

1707

**Reductions in malaria burden through the use of a scalable intervention package: The case of Mulobezi District in Western Province**

PRESENTER: Kafula Silumbe

BACKGROUND

After the successful reduction of malaria transmission in Zambia’s Southern Province with a scalable intervention package (SIP), Mulobezi District in Western Province (Figure 1) received SIP across all 13 health facility catchment areas. SIP consists of:

- Proven vector control tools.
- Expanded access to malaria treatment via case management.
- Where appropriate, parasite clearance through the selective use of mass drug administration (MDA).
- Improved surveillance, including at both facility and community levels.

METHODS

Insecticide-treated nets were distributed to all households in January 2018 as part of a national mass distribution campaign and indoor residual spraying campaigns have been conducted consistently in the entire district since 2016.

Since June 2016, enhanced surveillance has been conducted in some communities utilizing community health workers (CHWs) who diagnose, treat, report, and follow up cases.

To complement these interventions, and in line with the national strategic plan, four rounds of MDA were carried out in Mulobezi from late 2017 to early 2019.

As a point of comparison, data from routine malaria case incidence reports for Mulobezi District were reviewed for the month of February, from 2015 to 2019.

RESULTS

- Due to enhanced community reporting, there was an initial overall increase in cases, followed by marked reductions in 2018 and 2019 (Figure 2).
- As cases reported by CHWs increased, the burden on health facilities was lessened, as indicated by the decrease in cases reported at facilities (Figure 3).
- Passive confirmed cases dropped from 65% (Feb ’17) to 43% (Feb ’19) (Table 1).
- Active confirmed cases showed a downward trend from 1,707 (Feb ’17) to 152 (Feb ’19) (Table 1).
- A dry spell in Southern and Western provinces may have also contributed to the decline.
- Targeting specific groups and communities with parasite-clearing activities is essential to addressing the parasite reservoir, which is largely characterized by afebrile infections and consistently resides in school-age children.

Data driven, timely deployment of interventions is key to maintaining parasite-free communities.

Ensuring adequate coverage of vector control and treatment combined with surveillance will enable optimal malaria burden reduction in Mulobezi District.

