Republic of South Sudan



Ministry of Health

Standard Operating Procedure for Community Based Surveillance in South Sudan

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1 Introduction

1.1 Background

The implementation of surveillance in community settings is essential for early detection, reporting, and response to emerging public health events. Standard health center-based surveillance systems may miss public health events or emerging outbreaks within a community, especially in areas where access to healthcare is low and/or where there is underutilization of formal health services. Community-based surveillance (CBS) is the organized and rapid capture of information from the community about events that are a potential risk to public health. CBS typically utilizes trained volunteers or community health workers (CHWs) who reside in the community to report unusual events in real-time. CBS can be tailored to address the risks identified by individual communities, and it is especially beneficial for populations with reduced or delayed access to health services. CBS has been employed for preparedness and outbreak detection in a variety of settings and has been demonstrated as a valuable tool. To be sustainable and effective, CBS should be linked and integrated with existing national surveillance platforms. Ideally, reporting should occur through established public health structures.

1.2 Purpose

This standard operating procedure (SOP) describes the structure and implementation of an effective CBS system in South Sudan. The SOP provides standardised instructions and protocols for all States, Counties and partners engaged in CBS in order to harmonize CBS at all operational levels.

1.3 Scope

This SOP applies to Community mobilisers (CMs), Community Health Workers (CHWs) including Boma Health Workers (BHWs), Partner Community Surveillance Supervisors (PCSS), CBS implementing partners, health facilities, Ministry of Health (MOH) State Surveillance Officers [County Surveillance Officers (CSO), Payam Surveillance Officers (PSO)] at all levels, and other key participants at the county to village level.

1.4 Objectives of CBS

- To rapidly identify cases or clusters of epidemic-prone diseases at the earliest possible stage
- To establish local disease surveillance if no surveillance system exists in a community
- To establish clear reporting protocols for events of public health importance at the community level
- To enable rapid response to transmission of epidemic-prone diseases
- To empower communities to identify and stop communicable disease transmission
- To improve health outcomes by increasing the timeliness in which suspected cases of epidemic-prone disease are identified and receive care

1.5 Roles and responsibilities

Table 1. Roles and responsibilities of CBS actors

Role	Description Description	Responsibility
Community Mobilisers (CMs) (including Boma Health Promoters [BHPs])	Persons who reside in and maintain awareness of illness and deaths in their communities. They have volunteered to help keep their community safe from communicable diseases by working with local partners and healthcare facilities	To identify suspected disease- related events as they occur, and report them to their Community Surveillance Supervisor and local healthcare facility
Community Health Workers (CHWs)	CHWs (including Boma Health Workers [BHWs]) are associated with a healthcare facility and conduct health programs out in the community	To conduct case search and or receive reports of possible cases of disease and immediately report them to their associated healthcare facility
Partner Community Surveillance Supervisors (PCSS)	Trained personnel from implementing partners who will work in collaboration with CSO, PSO, BSO, CHMs and maintain connections to Ministry of Health surveillance personnel and local healthcare facilities in their areas	To receive alert notifications from CMs and BHPs, verify alerts made, and facilitate the flow of information throughout reporting to the MOH Surveillance Officer with the local healthcare facility
Health Facilities	All identified and functional Health Facilities at the community level in South Sudan	To receive and validate reports of possible alerts from CMs, BHPs, CHWs, and PCSS, to report this information to MOH Surveillance Officer and to activate the alert hotlines. Responsible for recording and reporting the information into the South Sudan Integrated Disease Surveillance and Response (IDSR) system.
MOH Surveillance Officers	MOH surveillance personnel at the Payam, County, and State levels	Initial implementation and rollout of CBS in their respective administrative areas, receiving alerts from health facilities and PCSS, and activating the RRT; receiving surveillance data from health

		facilities for IDSR
Boma, Payam, County and State leadership	Village, Boma, Payam, County, and State community leadership structures	Understand what CBS is and be involved in the recruitment and implementation process if appropriate

2 Conditions/Events Under Surveillance

There are 6 conditions or events under surveillance as outlined in Table 2. The community COVID-19 case definition (Annex 1), currently in use has been developed in the context of the 2018 COVID-19 pandemic in countries that border South Sudan. This case definition and others will be reviewed and revised by MOH with support of technical partners depending on outbreak situation, context and appropriate response.

