



Community Health Worker Experiences and Perceptions

*Findings from a PATH-MACEPA survey of
CHWs in Zambia*

9 November 2021



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Today's Topic & Speaker

Community Health Worker Experiences and Perceptions

*Findings from a PATH-MACEPA survey of
CHWs in Zambia*



Hosted by the
Institutionalizing iCCM subgroup



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Overview

1. PATH's approach to CCM assessment and optimization
2. Background & Aims
3. Survey Design & Results
4. Summary & Recommendations
5. Future Directions

PATH's data-driven approach to CCM assessment, optimization & evaluation

1. Assessment of current CCM system

Through CCM landscaping with NMECP's, describe CCM program implementation, identifying program strengths and weaknesses.

Develop learning agenda(s) of priority CCM assessment questions, in partnership with national stakeholders and decision-makers.

2. Benchmark needs to identify gaps and target areas

Benchmark CCM coverage needs across geographies to achieve saturation.

Identify where expansion of CCM programs would be most beneficial.

3. Optimally allocate CHWs within target areas

Within target areas, identify the optimal placement and activities of CHWs that:

- reflects CHW capacity and local burden;
- improves community access where needed.

4. Integrate novel technology platforms

Assess use of digital tools and create an up-to-date catalogue of training and communication materials, learning from evaluations and schedule for periodic testing of CHW knowledge.

5. Evaluate and iterate

Evaluate the performance of CHWs, including:

- **Assessment of CHW support and needs**
- **Analysis on CHW performance, knowledge, motivation, and retention.**

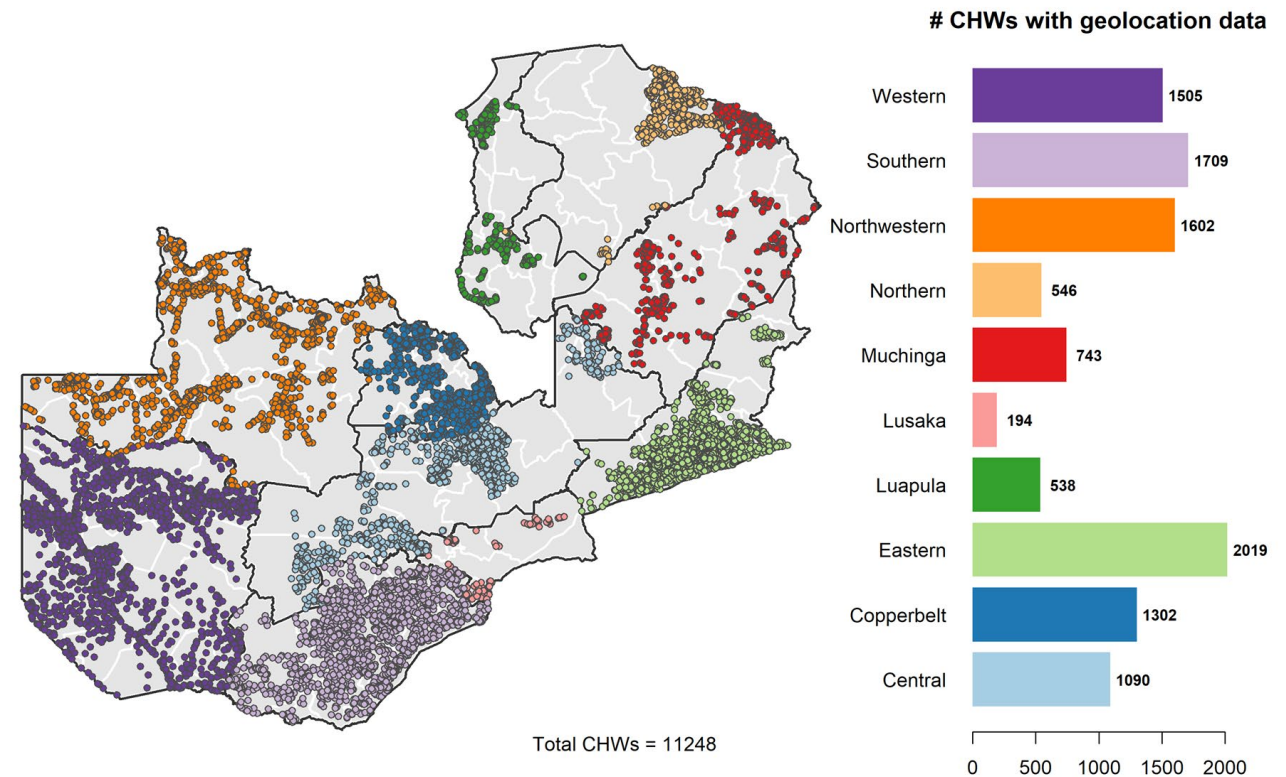
Iterate on stages 3-4, revisiting landscaping and benchmarking stages as needed.



Background

- Zambia's National Malaria Elimination Program (NMEP) began scale-up of a Community Case Management (CCM) program in 2013
- CHWs under the NMEP's CCM program provide closer access for those seeking treatment for malaria and conduct (re)active follow-ups to households of identified cases
- As of November 2018, 3,448 NMEP CHWs in southernmost provinces; currently over 11,000 CHWs trained under expanded iCCM protocol
- Interest among stakeholders to understand more about this population of health workers in Zambia with regards to demographic characteristics, experience, or factors that might influence CHW performance

Figure 1 - Distribution of iCCM-trained CHWs as of 2020



Goal & Aims

To help inform strategies for supporting NMEP CHWs, this work sought to profile the workforce and explore factors potentially associated with individual performance outputs

1. [CHW Profile] Describe characteristics of CHWs and their experiences with the NMEP's malaria CCM program
2. [Performance] Describe CHW performance and assess relationships between CHW characteristics/experience with the program and individual performance
3. [Motivation] Describe motivation and assess relationships between components of motivation and performance



Survey Design

- Cross-sectional survey of NMEP's CHWs providing malaria CCM
- Stratified random sample (by province and duration of service) among population of NMEP CHWs (3,448 as of Nov. 2018); 480 selected in total
- Developed guiding framework and questionnaire based on review of literature describing environmental, health system, community, and personal determinants of health worker and CHW performance
- Questionnaire included topics of interest to NMEP and/or believed relevant to this population, including: demands on CHW time, health system support, community service utilization, challenges, satisfaction with incentives, and motivation
- Questionnaires administered over the phone (347 CHWs) and in person (57 CHWs) by trained data collectors; responses entered into KoBoToolbox data forms

