Innovation to improve health care provision and health systems in sub-Saharan Africa - Promoting agency in mid-level workers and district managers

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Innovation to improve health care provision and health systems in sub-Saharan Africa – Promoting agency in mid-level workers and district managers

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Initiatives to address the human resource crisis in African health systems have included expanded training of mid-level workers (MLWs). Currently, MLWs are the backbone of many health systems in Africa but they are often de-motivated and they often operate in circumstances in which providing high quality care is challenging. Therefore, assuming that introducing additional people will materially change health system performance is unrealistic. We briefly critique such unifocal interventions and review the literature to understand the factors that affect the motivation and performance of MLWs. Three themes emerge: the low status and inadequate recognition of MLWs, quality of care issues and working in poorly managed systems. In response we propose three interrelated interventions: a regional association of MLWs to enhance their status and recognition, a job enrichment and mentoring system to address quality and a district managers’ association to improve health systems management. The professionalisation of MLWs and district managers to address confidence, self-esteem and value is considered. The paper describes the thinking behind these interventions, which are currently being tested in Kenya, Nigeria, South Africa and Uganda for their acceptability and appropriateness. We offer the policy community a complementary repertoire to existing human resource strategies in order to effect real change in African health systems.

Keywords: mid-level workers; Africa; health systems; district management; health policy and services; agency; motivation; human resources

Introduction

Sub-Saharan Africa accounts for 25% of the global burden of disease. This has adversely affected its social and economic development (World Health Organisation (WHO) 2006, African Union Conference of Ministers of Health 2007). Despite renewed global effort, insufficient progress is being made towards achieving health targets embodied in the Millennium Development Declaration (WHO 2005). A small number of health conditions are responsible for most of the avoidable mortality in poor countries, but the available effective interventions are not accessible to the world’s poor (Hanson et al. 2003).

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Health system development must become more central to current MDG strategies, (Hanson et al. 2003, Freedman et al. 2005, WHO 2005) with human resource issues being one of the most critical health system priorities. Insufficient numbers of health personnel are part of the problem of weak health systems. Norms indicate that 2.5 health workers per 1000 population are required to provide basic health care. Africa has less than one health worker per 1000 compared to over 10 per 1000 in Europe (Kinifu et al. 2009). This indicates a shortage of 720,000 physicians and 670,000 nurses (Hongoro and McPake 2004). Tanzania needs to multiply its current workforce by 15 and Chad by 90 by 2015 to meet its health targets (Kurowski et al. 2004). In Malawi, 64% of established nursing posts were unfilled in 2006 (Record and Mohiddin 2006). In Kenya and Mozambique, a public sector expenditure freeze has led to a constricted health workforce even though there are many qualified health professionals – especially nurses – who are unemployed (Medecins Sans Frontieres 2007, Adano 2008).

Africa also subsidises health systems in richer countries with an estimated 23,000 qualified African academic professionals leaving annually (Pang et al. 2002). Push factors include: low government salaries, poor working conditions, inadequate postgraduate training opportunities, frustration with bureaucracy, inflexible planning and being unable to provide quality care due to shortages of equipment and medication (Hongoro and McPake 2004). Those with the best training and expertise are the most marketable, so that those who leave are also the leaders, supervisors, mentors and trainers, which represent an irrecoverable loss. Replacing these professionals is expensive and takes years. In response, donors have started funding loans and salary top-ups, and there is an increasing trend to fund health care provider training in Africa (Record and Mohiddin 2006).

A common response is to promote the training of mid-level workers (MLWs; called variously: mid-level practitioners, non-physician clinicians, clinical officers, clinical associates, medical assistants and nurse practitioners) and to see task shifting as a solution (Dovlo 2004). The WHO has described MLWs as ‘front-line health workers in the community, who are not doctors, but who have been trained to diagnose and treat common health problems, to manage emergencies, to refer appropriately and to transfer the seriously ill or injured for further care’ (WHO/WPRO 2001). The appeal of MLWs is that they cost less to train and remunerate, but also that they are less able to migrate because their qualifications are not internationally accredited.

