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Legal and regulatory framework for health worker retention in Mozambique: Public health law research to strengthen health systems and services

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Abstract

Realizing the fundamental contribution of human resources to public health, the World Health Organization (WHO) issued policy recommendations for health worker retention. We reviewed Mozambique's laws and regulations and assessed the extent to which this legal and regulatory framework governing public sector health workers aligns with the WHO health worker retention recommendations. We provide guidance for future analysis of non-binding policies that may fill gaps identified in our review. We also indicate how to link legal analysis to the cycle by which research informs policy, policy informs practice, and practice leads to improvements in health systems and population health. Finally, we demonstrate the relevance of understanding and analyzing the impact of domestic laws on global health. Future research should assess implementation of health worker allowances and any associations with increased hiring, more equitable distribution, and improved retention – all are essential to public health in Mozambique.

Keywords

policy; law; health workers; human resources; health worker retention; Mozambique

Introduction

Mozambique is a high-disease burden, low-income country of 25 million people with a predominantly rural population[1] and one of the world's lowest population densities of doctors, nurses, and midwives, a mere one-sixth of the minimum level recommended by the World Health Organization (WHO).[2] With the country's serious public health needs, several global health initiatives have made Mozambique a priority, including the US President's Emergency Plan for AIDS Relief and the Global Fund to Fight AIDS, Tuberculosis, and

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Malaria. Increasing human resources for health (HRH) hired and retained in Mozambique is a fundamental step toward achieving and sustaining scale-up of health programs and services, including prevention and treatment of HIV, tuberculosis, and malaria. Because a country's density of health workers is inversely associated with rates of infant, child, and maternal mortality, producing and retaining more health workers can also broadly impact health beyond these three focal diseases.[3]

In recognition of the fundamental contribution of human resources to public health, in 2010, the WHO issued global policy recommendations for health worker retention.[4] The WHO formulated these recommendations after an extensive review of evidence supporting particular interventions to improve retention of health workers in remote and rural areas. The recommendations were intended to inform national policies and thus improve retention of health workers and public health, but little is known about the extent to which this WHO guidance has been taken up in national legal and regulatory frameworks, or implemented by health systems.

As in many other countries, Mozambique relies primarily on public sector civil servants to deliver most health services. Private, for-profit health services other than traditional medicine remain inaccessible to the general population.[5] Some private, non-profit organizations, for example, faith-based and non-governmental ones, do provide care to the vulnerable in Mozambique.[6,7]

As a foundation to understand the extent to which Mozambique's legal and regulatory framework governing public sector health workers might contribute to improving health worker retention, the health system, and the health of its people, we examined aspects of the national regulatory framework – the enforceable rules: laws and regulations.

Our work provides a first step toward analyzing a complex cycle. Under ideal circumstances, all participants in the cycle should ensure that research informs policy, policy informs practice, and practice – at individual through system levels – leads to improvements in health systems and population health. Too often each of the three elements operates in isolation, with little effective communication among researchers, policymakers, and practitioners of all types, including system managers. Such barriers are not insurmountable, particularly with the use of face-to-face communication.[8]

The WHO Basis for Evaluation of Worker Retention Laws and Policies

WHO guidelines provide a standard against which to evaluate Mozambique's national legal and regulatory framework. Previous work often compared WHO guidelines with national guidelines (policies not codified into law) but rarely compared the WHO recommendations with a country's laws and regulations. Such comparisons might be the basis for better understanding the enforceable legal foundation of any country's policies.[9,10]

WHO has proposed two types of indicators to monitor and evaluate health systems' leadership and governance:

1. *Rule-based indicators* measure whether countries have appropriate policies, strategies, and codified approaches for health system governance.
2. *Outcome-based indicators* measure whether rules and procedures are being effectively implemented or enforced, based on the experience of relevant stakeholders.[11]

We have undertaken a 'rule-based' approach to laws and regulations – a prerequisite to analysis of non-binding policies and the 'outcome-based' analysis. Understanding the rules and the extent to which they align with evidence-based guidance will provide a foundation for subsequent assessment of:

- Non-binding policies, and their relationship to enforceable rules.
- Implementation, outcomes, and impact of the combination of all laws, regulations, and non-binding policies on health worker retention.