CHW Profile - Demands on CHW Time

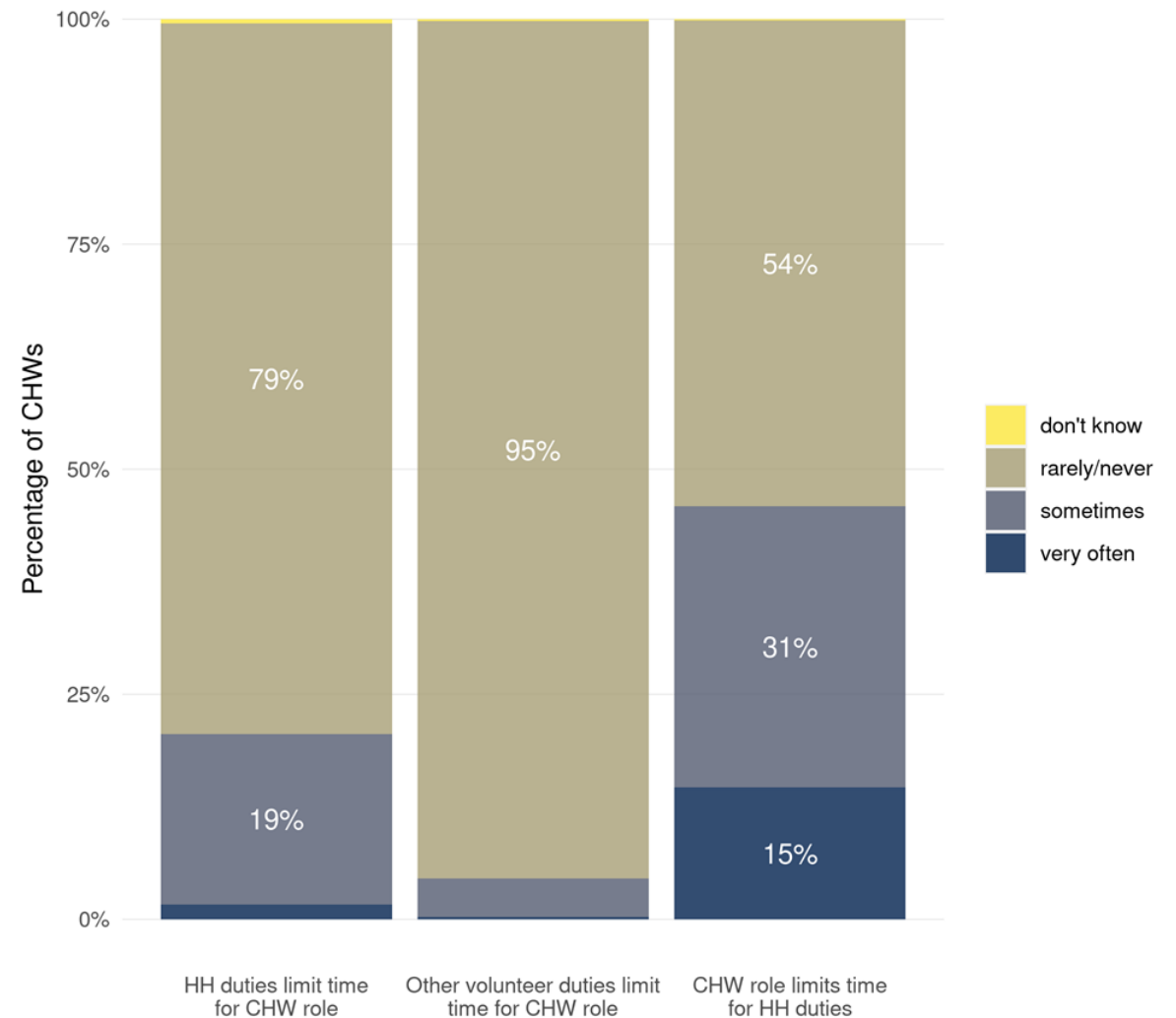
Approximately 80.4% of CHWs are the primary individual responsible for income within their household.

72.9% concurrently serve in other volunteer health worker role(s)

Very few feel that household responsibilities (1.6%) or other volunteer roles often interfere with CHW responsibilities (0.2%).

However, CHWs more frequently report that their role interferes with time for household and/or income earning duties.

Figure 2 - Frequency of conflict between CHW role, household duties, and other volunteer roles



