

# Moving to a strong(er) community health system: analysing the role of community health volunteers in the new national community health strategy in Malawi

Vibian Angwenyi,<sup>1,2,3</sup> Carolien Aantjes,<sup>4</sup> Ketwin Kondowe,<sup>5</sup> Joseph Zulu Mutchiyeni,<sup>5</sup> Murphy Kajumi,<sup>4</sup> Bart Criel,<sup>2</sup> Jeffrey V Lazarus,<sup>3</sup> Tim Quinlan,<sup>4</sup> Joske Bunders-Aelen<sup>1</sup>

**To cite:** Angwenyi V, Aantjes C, Kondowe K, *et al*. Moving to a strong(er) community health system: analysing the role of community health volunteers in the new national community health strategy in Malawi. *BMJ Glob Health* 2018;**3**:e000996. doi:10.1136/bmjgh-2018-000996

**Handling editor** Stephanie M Topp

► Additional material is published online only. To view please visit the journal online (<http://dx.doi.org/10.1136/bmjgh-2018-000996>).

Received 7 June 2018  
Revised 17 September 2018  
Accepted 22 September 2018



© Author(s) (or their employer(s)) 2018. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

**Correspondence to**  
Vibian Angwenyi;  
[v.angwenyi@vu.nl](mailto:v.angwenyi@vu.nl)

## ABSTRACT

Since the Alma Ata Declaration in 1978, community health volunteers (CHVs) have been at the forefront, providing health services, especially to underserved communities, in low-income countries. However, consolidation of CHVs position within formal health systems has proved to be complex and continues to challenge countries, as they devise strategies to strengthen primary healthcare. Malawi's community health strategy, launched in 2017, is a novel attempt to harmonise the multiple health service structures at the community level and strengthen service delivery through a team-based approach. The core community health team (CHT) consists of health surveillance assistants (HSAs), clinicians, environmental health officers and CHVs. This paper reviews Malawi's strategy, with particular focus on the interface between HSAs, volunteers in community-based programmes and the community health team. Our analysis identified key challenges that may impede the strategy's implementation: (1) inadequate training, imbalance of skill sets within CHTs and unclear job descriptions for CHVs; (2) proposed community-level interventions require expansion of pre-existing roles for most CHT members; and (3) district authorities may face challenges meeting financial obligations and filling community-level positions. For effective implementation, attention and further deliberation is needed on the appropriate forms of CHV support, CHT composition with possibilities of co-opting trained CHVs from existing volunteer programmes into CHTs, review of CHT competencies and workload, strengthening coordination and communication across all community actors, and financing mechanisms. Policy support through the development of an addendum to the strategy, outlining opportunities for task-shifting between CHT members, CHVs' expected duties and interactions with paid CHT personnel is recommended.

## INTRODUCTION

Community health volunteers (CHVs) play a vital role in extending care and support

## Summary box

- Community health volunteers' (CHVs) contribution to health service delivery, especially for underserved communities, has gained recognition globally.
- Many low-income countries face critical human resources for health challenges, and therefore require innovative strategies and inclusive policies to address these challenges.
- Malawi's recently launched national community health strategy provides a blueprint for service delivery at the community level, through newly formed community health teams (CHTs) consisting of health surveillance assistants, nurses, environmental officers and supported by CHVs.
- This paper examines the interface between CHVs and other CHT members in implementing Malawi's community health strategy, identifies potential challenges, and offers policy reflections and recommendations such as: the need for a thoughtful and pragmatic approach to task-shifting initiatives in addressing the community health workforce challenges; an addendum to the strategy, outlining opportunities for task-shifting between CHT members, expected duties of CHVs and interactions with paid CHT personnel, is necessary; and a multisectoral approach is needed to ensure sufficient funding and resource allocation for optimal provision of community-level essential health package interventions.

to communities, particularly underserved populations, in settings with health workforce shortages and resource challenges.<sup>1</sup> In sub-Saharan Africa and most low-income settings, CHVs' contribution to community health have resulted in several health indicator gains in child health, maternal and reproductive health, malaria and HIV/AIDS.<sup>1-4</sup> Efforts to achieve universal health coverage,<sup>5</sup> and the Sustainable Development Goals agenda,

emphasise the need for countries to invest in their community health workforce to support the delivery of primary healthcare interventions.<sup>6-8</sup> This call to action has witnessed African governments make commitments to address the human resources for health challenges,<sup>8</sup> supported by global initiatives such as the One Million Community Health Workforce campaign.<sup>9</sup> In the past, CHVs have been part of primary healthcare systems, embedded within communities yet outside of, but aligned to, professional health service structures.<sup>10</sup> The current global agenda is to integrate CHV programmes into formal structures of national health services.<sup>10</sup> This complex yet critical task has been undertaken by a number of countries, including Malawi, which is the focus of our analysis.

Malawi recently launched a national community health strategy (2017–2022), which provides a national framework, founded on a team-based approach, for harmonising multiple health initiatives at the community level and for strengthening delivery of primary health services.<sup>11</sup> Prior to this strategy, state-paid health surveillance assistants (the lowest professional health worker cadre) were responsible for delivering a range of community-level health interventions, which were often components of different vertical programmes.<sup>12-13</sup> Numerous volunteer-led community-based programmes were active in the same communities and provided disease-focused interventions with external financing, guided by a national community home-based care policy.<sup>13-14</sup> The new strategy has a broader goal and provides a roadmap for coordination of all of Malawi's community health services.<sup>11</sup> The strategy is a product of extensive consultations between the government, development partners (donors) and civil society organisations.

This paper reviews Malawi's community health strategy. It is guided by three questions: (1) what services are expected to be delivered at community level under this new strategy, and by whom; (2) how are community actors coordinated and guided in implementing this strategy; and (3) how are activities financed? Our analysis was informed by an extensive desk review of government documents and other publications on community and primary healthcare in Malawi; drawing on authors' expertise in community health and joint reflections on the strategy's content; and context-specific information obtained from a larger study,<sup>15</sup> which focused on CHVs' roles in supporting chronic care services in Phalombe district, Malawi conducted between 2016 and 2017 (see additional information in online supplementary material 1). Below, we briefly review the historical and current context of community health before our analysis of Malawi's strategy.