Domestic laws and regulations have been largely neglected in the global health literature – not just in the literature on Mozambique. Thus, we reviewed how Mozambique's laws align with the WHO health worker retention recommendations. How well do they reflect global normative guidance from WHO? A full assessment of Mozambique's alignment with the WHO guidelines will require additional steps – adding to our review a thorough identification and analysis of all national policies that may be important in the country's human resource planning plus allocation of resources. Policies may include strategic plans and other forms of domestic policy guidance.

Methods

Our research team included a public health lawyer at the (USA) Centers for Disease Control and Prevention, two lawyers from Mozambique's Ministry of Health, and public health practitioners knowledgeable about human resources in Mozambique. We assessed the extent to which Mozambique's binding policies governing HRH align with WHO's 16 evidence-based recommendations for financial and non-financial incentives to improve hiring, distribution, and retention of health workers, particularly in remote and rural areas.[4] Some of us had recently used a similar method to compare a WHO policy on tuberculosis infection control to national laws and regulations in three African countries.[10]

We conducted a gap analysis of legal and regulatory documents that we gathered online through the Government of Mozambique portal (www.portaldogoverno.gov.mz/Legisla), and in-country from Ministry of Health legal department staff and from human resource department technical assistance providers. At the start, we reviewed legal documents online. We then conducted an in-country review with the assistance of the legal department of Mozambique's Ministry of Health. Mozambique's Ministries of Justice and Health had already compiled relevant laws and regulations.[12] Native Portuguese speakers on our team reviewed all documents in July 2013 in the original Portuguese. We restricted our review to documents considered by Mozambican legal authorities to be enforceable laws or regulations. We excluded non-binding policy documents (for example, national strategic plans) as they were deemed beyond the scope of this preliminary study.

We concentrated our analysis on whether the Mozambican laws and regulations appear to be 'aligned', 'partially aligned', or 'not aligned' with the WHO's health worker retention recommendations, which were categorized as follows:

Education

Regulatory

Financial incentives

Personal and professional support

We defined *alignment* as the existence of one or more laws or regulations addressing the particular WHO recommendation at issue. For example, we considered Mozambique's legal and regulatory framework to align with WHO recommendation B2 because a Mozambican law addresses the content of the recommendation (see Table 2). *Partial alignment* means that one or more laws or regulations partially address a particular WHO recommendation. For example, we found Mozambique's framework to be partially aligned with WHO recommendation A1 because a Mozambican law addresses only in part the content of the recommendation. The WHO recommendation A1 suggests targeting of rural students for health science pre-service education programs. Mozambique's legal and regulatory framework does not explicitly target rural students for health science pre-service education programs, but it does create an entity to oversee these programs, authorizing this entity to add admission criteria that might include rural residence at time of application. *Lack of alignment* occurs when no Mozambican laws or regulations address or partially address the specific WHO recommendation. For example, WHO recommendation D1 is to "improve living conditions for health workers and their families and invest in infrastructure and services". Mozambique's legal and regulatory framework is not aligned with WHO recommendation D1 because we could find no legal provision that addresses the content of that recommendation. Partial alignment and lack of alignment constitute gaps between the national framework and the global recommendations issued by the WHO.

How Closely Aligned are Mozambique's Laws and Regulations, or Where are the Gaps?

Mozambique's legislation and regulations

We found three documents of prime importance, all of which were issued in 2009: System of Careers and Remuneration for the Public Sector (SCR); General Statute of Employees and Agents of the State (EGFAE); and Regulation of the General Statute of Employees and Agents of the State (REGFAE). The SCR, EGFAE, and REGFAE are fundamental in governing career development, salaries, and 'allowances' (typically salary supplements) of public sector health workers. Mozambique enacted all three in 2009 as part of the government's public sector reform program phase two (2006–2011) in line with provincial decentralization of human resources.[13] The government intended this reform program to implement the government's Poverty Reduction Strategy Plan (http://

documents.worldbank.org/curated/en/2004/06/4241202/mozambique-poverty-reduction-strategy-paper-prsp-annual-progress-report).