CHW Profile - Program Support

Figure 3 - Supervisory task importance and provision

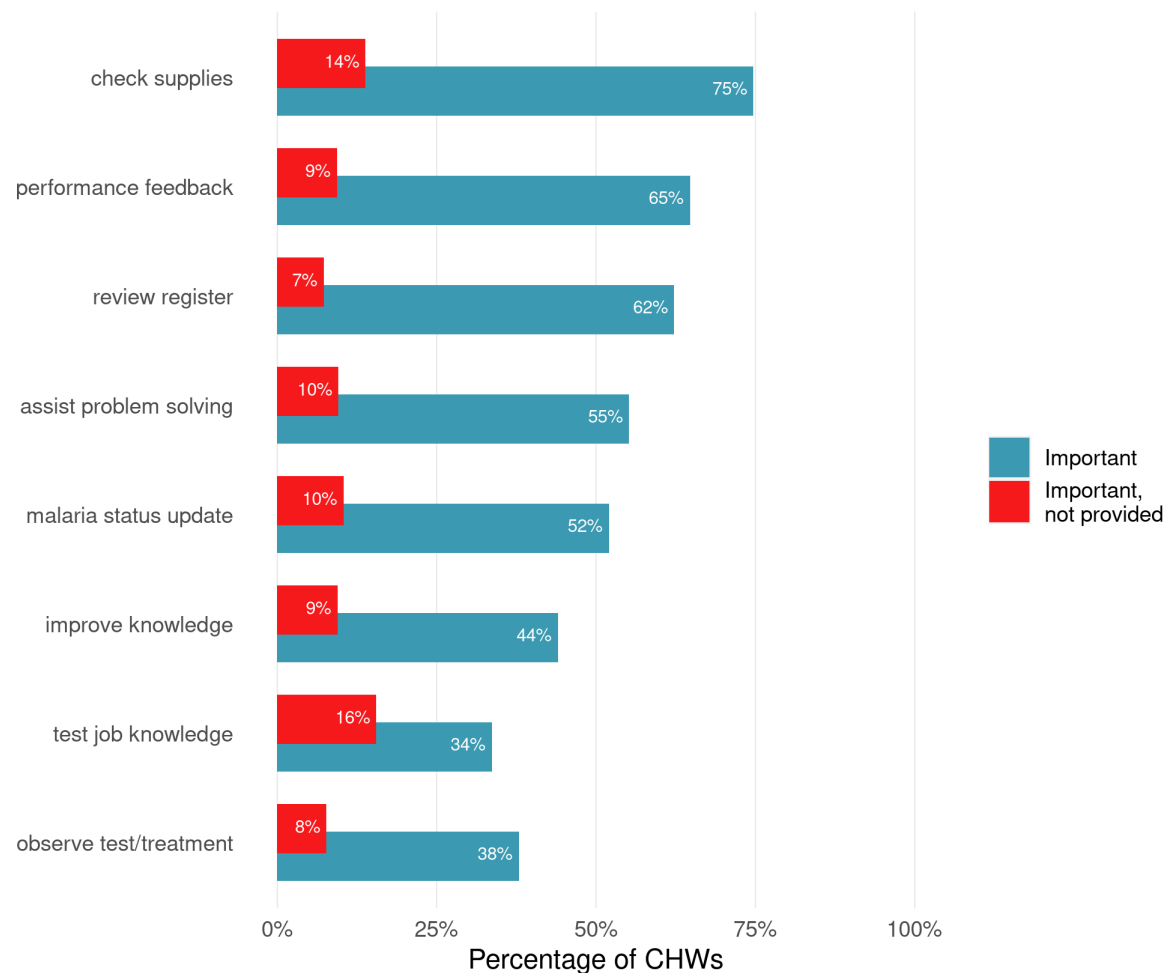
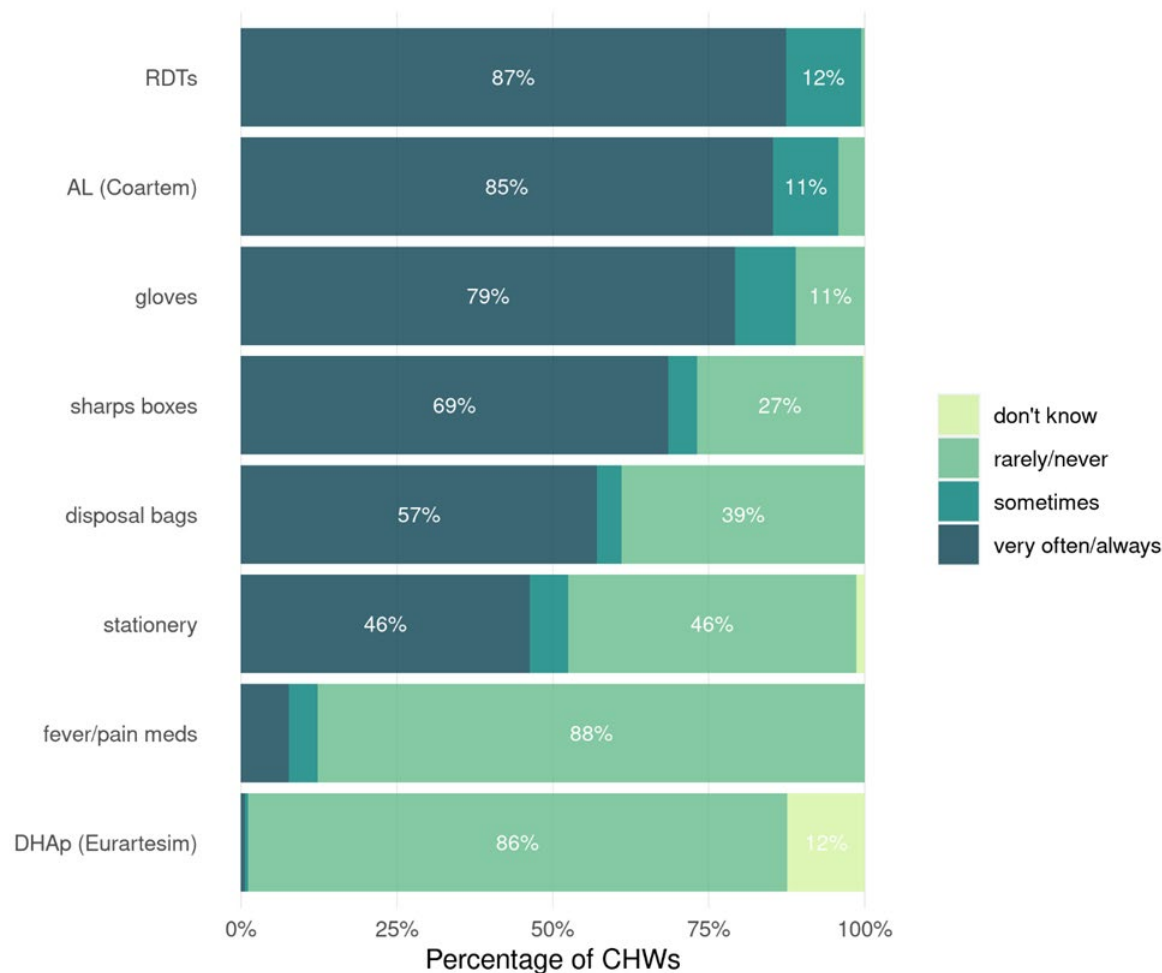


Figure 4 - Frequency supplies provided when requested



CHW Profile - Community Acceptance

Figure 5 - CHW perceptions of community service utilization, refusals, and adherence to referral recommendations