### COMMUNITY HEALTH VOLUNTEER INITIATIVES WITHIN NATIONAL HEALTH SYSTEMS

There is global consensus on the importance of community-based health workers and on consolidating the contribution of community-led health initiatives.<sup>7-10-16</sup>

Common generic terms for these workers are 'community health volunteers' or 'community health workers', which covers an array of individuals, selected through different mechanisms (eg, nomination, election and/or hired from communities), who receive basic healthcare training and fulfil a variety of roles within communities.<sup>1-7-17</sup> Examples include India's Accredited Social Health Activist,<sup>18</sup> Nepal's Female Community Health Volunteer scheme,<sup>19</sup> Ethiopia's health extension workers<sup>20</sup> and other broad terms like lay volunteers.<sup>1</sup> However, there is general acknowledgement that the roles and categories of these health providers are often blurred due to variable terms of engagement such as whether they are paid or unpaid, contracted as permanent or casual workers, have undergone accredited training and what recruitment mechanisms are used, including whether or not they ought to be residents of communities they serve.<sup>2-17-21</sup>

These are issues which, in the 1990s and early 2000s, led countries (e.g. Ethiopia, Kenya, Rwanda, South Africa, Zambia) to establish national community health policies and strategies.<sup>20-22-26</sup> In some cases, additional guidelines were developed and scaled up to facilitate collaboration and task-shifting processes between professional and non-professional health workforce.<sup>3-23</sup> The challenges encountered in this historical process have been considered in a number of studies.<sup>2-26-29</sup> For instance, CHVs in some countries are often overlooked in government policies even though 'on the ground', they are known to liaise and/or work with formally recognised community health worker cadres, such that recently there have been recommendations for more inclusive policies.<sup>2-10-21</sup> Furthermore, providing financial incentives for volunteers remains contentious; the threat to the longstanding ethic of voluntarism set against concerns about the inequity, in impoverished communities, of not compensating CHVs.<sup>30-32</sup> While these challenges are not new nor unique to present-day health systems, they require solutions that align to the commitments declared in Alma Ata in 1978.<sup>33</sup>

### COMMUNITY HEALTHCARE IN MALAWI

Malawi, a southern-African country with 17 million people, has a three-tier healthcare system.<sup>13-34</sup> That is, primary health (including community-level services), secondary and tertiary levels of care, linked through a referral system.<sup>34</sup> In 1998, health service management was decentralised to district council authorities, who oversee planning, coordination and financing of health activities in their jurisdiction.<sup>13</sup> Nonetheless, in a country where over 80% live in rural areas, Malawi has depended on community-level health workers for many years. For instance, in the 1960s–1970s, volunteers were hired to serve as smallpox vaccinators and cholera assistants.<sup>13-35</sup> Absorption of such volunteers into the national health workforce came to fruition in 1998, when Malawi officially created the health

surveillance assistant (HSA) cadre as a permanent post (see [table 1](#)).<sup>36 37</sup> HSAs' recruitment criteria include secondary school completion and language competence, and on selection, individuals must undergo at least 12 weeks of pre-service training.<sup>37 38</sup> At present, HSAs constitute more than one-third (over 9000 employees) of Malawi's health workforce, performing a broad range of tasks that include health promotion, immunisation and disease surveillance.<sup>34 38</sup> Existing evidence documents how HSAs' roles evolved over time, their performance towards achieving health goals and job-related challenges.<sup>12 35 36 39</sup> Recent evidence shows HSAs' gradual support to facility-based tasks for non-communicable diseases (NCDs) and mental health services.<sup>40 41</sup>

Malawi's extensive network of CHVs<sup>13 14 42</sup> emerged largely in response to the HIV/AIDS shifting epidemic and directed by donor-driven project activities and global financing mechanisms for health (see [table 1](#)). Community home-based care programmes run by community-based/faith-based organisations (CBO/FBOs) offered health promotion, HIV testing advocacy, palliative care and home nursing for patients with HIV/AIDS through a volunteer workforce.<sup>14 42–44</sup> In 2005, Malawi's government introduced a community home-based care (CHBC) policy and guidelines, which set standards for CHBC programmes, and later revised in 2011 to incorporate care support for patients with other chronic conditions (such as cancer and cardiovascular diseases) and at-risk groups.<sup>43</sup>

### MALAWI'S COMMUNITY HEALTH STRATEGY (2017–2022)

The strategy proposes formation of a community health team (CHT), consisting of frontline health staff (HSAs, senior HSAs, nurses and environmental health officers) supported by CHVs, in linking community and primary healthcare interventions.<sup>11</sup> The strategy's core principles and objectives are highlighted in [box 1](#). Malawi's transition to the proposed service delivery structure is anticipated to be a dynamic process with possible overlaps in key areas of service delivery, coordination and finance, which we highlight in the next section.

### POTENTIAL DYNAMICS, OVERLAPS AND FRICTION IN IMPLEMENTING MALAWI'S STRATEGY

#### Service delivery and the community health workforce

The different care providers within CHTs have different responsibilities and would require adjusting to 'newer' roles, to ensure the provision of a range of services at community level, defined in the strategy as essential health package (EHP)—as illustrated in [table 2](#). Focusing on HSAs and CHVs, HSAs previously carried out disease surveillance, health promotion, immunisation, reproductive and child health activities. Under this strategy, HSAs are to provide psychosocial support, home follow-up visits and advice to patients with NCDs. Furthermore, HSAs are to take up more supervisory

tasks by overseeing CHVs' activities and other community-based groups. Notably, some interventions such as dispensing antiretroviral therapy and providing first-line treatment for epilepsy and depression are reserved exclusively for clinicians based at primary healthcare level (i.e. community health nurses and community midwife assistants). A mismatched and mal-distributed health workforce at community level remains a concern. While HSAs are expected to deliver the bulk of community-level EHP interventions, filling these posts to the recommended target of 1 HSA per 1000 people within a short time frame remains a challenge.