System of careers and remuneration for the public sector—The SCR applies to the public service system as a whole, covering both employees (*funcionários*) and contractors (*agentes*). It contains two categories of remuneration for public servants, salaries (*vencimento*) and supplements (*suplementos*). The SCR establishes employee careers (for example, Health Technician) and occupations within careers (for example, Maternal Infant Health Nurse within Health Technician career). It sets out scopes of practice and salary groups, but does not establish actual salaries. Rather, this law directs the Council of Ministers to approve and the Ministry of Finance to issue amounts for the SCR salary groups. Mozambique's physicians (salary Groups 17–18) are distinct from those for nurses (salary groups 32, 51, and 93); the latter also include pharmacists, laboratory technicians, and clinical officers (otherwise known as non-physician clinicians, a common cadre in much of sub-Saharan Africa where physicians are scarce). The SCR also lists supplementary compensation (supplements) that may be paid to public servants.

The general statute of employees and agents of the state—The EGFAE is a wide-ranging law governing entry into public service, remuneration, and retirement. It created the two categories of public servant referred to in the SCR – employee and contractor. Employees are part of a list of employee types (*dentro do quadro* or on the employee list); but contractors are not (*fora do quadro* or outside the employee list). For a worker, the major advantage of being an employee appears to be job security: the country's general budget funds positions on the employee list that are to be considered permanent under EGFAE.

Regulation of the general statute of employees and agents of the state—Mozambique's Council of Ministers issued REGFAE, a regulation, to implement the EGFAE legislation. This approach, legislating then regulating within the scope of the legislation is common to many countries. REGFAE's most interesting attribute for this review is its list of more than 17 allowances that may be provided to employees and contractors in the public service (Table 1), including those who work for the Ministry of Health.

Among the supplements listed in REGFAE are a performance-based bonus, awards for public recognition, extra pay for working in isolated or high-risk areas, subsidies for illness and funeral expenses, and overtime pay. The special bonus (30–75 per cent of the base salary) is potentially available to all middle and high-level employees and contractors under SCR Article 24 and REGFAE Article 48. Many doctors and nurses may qualify for the special bonus. Such an addition to a person's total pay may favorably impact retention.[4]

Gap analysis: Table 2 includes a recommendation-by-recommendation assessment of the alignment of WHO health worker retention recommendations with Mozambican laws and regulations.

For the Regulatory (B) and Financial Incentives (C) categories, the Mozambican legal and regulatory framework governing health workers either aligned entirely or partially with five

of the WHO recommendations. For example, Mozambique's framework aligns with WHO recommendation B2 because it introduced types of health workers, many of whom practice in rural settings with enhanced scopes of practice that enable task sharing to increase the supply of clinicians, for example, to initiate and manage patients on HIV treatment. (Mozambique does so by authorizing initiation and management of HIV treatment by non-physician clinicians, along with certain nurses, and doctors). Mozambique's SCR and REGFAE are especially thorough with regard to financial incentives for public servants including health workers. These include at least 17 types of allowances that if paid regularly might increase health worker hiring, distribution, and retention (Table 1). Overall, we found full or partial alignment of Mozambican laws and regulations with 12 of 16 WHO recommendations (Table 2).

Important gaps remain (that may or may not be the subject of non-binding policies). Table 2 indicates that all four gaps in alignment fall within the Education (A) or Personal and professional (D) support categories. Mozambique could achieve greater consistency with WHO's recommendations by using laws, regulations, or other policy instruments to select more rural students for pre-service training in nursing, midwifery, and medicine, and upon graduation place them in rural areas. WHO's recommendations point to "... a compelling body of evidence from high-, middle-, and low-income countries that a rural background increases the chance of graduates returning to practice in rural communities".[4] A legal, regulatory, and comprehensive policy framework (including non-binding policies) that encourages selection of rural students into pre-service health sciences training might translate into a greater number of rural health workers and thereby a more equitable distribution of health workers between urban and rural areas.

