

Improving community case management of malaria through supply chain strengthening: The example of Nchelenge District, Zambia



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INTRODUCTION

- ✓ In 2021, Zambia had an estimated national malaria prevalence rate of 29%¹. Luapula Province, including Nchelenge District, recorded the highest prevalence at 63%¹. Nchelenge experiences intense transmission year-round, with minor seasonal fluctuations.
- ✓ The Ministry of Health (MOH) aims to train 40,000 Community Health Workers (CHWs) nationwide in integrated community case management (iCCM) by 2025. These CHWs will be deployed in rural areas, one CHW per 500 people.
- ✓ In 2021, Nchelenge had 382 CHWs trained in iCCM. However, many CHW-provided malaria services became inactive due to the non-supply of malaria commodities such as malaria rapid diagnostic tests (mRDTs) or first-line artemisinin-based combination therapy (ACTs). By 2023, 405 CHWs had been trained by the MOH with support from the U.S. President's Malaria Initiative's PAMO-Plus² project in Nchelenge District, covering about 202,500 population.
- ✓ In 2021, factors identified as limiting commodity availability at the community level included:
 - Non-inclusion of CHW commodity needs in the supply chain of their supporting health facilities (HFs).
 - Low commodity order rates and a lack of quality data in health facility reports.

INTERVENTIONS

- The USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project partnered with the MOH to establish a consistent supply of commodities to CHWs by:
- ✓ Collaborating with provincial and district MOH staff to ensure that approved order quantities for health facilities include the needs of CHWs for malaria case management.

- ✓ Introducing a Commodity Ordering and Tracking Tool (COTT) for community-level reporting of stock levels and consumption (Figure 1).

Figure 1: A snapshot of the COTT*

NAME OF PHC		NAME OF FACILITY										DISTRICT						
A	B	C	D	E										F	G	H		
Product Name	Units	Beginning Balance	Quantity Received from Facility	Total	Product Dispensed in the last reporting period										Total Issued	Closing balance	Remarks	
					DAY 1	DAY 2	DAY 3	DAY 10	DAY 11	DAY 12	DAY 21	DAY 22	DAY 30	DAY 31				
Artemisinin Suppositories	1	500															EF	
Paracetamol Tablets	1																	
Artemether + Lumefantrine, (6), Tablet 120/20mg	6																	
Artemether + Lumefantrine, (12), Tablet 120/20mg	12																	
Artemether + Lumefantrine, (18), Tablet 120/20mg	18																	
Artemether + Lumefantrine, (24), Tablet 120/20mg	24																	
Rapid Diagnostic Test for Malaria, Other each	1	TEST																

The tool provides an efficient way for CHWs to manage and track essential commodities with limited oversight and has now been integrated into the MOH-led iCCM training.

RESULTS

- ✓ Enhanced provision of malaria supplies to CHWs led to increased availability of mRDTs and ACTs, from 0% in May 2021 to 42% and 36%, respectively, by May 2023 (Figure 2).
- ✓ The increased availability of commodities contributed to a rise in malaria case detection by CHWs, from 79 cases in May 2021 to a peak of over 12,000 cases in February 2023, falling to 5,366 cases in May 2023 (Figure 3), enabling more timely treatment.

DISCUSSIONS/CONCLUSION

The contributing factors and way forward:

- ✓ Strengthening CHW supply chain management skills to monitor and maintain adequate stock of commodities at the community level.

- ✓ Utilizing a customized stock reporting tool to enable CHWs to manage essential commodities with minimal oversight.
- ✓ Integrating the COTT into MOH-led iCCM training programs.
- ✓ The results underscore the importance of engaging CHWs in commodity management for effective provision of malaria services at the community level.
- ✓ By mid-2023 stock supplies and CHW activities had yet to fully stabilize, highlighting the need for continued system strengthening.