The lack of specificity on CHVs' envisaged roles or expected contribution as CHT members may potentially cause ambiguity. Authors' experience with CBO/FBOs in one district suggested CHVs' roles prior to the strategy were continuously expanding, and their specialisation in certain domains served as a basis for allocating responsibilities to individuals (see [table 2](#), column 5). There is potential danger for CHVs, under the new configuration, to be drawn into service delivery tasks/responsibilities beyond their competence, such as NCDs and mental health, which CHVs mentioned they required additional training and skills building. While the strategy recommends provision of refresher training and development of a national integrated training guideline for CHTs, these developments were yet to unfold at the time of our analysis and the extent of CHVs' inclusion unspecified.

#### Multiple accountability and coordination structures

Malawi's strategy presents a new accountability and reporting structure for coordinating all community health actors (see [box 2](#)). At the community level, the proposal is to engage various community-level groups such as the village health committees (VHCs), typically composed of volunteer representatives selected by communities, working together with health and local administrative structures.<sup>45</sup> VHCs' functions include developing community health action plans, channeling information and promoting primary healthcare activities among community members.<sup>11 45</sup> VHCs are tasked with selection of skilled CHVs for the CHTs. HSAs in turn are expected to support the establishment of VHCs, train VHCs on their expected roles and provide supervision. HSAs are to organise monthly meetings with VHCs and CHVs, and quarterly meetings with VHCs and CHT members. This approach of forging closer linkages and setting up mechanisms for communication and reporting is anticipated to strengthen synergies and efficiencies in community health service delivery under the Ministry of Health umbrella. CBO/FBO structures have traditionally worked with and reported to different sectoral authorities linked to health, social welfare, local government, education and agriculture. Under the new strategy, formal accountability and reporting lines will now be concentrated under the Ministry of Health.

**Table 1** HSAs and CHVs before Malawi's community health strategy

	Health surveillance assistants (HSAs)	Community health volunteers (CHVs)
Terminologies and brief description	<ul style="list-style-type: none"> <li>▶ A health surveillance assistant is a state-paid, primary healthcare worker serving as a link between a health facility and the community</li> </ul>	<ul style="list-style-type: none"> <li>▶ CHVs are “individuals who willingly offer their time, skills, and knowledge to work with communities to improve the health status of communities they reside in without expecting financial remuneration”</li> <li>▶ Some examples include volunteers in community-based/faith-based organisations (CBO/FBOs), community-based distribution agents, growth monitoring volunteers, peer educators, traditional birth attendants, sanitation promoters, representatives selected to community committees (such as village health committees)</li> </ul>
Policy context (key timelines)	<ul style="list-style-type: none"> <li>▶ 1960s: government hires and trains volunteers as smallpox vaccinators</li> <li>▶ 1970s: government hires and trains volunteers as cholera assistants</li> <li>▶ 1998: government formally establishes HSAs cadre</li> <li>▶ 2014: HSAs' task-shifting policy and guidelines introduced</li> </ul>	<ul style="list-style-type: none"> <li>▶ 1980s to early 2000: informal caregivers provide home-based care (pre-antiretroviral treatment era)</li> <li>▶ 2005: introduction of a national palliative care policy and community home-based care (CHBC) guidelines. Policy focused on HIV and other opportunistic infections</li> <li>▶ 2011: revision of CHBC policy to place emphasis on care and support for other chronic conditions and vulnerable groups</li> </ul>
Formal requirements (or other selection mechanism)	<ul style="list-style-type: none"> <li>▶ Have completed Malawi School Certificate of Education or Junior Certificate of Education</li> <li>▶ Can speak and write in English and <i>Chichewa</i> (national language)</li> <li>▶ Attend HSA pre-service training programme</li> <li>▶ Once hired, expected to reside in the same catchment area of communities they serve</li> </ul>	<ul style="list-style-type: none"> <li>▶ CBO/FBOs are composed of lay volunteers living in the same community with people (clients) they serve</li> <li>▶ A desire to volunteer and work for communities</li> <li>▶ Other entry requirements are optional (gender, age, education level)</li> </ul>
Basic or professional training	<ul style="list-style-type: none"> <li>▶ Undergo HSA pre-service certified training of 12 weeks (8 weeks class-based and 4 weeks practical)</li> <li>▶ May receive specialised training when new health interventions are added to service delivery packages</li> </ul>	<ul style="list-style-type: none"> <li>▶ CHBC providers (including volunteers in CBO/FBO) receive training for 10 days using the national CHBC guidelines</li> <li>▶ May receive training offered as part of project-driven activities</li> </ul>
Main roles (scope of activities)	<ul style="list-style-type: none"> <li>▶ 1998: HSAs expected to conduct health promotion, immunisation, disease surveillance, patient referral to care and community case management</li> <li>▶ 2005: HSAs support HIV care as part of task-shifting initiatives</li> <li>▶ 2010 onwards: pilot interventions on working with HSAs to support with mental health services and non-communicable diseases in some districts in Malawi</li> <li>▶ Other: responsible for supervision of other community-based groups</li> </ul>	<ul style="list-style-type: none"> <li>▶ They offer a range of health and non-health support</li> <li>▶ CBO/FBOs thematic areas include: (1) HIV/AIDS care; (2) home-based care; (3) safe motherhood; (4) hygiene and sanitation; (5) elderly and disabled persons care; (6) orphans and vulnerable children care; (7) support community-based child care centres; (8) human and child rights; (9) youth; (10) gender; (11) environment/climate change and agriculture; (12) livelihood support through income-generating activities</li> </ul>
Reporting lines (formal and informal)	<ul style="list-style-type: none"> <li>▶ Report directly to senior health surveillance assistants. HSAs' post is under the Department of Environmental Health (Ministry of Health)</li> <li>▶ Works with and reports to other health worker cadres such as clinical officers and nurses, depending on assigned tasks</li> <li>▶ Beyond health facility level, HSAs work together with other community volunteers and groups, and local authorities</li> </ul>	<ul style="list-style-type: none"> <li>▶ CBO/FBOs are registered groups with the Department of Social Welfare (Ministry of Gender, Children, Disability and Social Welfare)</li> <li>▶ Work closely and disseminate reports to various departments of health and social welfare office, and Ministry of Local Government and Rural development</li> <li>▶ HIV patient support groups are established and embedded within CBO/FBOs. Patient organisations like the Network of People Living with HIV/AIDS Malawi work with CBO/FBOs</li> </ul>