Other notable gaps where the WHO recommendations are not specifically addressed by the laws and regulations include improvement of rural infrastructure and services such as sanitation, electricity, and schools for health workers and their families, plus reduction of professional isolation through professional networks, associations, and journals. Recent passage of a law establishing Mozambique's first nursing regulatory board may begin to fill this gap, as its mandate includes promotion of professional development for nurses at all levels.[14]

Discussion: Mozambique's Framework is Well Aligned but Gaps Remain

Overall, Mozambique's legal and regulatory framework aligns fully or partially with 12 of the 16 WHO recommendation (75 percent). All four areas of non-alignment fall within the education and personal and professional support categories. These two categories of WHO recommendations appear to be less well reflected in the country's health governance system than the categories of regulatory and financial incentives. It may not be realistic to expect that the WHO recommendations will be entirely reflected in any country's laws and regulations for several reasons. A law or a regulation may not be the best instrument to operationalize a particular recommendation. One example might be recommendation A5, to design continuing education and professional development programs for rural health workers. Although we found no laws or regulations that design or require such programs be targeted to rural health workers, Mozambique has created a broader framework supportive of

continuing education. Two years after passage of EGFAE and REGFAE's in 2009, the Ministry of Health published a Continuing Education Strategy[15] with particular attention to rural health workers, showing its desire and a plan to operationalize the mandate set out by statute and regulation.

Other explanations for inconsistencies between Mozambique's legal and regulatory framework and the WHO recommendations include: (i) lack of time elapsed since issuance of the recommendations, especially given that Mozambique's legislative and regulatory processes involve many stakeholders and policymakers. Amending laws or updating regulations may take months if not years; and (ii) potential lack of stakeholder and policymaker consensus that elements of the global recommendations are feasible for Mozambique and should be pursued.

Mozambique's legal and regulatory framework governing public servants may contribute to both stability and flexibility of the health workforce, as employees have permanent on-budget positions and contractors have temporary positions that may be externally funded. Given Mozambique's status as a low-income country and its large dependence on external resources for health services, this dual approach allows the country to temporarily hire health workers using donor funds whereas the national budget restricts the number of permanent employees. Donor-funded health workers who are hired as contractors will be lost if external funding is reduced – or they will need to be absorbed onto the national budget as employees.

The country's legal and regulatory framework includes allowances, or salary supplements, that if regularly provided could positively impact health worker density and public health. A recent publication noted that in Mozambique, "Existing incentive policies related to staff motivation and retention have not been fully implemented and health workers are often unaware of them".[16] Future research should assess implementation of health worker allowances and any associations with increased hiring, more equitable distribution, and improved retention. All are essential to public health in Mozambique.

Next Analytic Steps

Governments, including Mozambique's, use not only laws and regulations, but also operational policies (including strategic plans) to structure the remuneration and distribution of public sector health workers. To understand a country's readiness to address a problem such as worker retention, it is useful to begin by analyzing enforceable rules. Legal research need not be an expensive endeavor. Local lawyers are best qualified to conduct such research and may be paid in local rates or may volunteer *pro bono* assistance. Globally, concerned lawyers and law students can contribute by examining foreign laws, using legal databases available online. Lawyers are well suited to help identify gaps in the policy–practice–impact cycle, to facilitate filling the voids in law and policy, and to help uncover faulty or incomplete implementation.

We suggest further steps to connect research, policy, and practice for advancing health worker retention in Mozambique including:

1. Identify other relevant policies that were beyond the scope of our review, and assess gaps between all policies and the WHO guidelines. A complete review would include other binding and non-binding policies (such as strategic plans).
2. Evaluate policy implementation, including status of and factors affecting enforcement and compliance with policies, looking for any associations with health worker retention.
3. Engage stakeholders to discuss law and policy alignment, implementation, and gaps; and to promote solutions by improving laws, policies, and their implementation; and to strengthen these and outcomes for health worker retention.
4. Conduct health systems research on factors (legal and non-legal) affecting health worker retention, and population health outcomes.