Figure 2: CHWs with mRDTs and ACTs available to them

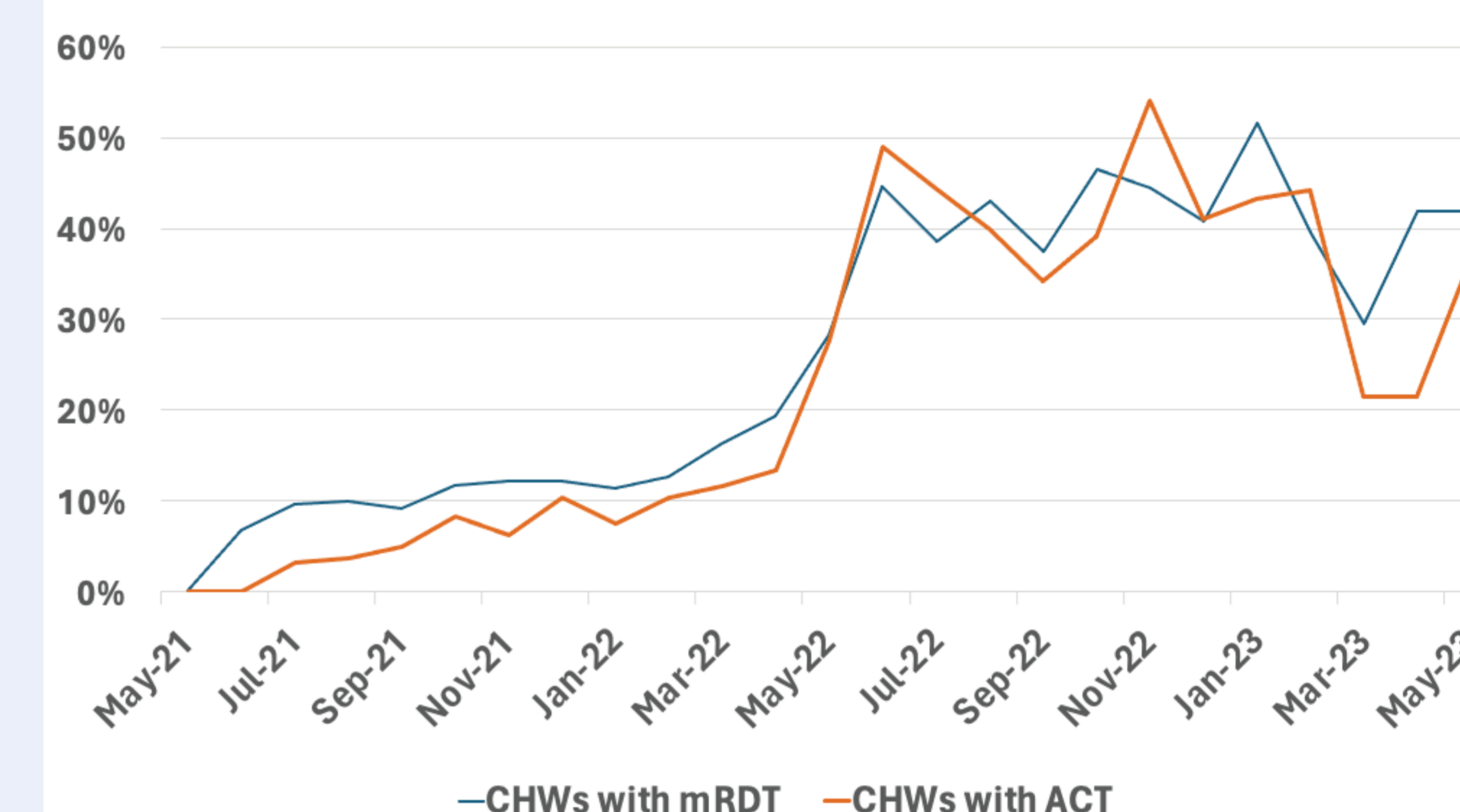


Figure 3: Malaria cases detected by CHWs



¹ Malaria Indicator Survey - Zambia, 2021

² PAMO Plus: Program for Advancement of Malaria Outcomes-Tableau Dashboard.

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