Clinical officers have formed the backbone of primary health care in east Africa for 30–40 years, with over 10,000 trained in Uganda, Tanzania and Kenya. Training MLWs features prominently in the health plans of many countries (Mullan and Frehywot 2007). Zambia plans to increase numbers from 1000 to 2600; Lesotho wants to raise the annual graduation rate of nurse officers by 42%; Ghana intends to double its output of medical assistants in the next 2 years; and Ethiopia has produced a ‘flooding and retention’ strategy to increase the number of health officers and health extension workers to 5000 by 2010 (Mullan and Frehywot 2007). South Africa has initiated the training of clinical associates to work at the district hospital level, to supplement existing primary health care nurses (Hugo 2004).

A strategy of only increasing numbers is insufficient. Any new MLWs will enter health systems that are already stressed. They join staff that are often de-motivated and provide inadequate care, where patterns of working are already defined, and
where pre-existing social relationships are typically strictly hierarchical (Blaise and Kegels 2004). MLWs work in isolated areas where health need is usually highest but also report feeling abandoned. There are thousands of committed service providers providing essential services in urban and rural areas with pockets of excellence even in dysfunctional health systems (Schneider et al. 2007, Van Eygen et al. 2007). However, most health workers in Africa work in under-resourced, poorly managed health systems that require significant development in order to achieve even basic outcomes. A succession of reforms has failed to significantly improve the access, effectiveness, efficiency, equity and quality of health services (Cassels 1995). Although financial resource constraints significantly inhibit health systems improvement in Africa, it is also true that inadequate use is made of the available resources.

A key component of the health crisis in Africa is the disempowerment of health workers, managers and policy-makers at all levels so that nobody feels able to effect changes that may improve the quality and impact of health services. Obviously, this is not to suggest that the actions of health personnel are unrestricted by the organisational, professional and legal contexts in which they operate (Hildebrand and Grindle 2004), but our contention is that the powerlessness of individual health actors is significantly overstated and contributes to health system failure in Africa.

Conventional health systems development strategies in Africa may actually undermine the development of local agency. For example:

- reforms are determined by outside agencies and donors, and then driven by international technical experts;
- proven, generalisable interventions are prioritised over local, context-specific solutions;
- reformers are concerned with technical solutions rather than with the processes required to support change;
- a continuous succession of reform ‘fads’ (Mills 1998) with new reforms adopted before previous initiatives have been properly implemented or evaluated;
- reform is seen as the responsibility of a small group of centralised planners rather than as a distributed responsibility of the entire system; and
- reformers have been preoccupied with trying to identify the once-off, large-scale fixes, rather than with supporting longer-term, incremental improvement.

Such strategies do not support sustainable development; they discourage local problem-solving and create a culture of dependency. Developing country experience demonstrates that investments in structural capacity do not necessarily translate into improved health outcomes. Even where donor funding has overcome human or equipment resource constraints, the failure to improve health service management and coordination has limited the effective use of these inputs to improve service delivery and outcomes (Reich et al. 2008). In addition to increasing the numbers of health workers, a complementary repertoire of responses is required to produce a positive, sustainable impact on health services.

This paper describes a conceptual framework developed for a multi-country research project. Based on our analysis of the health human resource crisis in Africa, drawing on the published literature and informed by the opinions of key local
stakeholders, we have developed a set of critical health system interventions, the acceptability and appropriateness of which are currently being tested in Kenya, Uganda, Nigeria and South Africa.

Findings from the literature
Recent reviews have detailed the history of MLW programmes, the numbers trained in each country, variations in the training they receive and the range of work they do (Blaise and Kegels 2004, Dovlo 2004, Lehmann 2008). Evidence indicates that MLWs in both developed and developing countries can provide care comparable with, and complementary to, that which is provided by doctors (Horrocks et al. 2002, Pereira et al. 2007, Aidsmap 2009). Further, in spite of the conditions under which MLWs work, this cadre is more likely to stay at the district level (Cumbi et al. 2007). Our focus was on factors that support or constrain MLWs in their ‘willingness to exert and maintain effort towards organisational goals’ (Franco et al. 2002).

