Evaluation of the "Tea Team surveillance system", Somali region, Ethiopia, 2019-2021

IOA meeting 18/03/2022

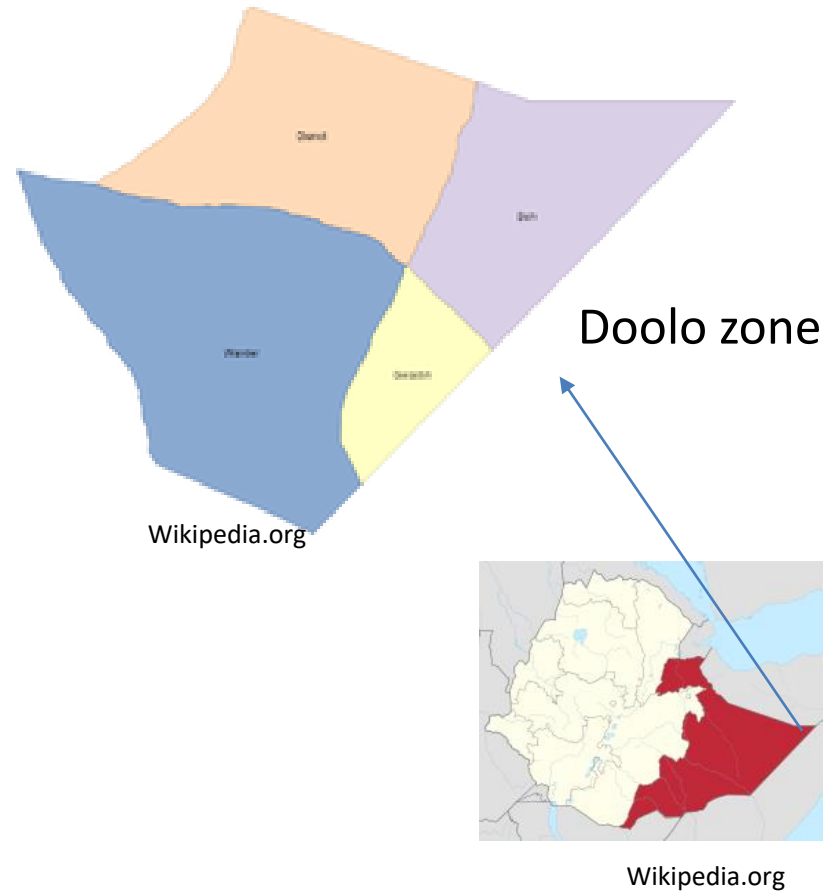Patrick Keating on behalf of Bashir Ali Dubad, Luke Baertlein and the Tea Team staff

Somali region

Doolo zone

- (2007) 300,000 pop
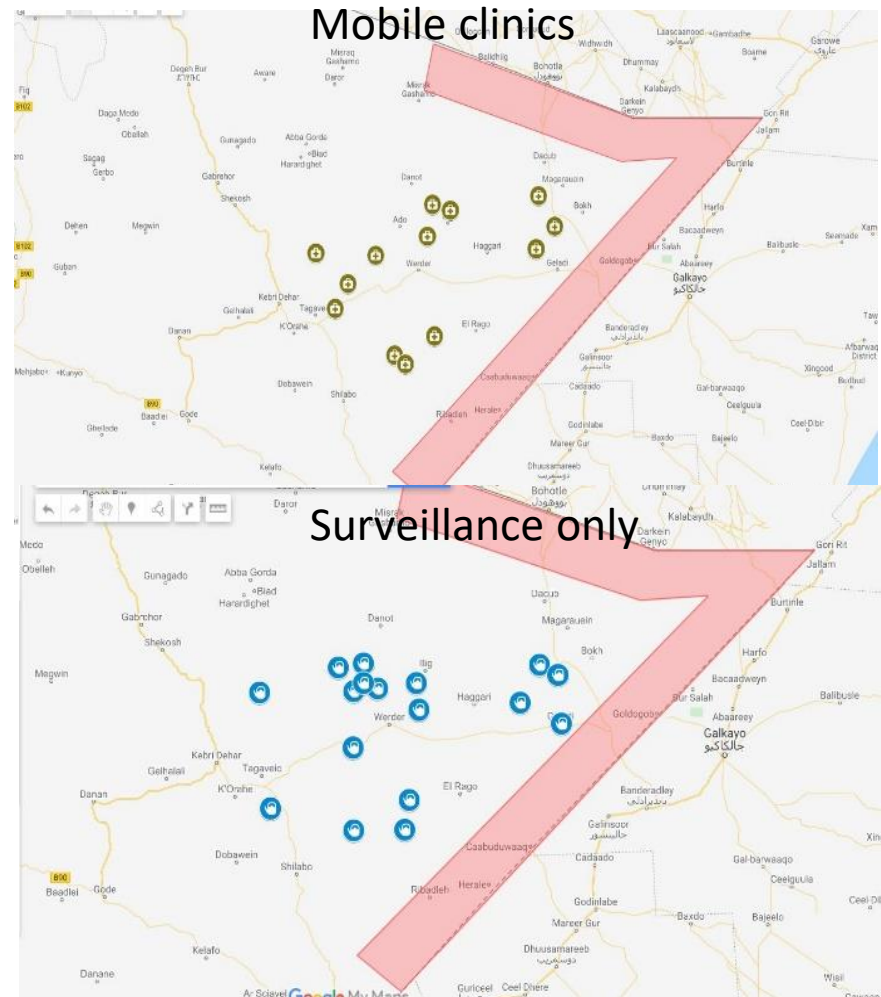 - 37% pastoralist
  - Almost 100% Somali