Table 2. List of Priority CBS conditions/events under surveillance with community case definition

	Condition/Event	Community Case Definition
1	Acute Flaccid Paralysis (AFP) - body weakness	Any child under 15 years old with a sudden onset of weakness and/or inability to use their hand(s) and/or leg(s)
2	Acute Watery Diarrhoea	Any person with 3 or more watery stools within a day
3	Measles	Any person with fever and skin rash
4	Suspected Ebola	Sudden onset of fever with history of travel to an Ebola-affected area; OR Any form of unexplained bleeding from any part of the body; OR Any sudden unexplained death
5	Unusual health events	Two or more persons presenting with similar severe illness in the same setting (e.g., household, workplace, school, street) within one week; OR Two or more persons dying in the same community within one week; OR

		Increase in number of animal illnesses and/or deaths, including poultry, within one week
6	Novel Corona Virus Disease 2019 (COVID- 19)	A patient with <u>acute respiratory illness</u> (fever (38°C), and at least one sign/symptom of respiratory disease (e.g. cough, shortness of breath), AND a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset; OR A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to onset of symptoms; OR A patient with severe acute respiratory infection (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath) AND requiring hospitalization AND in the absence of an alternative diagnosis that that fully explains the clinical presentation

2.1 CBS and COVID-19

CBS is a surveillance tool that could particularly improve early COVID-19 case identification, reduce COVID-19 transmission in the community, and enhance response efforts. Information generated from this system would ideally inform reporting on emerging COVID-19 hotspots while simultaneously feeding back information to communities. It is also a tool that can be used to improve community sensitization and enhance the rapid COVID-19 response at the local level. CBS should be implemented in identified high-risk states and can serve to detect COVID-19 early and also be a part of the longer-term community-based strategy in South Sudan to detect and prevent epidemic-prone diseases. Finally, the fact that a community has nominated a trusted group of individuals to monitor the system and be trained in handling individual data, it is critical that confidentiality provides additional safeguards to protect patient/suspect confidentiality in relatively small, tight-knit communities.

3 Selection and characteristics of CBS volunteers

3.1 Key Principles for CBS Volunteers

Where possible, CBS volunteers should be recruited from existing cohorts of trained community health-related staff and volunteers, including CHWs, BHWs, and CMs. If these are not available in a particular community, the implementing partner should work closely with the MOH (State, County, and Payam), with other CBS partners in the state, and with village chiefs and other community leadership structures in order to identify the appropriate candidates.

CBS volunteers should be able to perform the following roles:

1. Be part of the community and stay informed of local activity

- 2. Identify events that are suspicious of epidemic-prone disease as they occur in the community
- 3. Disseminate information and key messages throughout village
- 4. Report to their assigned health facility and CBS supervisor immediately via mobile phone or in person

Characteristics required to perform the role of CBS volunteer:

- 1. Trusted and responsible individual originally from that community
- 2. History of involvement and/or responsibility in the community
- 3. Well informed with intimate knowledge of daily community activity
- 4. Willing to serve their community through event-based surveillance
- 5. Ability to quickly learn basics of infectious disease, CEBS reporting structure and the relevant suspicious event triggers

Because the duties of a CBS volunteer are intentionally very simple and straightforward, some candidates may be able to take on the role of CBS volunteer in addition to another current responsibility. Community mobilisers may come from a variety of previous or concurrent occupations that may include but are not limited to the following:

- Teachers, religious leaders, youth leaders, women's leaders, etc.
- Town chiefs, elders, societal heads
- Other key community leaders