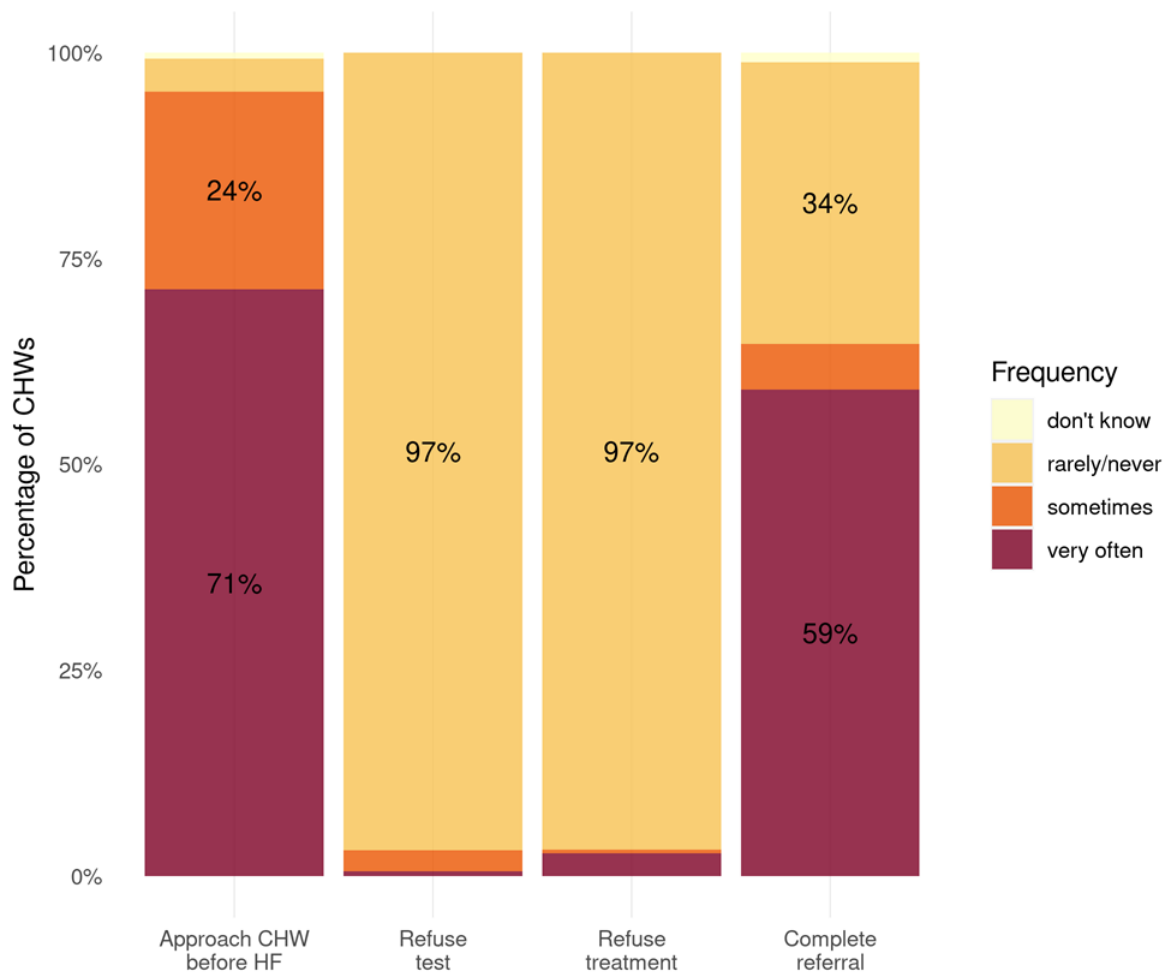
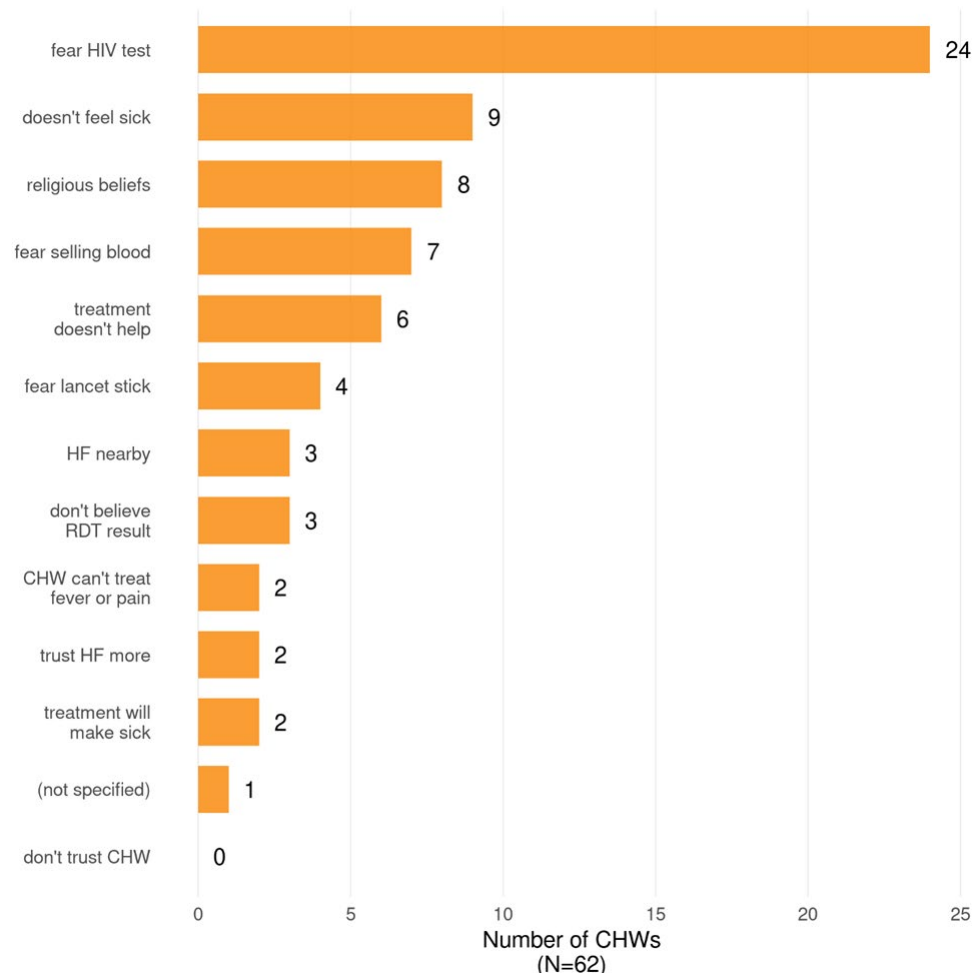


