



May 2011 – SUPPORT Summary of a systematic review

Do interventions for controlling the emigration of health professionals from low- and middle-income countries work?

Health professionals from LMICs constitute a substantial proportion of the healthcare workforce in certain HICs. The migration of health professionals from LMICs to these HICs contributes to a shortage of health professionals in LMICs. The resources used to train health professionals in source LMIC countries therefore, in effect, subsidise HICs that benefit from this migration.

Key messages

- Lowering immigration restrictions probably increases the migration of nurses from LMICs to HICs
- LMICs should monitor changes in HIC immigration legislation, model the impact of proposed migration changes on their own retention of domestic health professionals, and lobby for immigration laws in HICs which consider the health system needs of source countries
- No evidence was found regarding the effectiveness of interventions designed to decrease the emigration of health professionals, or the effectiveness of such interventions in LMICs in particular
- Scientifically robust studies should be conducted that document the effectiveness of interventions designed to decrease the emigration of health professionals, and specifically, the effectiveness of such interventions in LMICs



Who is this summary for?

People making decisions concerning interventions for controlling emigration of health professionals from low- and middle-income countries.

! This summary includes:

- Key findings from research based on a systematic review
- Considerations about the relevance of this research for low- and middle-income countries

X Not included:

- Recommendations
- Additional evidence not included in the systematic review
- Detailed descriptions of interventions or their implementation

This summary is based on the following systematic review:

Peñaloza B, Rada G, Pantoja T, Bastías G, Herrera C. Interventions for controlling emigration of health professionals from low- and middle-income countries. Cochrane Database of Systematic Reviews 2009, Issue 1. Art. No.: CD007673. DOI: 10.1002/14651858.CD007673.

What is a systematic review?

A summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise the relevant research, and to collect and analyse data from the included studies.

SUPPORT – an international collaboration funded by the EU 6th Framework Programme to support the use of policy relevant reviews and trials to inform decisions about maternal and child health in low- and middle-income countries.

www.support-collaboration.org

Glossary of terms used in this report:
www.supportsummaries.org/glossary

Background references on this topic:
See back page

Background

Health professionals from LMICs, most notably from South Asia and sub-Saharan Africa, constitute a substantial fraction of the healthcare workforce in certain HICs, particularly in English- and French-speaking countries such as the United Kingdom (UK), the United States of America (USA) and France. The migration of educated health professionals from LMICs to HICs contributes to a shortage of health professionals in LMICs. It also acts as a subsidy to HICs given that source countries lose the return on the investments they have made in health professional training. LMICs, however, may profit from remittances and, if migration is not permanent, from additional training that health professionals receive while working abroad.

How this summary was prepared

After searching widely for systematic reviews that can help inform decisions about health systems, we have selected ones that provide information that is relevant to low- and middle-income countries. The methods used to assess the quality of the review and to make judgements about its relevance are described here:

www.supportsummaries.org/methods

Knowing what's not known is important

A good quality review might not find any studies from low- and middle-income countries or might not find any well-designed studies. Although that is disappointing, it is important to know what is not known as well as what is known.

About the systematic review underlying this summary

Review objective: To assess the effects of policy interventions to control the emigration of health professionals from LMICs to HICs?

	What the review authors searched for	What the review authors found
Interventions	Any interventions in source or recipient countries (or both) as well as international agreements that could have an impact on the outcomes.	1 interrupted time series study on the effects of a modification to USA immigration laws (The American "Act of October, 1965" decreased barriers to emigration from countries outside the Americas to the USA)
Participants	Health professional nationals of a LMIC whose graduate training was in a LMIC.	Nurses
Settings	Not restricted	USA and the Philippines
Outcomes	Proportion (or other measure of change in number) of health professionals that emigrate from a LMIC to an HIC.	Annual number of nurses migrating from the Philippines to the USA

Date of most recent search: May 2010

Limitations: This is a good quality systematic review with only minor limitations.

Peñaloza B, Rada G, Pantoja T, Bastías G, Herrera C. Interventions for controlling emigration of health professionals from low and middle-income countries. Cochrane Database of Systematic Reviews 2009, Issue 1 . Art. No.: CD007673. DOI: 10.1002/14651858.CD007673.

Summary of findings

One interrupted time series study was included. This examined the effects of a change to American immigration legislation on the migration of nurses from the Philippines to the USA.

No evidence was found regarding the effectiveness of interventions implemented in low-income countries to decrease emigration. Specifically, no evidence was found regarding:

- Strategies (financial or non-financial) to improve the working conditions and career prospects of health professionals
- Interventions for the education and training of health professionals, adjusted to the training needs and demands of local health systems (e.g. teaching methods, the use of local language training, or community-based curricula)
- The use of compulsory service schemes for health professionals
- Strategies to facilitate and support the return of health professionals working abroad

Bilateral or multilateral agreements regulating the flow of health professionals from low- to high-income countries

→ Reducing immigration restrictions probably increases the migration of nurses from LMICs to HICs

About quality of evidence (GRADE)

⊕⊕⊕⊕

High: It is very likely that the effect will be close to what was found in the research.

⊕⊕⊕○

Moderate: It is likely that the effect will be close to what was found in the research, but there is a possibility that it will be substantially different.

⊕⊕○○

Low: It is likely that the effect will be substantially different from what was found in the research, but the research provides an indication of what might be expected.

⊕○○○

Very low: The anticipated effect is very uncertain and the research does not provide a reliable indication of what might be expected.

For more information, see last page.

