A Synthesis and Systematic Review of Policies on Training and Deployment of Human Resources for Health in Rural Africa
A Synthesis and Systematic Review of Policies on Training and Deployment of Human Resources for Health in Rural Africa

Copyright, 2014, Dalhousie University and University of Zambia
Acknowledgements

This work was carried out with the support from the Global Health Research Initiative (GHRI), a collaborative research funding partnership of the Canadian Institutes of Health Research, the Canadian International Development Agency, and the International Development Research Centre.

The research team would like to thank our Advisory Group – Dr. Maina Boucar, Dr. Paulo Ferrinho, Ms. Allison Annette Foster, Mr. Solomon Kagulura, Dr. Vic Neufeld, Ms. Jennifer Nyoni, Dr. Francis Omaswa, Dr. Judith Shamian, and Dr. Mohsin Sidat – for their important contributions and support of this work. We would also like to thank the GHRI for providing the funding to support the work described in this report.

Research Team

This report was produced through a collaborative research partnership of faculty, students and staff at the University of Zambia School of Medicine and Dalhousie University’s WHO/PAHO Collaborating Centre on Health Workforce Planning and Research. Individual team members are listed below.

Dalhousie University
Dr. Gail Tomblin Murphy
Dr. Sheri Price
Adrian MacKenzie
Stephanie Bradish
Annette Elliot Rose
Janet Rigby
Amanda Carey

University of Zambia
Dr. Fastone Goma
Dr. Selestine Nzala
Nellisiwe Chizuni
Derrick Hamavhwa
Chilweza Muzongwe
A Synthesis & Systematic Review: Policies on Training and Deployment of HRH in Rural Africa

Brief

The health of mothers and children – the subjects of two Millennium Development Goals – are central to any country’s overall well-being. However, recent estimates show few African countries are on track to achieve these goals. This is largely because Africa is enduring human resources for health (HRH) crisis, with most countries in the region lacking sufficient personnel to deliver basic health care to their populations, especially in rural areas. The capacity of the region to respond to this crisis is severely constrained by inadequate funds and infrastructure. Effective planning for and management of the scarce HRH available, particularly pertaining to maternal and child health, are thus of paramount importance to Africa’s governments. To inform such planning, a systematic review of available evidence on training and deployment policies for doctors, nurses and midwives for maternal and child health in rural Africa was completed.

A wide range of training and deployment strategies for doctors, nurses, and midwives have been implemented to improve maternal and child health in rural Africa. There is also increasing investment in cadres such as clinical officers and community health workers, and we were able to identify more evidence of the success of these initiatives in improving outcomes than of those focused on doctors, nurses or midwives. The increasingly widespread use of such new professions warrants regular systematic analysis of how the respective competencies of the various health cadres align with the specific services required by the populations they serve.

There is a need to improve the visibility offered by Ministries of Health regarding their policies. For none of the countries studied in depth could we find copies of any of the specific policies included in our analysis. The analysis was therefore limited to secondary sources. There is a dearth of peer-reviewed evidence of policy implementation or impacts. A large portion of policy evidence is either not published or scattered across organizational websites which cannot be systematically searched, greatly limiting its benefit to inform future policies and practices. The potential of an international organization such as the WHO to facilitate more systematic documenting and sharing of policy evidence across countries could have tremendous benefits.

There is a large apparent discrepancy between the policies and strategies proposed by these countries and what is actually implemented, which may be due to any of a wide range of factors outside the influence of Ministries of Health. For example, none of the eight countries studied in depth are meeting the commitment to increase government funding for health to at least 15% made under the 2001 Abuja declaration, and underfunding is the most immediate barrier to health sector improvements. This situation necessitates either reconsideration of the importance of the health sector to the
development of these countries, and associated allocation of resources, or more realistic health sector planning that accounts for this long-standing ‘underfunding’. In addition, there is evidence that the donor funds crucial to Africa’s health sector could be used much more effectively if their application was more closely aligned with national health priorities. Finally, although shortages of resources are a major problem, so too is a lack of capacity to effectively manage those resources, or to monitor and evaluate the impacts of their use. Investment in building such capacity may therefore pay important long-term dividends.
Executive Summary

Background
The eight Millennium Development Goals (MDGs) released in 2000 are considered an international blueprint aimed at improving the health and well-being of the world’s most vulnerable people. The health and well-being of women, newborns and children is at the forefront of many policy and planning discussions related to MDGs 4 and 5. As the date for achieving the MDGs looms closer, many progress reports, particularly those in many African countries, show that there continue to be challenges in meeting MDGs 4 and 5. This is largely because Africa is enduring a human resources for health (HRH) crisis, with most countries on the continent lacking sufficient personnel to deliver basic health care to their populations, especially in rural areas. The capacity of the continent to respond to this crisis is severely constrained by inadequacies in funding and infrastructure. Effective planning for and management of the scarce HRH available, particularly pertaining to maternal and child health, are thus of paramount importance to Africa’s governments. To inform such planning, a systematic review of available evidence on training and deployment policies for doctors, nurses and midwives for maternal-child health in rural Africa was completed.