3.2 Number and Density of CBS Supervisors

The ideal number of CBS volunteers per chiefdom will vary depending on population density, geography, social characteristics and other considerations. The ideal density of volunteers is at least one per village. In larger villages there will be more than one volunteer (recommended: 1 volunteer per approximately 50 households). This number, however, will vary greatly depending on county characteristics. When selecting the number and density of volunteers in a county, the following considerations should be taken into account:

- Geography (the overall size of the area of responsibility)
- Population Density (relative geographic spread of community members)
- Access (relative difficulty of travel in the area)
- Local disease transmission dynamics (low vs. high transmission)
- Social and cultural considerations

4 Steps for Alert Management and Reporting in CBS

4.1 Steps for Alert Management in CBS

CBS operates on a system of communication from the community up to the national level by way of the CBS volunteers (CMs and CHWs), local level supervision (PCSS and health facility), and MOH officials at the Payam, County, and State level (MOH Surveillance Officers). At each

step, communication is conducted back down to the community level. Care should be taken to ensure that suspected cases are treated with dignity, that confidentiality is respected, and that the diagnosis of suspected cases is reviewed by qualified health care workers at the earliest opportunity.

The major steps for CBS are as follows:

- Alert of epidemic-prone disease or public health event identified in community
- Alert identified by CBS volunteers, including CHWs and CMs
- Alert reported to health facility and/or PCSS
- Health facility and/or PCSS conducts preliminary verification on validity of alert and reports true alerts to MOH Surveillance Officer
- MOH Surveillance Officer conducts final alert verification
- Rapid Response Team is activated to respond to verified alert

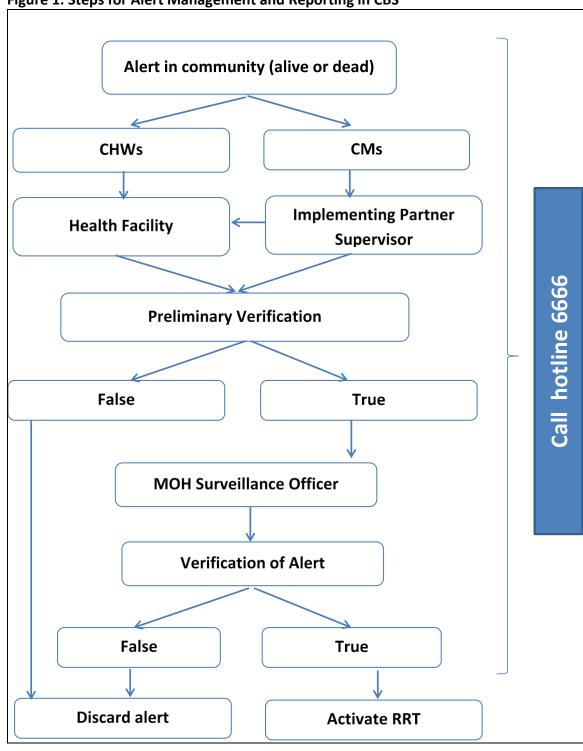


Figure 1: Steps for Alert Management and Reporting in CBS

4.2 Routine Activities of CBS Volunteers in the Community

During the preparedness phase or between outbreaks, the CBS volunteers (including CMs and CHWs) will conduct various activities to sensitize the community residents on CBS. These may include the following:

- The CBS volunteer will integrate CBS activities into their normal roles within the community, including clinical work in the village, risk communication, or health education
- The CBS volunteer should hold discussions in the community and among key community leaders to determine which health risks are of most concern to them, to educate on signs and symptoms of epidemic-prone disease, and to request that reports of unusual illness or public health events are reported to them even if healthcare is not sought.

4.3 Alert Detection

For the priority conditions and events under surveillance in South Sudan, the CBS volunteer may utilize various methods to detect cases in the community.