Continued

Table 1 Continued

	Health surveillance assistants (HSAs)	Community health volunteers (CHVs)
Contractual arrangements	<ul style="list-style-type: none"> <li>▶ Permanent post, employed by the government (Ministry of Health) and receive a standardised monthly salary, with possibilities of job promotion</li> </ul>	<ul style="list-style-type: none"> <li>▶ Not official, engage in periodic project-led activities and could at times receive a monthly stipend (non-standardised)</li> </ul>
Forms of support or incentives	<ul style="list-style-type: none"> <li>▶ Receive a monthly salary, supported with other financial and non-financial incentives, for example, housing, uniforms, bicycles and motorcycles</li> </ul>	<ul style="list-style-type: none"> <li>▶ Variable incentives (1990s to present day) ranging from provision of T-shirts, bicycles, stipends, home-based care kit supplies</li> <li>▶ 2005: national funding through the National AIDS Council to support civil society organisations and CBO/FBO programmes in HIV/AIDS activities</li> <li>▶ 2015: direct funding to CBO/FBOs from the National AIDS Council stopped</li> </ul>

However, our experiences in Phalombe district revealed concerns over the extent HSAs and health facility staff are prepared to operate under this new accountability structure, while pre-existing challenges linked to CBO/FBOs activities remain largely unaddressed. Discussions with CBO/FBO volunteers revealed (1) the absence/lack of regular feedback and supportive supervision from HSAs and health facility staff, (2) a lack of awareness by HSAs and other health facility staff of CBO/FBO activities within their catchment area, and (3) frictions and overlaps between activities implemented by CBO/FBOs and those of other community-based groups.

At the subnational/district level, the strategy proposes the creation of a community health officer (CHO) post, to coordinate and oversee community

health activities, at district level. Previously, these activities fell under the responsibilities of different district officers such as the health promotion officer, environmental health officer, palliative care coordinator and the district AIDS coordinator. The latter was actively engaged in community-based HIV-related activities, and development partners (including non-governmental organisations) expected to report and coordinate their activities through this office. While the new CHO post offers opportunities to consolidate all community health activities, 'newer' challenges may emerge, such as (1) how to fully align CHO cadre within current district-level structures, and (2) the practical considerations of identifying and engaging all actors/officers as part of one large community health network.

### Box 1 Malawi's strategy objectives and guiding principles

1. *Health service delivery*: deliver integrated health services at point of care through a community health team.
2. *Human resources*: build a sufficient, equitably distributed, well-trained community health workforce.
3. *Information, communication and technology*: promote a harmonised community health information system with a multidirectional flow of data and knowledge.
4. *Supply chain and infrastructure*: adequately provide supplies, transport and infrastructural support to community health teams.
5. *Community engagement*: strengthen community engagement and ownership of community health.
6. *Leadership and coordination*: ensure sufficient policy support and funding for community health, and that community health activities are implemented and coordinated at all levels.

#### Six cross-cutting guiding principles for implementing the strategy

1. Integration;
2. Community leadership;
3. Equity;
4. Gender equality;
5. Learning;
6. Transparency and accountability.

### Financing community health activities in a decentralised district health system

Malawi's community health strategy estimated cost in 5 years (2017–2022) is US\$407 million (approximately US\$3.9 per Malawian annually).<sup>11</sup> A recent report showed Malawi's health financing is heavily donor dependent and cumulatively over 60% of health funds allocated to HIV/AIDS, malaria and reproductive health programmes.<sup>46</sup> Through the intergovernmental fiscal transfer framework, revenue is transferred from national to district authorities.<sup>46</sup> The strategy stipulates that the central government shall support procurement of essential health package interventions. District authorities are responsible for additional staff salaries (HSAs), provision of supplies and infrastructural support towards construction of health posts and HSAs' housing.<sup>11</sup> The strategy proposes provision of incentives (monetary and non-monetary) to community-based structures to promote performance and motivate CHTs. We noted this support mainly focused on health workers within CHTs and, to a limited extent, village health committees through training and provision of bicycles. The strategy does not speak of incentives, of any form, for CHVs outside prioritised structures (see box 2).

**Table 2** Essential health package interventions at community level\*

Programme	Intervention	Providers and roles		
		CHN CMA	HSA EHO	CHVs in CHBC
Community and environmental health	1. Vermin and vector control and promotion		X	
	2. Disease surveillance		X	X
	3. Community health promotion and engagement		X	X
	4. Village inspections (emergencies, health and safety)		X	
	5. Promotion of hygiene (hand washing with soap and food safety)		X	X
	6. Promotion of sanitation (latrine refuse, drop hole covers, solid waste disposal)		X	X
	7. Occupational health promotion (climate change and health)		X	X
	8. Household water quality testing and treatment		X	
	9. Home-based care for chronically ill patients		X	X
HIV/AIDS	1. HIV testing services		X	X
	2. Viral load (collection of samples only)		X	
	3. Prevention of mother-to-child transmission	X		
	4. Cotrimoxazole for children	X		
	5. Antiretroviral treatment (all ages)	X		
Non-communicable diseases	1. Basic psychosocial support, advice and follow-up		X	X
	2. Antiepileptic medication	X		X
	3. Treatment of depression (first line)	X		
Tuberculosis	1. First-line treatment for new tuberculosis (children)		X	
	2. First-line treatment for retreatment tuberculosis (children)		X	
Malaria	1. First-line uncomplicated malaria treatment (adults)	X		
	2. First-line uncomplicated malaria treatment (children)		X	
	3. Malaria rapid diagnostic test		X	
Vaccine-preventable diseases	1. Rotavirus vaccine; measles rubella vaccine, pneumococcal vaccine, BCG vaccine; polio vaccine; pentavalent vaccine; human papilloma virus vaccine		X	
Reproductive, maternal, neonatal and child health	1. Distribution of insecticide-treated nets to pregnant women		X	X
	2. Modern family planning: injectable, contraceptive pills, male condoms		X	X
	3. Tetanus toxoid (pregnant women)	X	X	
	4. Deworming (pregnant women)	X		
	5. Daily iron and folic acid supplementation (pregnant women)	X		
	6. Syphilis detection, treatment (pregnant women)	X		
	7. Child protection		X	X
Integrated community case management	1. Growth monitoring		X	
	2. Pneumonia treatment (children)		X	
	3. Diarrhoeal diseases; oral rehydration salts, zinc		X	
	4. Malaria rapid diagnosis test (under 5)		X	
	5. Community management of nutrition in under 5 (ie, plumpy nut, micronutrient powder and vitamin A)		X	