Figure 6- Perceived reasons for malaria testing or treatment refusal



CHW Profile - Barriers & Incentives

Figure 7 - Barriers to performing CHW duties

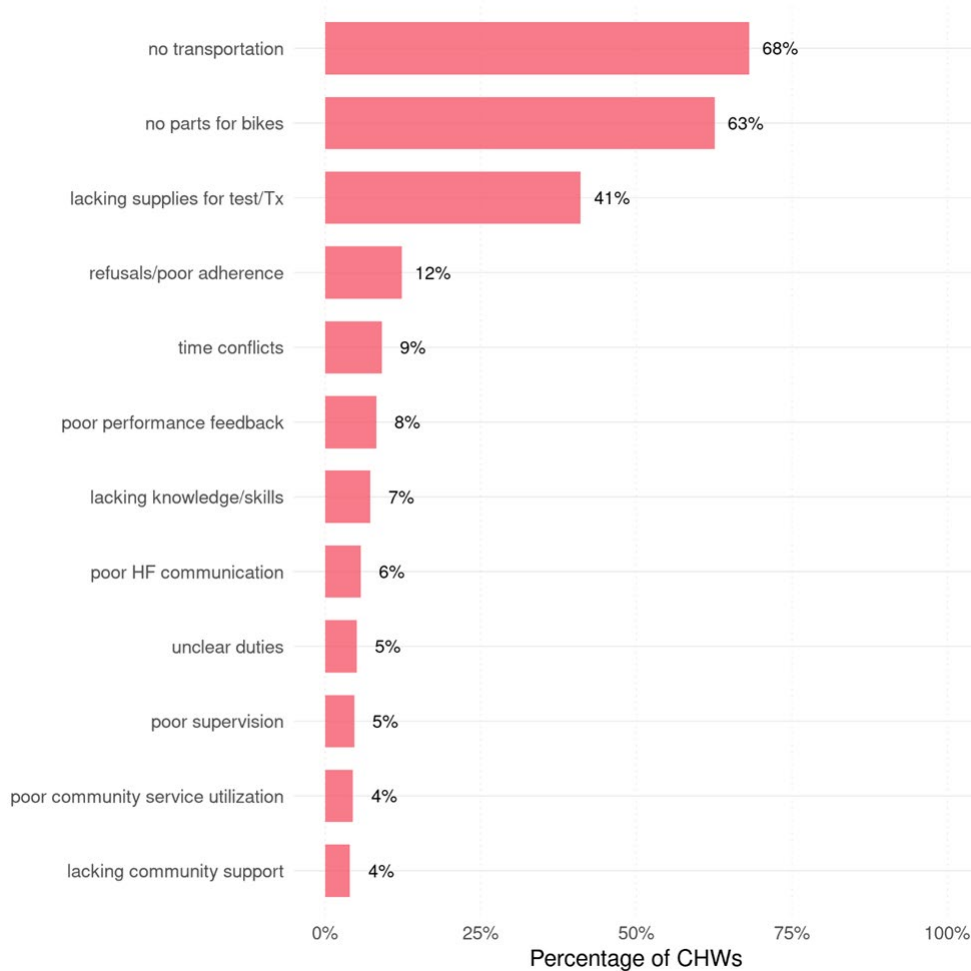
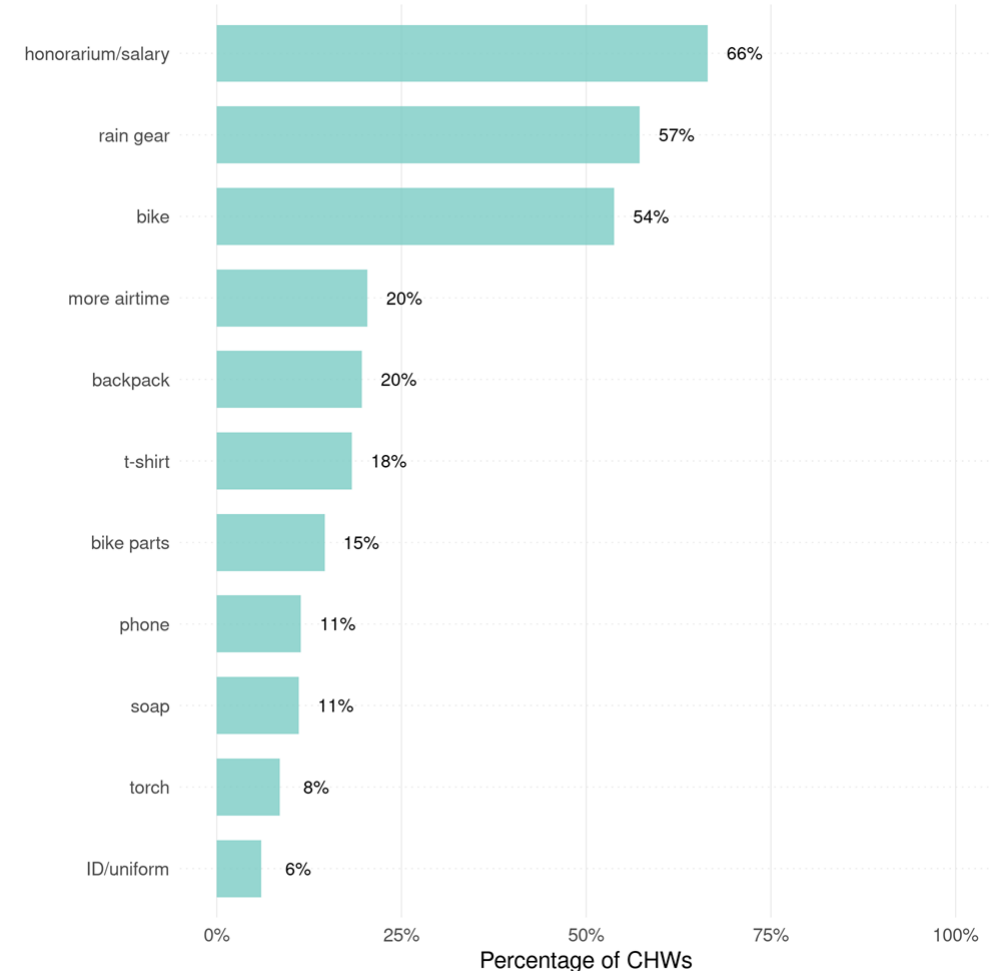