Approach
The primary question guiding the review was: What is known about policies to support training and deployment of nurses, midwives and doctors for maternal-child health care in rural Africa? Additional questions included: What is currently known about (a) the development, (b) the implementation, and (c) the impacts of these policies?

Guided by an international Advisory Group, a two-part approach was used, the first of which was a scoping review of available evidence pertaining to the questions from all of Africa. The second was a more in-depth synthesis of policies from a subset of African countries, including Ethiopia, Ghana, Mali, Mozambique, Niger, Tanzania, Uganda and Zambia.

Only policies for which there was some evidence of application/implementation were included in the synthesis. Further, individual programs or interventions implemented as part of those broader plans were considered policies and fully analyzed in the review. Only evidence from research published in peer-reviewed scientific journals was considered to constitute the ‘impacts’ component of the framework. However, the existence of other evidence from non-peer-reviewed sources (e.g. Ministry of Health reports) is noted where available and was used to provide information on the other components of the framework.
Due to the limited policy documentation available for analysis, caution must be taken in drawing conclusions about the quantity and quality of strategies being undertaken in African countries related to training and deployment of doctors, nurses and midwives for maternal/child health in rural areas. This issue is explored in more depth in the results and discussion sections, where specific examples of policies identified during the review as not meeting the inclusion criteria, but which are nonetheless promising, are described.

**Results**

The electronic database searches returned a total of 548 peer-reviewed articles, of which 122 were duplicates. The remaining 426 unique articles were combined with the 87 articles as identified by the Zambian research team and Advisory Group members, totalling 513 articles to be reviewed. Of these articles, 37 met the inclusion criteria. The final body of articles covered 13 countries, representing each region of Africa. Ghana had the highest representation with 9 peer-reviewed articles, followed by South Africa and articles addressing multiple nations, each with 5. There were four articles from Ethiopia, and the remaining 10 countries had one to three apiece. Selected articles came from 22 different journals. The most frequent contributors were the Bulletin of the World Health Organization, Health Policy and Planning, Reproductive Health Matters, and Human Resources for Health. The vast majority of the peer-reviewed articles were published from 2003 on, suggesting the impact that the introduction of the Millennium Development Goals in 2000 has had on priority setting for research and policy. Furthermore, this data reveals that momentum is building for research that relates to both HRH and MDGs 4 and 5.

Specific representation of doctors, nurses, and midwives in the literature was fairly equitable. However, many of the selected articles included the providers implicitly based on the high-level nature of the policies, such as those pertaining to national health policies and, health sector reforms. Policies focused exclusively on training and deployment represented the minority, whereas those that addressed both areas, either directly or as embedded components of broader policies, were in the majority. The remainder of the literature pertained to policies which were not explicitly designed to address MDGs 4 and 5 in rural areas through training and/or deployment of the selected providers, but had relevance for MDGs 4 and 5 embedded within or implied as components of a more comprehensive policy mandate, such as national child health policies. The excluded articles, although not meeting every aspect of the inclusion criteria, demonstrated the diversity of work being done in and around the policy process as it relates to the training and deployment of HRH to improve maternal and child health in rural areas.

At the time of the review, the assessed Ministry of Health websites for the African countries belonging to the three linguistic groups showed a large variation in terms of
functionality and relevant document availability. Some websites are quite comprehensive in material supplied. Other Ministries of Health did have operational websites, but there were inconsistencies in documents provided and their accessibility. For example, several countries’ Ministries of Health had the foundation and structure for a fully informative website, but broken links, sections designated as “under construction”, and a lack of posted policy documents reduce its ability to inform. Further, some ministerial websites were not located at all.

The scoping of the selected websites produced a wide variety of pertinent and applicable literature for the country sub-set: professional guidelines and protocols, independent policy evaluations, conference notes and proceedings, and additional peer-reviewed literature. These documents were used to inform the country context piece of the analysis, and furthermore to identify potentially relevant policies to guide specific inquiries to our advisory committee for additional information. Our review revealed a paucity of policies specific to training and deployment of doctors, nurses or midwives for maternal or child health in rural Africa. We did, however, identify several policies that considered each of these factors, which are described in detail in the body of the report.

Beyond the names of the various policies and the broad contexts in which they were developed, very little information about the creation, implementation, or impact of this work was available through our search. In particular there is a paucity of peer-reviewed scientific evidence relating to the impacts of these policies. However, most of the literature acknowledged that the problems for which the policies were intended to address continue to persist.

**Discussion**

Despite an extensive and multi-faceted search strategy, there were relatively few policies identified on the training and/or deployment of doctors, nurses and midwives for maternal and child health in rural areas of these countries. The included policies reflect the information that was identified and readily available for inclusion in our analysis using the methods and sources outlined above. However, this should not be interpreted as a lack of attention or action towards addressing these issues. There are several important programs being implemented by several countries to address these issues that did not meet the exact inclusion criteria. Two of these about which there was considerable information were Ethiopia’s Health Extension Program and the Tanzania Essential Health Intervention Project, which are described in more detail in the body of the report.

