



WHICH INTERVENTION DESIGN FACTORS INFLUENCE PERFORMANCE OF COMMUNITY HEALTH WORKERS IN LOW- AND MIDDLE-INCOME COUNTRIES? A SYSTEMATIC REVIEW

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COMMUNITY HEALTH WORKERS (CHWs) ARE INCREASINGLY RECOGNIZED AS AN INTEGRAL COMPONENT OF THE HEALTH WORKFORCE NEEDED TO ACHIEVE PUBLIC HEALTH GOALS IN LOW- AND MIDDLE-INCOME COUNTRIES (LMIC). MANY FACTORS INFLUENCE CHW PERFORMANCE. A SYSTEMATIC REVIEW WAS CONDUCTED TO IDENTIFY INTERVENTION DESIGN RELATED FACTORS INFLUENCING PERFORMANCE OF CHWS.

KEY MESSAGES

- A systematic review of 140 quantitative and qualitative studies identified factors related to nature of tasks and time spent on delivery, human resource management, quality assurance, links with the community, links with the health system and resources and logistics having an influence on CHW performance.
- Good performance was associated with intervention designs involving a mix of incentives, frequent supervision, continuous training, community involvement and strong coordination and communication between CHWs and health professionals.
- When designing CHW programmes, policy makers should take into account factors that increased CHW performance in comparable settings, to maximize programme outcomes.

METHODS

We systematically searched EMBASE, PubMed, Cochrane, CINAHL, POPLINE and NHS-EED for quantitative and qualitative studies that included CHWs working in promotional, preventive or curative primary health services in LMIC. 140 studies met the inclusion criteria, were quality assessed and double read to extract data relevant to the design of CHW programmes.

We differentiated CHW performance outcome measures at three levels:

- CHW level
- Mediating processes
- End-user level

The three outcome levels that constitute CHW performance ultimately contribute to impact, such as reduction of morbidity. A preliminary framework guided the literature search and review. New (sub)categories regarding intervention design factors, deriving from the literature, were added to the framework where needed.

RESULTS

Our findings indicate that variations in the design of CHW programmes have a significant influence on CHW performance. The most prominent factors related to higher CHW performance were:

- Inclusion of curative tasks in CHWs' job description
- Longer service delivery times
- Several characteristics of CHWs such as higher education level, experience with health conditions to be dealt with, less household duties and lower wealth
- A mix of (predictable) financial and non-financial incentives
- Availability of supervision
- Continuous training
- Community support, selection and monitoring
- Recognition and coordination and communication with other health staff

(Perceived) absence of these factors could lead to lower CHW performance. Other factors that were often reported as barriers to CHW performance were:

- High workload
- Lack of clarity on roles of CHWs
- Lack of resources and logistics

Supervision and training were often mentioned as facilitating factors but few studies tested which approach worked best or how these were best implemented.

DISCUSSION

The importance of context: All identified intervention design factors form a complex web, influence each other and are highly context dependent. For example, CHW characteristics, like gender, influenced CHW performance in different ways, depending on the context.

Remuneration against volunteerism: Our findings and those of others support remuneration of CHWs, especially when they have multiple tasks or tasks that require a long service delivery time or time spent on the job per week and when remuneration is clearly linked to workload.

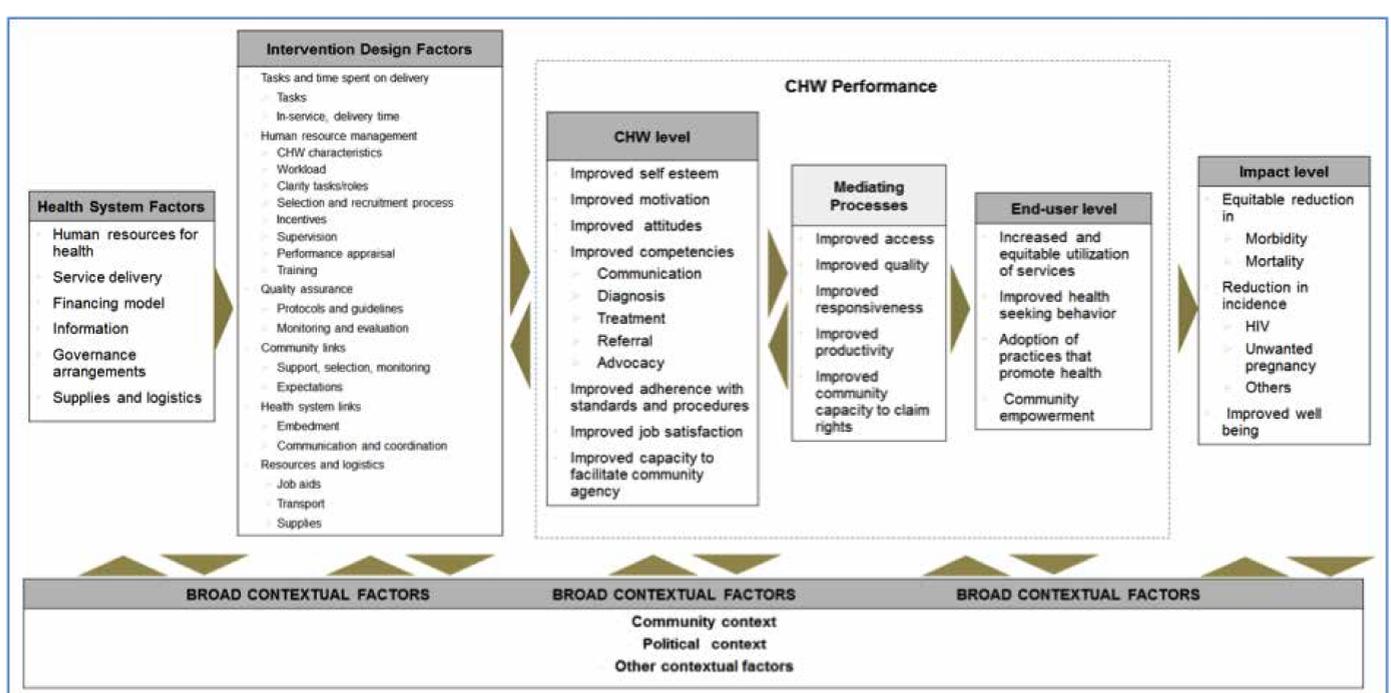
CHWs as intermediate between health system and community: The literature clearly revealed the importance of embedment of CHWs in both their community and the health system. Selection with involvement of both the health system and the community could improve linkages of CHWs with both sides. Factors in the intervention design, like facilitation of support of traditional leaders or regular community meetings, could enhance community trust and respect towards CHWs and thereby CHW motivation. Adequate supervision from the health system side could also result in legitimacy of CHWs in the eyes of the community.

CONCLUSION

CHWs increasingly are made a formal part of health systems in LMIC, with expanding tasks. Although their contribution towards achieving health goals has been shown in various programmes, there is little evidence on which specific factors have contributed to success. This systematic review found many factors related to intervention design that could possibly influence CHW performance. These factors should be taken into account by policy makers during the development and adjusting of CHW programmes, taking the specific context of the situation in which programs are implemented into account.



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