Summary

Background

Community health workers (CHWs) form an essential part of the health system in many low- and middle-income countries (LMICs). They deliver promotive, preventive and some curative health services to – often poor and vulnerable – communities. The continuing shortage of human resources for health combined with evidence that CHWs can contribute to improved community health have led to a renewed interest in CHW programmes in recent years.

There are many different types of CHWs: voluntary or paid, with multiple or single tasks. They have in common that they are the first point of contact for communities regarding health issues. They hold an intermediary position between communities and the health sector. They only receive basic training on a mostly expanding package of tasks.

Experience from the last decades has shown that CHW programmes face constraints, partly because of inadequate support structures and limited resources, and partly because of gaps in knowledge about how to improve CHW performance. This thesis aims to identify which factors can influence performance, and “why” and “how” they do so, to gain insight into how performance of CHWs and CHW programmes as a whole could be improved. We understand performance as a transactional social process between CHWs and their environment. In this thesis, CHW performance at the individual level is taken as the sum of different elements, such as self-esteem, motivation, attitudes, competencies, guideline adherence, job satisfaction and capacity to facilitate community agency.

Methodology

The presented research is divided into two parts: a theoretical component, consisting of a qualitative research synthesis, and an empirical component, including single case studies and a qualitative comparative multiple case study. The qualitative research synthesis was based on a systematic review of the literature on factors influencing performance of CHWs in LMICs. An initial conceptual framework on CHW performance was refined into a more comprehensive framework including a variety of factors that influence CHW performance. This framework was used in the development of qualitative studies on factors influencing CHW performance in Ethiopia, Kenya, Malawi and Mozambique. The studies included interviews and focus group discussions with CHWs and different actors in the community and health sector. In Ethiopia and Malawi, the data from these studies were analysed focusing on a major emerging theme: the facilitating role of relationships in improving CHW performance. These two case studies specifically focused on underlying
Factors influencing community health worker performance

Chapters 4 and 5, presenting the theoretical component of the research, focus on factors related to the design of CHW programmes or interventions and contextual factors influencing CHW performance. These factors were related to issues such as human resource management, structures facilitating links between CHWs and the community and health sector, resources and logistics, and the broader community and health system context. The different factors formed a complex and interactive web. Factors that directly influenced performance at the level of the individual CHW did so by changing one or more of the above mentioned elements or characteristics of performance. Most studies reported motivation as performance outcome measure.

The qualitative research synthesis made clear that situations in which CHWs’ relationships with the community and the health sector were facilitated – through certain contextual factors or design elements – were associated with improved CHW performance. This triggered the research team to look deeper into how relationships were shaped between CHWs, their communities and actors in the health sector. This is covered in the empirical component of the research, presented in Chapters 6-8.

Factors that influenced CHWs’ relationships with the community and health sector in Ethiopia (Chapter 6) and Malawi (Chapter 7) were related to certain programme design elements, such as support, supervision and accountability structures, and the cross-cutting issues of trust, communication and dialogue, and expectations (of actors in the community, the health sector and CHWs themselves). In Ethiopia, community involvement in the selection of health extension workers (HEWs) and support from the health development army positively influenced relationships between HEWs and community members, thereby improving CHW performance. In Malawi, relationships between HSAs and communities were more problematic as a result of mistrust from the community. This was related to HSAs not residing in and coming from their communities of service and feelings of unfairness regarding (financial) incentives. In both countries, supervision with a fault-finding approach and without feedback hampered relationships between HEWs and supervisors and thereby also CHW motivation and performance.