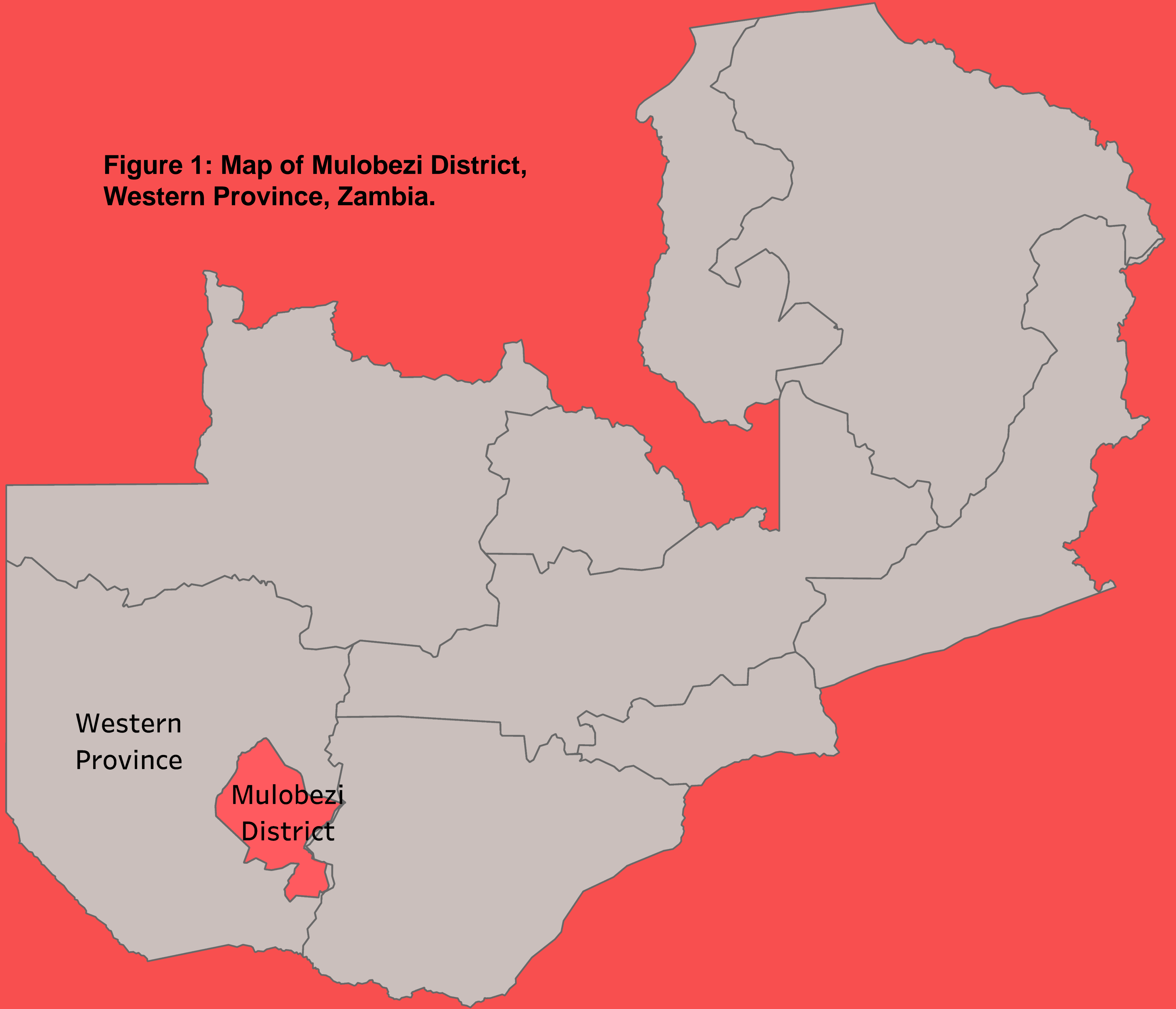


Figure 1: Map of Mulobezi District, Western Province, Zambia.

Figure 2: Monthly malaria incidence per 1,000 population in Mulobezi District, Western Province, Zambia, 2014–2019. Over time, malaria cases have decreased in Mulobezi District after the implementation of the scalable intervention package. The vertical light grey bands indicate February 2018 and 2019.