Continued

Table 2 Continued

Programme	Intervention	Providers and roles		
		CHN CMA	HSA EHO	CHVs in CHBC
Nutrition	1. Vitamin A supplementation (pregnant women)		X	
	2. Management of severe malnutrition (children)		X	
	3. Deworming (children)		X	
	4. Vitamin A supplementation (6–59 months)		X	
Neglected tropical disease	1. Schistosomiasis mass drug distribution		X	
	2. Trachoma mass drug administration		X	

Clinical community health team: CHN (community health nurse) and CMA (community midwife assistant). Non-clinical community health team: HSA (health surveillance assistant), SHSA (senior HSA), EHO (environmental health officer), supported with CHVs (community health volunteers). CHVs in CHBC: data from interviews, meetings and observation of activities led by CHVs in community-based/faith-based organisations, providing community home-based care (CHBC). Source: National Community Health Strategy (2017–2022), Health Sector Strategic Plan II (2017–2022) and data synthesised from a qualitative study on CHBC programmes in Phalombe district.

From our analysis, three main financial challenges for implementing the strategy emerged. One, annual district implementation plans are often inadequately resourced, which may also affect funding allocation towards community health strategy activities. Furthermore, local authorities have limited and differing capacities to generate additional revenue to supplement budget deficits. The suggestion to lobby support from development partners may prove difficult since project funds are generally tied to specific activities, with little flexibility for diversion to fill funding gaps in other programme areas.

Two, the ‘silence’ in the strategy on CHVs’ compensation poses another challenge in a context where external-funding support has become increasingly irregular. Previously, the majority of CBO/FBOs received direct funding from national level to support HIV/AIDS community-based activities; however, this ceased in 2015. CBO/FBO volunteers indicated project-based stipends, when available, were considered as the main income source, especially in contexts of extreme poverty and high unemployment levels. CBO/FBO volunteers reported occasions where, due to the voluntary nature of their work, external agents engaged them in unpaid work.

The dependence on CHVs to deliver essential health package interventions in the face of these constraints is worth reviewing and for preventing volunteer attrition in the absence of a defined compensation mechanism. We noted some CBO/FBOs dealt with funding challenges in different ways: (1) through CHV monthly contributions, although irregular; (2) income-generating activities such as small-scale cash farming; (3) member contribution to village savings and loans schemes; (4) CBO/FBO visitors contribution (‘drop-box’ kitty); (5) grant proposal writing. While these initiatives show resilience on the part of CBO/FBOs, there is a need for district-level structures to continue supporting CBO/FBOs and enable them to contribute to the strategy’s implementation.

### POSSIBLE OPPORTUNITIES AND RECOMMENDATIONS FOR FURTHER STRENGTHENING MALAWI’S COMMUNITY HEALTH STRATEGY

While our analysis highlighted possible dynamics, overlaps and frictions arising from Malawi’s transition to a new service delivery structure, we also identified opportunities and current strengths to be further explored as Malawi’s strategy implementation scales up. Here, we reflect on experiences and lessons presented in the literature on community health.

First, the delivery of community-level EHP interventions through multidisciplinary CHTs requires a thoughtful as well as pragmatic streamlining of roles and matching of skill sets at team level. There is a risk that competency gaps may result in underserved areas within the EHPs and/or lower standards of care. As reported in earlier Malawian studies,<sup>12 35 36</sup> there are genuine concerns over HSAs’ roles, which expanded over time against unmatched training support, and the expectation that they can deliver both community-based and facility-based activities as part of their job description. Experience from South Africa’s ward-based outreach team model suggests that while primary healthcare staff are expected to assume more community-based responsibilities, including leadership and clinical supervision to non-health professional team members, in reality, they tend to prioritise facility-based care given workload demands.<sup>47</sup> The expansion of CHBC programmes in Malawi to include patients with other chronic conditions (besides HIV)<sup>14</sup> has to a large extent been unsupported by capacity building in these areas. In a changing epidemiological context, there is a need for a well-trained health workforce sufficiently skilled to respond to the shifting healthcare demands within communities.<sup>7</sup> While EHPs are structured around disease-specific programmes,<sup>11</sup> training should preferably cut across all listed domains to minimise the risk of neglecting areas that have traditionally received the least form of support, such as community mental health. In

## Box 2 Key actors and their position in Malawi's community health system\*

### Level A—Communities

► They have primary ownership of community health system. Expected to use, provide and monitor community health services. Community engagement, participation and ownership are promoted as guiding principles. This level forms the basis for selecting community health volunteers. Community-based groups at this level play an important role in supporting community health.

### Level B—Community health team

► This consists of community health volunteers, health surveillance assistants, senior health surveillance assistants, community midwife assistants, community health nurses and assistant environmental health officers. This level links activities in community and primary healthcare facilities.

### Level C—Prioritised community structures

► These include Village Health Committees, Community Health Action Groups, Village Development Committees and Area Development Committees. These structures fall under the Ministry of Local Government and Rural Development.