Future research should identify all additional forms of policy. Table 3 provides a list of questions to ask and potential sources of information for further policy research that would complement legal research summarized here.

Conclusion

Our work illustrates how public health law research can help countries strengthen health systems. Whether the topic is health worker retention or any other area where laws and regulations may play a significant role affecting health outcomes, cross-disciplinary collaboration among lawyers and public health practitioners, including epidemiologists and statisticians, may lead to improved understanding of the role of law and policy as they affect public health outcomes. In areas such as tobacco control or road safety, such analysis has provided deep understanding of the role of law and policy as they affect health. Still this is lacking for many domains of public health, including HRH.

We found that Mozambique's legal and regulatory framework appears quite well aligned with the WHO's evidence-based set of recommendations for health worker retention. Nonetheless, important gaps exist. These may be addressed, at least in part, by other forms of policies including strategic plans. If there is a void of policy in some areas, or if hindrances to implementation of non-binding policies suggests that enforceable laws or rules would be better suited to the challenges, stakeholders, policymakers, and lawmakers in Mozambique can take these up.

Once researchers have identified and analyzed the full set of laws, regulations, and policies, ministries, or others can use outcome-based indicators to assess the extent to which binding laws and regulations and non-binding policies have been implemented or enforced. They can then pinpoint impediments to full use of policy tools to achieve the goals. These may include low institutional capacity, lack of funding, or other factors.

We analyzed the alignment of one country's legal and regulatory framework with one set of WHO recommendations. Our approach might be employed to assess alignment with WHO guidelines in other areas as well. For health worker retention, we found that the government

of Mozambique has the potential to implement, in collaboration with its domestic constituencies and with support from external partners, evidence-based laws and regulations already on the books to increase the number of health workers hired and retained in Mozambique. Improved public health should be the result.

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Table 1

Allowances or salary supplements authorized in Mozambique's legal and regulatory framework

1	Subsidy for debts unpaid (*subsídio por falhas*)
2	Assistance for food and transportation costs related to work or illness (*ajudas de custo*)
3	Performance bonus equivalent to 1 month's pay for those with evaluation of 'very good' (*bónus de rendibilidade*)
4	Special bonus for middle and high-level employees and contractors (*bónus especial*)
5	Supervisory gratuity (*gratificação de chefia*)
6	Prizes including public recognition measures (*prémios*)
7	Field subsidy for work trips between 2 and 30 days (*subsídio de campo*)
8	Funeral subsidy for public servant or family members (*subsídio de funeral*)
9	Subsidy during illness (*subsídio na doenca*)
10	Subsidy for shift work (*trabalho em regime de turnos*)
11	Overtime pay (*trabalho extraordinário*)
12	Subsidy for night work (*trabalho nocturno*)
13	Subsidy for isolated or high-risk work (*trabalho em condições de risco, penosidade ou insalubridade*)
14	Salary supplement equivalent to 1 month's pay subject to availability of funds (*suplemento de vencimento*)
15	Locality pay varied by geographic area (*subsídio de localização*)
16	Participation in costs and fines (*participação em custas e multas*)
17	Ocean subsidy similar to field subsidy but for those deployed to sea (*subsídio de mar*)
18	Others provided for in specific legislation (*outros previstos em legislação específica*)

Source: Regulation of General Statute of Employees and Agents of the State (REGFAE, Article 47, and related articles), also SCR Articles 23–26 (www.portaldogoverno.gov.mz/Legisla/legisSectores/funcao-publica/regfae.pdf).

Table 2

Alignment of Mozambique's legal/regulatory framework with WHO retention guidelines