Figure 8 - Preferred Incentives



CHW Profile – Comparisons by Gender

Distribution of men and women similar with respect to age and education

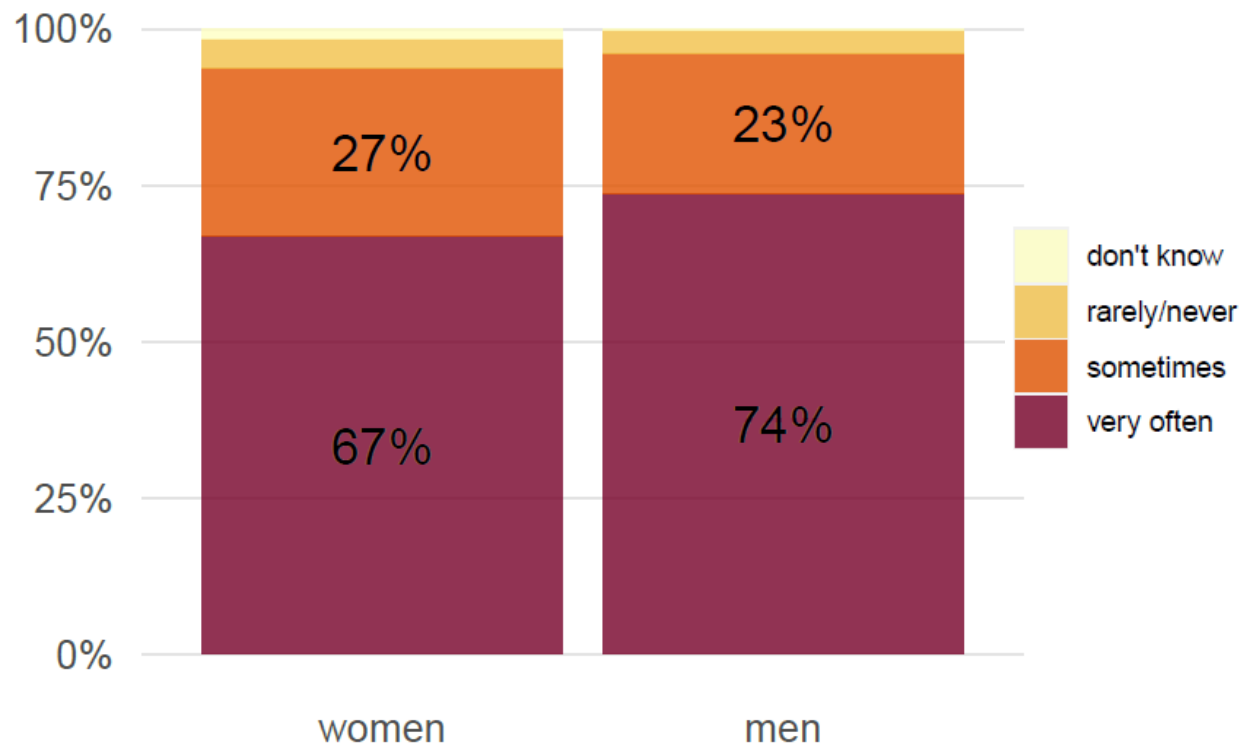
Women less likely to be married or report being the primary individual responsible for income generation

Fewer women have ever served in other volunteer health worker roles and are less likely to have received iCCM training (10.4% vs 24.6%)

Women more likely to report higher satisfaction with incentives, though also more likely to report interest in receiving monetary payments

Motivation scores did not significantly differ between men and women

Figure 8 – CHW perceptions of the frequency community members seek treatment with a CHW before presenting to a health facility, by gender



Motivation – Measurement and Analysis

Battery of 63 Likert-scale items within the questionnaire across 14 topics (Table 3) intended to address determinants and outcomes of motivation¹⁻⁸

Composite scores for each topic area were positive on average, though more neutral leaning with respect to incentives and resource availability

Exploratory factor analysis (EFA) was used to condense these items down to a smaller set of factors

Scores for each factor were then compared across CHW subpopulations and to individual performance outputs

Table 3 - Raw motivation dimension composite

Dimension	Mean Score
	(-) (+)
Motivational Determinants	
Program Support	0.9
Community Support	1.1
Job Characteristics	1.3
Feedback	1.2
Self-efficacy	1.2
Role Preparation	1.1
Workload	0.7
Incentives	0.4
Resource Availability	0.4
Motivational Outcomes	
Enthusiasm for Role	1.0
Intrinsic Motivation	1.5
Program Commitment	1.4
Perceived Conscientiousness	1.5
Job Satisfaction	1.5

Note:

Score: -2=High Negative Alignment, 0=Neutral, 2=High Positive Alignment

Motivation – Factor Grouping

Determinants of motivation

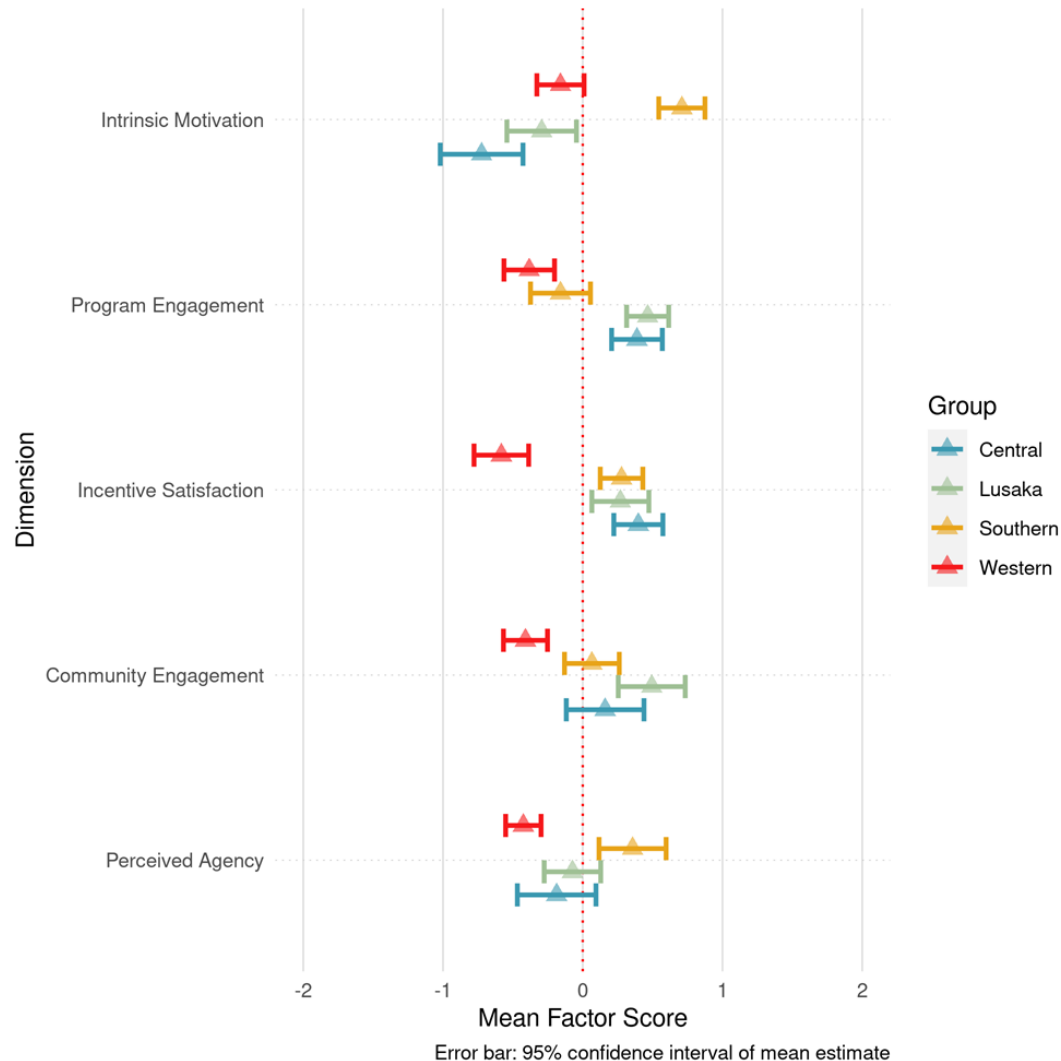
- "Perceived Agency" – Individual is equipped for their role in terms of resources and skills and allowed the flexibility to conduct their duties
- "Community Engagement" – Communities value services, respect CHWs, and provide feedback
- "Incentive Satisfaction" – Incentives are fair, appropriate, and show program appreciation

Outcomes of motivation

- "Program Engagement" – Individual is making meaningful contributions to a program focused on an important goal
- "Intrinsic Motivation" – Role is personally rewarding

Motivation – Differences among Subpopulations

Figure 10 - Mean EFA factor scores by province



Clear differences in motivation factor scores (post-EFA) by province, thought to be largely due to differences in workload—lower scores among CHWs in higher transmission areas

No other notable differences in average factor scores by gender, age group, or duration of service

None of these factors were associated with performance outcomes after accounting for the temporal and spatial differences in malaria transmission intensity

CHW Performance Analysis Summary

Performance analysis further considered associations between CHW characteristics/experiences and malaria CCM outputs (malaria testing rates)

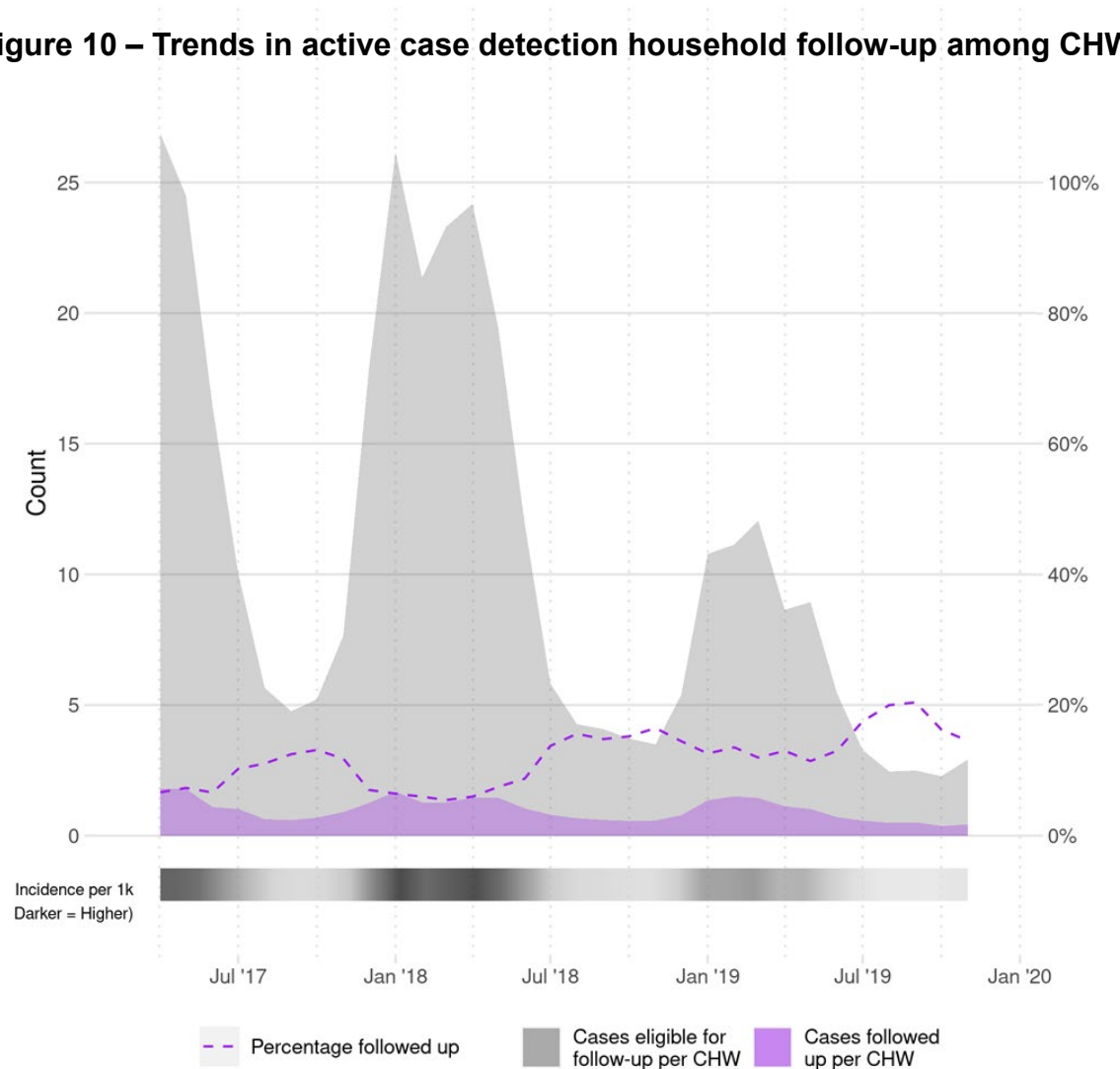
Results highlighted important limitations in the degree of active case detection CHWs' to conduct active case detection (Figure 9)

