

Expanded roles of Community Health Workers beyond malaria services in the Asia-Pacific: systematic review and scoping survey

Monnaphat Jongdeepaisal^{1,2}, Massaya Sirimatayanant^{1,3}, Panarasri Khonputsai¹, Worarat Khuenpetch¹, Phone Si Hein³, Elinor Harris⁴, Richard J Maude^{1,2,3,5,6}

Contact: richard@tropmedres.ac

1. Mahidol Oxford Tropical Medicine Research Unit, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand. 2. Centre for Tropical Medicine and Global Health, Nuffield Department of Medicine, University of Oxford, Oxford, UK. 3. Asia Pacific Malaria Elimination Network (APMEN), Singapore. 4. Bodleian Health Care Libraries, University of Oxford, Oxford, UK. 5. Harvard T.H. Chan School of Public Health, Harvard University, Boston, USA. 6. The Open University, Milton Keynes, UK.

Introduction

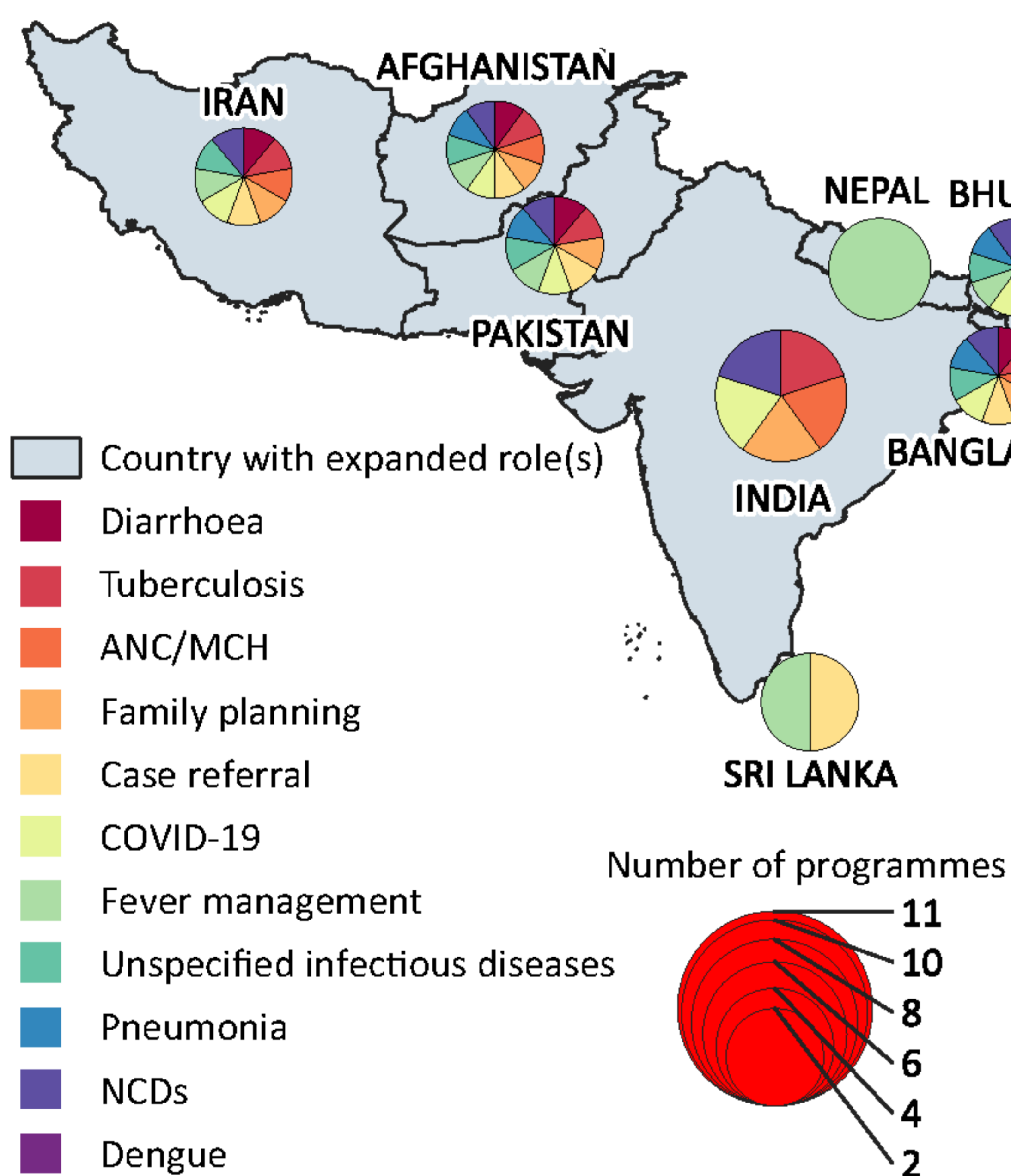
Village malaria workers (VMWs) are a key component of malaria elimination strategies in the Asia-Pacific. Sustaining and maintaining uptake of VMW services as malaria declines could be achieved through expanding their roles to providing funded health services beyond malaria.