Overall, it is clear that the Ministries of Health in the countries studied have attempted, and continue to explore, a wide range of HRH policy options aimed at improving maternal and child health among their respective populations. However, the
implementation – and therefore the success – of these policies seem to be severely constrained by economic, political, social, geographic and technological factors outside these Ministries’ direct influence. Further, the alignment of implemented policies with broader national strategies is often unclear. That said, it is important to note how little information on what health policies currently exist in these countries – let alone details about their implementation and impacts – is readily available, or even attainable through dedicated searching. The policies had to be analyzed based solely on secondary information, as copies of the actual policies themselves were not available. This lack of visibility and accessibility of information makes an objective assessment of these policies – necessary for any meaningful improvement on them – virtually impossible.

**Areas for Further Study**

There is great potential to build on this synthesis in future work. The main limitations of this review were the availability of information on relevant policies, and the timeframe available to conduct the review. Related to the latter point, as noted above, expanding the search strategy for peer-reviewed documents to include names of individual African countries would likely yield more relevant papers. Similarly, follow-up searches for information on specific policies, once identified, could produce additional information about them, as could mining the references of relevant documents. Further, interviews or focus groups with key informants in the selected countries would likely yield additional insights and relevant documents. Finally, although we have cited government- and NGO-published reports where applicable, we limited our consideration of the evidence of policy impacts to the peer-reviewed literature. This excludes the wealth of important analyses being done by NGOs such as the World Bank and CapacityPlus, which have great potential to inform the kinds of policies considered here but are seldom published in academic journals.

**Key Messages**

Giving due consideration to the review’s methods and limitations, several key messages emerged repeatedly and clearly enough to be brought to the forefront.

1. **The planning-implementation gap:** A wide range of strategic HRH and broader health system policy interventions appear to have been implemented to improve the training and deployment of doctors, nurses, and midwives for maternal and child health in rural Africa. However, there is a wide apparent discrepancy between the number and scope of policies and strategies that are proposed and what is evidently implemented, and poor maternal and child health remains widespread in rural Africa. Further, we often found little evidence of clear policy direction for those policies that were implemented. This discrepancy between planning and implementation may be due to any number of economic, social, political, environmental and technological
factors, only some of which are within the sphere of direct influence of Ministries of Health.

2. **Underfunding:** None of the eight countries studied in depth have met their health sector funding commitments made under the Abuja declaration in 2001, and underfunding is the most frequently cited challenge limiting improvements to the health sector. Increasing funding allocations to meet this commitment is essential to the health of these countries’ populations.

3. **Policy Visibility:** There is a need to improve the degree of visibility offered by Ministries of Health in terms of their various policies. Despite the multi-pronged search strategies described, due to a lack of archiving of policy information on Ministry of Health websites, for none of the eight countries studied in depth could we find copies of any of the specific policies included in our analysis, which was therefore limited to evidence from secondary sources.

4. **Unavailability of Evidence:** There is a dearth of peer-reviewed evidence documenting the implementation and impacts of HRH policies in Africa. This may be partially due to the fact that the evidence being generated is often self-published by NGOs like the World Bank; there appears to be almost no such evidence published by governments, even where it exists. Thus a large portion of important policy evidence is either not published or scattered across multiple organizational websites which cannot be systematically searched in a timely manner, therefore greatly limiting its benefit to inform future policies and practices. In this context, the potential role of an international organization such as the WHO to facilitate the more systematic documenting of best practices and sharing of other policy evidence across countries could have tremendous benefits.

5. **Research bias:** The peer-reviewed evidence included in the review shows a repeatedly identified bias towards rural HRH training and deployment research carried out in more developed countries. This is not only an issue suggesting a lack of research being done where it is needed most (i.e. countries with HRH crises), but also that the majority of the studies being done for rural training and deployment are not generalizable to the less developed world.

6. **Innovation:** The variety of policy interventions described in the documents reviewed demonstrates the level of innovation being practiced by African countries in efforts to improve their maternal and child health. Although some strategies focus on more traditional professions such as doctors, nurses and midwives, there appears to be increasing attention to and investment in newer cadres such as clinical officers and
community health workers. Furthermore, we were able to identify more evidence of the success of the latter type of initiative in improving health outcomes than of the former.

7. **Aligning services and competencies:** The introduction of several new health care cadres with important responsibilities warrants regular and systematic analysis of how the various competencies of all health care providers align with the specific health care services required by the populations in a given country. In this way, training and deployment policies can be adjusted on an ongoing basis to keep pace with changing health needs and contexts.

8. **Alignment of donor funds:** Funds from donor agencies make up a large portion of the health budgets of African countries, and there is evidence that these are put to numerous beneficial uses. However, there is also evidence that these funds could be used much more effectively if their application was more closely aligned with broader national health priorities to fund evidence-informed interventions.

9. **Management, monitoring and evaluation:** Although shortages of resources in general are a chronic and widespread problem, so too is a lack of capacity for effective management of those resources, and to monitor and evaluate the impacts they have when mobilized. Investment in building such capacity, such as through an international body like the WHO, thus has the potential to pay great long-term dividend