### Level G—Health facility level

► Health committees at this level include the Health Centre Advisory Committees situated at primary healthcare level and the Hospital Advisory Committees at secondary/referral health facilities within a district.

### Level D—District level

► Consists of a district health management team, led by a district health officer, district medical officer, district nursing officer, district environmental health officer, district health promotion officer and a district chief promotion officer. The Community Health Officer, a new cadre, works with and reports to members of the health management team. This level (D) involves close working relations with officers from other government departments and partners listed in level H (such as public sector donors, private sector investors, implementing partners and civil society). Zonal officers (Level E) and national level officials (Level F) support district health offices with strategic direction, policy oversight, monitoring and provide technical support.

\*Note: The proposed community health system is shown as a figure, available in page 22, at [https://www.healthynewbornnetwork.org/hnn-content/uploads/National\\_Community\\_Health\\_Strategy\\_2017-2022-FINAL.pdf](https://www.healthynewbornnetwork.org/hnn-content/uploads/National_Community_Health_Strategy_2017-2022-FINAL.pdf)

the long term, the proposed development of a national integrated training manual for CHTs is critical.

Second, CHTs' workload requires attention, particularly in the face of financial and operational difficulties to fill all team positions in the short term. Health managers/supervisors could consider mapping trained CHVs from existing networks of volunteer-led programmes (eg, CBO/FBOs) and assigning them to CHTs. CHVs could continue supporting health promotion and home-tracing activities since they are embedded in communities, while available HSAs could support outreach activities and other specialised tasks under community-level EHP interventions. However, experiences elsewhere caution against reliance of volunteers as substitutes/replacement

for professional health workforce, while facing critical health workforce shortages.<sup>2 10 17 28</sup> This could potentially exacerbate problems such as strained relationships between paid and unpaid personnel, undermining the value of volunteer work or raise expectations as volunteers hope for consideration into paid positions, which may prove difficult.<sup>2 30</sup> For Malawi, an addendum to the strategy, outlining possibilities of task-shifting between CHT members, expected duties of CHVs and interactions with paid CHT personnel, is necessary. Clear reporting lines and supportive supervision are essential to make these arrangements work.

Third, the ongoing flux in financial and material support for volunteer-based programmes and the risk this poses for implementing Malawi's strategy needs further deliberation. Much has been written about 'voluntarism' in healthcare delivery in low-income settings, how this can or should be supported, and by whom.<sup>1 2 28 30-32</sup> Malawi is not an exception, and the existence of a large network of volunteers who provide essential support to a range of community-based interventions<sup>11 14 45</sup> warrants discussions of how to absorb them under the new strategy. Over the years, CHBC programmes, and within them CHVs, have had to be resilient to interruptions in donor-funded and national HIV programme support, and to the absence of clear compensation mechanisms. District authorities and project partners need to deliberate on appropriate forms of support that respect and enhance the critical role of community-based structures and civil society in healthcare delivery. Options applied elsewhere in the region include development of a standardised costing structure for volunteer-led work, which takes into consideration workload, nature of tasks and opportunity costs, as illustrated by a Ugandan study<sup>31</sup>; or provision of non-financial incentives such as bicycles in remote settings, stationery support and other forms of recognition such as certificates.<sup>27 32 48</sup>

Fourth, the management of multiple actors in the community health strategy requires strong leadership from district health systems. In the early implementation phase, mobilisation and sensitisation of all actors and structures within the community health system is paramount. Strategies to strengthen coordination include building on existing forums, reinforcing the role of technical working groups, and identifying avenues for communication and dissemination at community and district levels. For example, in the study district, monthly forums to discuss CBO/FBO issues were organised with representatives from social welfare and district AIDS coordinator's office. The experience of community health policy implementation in Kenya illustrates how community health structures were reformed on a large scale.<sup>24 27</sup> The process was spurred by decentralisation of governance functions to subnational level and realignment of coordination structures to fit with stipulations of a revised national constitution.

At national level, updated guidelines and harmonisation of policies allied to the community health strategy,

and their subsequent dissemination is necessary. While Malawi's strategy is directed towards unifying multiple actors and sectors working on health, Rwanda's 'One Health' approach<sup>49</sup> exemplifies an attempt of forging close collaboration across sectors/disciplines, guided by a single strategy and pooled funding, to integrate approaches to manage various determinants of animal, human and environmental health. Financing Malawi's strategy therefore requires joint efforts between district authorities, development partners, private sector and central government to pool funds and ensure sufficient allocation for community health activities. In particular, it is crucial to ensure that EHP interventions are constantly available in order for communities to receive appropriate care when needed.

Moving forward, further evidence is needed which explores how the proposed accountability structure is functioning at multiple levels; document actual experiences within CHTs on work performance, job descriptions and support structure; and EHP interventions delivery and cost-benefit analysis of implementing this strategy at scale. This evidence is necessary as Malawi and other countries in the region pursue the synergies between public, private and civil-society investments in community health.

## CONCLUSION

Malawi's national community health strategy demonstrates the country's strong commitment to the promotion of primary healthcare, based on a functional community health system, and as close to the community as possible. Our analysis shows the complexities of reconfiguring existing structures to a system that is capable of maximising health coverage, with the combined inputs of actors and resources, while providing the necessary oversight and stewardship. There is a need for close collaboration between state-paid workers and community volunteers, and synergies across multiple actors and sectors engaged in community health, to realise full implementation potential.

### Author affiliations

<sup>1</sup>Athena Institute for Research on Innovation and Communication in Health and Life Sciences, Faculty of Sciences, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands

<sup>2</sup>Unit of Equity and Health, Department of Public Health, Institute of Tropical Medicine, Antwerp, Belgium

<sup>3</sup>Barcelona Institute for Global Health (ISGlobal), Hospital Clínic, University of Barcelona, Barcelona, Spain

<sup>4</sup>Health Economics and HIV/AIDS Research Division (HEARD), University of KwaZulu-Natal, Westville Campus, Durban, South Africa

<sup>5</sup>Phalombe District Health Office, Ministry of Health, Phalombe, Malawi

**Acknowledgements** We are grateful to the CBO/FBO volunteers, health managers and officials working in Phalombe District for their participation in this research. We wish to thank Dadirai Khambadza, Joseph Chomanika and Vanessa Kumwenda for their support with data collection. We thank Madam Mary Ganiza, Health Secretary, the Archdiocese of Blantyre Catholic Health Commission for supporting implementation of this research.

