create ownership around the guidance document, what it should look like, what would be helpful, etc. A facilitated, well-planned, virtual consultative workshop will be carried out before the final development of the guidance notes.

Validation workshop

In this workshop we presented the good practices report and what to include in the guidance notes to the people involved in the consultative workshop and received feedback. We also

received written comments. We will consolidate comments to write the final draft of the guidance notes and the good practices report.

Data analysis

The development of the Good Practices Report and Guidance notes used a variety of data sources as highlighted above, and aimed to triangulate data from primary and secondary sources where available. The methodology was primarily qualitative. We used the available CBS three-tier model (see Figure 2 in this Good Practice Report) as a framework for the integration of CBS into Community resilience.

Annex 2. Key informant interviews & consultative workshop participants

Key informant interviews completed

1. Sylvia Khamati Anekha, Global Health Delegate, Danish Red Cross.
2. Mariana Liptuga, Health Advisor , Danish Red Cross
3. Søren Bøge – Program Delegate in Malawi, Danish Red Cross
4. Dorothy Nkonge – Country Manager Kenya, Danish Red Cross
5. Naomi Ngaruiya – CP3 Programme Coordinator Kenya, IFRC
6. Maya SCHAERER - Grant Management Officer, Epidemic & Pandemic Preparedness, Health and Care Department, IFRC
7. Rachel GOODERMOTE - Global CBS advisor, Epidemic & Pandemic Preparedness, Health and Care Department. IFRC
8. Bronwyn Nichol - CP3 focal point in Africa, IFRC
9. Alexandra Machado, Senior WASH technical advisor, IFRC
10. Henry Mbatha MUSEMBI - CP3 focal point for Kenya and Uganda, IFRC
11. Arnold Ezama, CP3 Portfolio Manager, Uganda Red Cross
12. Tine Mejdell Larsen, CBS delegate and Public Health Surge Delegate, DRM Unit, NorCross
13. Sheila Padmanabhan, Results based management advisor, Programs Unit, NorCross
14. Jenny Reid, Health Advisor, Programs Unit, NorCross
15. Chang Hun Choe, Coordinator, Disaster Risk Reduction and Resilience Approaches and Tools, IFRC

Participants invited and attending the consultative & validation workshop

Sylvia Khamati Anekha - Global Health Delegate, Danish Red Cross - Attended

Mamadou Dian Bah - Programme Delegate, Danish Red Cross Country Office Mali

Michelle Petersen, Health Delegate, Danish Red Cross- Guinea - Attended

Dr. Boubacar BALDE – Ag. Head of Health Department – Guinea Red Cross

Søren Bøge - Program Delegate, Danish Red Cross - Attended

Dr. Dan Banda – Head of Health, Malawi Red Cross

Henry Mbatha Musembi – IFRC CP3 focal point for Kenya and Uganda

Naomi Ngaruiya – IFRC CP3 Program coordinator in Kenya – Attended

Annex 3. Examples of community resilience dimensions applied to an outbreak such as COVID-19

Dimensions	Relevant attributes and actions
A resilient community...	
...knows and manages its risks	• Communicates public awareness messages on preventive measures such as physical distancing and handwashing; • Has access to reliable and up to date information from official, reputable sources; • Is able to discern between reliable and unreliable information sources (e.g., disinformation on social media) • Has schools that promote behaviors that reduce COVID-19's spread, maintain healthy environments and learning operations, and support in the preparedness and potentially immediate response for when someone gets sick. • Has identified and prioritises those most vulnerable to the epidemic, particularly the elderly and those with reduced immunity or underlying health conditions **RCRC working in the community** • Incorporates health hazards into risk reduction and Preparedness for Effective Response programming; • Explores application of Forecast-based Financing/preventive action by tackling outbreaks before they become epidemics.
...is healthy	• Has access to quality preventive (e.g. vaccines) and curative health services, including diagnostic tests and appropriate levels of care for people infected with the virus • Has sufficient protective personal equipment (PPE) for health staff and volunteers • Has effective contact-tracing to isolate and quarantine suspected and positive cases in a timely manner • Has an effective referral system for moderate and severe cases who need clinical care • Information sharing reaches the most-at-risk individuals • Adopts timely and evidenced-based public health measures **RCRC Working in the community:[13]** • Adopts a One-Health Approach that considers the human-animal-environment health interface
...is able to meet its basic water and sanitation needs[14]	• Disseminates information on relevant sanitation and hygiene measures • Has access to safe and sufficient water and soap, especially for volunteers

	• Observes safety/PPE measures at common WASH facilities, such as common latrines/toilets, showers, water points, etc., especially for volunteers
...can meet its basic shelter needs	• Has available and accessible places for self-isolation/shielding • Has appropriate ventilation measures in place in common shelter/indoor areas • Has indoor and outdoor air quality that meets health standards. • Indicates and observes capacity limits at common shelter/indoor facilities to ensure physical distance • Observes safety/PPE and hygiene measures in common shelter/indoor facilities
...can meet its basic food needs	• Accesses nutritious and adequate food. • Applies appropriate safety protocols to observe physical distance in marketplaces, community kitchens, food distributions and other high traffic people and food related events • Practices home gardening, community gardening (physically distanced) and urban gardening, ensuring a local supply of nutritious food • Applies financial solidarity mechanisms • Has safe food delivery systems to the isolated individuals, families and communities. **RCRC working in the community** • Carries out/supports physically distanced/remote cash distributions to deal with secondary impacts and to facilitate preventive action - e.g. cash grants to facilitate quarantine for daily wage workers and informal sector labourers.
...is socially cohesive	• Implements effective community-based support systems • Has support systems for advocating against evictions during pandemic. • Promotes and carries out contact tracing to isolate and quarantine suspected and positive cases **RCRC working in the community** • Applies a Better Programming Initiative lens (RCRC programming that intentionally aims to strengthen the relationships and the sense of solidarity among members of a community) with a specific focus on the way DRM programming may inadvertently increase exposure to biological hazards
...is inclusive	• Ensures that the most vulnerable and marginalized individuals have adequate access to information and warning messages in their main languages) testing, care facilities and benefits, including appropriate protective measures. **RCRC working in the community** • NS staff and volunteers are trained in protection, gender, and inclusion analysis to implement inclusion measures for those at high-risk (gender/age-sensitive, excluded groups such as migrants and ethnic minorities) • Ensures at high-risk groups can influence COVID19 related_decision-making processes at local and national levels.
...has diverse economic opportunities	• Ensures all the essential professionals and workers who are in touch with people use appropriate protection • National Societies and micro, small and medium businesses have Business Continuity Plans • Informal sectors business owners and workers have access to protection and prevention measures.

	• Support systems are available for micro and small business to restart after any isolation or quarantine periods.
...has well-maintained infrastructure and assets	• Can dedicate specific areas for safely distanced, public activities during the epidemic • Has adequate and accessible water and sanitation infrastructure • Has adequate health care facilities and staff.
...manages its natural assets in a sustainable manner	• Manages and disposes of waste, including biological waste such as contaminated PPE, according to up-to-date and national protocols RCRC working in the community Supports efforts to protect and/or restore ecosystems.
...is connected	• Uses appropriate technology to receive / transmit up to date information • Has effective relationships with authorities and public service providers in neighbouring areas.