MSF presence

- 2007 primary, secondary care + surveillance
- 2017 Emergency and shift in strategy

Wikipedia.org

Doolo zone

Wikipedia.org

Tea Team surveillance system

- Aim
  - Detect and respond in a timely manner to disease outbreaks and other emergencies

- Components
  - Community IBS
  - Health Facility IBS
  - Community EBS
  - Other EBS
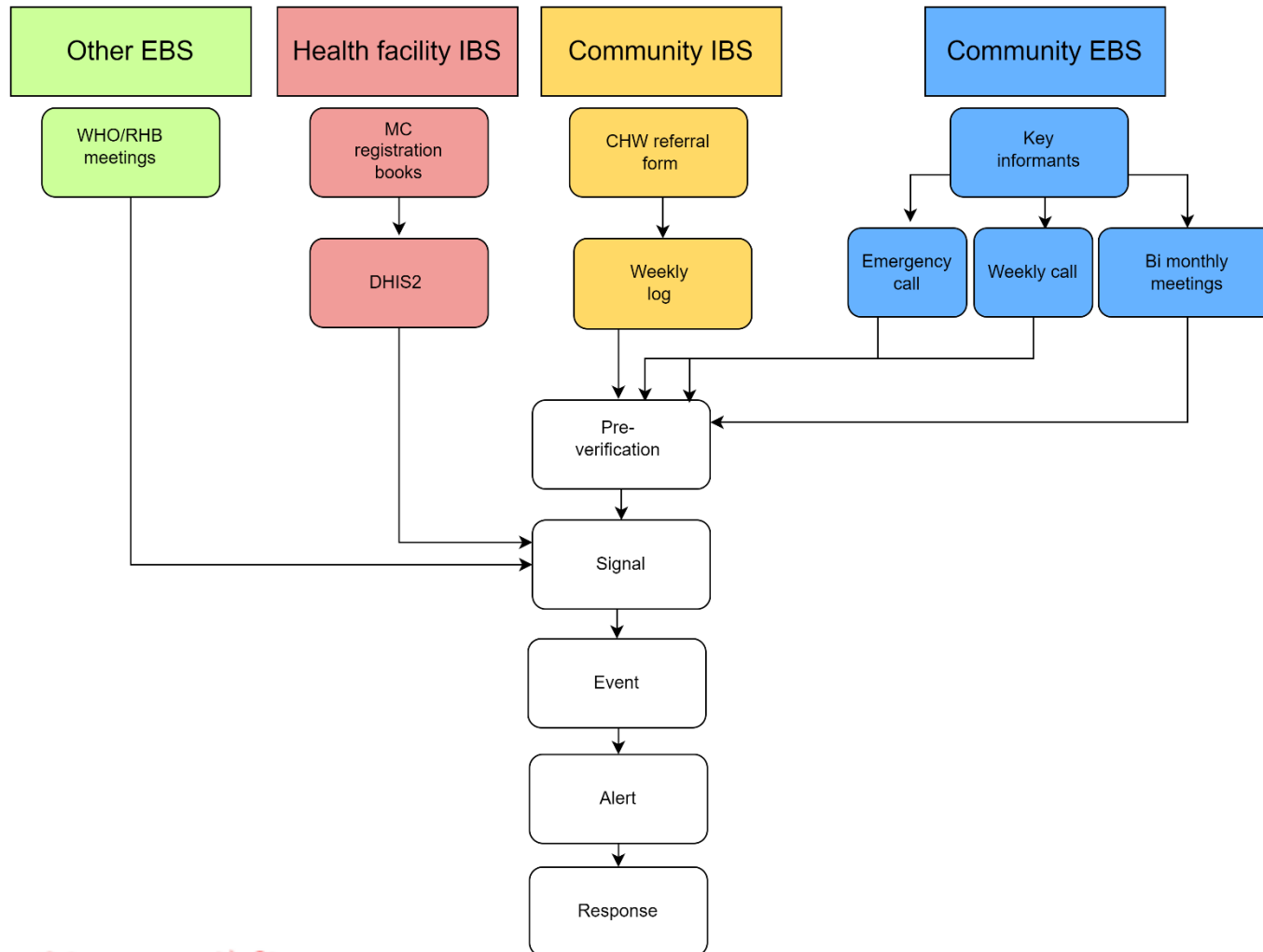