Interventions controlling the emigration of health professionals			
Patients or population: Nurses in the Philippines Settings: USA and the Philippines Intervention: Modification in USA immigration laws Comparison: Before modification in USA immigration laws			
Outcomes	Impact	Number of participants (studies)	Quality of the evidence (GRADE)
Annual number of Philippine nurses migrating to USA	First data point after intervention: +807.6 nurses, SE 166.7, 95% CI 480.9–1,134.3 Change in time trend: +33.4 nurses, SE 7.9, 96% CI 17.9–48.9	(1 study)	⊕⊕⊕○ Moderate
p: p-value GRADE: GRADE Working Group grades of evidence (see above and last page)			

Relevance of the review for low- and middle-income countries

→ Findings	▷ Interpretation*
APPLICABILITY	
→ The available evidence is based on an intervention made in an HIC.	▷ Policies in HICs may have an effect on the number of health workers migrating from LMICs. ▷ LMICs have little direct influence on HIC policies, including immigration policies. However, LMICs may attempt to influence such policies by means of diplomacy, lobbying, or public relations before they are enacted.
EQUITY	
→ No evaluations of emigration policies in low-income countries were found.	▷ It is uncertain whether changes in emigration policies would have an impact on equity within LMIC countries. In addition to policies intended to reduce health professional emigration, consideration should be given to specific measures targeted at recruiting and retaining health professionals in underserved areas within LMICs. ▷ There is a need for more rigorous studies on the effect of emigration policies on the recruitment and retention of health workers in underserved areas.
ECONOMIC CONSIDERATIONS	
→ The review did not assess the economic implications of health professional emigration.	▷ LMICs lose their expected return on investments in health professional training. ▷ LMICs may gain from revenue remittances sent by health workers back to their country of origin. ▷ LMICs may deliberately train health professionals for “export” (for example, nurse training in the Philippines), and recoup the costs through taxes or loan repayments.
MONITORING & EVALUATION	
→ The review found that the effectiveness of interventions to reduce emigration of health professionals from LMICs have not been assessed.	▷ The effectiveness of interventions to decrease emigration of health professionals from LMICs should be evaluated.

*Judgements made by the authors of this summary, not necessarily those of the review authors, based on the findings of the review and consultation with researchers and policymakers in low- and middle-income countries. For additional details about how these judgements were made see:

www.supportsummaries.org/methods

Additional information

Related literature

Bach S. International migration of health workers: labor and social issues (Working paper #209). Sectoral Activities Programme, International Labour Office 2003.

Stilwell B, Diallo K, Zurn P, Dal Poz MR, Adams O, Buchan J. Developing evidence-based ethical policies on the migration of health workers: conceptual and practical challenges. *Human Resources for Health* 2003;1:8.

Stilwell B, Diallo K, Zurn P, Vujicic M, Adams O, Dal Poz M. Migration of health care workers from developing countries: strategic approaches to its management. *Bulletin of the World Health Organization* 2004;82:595–600.

Willis-Shattuck M, Bidwell P, Thomas S, Wyness L, Blaauw D, Ditlopo P. Improving motivation and retention of health professionals in developing countries: a systematic review. *BMC Health Service Research* 2008;8:247.

This summary was prepared by

Peter Steinmann, Swiss Tropical and Public Health Institute, Switzerland.

Conflict of interest

None declared. For details, see: www.supportsummaries.org/coi

Acknowledgements

This summary has been peer reviewed by: Blanca Peñaloza, Chile and Elizeus Rutebemberwa, Uganda.

This review should be cited as

Peñaloza B, Rada G, Pantoja T, Bastías G, Herrera C. Interventions for controlling emigration of health professionals from low and middle-income countries. *Cochrane Database of Systematic Reviews* 2009, Issue 1. Art. No.: CD007673. DOI: 10.1002/14651858.CD007673.

The summary should be cited as

Steinmann P. Do interventions for controlling emigration of health professionals from low- and middle-income countries work? A SUPPORT Summary of a systematic review. May 2011.
www.supportsummaries.org

Keywords

evidence-informed health policy, evidence-based, systematic review, health systems research, health care, low and middle-income countries, developing countries, primary health care, migration, health professionals, doctors, nurses, interventions

About quality of evidence (GRADE)

The quality of the evidence is a judgement about the extent to which we can be confident that the estimates of effect are correct. These judgements are made using the GRADE system, and are provided for each outcome. The judgements are based on the type of study design (randomised trials versus observational studies), five factors that can lower confidence in an estimate of effect (risk of bias, inconsistency of the results across studies, indirectness, imprecision of the overall estimate across studies, and publication bias), and three factors that can increase confidence (a large effect, a dose response relationship, and plausible confounding that would increase confidence in an estimate). For each outcome, the quality of the evidence is rated as high, moderate, low or very low using the definitions on page 3.

For more information about GRADE: www.supportsummaries.org/grade

SUPPORT collaborators:

The Cochrane Effective Practice and Organisation of Care Group (EPoC) is a Collaborative Review Group of the Cochrane Collaboration: an international organisation that aims to help people make well informed decisions about health care by preparing, maintaining and ensuring the accessibility of systematic reviews of the effects of health care interventions.
www.epocoslo.cochrane.org

The Evidence-Informed Policy Network (EVIPNet) is an initiative to promote the use of health research in policymaking. Focusing on low- and middle-income countries, EVIPNet promotes partnerships at the country level between policy-makers, researchers and civil society in order to facilitate both policy development and policy implementation through the use of the best scientific evidence available.
www.evipnet.org

The Alliance for Health Policy and Systems Research (HPSR) is an international collaboration aiming to promote the generation and use of health policy and systems research as a means to improve the health systems of developing countries.
www.who.int/alliance-hpsr

To receive e-mail notices of new SUPPORT summaries or provide feedback on this summary, go to: www.supportsummaries.org/contact