**Contributors** VA and CA conceptualised the study. VA was responsible for study investigation under the guidance of CA, JZM, MK and KK, and also provided

contextual interpretation of findings. VA analysed data, with support from CA and TQ. VA wrote the first draft, with CA and TQ providing critical feedback to the manuscript structure. CA, TQ, JB-A, BC and JVL reviewed the full draft and suggested important revisions to the paper. All authors read and approved the final manuscript.

**Funding** This work was supported by the Erasmus Mundus Joint Doctorate Fellowship, Specific Grant Agreement 2015-1595, awarded to VA.

**Disclaimer** The funders had no role in study design, data collection and analysis, decision to publish or preparation of the manuscript.

**Competing interests** None declared.

**Patient consent** Obtained.

**Ethics approval** Ethical approval was obtained from the Vrije Universiteit Amsterdam-Netherlands (EMGO+; WC2015-080, 27 Oct 2015) and the National Committee on Research in the Social Sciences and Humanities, Malawi (P.11/15/64, 10 Dec 2015). The anonymised data were synthesised and included in the analysis of Malawi's community health strategy.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data sharing statement** All relevant data and supporting information are contained in the manuscript and online supplementary material 1.

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>

## REFERENCES

1. World Health Organisation. *Community health workers: what do we know about them? The state of the evidence on programmes, activities, costs and impact on health outcomes of using community health workers*. Geneva: World Health Organisation, 2007.
2. Leon N, Sanders D, Van Damme W, *et al*. The role of 'hidden' community volunteers in community-based health service delivery platforms: examples from sub-Saharan Africa. *Glob Health Action* 2015;8:27214.
3. Lunsford SS, Fatta K, Stover KE, *et al*. Supporting close-to-community providers through a community health system approach: case examples from Ethiopia and Tanzania. *Hum Resour Health* 2015;13:12.
4. Schneider H, Hlophe H, van Rensburg D. Community health workers and the response to HIV/AIDS in South Africa: tensions and prospects. *Health Policy Plan* 2008;23:179-87.
5. World Health Organization. Health in 2015: from MDGs, millennium development goals to SDGs, sustainable development goals, 2015. Available from: <http://www.who.int/gho/publications/mdgs-sdgs/en/>
6. World Health Organisation. *Human Resources for Health: foundation for Universal Health Coverage and the post-2015 development agenda*. Recife, Brazil: The World Health Organisation, 2013.
7. World Health Organisation. Global strategy on human resources for health: workforce 2030: The World Health Organisation, 2016. Available from: [http://www.who.int/hrh/resources/global\\_strategy\\_workforce2030\\_14\\_print.pdf?ua=1](http://www.who.int/hrh/resources/global_strategy_workforce2030_14_print.pdf?ua=1)
8. World Health Organisation. *Fifth forum of the African platform on human resources for health*. Kampala Uganda: Human Resources for Health Kampala, 2017.
9. Singh P, Sachs JD. 1 million community health workers in sub-Saharan Africa by 2015. *Lancet* 2013;382:363-5.
10. Schneider H, Lehmann U. From community health workers to community health systems: time to widen the horizon? *Health Systems & Reform* 2016;2:112-8.
11. Government of Malawi. *National Community Health Strategy 2017-2022: integrating health services and engaging communities for the next generation*. Lilongwe-Malawi: Ministry of Health, 2017.
12. Smith S, Deveridge A, Berman J, *et al*. Task-shifting and prioritization: a situational analysis examining the role and experiences of community health workers in Malawi. *Hum Resour Health* 2014;12:24.
13. Devlin K, Pandit-Rajani T, KF E. *Malawi's community-based health system model: structure, strategies, and learning*. Arlington VA: Advancing Partners & Communities, 2017.
14. Masanjala W, Kajumi M. Multi country research on community caregivers: the backbone of accessible care and support—Malawi