Three intersecting themes emerge repeatedly in the literature on MLW performance: issues around the status and recognition of MLWs, approaches to improving quality of care and the management of the system in which MLWs work.

Status and recognition
Recognition and appreciation are associated with health worker motivation (Penn-Kekana et al. 2005, Willis-Shattuck et al. 2008). A study with MLWs in Tanzania (Chandler et al. 2009) investigated both internal and environmental components of motivation to perform well. Internal factors refer to self-efficacy, locus of control, organisational commitment, vocation, attitude towards change and personal values. Environmental factors include workload, hazards, organisational citizenship, salary and management support. The authors found that MLW motivation was predominantly influenced by financial remuneration, perception of status, and social and physical working conditions. This has also been found in studies in other contexts (Penn-Kekana et al. 2005, McAuliffe et al. 2009). Chandler et al. (2009) postulate that addressing the low status of MLWs would encourage them to positively identify themselves as MLWs and to continue working in this role. Linked to status is the concept of professionalisation, which includes operating with respect to certain standards, communal goals, codes of ethics and governance, with recognition of specific skills and knowledge. Membership of a professional body and self-respect accrued from respect in the social and organisational working environment were identified as tangible marks of status in Tanzania (Chandler et al. 2009). The lack of professional recognition makes MLWs less able to migrate, but also contributes to MLWs’ perception of low status and poor career advancement (Lehmann 2008). Researchers from a number of disciplines have suggested that professionalisation is important to the improvement of motivation and quality of care (Pang et al. 2002, Blaise and Kegels 2004, Management Sciences for Health 2006).

Improving quality of care
Meeting skills deficits by training existing staff and ensuring a modern, appropriate curriculum for MLWs in training is essential, but may be insufficient to ensure
improved health service quality (le Roux et al. 1998). Research indicates that the quality of care provided by MLWs is closely linked to their motivation (Rowe et al. 2005, Chandler et al. 2009). The literature further suggests that combining training with mentoring, audit and feedback is a successful way to engage with front line providers (Rowe et al. 2005). Supervision, which is the link between district and peripheral health staff, is also important for staff motivation and performance (Bosch-Capblanch and Garner 2008). Clinical supervision using interaction and feedback (such as checking to see that treatment protocols were followed) led to some improvements in health care quality (Laing et al. 2001, Palmer et al. 2003). When comparing hospitals that significantly decreased malnutrition case-fatality rates with those that didn’t, the successful hospitals differed in having more emphasis on in-service, on-site training and having better supervision and audit with feedback (Puoane et al. 2008). The need for indigenous approaches that understand how quality improvement interventions interact with organisational culture has been well-described (Blaise and Kegels 2004). A key challenge facing health systems development is the inadequate use of local level data to review care despite good evidence that it can improve quality (Thomas et al. 2007, Puoane et al. 2008, Manafa et al. 2009). Concomitantly health workers complain that they are inadequately supervised, with little feedback on performance (Manafa et al. 2009). This presents an opportunity to meet an expressed need for constructive supervision with interventions that have been shown to improve quality. This proposed self-review process is another activity for already stretched primary care providers; however, additional workplace challenges can be beneficial if supportive of employees (Wallace et al. 2009).