WHO recommendation	Mozambique's relevant laws/regulations	Alignment (Yes/Partial/ No)
(A: Education; B: Regulatory; C: Financial; D: Personal/Professional Support)		
A1. Use targeted admission policies to enroll students with a rural background in education programs for various health disciplines, in order to increase the likelihood of graduates choosing to practice in rural areas	Do not target rural students, although Decree 47/2003 creating Higher Institute of Health Sciences allows it to add admission criteria not contrary to law	Partial
A2. Locate health professional schools, campuses, and family medicine residency programs outside of capitals and other major cities as graduates of these schools and programs are more likely to work in rural areas	Ministerial Diploma 98/87 created health science institutes in four capitals and allowed Ministry of Health to create additional ones according to need Most provinces now have these institutes	Partial
A3. Expose undergraduate students of various health disciplines to rural community experiences and clinical rotations as these can have a positive influence on attracting and recruiting health workers to rural areas	Ministry of Health regulations (2009 and 2012) support rural and community participation internships	Partial
A4. Revise undergraduate and postgraduate curricula to include rural health topics so as to enhance the competencies of health professionals working in rural areas, and thereby increase job satisfaction and retention	Ministry of Health regulations (2009 and 2012) support rural internships as part of health science institutes' curricula	Partial
A5. Design continuing education and professional development programs that meet the needs of rural health workers and that are accessible from where they live and work	EGFAE and REGFAE require continuing education but lack explicit attention to rural needs and accessibility. However, the Ministry of Health approved a Continuing Education Strategy in 2011 with attention to rural health workers	No
B1. Introduce and regulate enhanced scopes of practice in rural and remote areas to increase the potential for job satisfaction	SCR in Article 7 notes that workers may be given duties not explicitly in their broad scopes of practice	Partial
B2. Introduce different types of health workers with appropriate training and regulation for rural practice	SCR established job titles or occupations including ones often deployed in rural practice, such as clinical officers (*técnicos de medicina*), surgical technicians, and lower and mid-level nurses.	Yes
B3. Ensure compulsory service requirements in rural and remote areas are accompanied with appropriate support and incentives	Ministerial Diploma 56/85 requires all technical-professional health careers (for example, medicine, nursing, laboratory) to complete 2 years of compulsory service, albeit not specified whether rural. Those with good performance evaluations are then brought into the public service	Partial
B4. Provide scholarships, bursaries, or other education subsidies with enforceable agreements of return of service in rural or remote areas	Ministerial Diploma 98/87 requires return of service to the State equivalent in duration to the length of training at a governmental health sciences institute	Partial
C1. Use a combination of fiscally sustainable financial incentives, such as hardship allowances, grants for housing, free transportation, paid vacations, and so on, sufficient enough to outweigh the opportunity	REGFAE lists multiple financial incentives for employees and contractors including supplements and special bonuses tied to base pay, hardship/isolation pay, locality	Yes

WHO recommendation	Mozambique's relevant laws/regulations	Alignment (Yes/Partial/No)
costs associated with working in rural areas, as perceived by health workers	pay, vacation, performance bonus, funeral expenses, and several others	
D1. Improve living conditions for health workers and their families and invest in infrastructure and services	None found	No
D2. Provide a good and safe working environment	EGFAE states all public servants have a right to workplace hygiene and security	Yes
D3. Identify and implement appropriate outreach activities to facilitate cooperation between health workers from better served areas and those in underserved areas	None found	No
D4. Develop and support career development programs and provide senior posts in rural areas	EGFAE Article 42 states all public servants have a right to continuing education, career development, fair evaluation, and so on	Yes
D5. Support the development of professional networks, rural health professional associations, rural health journals, and so on	None found	No
D6. Adopt public recognition measures	REGFAE contains many public recognition measures which supervisors can take	Yes

Table 3

Questions and sources for future research on Mozambique retention policies

Questions	Sources of information
What other policies and plans exist which may affect health worker retention?	Ministry of Health of Mozambique, Civil Service Commission, Health Regulatory Boards (for example, Doctors' Council, Nurses' Council)
Does Mozambique have a current Human Resources for Health (HRH) Strategic Plan, and how does it address health worker retention?	Ministry of Health of Mozambique
Does Mozambique have a current Health Sector Strategic Plan, and how does it address health worker retention?	Ministry of Health of Mozambique
Does Mozambique have retention policies and plans for health workers addressing priority diseases (for example, HIV, TB, malaria)?	Ministry of Health of Mozambique
To what extent do sub-national policies and practices affect health worker retention?	Ministry of Health of Mozambique (national and provincial levels)