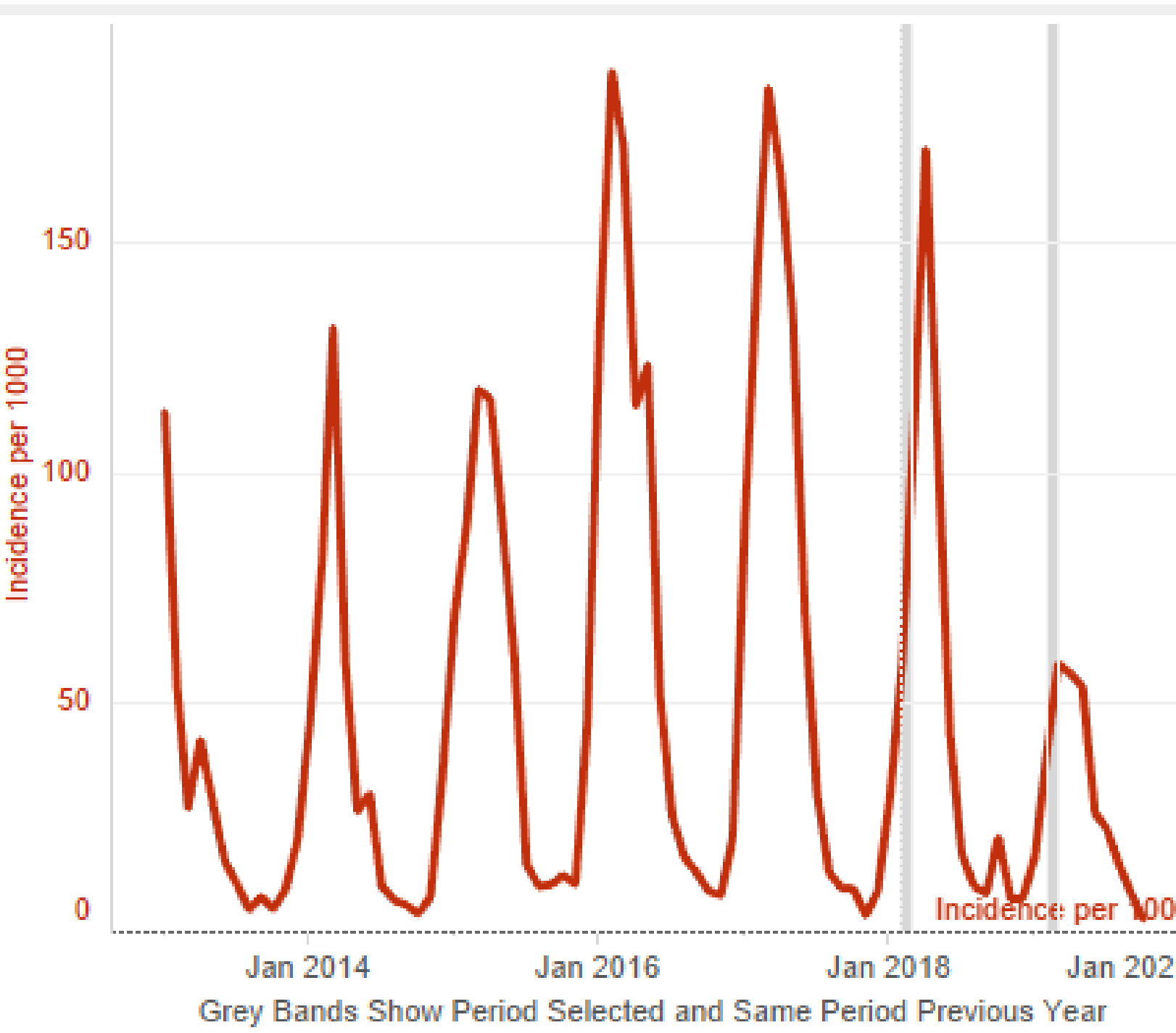


Figure 3: Malaria cases reported by health facilities and community health workers in Mulobezi District, Western Province, Zambia, aggregated to district level, 2015–2019.

Confirmed cases by health facility (orange) reduced from one transmission season to another while cases confirmed by CHWs (yellow/red) increased, thereby reducing congestion at facilities.

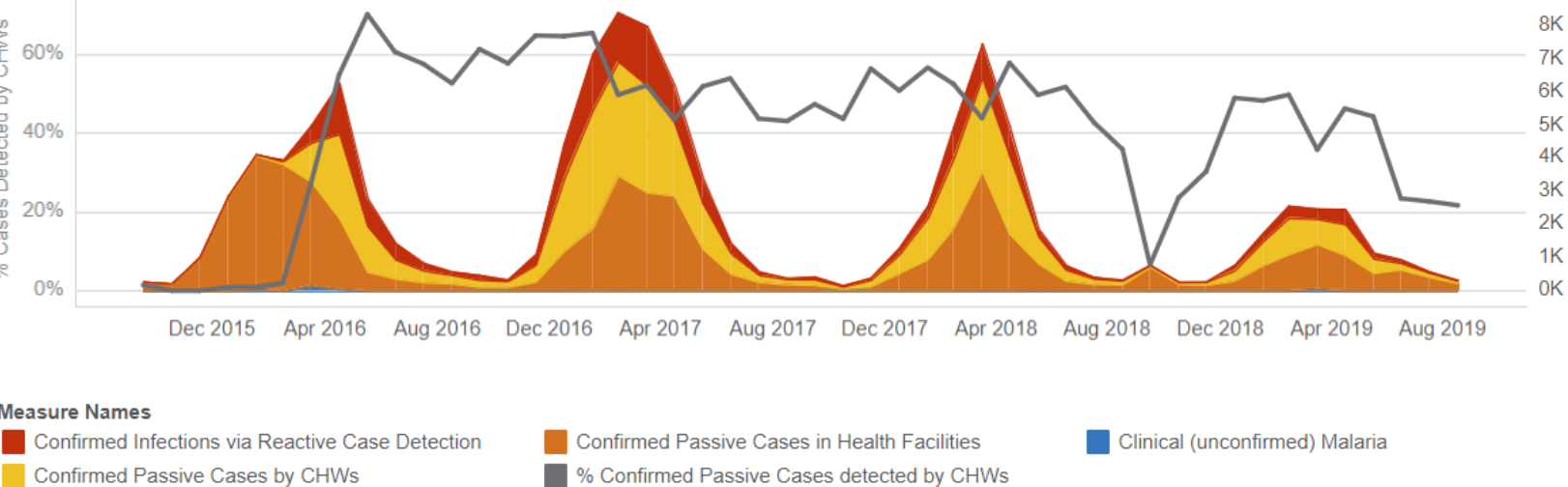


Table 1: Confirmed malaria cases in Mulobezi District, Western Province, Zambia, 2015–2019.

Point measure-ment	% total RCD passive confirmed cases	Active confirmed malaria	Passive confirmed cases (facility)	Passive confirmed cases (CHW)	Suspected malaria cases
Feb '15	5	98	107	1,840	384
Feb '16	1	7	38	4,041	53
Feb '17	65	1,707	3,552	1,895	0
Feb '18	56	353	1,248	963	0
Feb '19	43	152	444	586	0

Kafula Silumbe<sup>1</sup>, Javan Chanda<sup>1</sup>, Ketty Ndhlovu<sup>2</sup>, Marie Reine-Rutagwera<sup>1</sup>, Busiku Hamainza<sup>2</sup>, Anthony Yeta<sup>2</sup>, Mutinta Mudenda-Chilufya<sup>2</sup>, John M. Miller<sup>1</sup>

<sup>1</sup> PATH Malaria Control and Elimination Partnership in Africa (MACEPA), Lusaka, Zambia  
<sup>2</sup> National Malaria Elimination Centre, Lusaka, Zambia

