

RETENTION OF THE HEALTH WORKFORCE IN RURAL AND REMOTE AREAS: A SYSTEMATIC REVIEW

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Abbreviations

CBL	case-based learning
CHW	community health worker
CME	continuing medical education
ECHO	Extension for Community Healthcare Options
FM	family medicine
GRADE	Grading of Recommendations Assessment, Development and Evaluation
LTRP	long-term rural practice
MB	metropolitan background
MD	medical degree
RB	rural background
RCS	rural clinical school
RCT	randomized controlled trial
RFS	return for service
ROS	return of service
WHO	World Health Organization

Executive summary

This systematic review update builds on the work previously undertaken to develop WHO's *Increasing access to health workers in remote and rural areas through improved retention: global policy recommendations (1)* published in 2010. The context has changed significantly in the last 10 years. The number of people living in rural and remote areas of the world has dropped to 44.7% of the global population (2018) (7), however, health worker shortages are more than twice as high in rural areas than urban areas (8). Prior to WHO's 2010 recommendations, relatively little research was available on retention alone, with the main focus being on the recruitment of health workers in rural and remote areas.

This review of the literature, reporting on evaluations of interventions which increase the availability of health practitioners in rural and remote areas across the world, was conducted for studies between January 2010 and December 2019 (see Method). The review uses the same categories of retention interventions: educational; regulatory; financial; and support (professional and personal), as the 2010 guidelines. Nevertheless, it draws on a much larger number of evaluation studies reported in the research literature, covering a wider range of health worker occupations, countries and actors involved, providing evidence of positive outcomes as well as unintended consequences. This executive summary provides a brief overview of the key findings.

A notable difference in this literature review compared with that conducted for the 2010 guidelines is in the category of health professional education interventions, with the development of new methods, timing and place of learning across more health worker occupations around the world. For some there has been a long enough time period to see the longer term impact in improved numbers of health workers and local health outcomes. More emphasis in the recent retention initiatives is placed on community and family engagement, generational differences, health services reform and services redesign. The research shows that, as isolated interventions, financial systems and incentives focused on incentivization alone rarely have the desired effect; other non-monetary incentives, such as job aids and logistics, are reported as important element of success. Sustainable health services and supportive communities are reported as key factors for success.

Although progress in the body of research is notable, many challenges continue: many provisions are not adhered to by governments, despite signed agreements, or are temporary arrangements only. Changes in the political direction of a country may result in amendments to programmes, such as the designation of “underserved areas” and the reach of programmes, with the result that retention interventions are not in place long enough to make a difference.

Fundamental issues limiting the research include lack of baseline data, lack of agreed terms and definitions, a plethora of frameworks being used so that comparative research cannot be done, and the limitations of the studies rarely being discussed. Lack of funding in rural and

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