The multiple case study, presented in Chapter 8, further examined the CHW programme and broader societal contexts and the underlying mechanisms that were leading to a
(positive or negative) outcome in relationships between CHWs, the community and health sector in the four countries mentioned above. Trusting relationships between CHWs, their communities and the health sector were caused by mechanisms such as feelings of connectedness, familiarity, being supported and serving the same goals. The study also identified mechanisms leading to mistrust and hampered relationships, such as feelings of disconnectedness and disrespect. Contextual factors that triggered these mechanisms were related to the CHW programme, such as CHW selection with (or without) involvement of the community and regular and visible supervision (or the lack thereof), and the broader contexts, such as contexts where community participation was promoted and valued, or where resources were available (or not). In certain cases, weak relationships between CHWs and their supervisors or managers had a negative knock-on effect on the strength of CHWs’ relationships with their communities.

**Framework on community health worker performance**

The results from the different studies led to adaptations of the framework on CHW performance (Chapter 9). The adapted framework stresses the multiple layers of influencing factors and the non-static character of CHW performance. Influencing factors at the system and intervention level are divided into “hardware” and “software” elements. The hardware represents the essential health system functions: service delivery, human resources, information, medicines and technologies, financing and governance. At the level of the intervention, it represents elements like the supervision system; training, accountability and communication structures; incentives; and supplies and logistics. The software represents the ideas and interests, relationships and power, values and norms of the most important actors in the health system and intervention: in this case CHWs; community members, including traditional leaders; and CHW supervisors, managers and other (professional) health workers. The hardware and software elements continuously influence each other, and are both needed to improve CHW performance. However, whether this is the case depends upon the broader context, which influences system- and intervention-related factors. The adapted framework could assist policy makers and programme managers to shape CHW interventions in ways that improve CHW performance.

**Conclusions and recommendations for policy and practice**

Despite the fact that CHW performance is not static and highly context-dependent, making it difficult to predict whether mechanisms triggering CHW performance in one setting would do the same in another setting, several recommendations that are applicable to multiple contexts can be made based on the research conducted.
When developing the CHW profile and selection criteria, contextual realities and programme requirements need to be taken into consideration. CHW performance can improve if their profile fits the context, such as in the case of gender preferences.

When a mix of CHWs is preferred in order to share workload, tasks of and incentives for the different CHWs need to be clearly defined, to prevent confusion and mistrust between communities, CHWs and other health workers. When a mix of CHWs is present as a result of vertical programming, coordination and harmonization efforts are needed to improve CHW performance. The research conducted in Malawi clearly showed the negative effects of uncoordinated vertical programmes on relationships between different actors and CHW motivation and performance.

There is room for optimization of the benefits of the unique intermediary position of CHWs between communities and the health sector. Despite that in many LMICs, CHWs connect communities to the health sector, the “voice” of communities in CHW programming needs to gain prominence. CHWs have a role to play in facilitating community agency. This role needs revitalization and equal attention next to the (easier to measure) technical skills to achieve disease-specific targets. CHWs’ relationships with the health sector also need improvement. Hardware elements like supervision and training could be available, but if relationships between CHWs and supervisors or managers are constrained because of a lack of trust or communication or differing expectations, CHW performance can suffer.

Decisions regarding CHWs’ integration into the health sector depend on programme needs and context and require considerable debate. When CHWs have multiple workloads, remuneration could be considered, while assuring that their connection to communities remains strong. When CHWs work part-time and on a limited set of tasks, voluntary CHW programmes could be appropriate, if incentives are responsive to CHWs’ realities. Both paid and voluntary CHW programmes require serious investments with regard to training, supervision and incentives that fit the context and promote trust between different actors.

**Recommendations for further research**

Part of this thesis has shown the dearth of research on the software elements of CHW programmes and interventions. Many studies focus on the hardware elements, leaving the “how” and “why” questions mostly unanswered. Our research was able to shed more light on only one of the software elements: relationships. More research on how to trigger software-related mechanisms leading to improved CHW performance is needed to realize improved and people-centred health systems. Therefore, it is important to include the voices of CHWs, communities and other actors in the health system in research. This
would shed more light on how to optimize the benefit of CHWs' unique position between communities and the health sector and their contribution towards universal health coverage.
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