- CBS Volunteer may host events with their community in order to engage in community mobilization and risk communication
- CBS Volunteer may be present at places people typically congregate such as markets or religious services
- CBS Volunteer may go door to door to check on the health of individual families
- Communities may/should report any suspected cases to the CBS volunteer

Key community leaders, such as teachers, religious leaders, traditional healers, and birth attendants may all have access to valuable information on public health events that occur at the community level.

4.4 Alert Reporting

When an alert of a reportable condition/event is generated, the CBS volunteer will record relevant details in a form and will immediately notify their PCSS or associated health facility using whichever means is fastest. This may include phone call, SMS, or travel in-person to the facility, and should happen on the same day. The information collected and reported by the CBS volunteer should include the following:

- Source of information (community member, school, etc)
- Earliest known start date and duration of event (it is still ongoing?)
- Type of event (e.g. epidemic-prone disease)
- Location (with sufficient detail to locate any cases)
- Number of cases and deaths
- Description of event, including specific signs and symptoms
- What actions the community has already taken

In certain circumstances, such as during a confirmed outbreak, it may be beneficial to implement regularly scheduled reporting to ensure that CBS volunteers are conducting active monitoring in their communities. In this situation, the CBS volunteer will send a report of cases

in the community each day or week via phone or SMS. This includes 'zero reporting' if there have been no cases during the time interval.

4.5 Alert Investigation and Preliminary Verification

When the PCSS and/or health facility receives the alert, they will proceed with an investigation in order to provide a preliminary verification whether the alert represents a true public health event. This investigation should happen as soon as possible, and at least within 24 hours. The investigation may include determining whether the condition or disease meets community case definitions (see Annex 1 for COVID-19 community case definition). This process is necessary to determine whether activation of a public health response is warranted. The local MoH surveillance officer will be notified to verify the alert and determine activation of public health response.

Criteria for verification may include asking questions about:

- Who in the community detected the event?
- How many sources can verify that the event occurred?
- The number of people affected
- Signs and symptoms (and onset dates) among the affected persons.

The investigation and verification process may be possible over the phone or via SMS, or it may require going into the community to ask questions and/or examine patients.

If the alert if not valid, it may be discarded. The PCSS and/or health facility will communicate this to the CBS volunteer, who should then communicate with the community. The CBS volunteer should continue to monitor the situation in case anything changes.

4.6 Activation of Rapid Response Team

If the alert is verified, the PCSS and/or health facility will immediately notify the MOH Surveillance Officer and will also call any relevant national-level hotlines to report the alert. The MOH Surveillance Officer will conduct a final verification of the alert, and if the alert is verified this will trigger the activation of the State or National RRT. The RRT will arrive to conduct a rigorous public health investigation as outlined in the Rapid response Standard Operating procedure in order to determine the existence of an outbreak, confirm the pathogen responsible, identify the source of the outbreak, and prevent future spread.

If possible, the CBS volunteer should be involved in the investigation with RRT as well as initial response, including facilitating entry of the RRT into the community, providing relevant patient history and clinical details, and building trust with the patient and family. The volunteer can also contribute to the response in a variety of ways according to their specific training, including providing community education, helping the family to engage in appropriate hygiene and infection prevention, and providing basic health care.

4.7 Mandatory Reporting of Endemic/Epidemic Diseases and Confidentiality

In suspect cases of specific diseases where both clinical and laboratory reporting obligations are imposed, accurate patient identification will be necessary to avoid double

counting. A significant degree of stigma may attach to some diseases, including HIV, sexually transmitted infections, EVD, and now COVID-19. Diagnosis may carry the risk of discrimination, especially when there is weak protection for privacy and confidentiality. Notifiable diseases legislation in South Sudan requires the protection of personal information. Stronger provisions for patient/suspect confidentiality may enhance rates of testing among vulnerable groups, including close contacts of confirmed cases, commercial sex workers, ethnic minorities, and, in some cases, girls/women.