We used a systematic review and scoping survey to identify and characterize malaria Community Health Worker (CHW) programmes with roles beyond malaria in the Asia-Pacific (focusing on describing the expanded roles, identifying evidence of impact or success of the programmes, and exploring strategies to ensure sustainability and factors for effective implementation), to provide recommendations for countries interested in expanding the range of services provided by malaria CHWs.

Results

Systematic review: 2686 articles in databases, 472 other sources. Data extracted from 40 published articles, reports, and programme briefs.

Survey: 54 responses.



In the scoping survey, most programmes did evaluations internally. These are often not publicly disseminated and robust impact evaluation is lacking. Included impact on malaria incidence, morbidity and mortality (n=18); outcomes for other diseases (n=2).

To ensure sustainability, programmes employed different strategies including integrating malaria tasks into basic healthcare programmes, collaborating with health system stakeholders, tailoring motivation packages for CHWs, and encouraging community ownership of local health priorities.

To ensure effective implementation, ongoing funding and political support were identified as vital for scaling up programmes against competing national priorities. Adequate training, supervision and essential supplies were crucial to support CHW service delivery. However, most programmes were dependent on donor funding alone.

Methods

Systematic review: searches were conducted in six academic databases, of grey literature, and bibliographies of retrieved articles.

Scoping survey: a short online survey was distributed to national malaria programmes and implementing organizations in the Asia Pacific countries identified through the Asia Pacific Malaria Elimination Network (APMEN) in October 2021 - January 2022. The survey helped to collect information on programmes less well described in the literature, provide updated information and investigate the impact of the COVID-19 pandemic on programme implementation.

CHW programme	AFG	BNG	IND1	IND2	IND3	IND4	IND5	IDN	IRN	KHM1	KHM2	LAO1	LAO2	LKA2	MMR1	MMR2	MMR5	MMR6	MMR11	NPL3	PAK	PNG1	PNG2	PHL	
Evidence of impact on disease incidence and outcomes																									
Malaria incidence																									
Other diseases/ health issues																									
Evidence of impact on service uptake																									
Malaria																									
Other diseases/ health issues																									
Other outcomes																									
Knowledge and/or skills																									
Motivation																									

Figure 1. Systematic review: evidence of impact of expanded CHW programmes. Limited evidence of impact on malaria: 4 programmes reduction in malaria incidence; 4 improvement in other health outcomes; most evidence for CHW functionality.

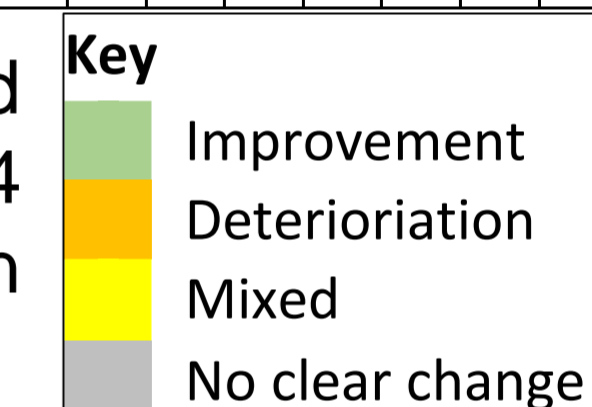


Figure 2. Map of expanded programmes in the systematic review and scoping survey. Identified 43 programs in 18 countries with expanded roles of malaria CHWs in the Asia Pacific. 10 most commonly identified roles shown. Circle size indicates number of CHW programmes identified in each country.

Key Recommendations

1. Opportunities exist for countries looking to expand the roles of malaria CHWs beyond malaria. Prospects include building on their skills and knowledge, and responding to health concerns and local needs in endemic communities.
2. Data collection and performance evaluation should also be actively conducted to investigate evidence of impact on health outcomes and of the workers or volunteers' performance. This will help generate more robust evidence supporting the continuation of VMW services in the malaria elimination phase.

Acknowledgements

Amita Chebbi, APMEN; Laura Buback & Naomi Beyeler, UCSF