- report, 2013. Available from: [https://www.cordaid.org/media/medialibrary/2013/09/Malawi\\_CAN\\_Report\\_26\\_July2013\\_2.pdf](https://www.cordaid.org/media/medialibrary/2013/09/Malawi_CAN_Report_26_July2013_2.pdf)
15. Angwenyi V, Aantjes C, Kajumi M, *et al*. Patients experiences of self-management and strategies for dealing with chronic conditions in rural Malawi. *PLoS One* 2018;13:e0199977.
  16. Bhutta ZA, Lassi ZS, Pariyo G. Global experience of community health workers for delivery of health related millennium development goals: a systematic review, country case studies, and recommendations for integration into national health systems. *Global health workforce Alliance* 2010;1:61.
  17. Tulenko K, Møgedal S, Afzal MM, *et al*. Community health workers for universal health-care coverage: from fragmentation to synergy. *Bull World Health Organ* 2013;91:847–52.
  18. Saprii L, Richards E, Kokho P, *et al*. Community health workers in rural India: analysing the opportunities and challenges Accredited Social Health Activists (ASHAs) face in realising their multiple roles. *Hum Resour Health* 2015;13:95.
  19. Glenton C, Scheel IB, Pradhan S, *et al*. The female community health volunteer programme in Nepal: decision makers' perceptions of volunteerism, payment and other incentives. *Soc Sci Med* 2010;70:1920–7.
  20. Teklehaimanot HD, Teklehaimanot A. Human resource development for a community-based health extension program: a case study from Ethiopia. *Hum Resour Health* 2013;11:39.
  21. Baatiema L, Sumah AM, Tang PN, *et al*. Community health workers in Ghana: the need for greater policy attention. *BMJ Glob Health* 2016;1:e000141.
  22. Schneider H, Nxumalo N. Leadership and governance of community health worker programmes at scale: a cross case analysis of provincial implementation in South Africa. *Int J Equity Health* 2017;16:72.
  23. Keller B, McCarthy E, Bradford Vosburg K, *et al*. Task-shifting impact of introducing a pilot community health worker cadre into Zambia's public sector health workforce. *PLoS One* 2017;12:e0181740.
  24. Government of Kenya. *Strategy for community health 2014–2019. Transforming health—accelerating the attainment of health goals*. Nairobi, Kenya: Ministry of Health, 2014.
  25. Republic of Rwanda. National community health policy of Rwanda. Kigali—Rwanda Ministry of Health, 2008. Available from: [https://www.advancingpartners.org/sites/default/files/projects/policies/chp\\_rwanda\\_2008.pdf](https://www.advancingpartners.org/sites/default/files/projects/policies/chp_rwanda_2008.pdf)
  26. Aantjes C, Quinlan T, Bunders J. Integration of community home based care programmes within national primary health care revitalisation strategies in Ethiopia, Malawi, South-Africa and Zambia: a comparative assessment. *Global Health* 2014;10:85.
  27. McCollum R, Otiso L, Mireku M, *et al*. Exploring perceptions of community health policy in Kenya and identifying implications for policy change. *Health Policy Plan* 2016;31:10–20.
  28. Wringe A, Cataldo F, Stevenson N, *et al*. Delivering comprehensive home-based care programmes for HIV: a review of lessons learned and challenges ahead in the era of antiretroviral therapy. *Health Policy Plan* 2010;25:352–62.
  29. Zulu JM, Kinsman J, Michelo C, *et al*. Integrating national community-based health worker programmes into health systems: a systematic review identifying lessons learned from low- and middle-income countries. *BMC Public Health* 2014;14:987.
  30. Cataldo F, Kielmann K, Kielmann T, *et al*. 'Deep down in their heart, they wish they could be given some incentives': a qualitative study on the changing roles and relations of care among home-based caregivers in Zambia. *BMC Health Serv Res* 2015;15:36.
  31. Kasteng F, Settumba S, Källander K, *et al*. Valuing the work of unpaid community health workers and exploring the incentives to volunteering in rural Africa. *Health Policy Plan* 2016;31:205–16.
  32. Topp SM, Price JE, Nanyangwe-Moyo T, *et al*. Motivations for entering and remaining in volunteer service: findings from a mixed-method survey among HIV caregivers in Zambia. *Hum Resour Health* 2015;13:72.
  33. World Health Organisation. Declaration of Alma-Ata International Conference on Primary Health Care, 1978. Available from: [http://www.who.int/publications/almaata\\_declaration\\_en.pdf?ua=1](http://www.who.int/publications/almaata_declaration_en.pdf?ua=1)
  34. Government of Malawi. *Health sector strategic plan II 2017–2022: towards universal health coverage*. Lilongwe: Malawi Ministry of Health, 2017.
  35. Chikaphupha KR, Kok MC, Nyirenda L, *et al*. Motivation of health surveillance assistants in Malawi: a qualitative study. *Malawi Med J* 2016;28:37–42.
  36. Kok MC, Namakhoma I, Nyirenda L, *et al*. Health surveillance assistants as intermediates between the community and health sector in Malawi: exploring how relationships influence performance. *BMC Health Serv Res* 2016;16:164.
  37. Government of Malawi. *Guidelines for the management of taskshifting to health surveillance assistants in Malawi*. Lilongwe: Malawi Ministry of Health, 2014.
  38. Government of Malawi. *Health surveillance assistant training manual facilitator's guide*. Lilongwe: Malawi Ministry of Health, 2009.
  39. African Strategies for Health, Community health worker incentives: lessons learned and best practices from Malawi, 2015. Available from: [http://www.africanstrategies4health.org/uploads/1/3/5/3/13538666/chw\\_incentives\\_lessons\\_and\\_best\\_practices\\_for\\_malawi\\_final\\_report.pdf](http://www.africanstrategies4health.org/uploads/1/3/5/3/13538666/chw_incentives_lessons_and_best_practices_for_malawi_final_report.pdf)
  40. Kachimanga C, Cundale K, Wroe E, *et al*. Novel approaches to screening for noncommunicable diseases: lessons from Neno, Malawi. *Malawi Med J* 2017;29:78–83.
  41. Kauye F, Chiwandira C, Wright J, *et al*. Increasing the capacity of health surveillance assistants in community mental health care in a developing country, Malawi. *Malawi Med J* 2011;23:85–8.
  42. Bowie C, Gondwe N, Bowie C. Changing clinical needs of people living with AIDS and receiving home based care in Malawi: the Bangwe Home Based Care Project 2003–2008\_a descriptive study. *BMC Public Health* 2010;10:370.
  43. Government of Malawi. *National community home based care policy and guidelines*. Lilongwe: Ministry of Health, 2011.
  44. Pindani M. Perception of people living with HIV and AIDS regarding home based care in Malawi. *J AIDS Clin Res* 2013;04.
  45. Government of Malawi. *National training manual for village health committees*. Lilongwe: Malawi Ministry of Health, 2017.
  46. Ministry of Health. *Malawi national health accounts report for fiscal years 2012/13, 2013/14 and 2014/15*. Lilongwe: Malawi Ministry of Health, 2016.
  47. Marcus TS, Hugo J, Jinabhai CC. Which primary care model? A qualitative analysis of ward-based outreach teams in South Africa. *Afr J Prim Health Care Fam Med* 2017;9:1–8.
  48. Kuule Y, Dobson AE, Woldeyohannes D, *et al*. Community health volunteers in primary healthcare in rural Uganda: factors influencing performance. *Front Public Health* 2017;5:62.
  49. Nyatanyi T, Wilkes M, McDermott H, *et al*. Implementing One Health as an integrated approach to health in Rwanda. *BMJ Glob Health* 2017;2:e000121.