5 Supervision of CBS

5.1 Key Principles for CBS Supervisors

Supervision of CBS volunteers will be conducted by either implementing partner PCSS or, in the case of CHWs, will be conducted directly by the associated health facility in conjunction with support from WHO and other partners. If supervision occurs through PCSS, a designated health facility should be identified in advance for each CBS volunteer to aid with alert verification, case management, and integration with IDSR.

CBS Supervisors should be able to perform the following roles:

- 1. Receive alert calls from CBS volunteers in real-time
- 2. Rapidly provide preliminary verification of whether alert represents a true public health threat, including applying the community case definition
- 3. Report verified alerts to MOH Surveillance Officers
- 4. Assist the MOH Surveillance Officers and RRTs with rapid response at the community level
- 5. Facilitate information flow throughout reporting system
- 6. Establish weekly time to check in and receive weekly reporting forms from all CBS Volunteers under supervision
- 7. Feedback information to CBS volunteers and local leaders for dissemination at community level
- 8. Assist in the training of CBS volunteers and community sensitization

In order to perform the role of the CBS Supervisor, candidates should have the following characteristics:

- 1. Individual with some health-related work experience
- 2. Capable supervisor and manager
- 3. Discretion with regards to decision-making and an ability to prioritize
- 4. Knowledge and experience of the community that they will serve
- 5. Literacy and ability to write and maintain records

5.2 Number and Density of CBS Supervisors

The partners implementing CBS should work together with the county leadership structures to determine the appropriate number and distribution of CBS Supervisors in each identified community. The ideal number of Supervisors per county will rely upon the number of CBS volunteers identified per county. There should be at least one but possibly several Supervisors per county. This number will vary depending on state and county characteristics. When selecting the number of CBS Supervisors, the following considerations should be taken into account:

- The number of CBS volunteers in that County
- Geography (the overall size of the area of responsibility)
- Population Density (relative geographic spread of community members)
- Access (relative difficulty of travel in the area)
- Disease burden (low vs. high transmission)
- Social and cultural considerations
- Any other relevant considerations of the CBS team or State/County leadership

6 Data Reporting Tools and Considerations

6.1 CBS Reporting Protocols and Tools

CBS Volunteers will directly report cases to their PCSS or health facility supervisor in the following ways:

- Immediate Reporting: CBS volunteers will immediately report any new alerts of epidemic-prone diseases or qualifying public health events using the Community Based Surveillance Immediate Reporting Form (Annex 3). This should happen the same day as the alert is identified.
- Weekly Reporting: CBS volunteers will fill out the Community Based Surveillance Weekly Reporting Form (Annex 2) each week with the total number of cases or alerts of each priority disease in their assigned catchment area. This will include instances when there are zero cases.

6.2 Integration with IDSR

The COVID-19 response supports IDSR core functions by complementing case detection, reporting and verification of IDSR priority diseases/outbreaks at community level through field assistants and community informants, investigation of community alerts, support sample collection, packaging, and shipment, implementing recommended public health surveillance interventions in response to confirmed outbreaks, linking the health facilities to the communities. All alerts that meet the clinical case definition will also be entered into the national IDSR system. Health reporting will follow previously determined channels for IDSR, including reporting from the community to the health facility and then to MOH Surveillance Officers at the Payam, County, and State level. If the CBS volunteer reports directly to the health facility (i.e. if they are a CHW), the health facility will be able to obtain this information directly from the volunteer and the RRT. If the CBS volunteer reports to a PCSS, the PCSS supervisor will

report verified cases to the nearest participating health facility, which should be identified in advance.

