Key Performance Indicators for Community Based Surveillance Projects

A set of suggested key performance indicators (KPIs) for community-based surveillance (CBS) to support a more structured approach to monitoring, quality assurance and evaluation.

The group of key performance indicators listed below include both process and operational indicators to support monitoring of CBS programming as well as evaluate the effectiveness of CBS in context. Key performance indicators should be used in combination with the CBS feasibility assessment, other quality assurance tools including supervision tools. The indicators with highest priority are marked in **BOLD**.

CORE INDICATOR DETAILS

Project Coverage & Monitoring	Example tools/ Strategy	Total	Desired	Gap
Program Activity Output: **Total number of Trainers trained in CBS ToT**	CBS ToT training sign-in Branch Officer/ HQ Officer can collect/ report			
Program Activity Output: **Total number of Volunteers trained in CBS** **Total number of people trained in CBS** (inclusive of MOH and other officials/ not engaged in data collection) **Percent of Volunteers who are "deployed"** (If using the Nyss or other digital platform)	Volunteer training sign-in Branch Officer/ Supervisors can collect/ report			
Coverage **% of targeted communities with active CBS volunteers**	*Tools*: Volunteer lists & locations, activity reports			

	Who: Branch Officers/ Supervisors/ HQ officer can collect/ report *Calculations*: *Numerator*: # of communities where volunteers submitting reports *Denominator*: # of communities targeted by CBS			
(Optional): *% Population covered by CBS*	*Numerator:* *Population # with at least one CBS volunteer in their village* *Denominator:* *Total population in the targeted area*			

Programme Monitoring & Evaluation	**Example Tools/ Strategy**	**Purpose**
Completeness **% of active volunteers submitting health risk reports and/or activity reports "on time" as determined by the protocol**	*Tools*: Volunteer monitoring Tool/ platform, verified using Volunteer ID *Who*: Supervisor/ Branch Officer *Calculations:* *Numerator*: # volunteers submitting reports “on time” *Denominator*:	Programme activity indicator – informs supervisors & managers if volunteers are active in the community and where additional support should be targeted

	Total # active volunteers	
Sensitivity/ Accuracy **Percent of alerts cross-checked and accurately matching community case definition**	*Tools*: CBS Record book/ KoBo/ surveys *Who*: Supervisor/ Branch Officer (HQ Officer at National Level) *Calculation* *# of alerts cross-checked and accurately matching community case definition/ Total alerts shared*	Program quality indicator – informs supervisors if volunteers are accurately recalling the community case definition, where refresher trainings may be needed & that community case definition is appropriate
Data Quality (Optional) **Proportion of alerts sent with the inappropriate format**	*Tools: Nyss platform error messages, Supervisor log books* *Who: Supervisors & managers* *Calculation:* *# of alerts shared by volunteers correctly / Total number of alerts shared (including those with format errors)*	This can signal the need for refresher trainings

Effectiveness, Quality & Timeliness	**Example Tools/ Strategy**	**Purpose**
Percent of CBS *true* alerts escalated to health authorities	*Tools: Nyss, MoH records/ CBS records* *Who: Supervisor/ Branch officer* *Calculation:*	Timeliness - how responsive is the system in escalating alerts to the attention of health authorities for follow-up?

	Numerator: CBS alerts escalated to Health authorities *Denominator: All CBS alerts submitted* *Target: 100%*	
Response		
Proportion of alerts which were investigated/ reacted to *(in under 24 hours)*	*Options: Investigated; Not investigated; Unknown* *Time (calculated by number of hours)* *Calculation:* *Numerator: # of alerts investigated within timeframe* *Denominator: Total # of alerts escalated*	Informs supervisors & managers if CBS alerts are being responded to as expected Timeliness indicator – how effective is the current alert system in prompting an action/ response (indicator to be included based on availability from MoH/MoA/ etc. and sensitivity of context) This gives us an indicator for the timeliness of system
% of escalated alerts verified as a confirmed case through clinical or lab testing	*Tools*: MoH Records/ SitReps/ CBS records (KoBo/ CBS Platform) *Who*: HQ or Branch officer *Options:* *"Presumed case"* *"Positive"* *(verified by lab, clinical or unknown)*	Outcome: Provides evidence for the efficacy of CBS, and positive predictive value (PPV)

	Calculation: *Numerator*: # of true alerts confirmed through laboratory test or clinical validation *Denominator*: # of true alerts sent by a RC volunteer	
Proportion of alerts which were responded to through public health action	*Options:* *Can be individualized for the response, examples include:* - *SDB* - *Immunization campaign*	Demonstrates the links or gaps between the surveillance system with response actions
Percentage of confirmed cases that were identified by RC volunteers through the CBS in targeted locations *(event specific)*	*Tools*: MoH Records/ SitReps/ CBS records (KoBo/ CBS Platform) *Who*: HQ or Branch officer *Calculation*: *Numerator*: # of confirmed cases that were originally identified through a RC volunteer alert *Denominator*: # of confirmed cases in a given out-break	Provides information to both program managers and health officials on the effectiveness of the CBS system, gaps and opportunities for improvement. This can help provide a strong evidence-base for continuing CBS in certain areas.