Measures of supervisory support, supply availability, and community support were ultimately not associated with individual CHW outputs

Greater **interest in monetary incentives** and **lower satisfaction with current incentives** observed among CHWs with **higher outputs**

Additional results of performance assessment included in ASMTH 2021 poster presentation #1158, Porter, et al.

Figure 10 – Trends in active case detection household follow-up among CHWs



Summary

Responses regarding community acceptance, supervision, availability of RDTs and ACTs, and motivation DID NOT suggest that these were frequent bottlenecks to provision of services

Reported challenges were often related to active malaria case detection component requiring household follow-up visits

CHWs frequently expressed interest in additional incentives, many specifically related to supporting their role

CHWs indicated multiple sources of potential conflicting demands on time; indication of lower motivation in higher malaria transmission areas where CHWs have a higher workload



Program Recommendations

Consider expectations around RCD and means of improving capacity to meet program goals

- Improve access to functioning bicycles and rain gear
- Appoint additional (seasonal) RCD-focused CHWs in higher transmission areas

Revise incentives to better address needs and support long-term motivation

- Processes for providing needed goods beyond RDTs and ACTs may reduce out-of-pocket costs to CHWs and ease the pressure to provide salaries
- Still, monetary incentives will likely be important, particularly in areas of higher malaria burden

Improve tracking of other community volunteer programs to better understand and address overlapping expectations on CHWs

- Managing community expectations of CHWs will likely be important for ensuring CHWs are capable of meeting program expectations

Future Directions



Results from this work can be (and have been) used for advocating for investments with more impact.

Building on this work, PATH-MACEPA is further exploring how these lessons can be applied towards developing systems/processes that can improve interactions with CHWs and support in Zambia.

Efforts are also underway to extract and refine informative components from the workforce survey tool and apply to other geographies to identify opportunities to improve support for volunteers providing malaria CCM.

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Q & A

Supplemental - EFA factor loadings

Factor loadings: determinants of motivation

Factor	Item	Loading	Cronbach's alpha
Perceived Agency	You can make meaningful decisions about how you do your job.	0.823	0.836
	You are provided with enough information to effectively do your job.	0.688	
	Your CHW duties, requirements, and goals are clear and specific.	0.616	
	Your role gives you a feeling of achievement and accomplishment.	0.606	
	You have flexibility in the way you can complete your duties.	0.585	
	You are confident about your ability to handle work problems.	0.550	
	You feel that you have control of things concerning your role.	0.498	
	You feel that at work things are going the way you would like them to.	0.458	
	You receive regular updates on how your door-to-door work and data collection contributes to identifying, tracking and reducing malaria in your community.	0.415	

Factor loadings: determinants of motivation (con.)

Factor	Item	Loading	Cronbach's alpha
Community Engagement	Community members value malaria testing and treatment.	0.771	0.808
	Community members make use of the services you offer.	0.748	
	Your community respects your role as a CHW.	0.691	
	Community leaders openly listen to your ideas and opinions.	0.609	
	Your role provides acknowledgement and recognition from your community.	0.490	
	Community members follow your advice.	0.448	
	Members of the community give you feedback on your work.	0.439	
Incentive Satisfaction	As a volunteer position, the incentives you receive are appropriate for your skills and knowledge.	0.897	0.725
	The incentives you receive make you feel like the program really appreciates your work.	0.652	
	As a volunteer position, the incentives you receive are fair compared to other similar volunteer positions.	0.567	

Supplemental - EFA factor loadings (con.)

Factor loadings: outcomes of motivation

Factor	Item	Loading	Cronbach's alpha
Program Engagement	You believe malaria elimination is possible in your area.	0.821	0.883
	You are a hard worker.	0.726	
	This program is making important steps towards malaria elimination.	0.701	
	You are reliable and dependable at work.	0.636	
	You always complete your tasks efficiently and correctly.	0.632	
	You are proud to be working for this program.	0.631	
	You would like to continue with your role as a CHW in this program.	0.563	
	Overall, you are very satisfied with your job.	0.560	
	This program really inspires you to do your very best on the job.	0.535	
	This work makes you feel good about yourself	0.503	
	You do things that need doing without being asked or told.	0.496	
	You are satisfied with the opportunity to learn new things in this role.	0.432	
Intrinsic Motivation	You are satisfied that you can accomplish something worthwhile in this job.	0.604	0.750
	You are satisfied with the opportunity to use your abilities in this job.	0.507	
	You are satisfied with the opportunity to learn new things in this role.	0.445	

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iCCM Subgroup Updates



- Potential collaboration with Nutrition subgroup related to webinar **tomorrow at 9am EST (GMT-5)**
 - *Sick Child Feeding and Care Practices: Sharing findings from an MCGL report in 16 African Countries*
 - **Announcement and registration link here:** <https://conta.cc/3Brje7v>
- Subgroup Advisory Committee for Impact Malaria collaboration on institutionalizing iCCM
 - Toolkit
 - Deep dives in three countries
 - CHW compensation assessment
 - January meeting
- Sharing iCCM resources on the Task Force website
- Sign up to join the subgroup: www.childhealthtaskforce.org/subscribe

Recordings and presentations from previous iCCM subgroup webinars and meetings:
www.childhealthtaskforce.org/subgroups/iccm

**The recording and presentations from this webinar will be available on this page later today*



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