6.3 Integration with Boma Health Initiative

The Boma Health Initiative (BHI) is a formal structure of the local governments and primary health system for responding to determinants of health, strengthening and using established systems for reaching communities. In addition, the establishment of community-based surveillance throughout the country, including conflict-affected areas, via coordinating training and other activities with implementing partners, which use a network of informants in the community has strengthened IDSR in security-compromised counties and states. The IDSR structure for the MoH is based at the State and County level with incentives given by partners. These county surveillance officers collect data from health facility focal persons who report on a weekly basis. Because the BHI is dedicated to delivering an integrated package of health promotion and disease prevention and selected treatment services to individuals, families, and communities, using trained and equipped community volunteers, COVID-19 integrates well into the duties they perform already. These BHI workers will contribute to the reduction of morbidity and mortality, due to preventable health conditions like COVID-19.

6.4 Hotline call centre alerts

At any stage of the alert process, the CBS volunteer, PCSS, health facility, or MOH Surveillance Officer can call the alert hotline at 6666 to report the alert to the National MOH. This process can serve to escalate an alert immediately and may be conducted at any stage of the verification process.

7 Annex

Annex 1. COVID-19 community case definition for use at the community level

Community-based surveillance	Alert case
	Any person (alive or dead) with at least one of the following symptoms [1]:

This definition of 'alert cases' for COVID-19 or Novel Coronavirus disease 2019 has been developed for use by the community or community-based volunteers. It may be used for community-based surveillance during the preepidemic phase and during the outbreak.

Report any COVID-19 alerts to the nearest health facility

AND

Call the Ministry of Health toll-free lines (MTN and Zain): 6666. If the hotline is unavailable or unresponsive, call the County Surveillance Officer.

Annex 2. Community based surveillance weekly reporting form Community Based Surveillance weekly reporting sheet Start of Week from Monday _____/____ to Sunday_____/____ (Day) (Month) (Year) (Day) (Month) (Year) **Condition or event** Community case definition Tally Total Acute Flaccid Paralysis Any child under 15 years old with a sudden onset of weakness and /or inability to use /AFP (Polio) their hand(s) and/or leg(s) Any person with 3 or more watery stools Acute Watery Diarrhoea within a day Any person with fever + skin rash Measles Sudden onset of fever with history of travel Suspected COVID-19 to an COVID-19 affected area. OR Any form of unexplained bleeding from part of the any body. OR Any sudden unexplained death. Unusual health events Two or more persons presenting with similar severe illnesses in the same setting (e.g., household, workplace, school, street) within one week Two or more persons dying in the same community within one week Increase in number of animal sicknesses and/or deaths, including poultry, within one week OR Acute jaundice Date of Report Submission: _____ State:_____ County: ______ Payam: ______ Boma: _____ Mobile: _____ Name of Supervisor:

Total Number of Alerts during the Week:

Number of CM Expected to Report During the Week:

Number of CMs Reported:

Total Number of Alerts Verified:

Annex 3. Community based surveillance immediate reporting form Community based surveillance immediate reporting form

Name of case:	Age:	Years:	Months:	Sex (M/F):
Address:		Boma/Vill	age	
Payam	County		State	
Household Head:	М	obile:		

	Condition or event	Community case definition	Check one	Description
1	Acute Flaccid Paralysis /AFP (Polio)	Any child under 15 years old with a sudden onset of weakness and /or inability to use their hand(s) and/or leg(s)		
2	Acute Watery Diarrhoea	Any person with 3 or more watery stools within a day		
3	Measles	Any person with fever and skin rash		
4	Suspected Ebola	Sudden onset of fever with history of travel to an Ebola-affected area. OR Any form of unexplained bleeding from any part of the body. OR Any sudden unexplained death.		
5	Unusual health events	Two or more persons presenting with similar severe illnesses in the same setting (e.g., household, workplace, school, street) within one week OR Two or more persons dying in the same community within one week OR Increase in number of animal sicknesses and/or deaths, including poultry, within one week		

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6				
Date:	State:	County:	Village:	
_				
Name	of reporting CBS Volunte	er	Mobile:	

FOOT NOTE:

• MOH at County, Payam and or Boma is implementing in collaboration with partners, this will apply for a short period of the partners support and the roles shall revert to Payam and County Surveillance officers."