Mobile clinics

Surveillance only

Signals

CEBS

- Community suspected cases of measles, AWD and AJS
- Clusters of cases of the same illness
- Increased numbers of death
- Concerns about malnutrition
- Animal sickness or die off
- Population movements
- Unusual events such as flooding

CIBS

- Suspected AWD
- Suspected measles
- Suspected AJS
- Malnutrition
- Suspected COVID-19

EWAR and Tea Team surveillance system

Evaluation methodology

- Mixed methods
  - Descriptive analysis of all surveillance data sources (2019-2021)
  - Focus group discussions and in depth interviews
    - Community members (key informants and community leaders)
    - Surveillance staff
  - Assessed the following attributes
    - Usefulness, simplicity, flexibility, timeliness, completeness, acceptability, positive predictive value, stability, representativeness

Usefulness

Surveillance type	Total signals received	Signals	Events	Alerts	Responses
CEBS	916	199	129	46	22
CIBS	32	4	2	1	1
HFIBS	196	6	4	2	2
OEBS	62	62	37	11	6
Total	1206	271	172	60	31

Responses included:
- Advocacy (e.g. animal health needs)
- Opening new mobile clinics
- Treating measles cases
- Vaccination campaigns
- Providing NFI support after flooding

Acceptability

- " *"[The process of signal reporting, verification, assessment and response] is a long process. Now it's possible, because we have the time for it. In an emergency we would be pushed to do things quickly and the situation would be complex – no one cares if we do everything, all these steps. The time of emergency is to respond"* **MSF Staff interviewee**

- *"It is important for us when there is a benefit, or there is a risk of harm to us, so it is important for the community to pass on what is available to those who are concerned so that they can respond to any benefit and there is nothing important for the community if they do not get any response for the grievances they presented, what the community is interested in is what they gain and lose."* **Community member**

- *"The unhealthy issues of the camels have been reported and it was not responded to. The expectation we had from the unhealthy issues of the camels is not yet met. I think you expected that these are inspected and responded to immediately but this has not happened. Mostly the issues are not responded to on time"* **Community member**

Timeliness

Signal verification

Signal class	Surveillance type	Total signals verified	Signals verified within 24 hours of report	Percent of signals verified within 24 hours of report	Median days from report to verification (IQR)
Total	CEBS	183	148	80.9%	0 (0, 1)
	CIBS	4	3	75%	0.5 (0, 2.5)
	HFIBS	6	6	100%	0 (0, 0)
	OEBS	59	47	79.7%	0 (0, 1)

Risk assessment

Signal class	Surveillance type	Total events assessed	Events risk assessed within 48 hours of report	Percent of events risk assessed within 48 hours of report	Median days from report to risk assessment (IQR)
Total	CEBS	95	36	37.9%	5 (1.5, 13)
	CIBS	1	1	100%	1 (1, 1)
	HFIBS	2	2	100%	0 (0, 0)
	OEBS	26	12	46.2%	3 (1, 6)

Positive predictive value

Signal Class	Surveillance Type	Total Signals Reported	Total Responses	Response PPV of a Reported Signal
Total	CEBS	916	22	2.4%
	CIBS	32	1	3.1%
	HFIBS	196	2	1%
	OEBS	62	6	9.7%

Conclusions

- Tea Team surveillance system is useful

- Challenges with
  - acceptability + simplicity
    - complexity of data systems
    - collaborations with animal health actors for response
  - positive predictive value of signals
  - timeliness of risk assessments

Recommendations

- Simplify the surveillance system
    - Data collection procedures/digitise (KoBo)/automate reporting (R)
    - Remove CIBS and focus on CEBS in all locations
    - Reduce number of signals and provide more training/feedback to key informants/staff
- Strengthen collaboration with external actors (OEBS) including animal health actors