**Working in a well-managed system**

The external working environment is critical in MLW motivation and depends on how health care systems and people are managed (Vlassoff and Fonn 2001, Penn-Kekana et al. 2005, Chandler et al. 2009, Lehmann et al. 2009). This management responsibility is distributed through various levels of the health system, but for service delivery it rests primarily with district managers. Managers at the district level can influence the work environment, which, in turn, influences health worker motivation (Lehmann et al. 2009, Mbindyo et al. 2009). Health systems are complex organisations with multiple actors and power relations. Initiatives for strengthening health systems cannot focus only on the WHO building blocks (WHO 2007), but should also consider the managers who are tasked with translating policy into action (Bloom and Standing 2008, Reich et al. 2008). Poor clarification of roles and lack of decision-making authority limit the ability of programme and district managers to effect change (Schneider and Stein 2001, Kawonga et al. 2005). Some health managers do not understand their role in relation to the overall vision of the health system (Schneider et al. 2007), and many lack the capacity or the confidence to translate policies into action (Kawonga et al. 2005, Puoane et al. 2008). Further, managers are appointed without adequate training to work in health services that are fraught with urgent, competing demands ‘that seasoned chief executives would find difficult’ (Management Sciences for Health 2006). On-the-job training might be available, but current interventions do not address the finding that managers feel unvalued (Management Sciences for Health 2006), or that they are demoralised.
Proposed interventions

It is essential to invest in the basic resources required for health systems functioning. These include reliable drug and equipment supplies, adequate infrastructure, good human resource policies and improving the low salaries of health professionals in Africa. Long-term interventions aimed at securing incremental sustained improvement are essential. Concomitant with these, there are immediate measures that could improve the competence and responsiveness of current health staff. A fundamental requirement for health systems development is that people have to demonstrate agency – the willingness to act on issues they feel are important. With this in mind, we have developed three interventions to address each of the themes outlined above: an association of MLWs to address issues of status and recognition, a job enrichment and mentor system to address quality and a district managers’ association as a method to improve health systems management.

A regional (sub-Saharan) mid-level workers (MLWs) association and meeting

We propose a regional MLWs association focusing on the issues that are of concern to this category of health care provider. The association should be part of the thinking and planning around the education MLWs receive and the standards of practice they aspire to. Initially, we propose that the association holds annual regional (sub-Saharan) meetings. This will provide a forum from which the other elements of the association can develop.

The annual meeting would have three components: research presentation, continuing medical education and professional networking, where MLWs would:

- present audits of their own practice;
- engage in joint review of their past training and current work experience to identify knowledge gaps and contribute to a revised curriculum for future trainees as well as informing a continuing education agenda for the association;
- provide high quality supplementary training through parallel workshops;
- share experiences;
- award prizes (such as funding to attend an international meeting) for outstanding presentations; and
- create a forum to discuss major professional concerns and how to address them.

The association provides a series of opportunities: to have the legitimacy and autonomy with which to fundraise and organise the annual meeting, to be recognised by Health Professions’ Councils and Ministries of Health and to have independent links with other professional bodies. Membership and management of the association would serve as a springboard for the process of professionalisation, essential for creating a distinct and valued identity for MLWs. In line with the model of other
professional bodies such as medical or nursing associations, MLWs would begin to develop agency – to ensure their concerns are heard, that they are determined to raise standards and address quality of care, and to exhibit pride in being frontline health care workers. Sharing experiences at the meeting with colleagues across Africa would create a space for peer learning and problem-solving, and offer a cost-effective way of providing in-service training facilitated by experts in areas of need identified by MLW.

**Job enrichment through self-audit and mentor system**

The purpose of this intervention is to get MLWs to routinely collect and analyse data in their workplace. This could include coverage of preventive interventions, patient waiting times, the proportion of patients treated as per protocol, the frequency of stock-outs, etc. Once collected they would analyse these data in order to identify areas for improvement and how to address them. They would use these analyses to inform changes in their own practice, as an impetus to make the system more responsive to health service needs. When trained in problem-solving approaches, health staff can often find effective ways to improve performance. These reviews would form the substance of the presentations MLWs would give at their annual meeting, leading to job enrichment, improved motivation and, hopefully, better information systems at local levels.

We propose that mentoring teams, who may be retrained supervisors or a new category of staff, will provide the support required by MLWs for this work. This has been suggested elsewhere (Chopra et al. 2009). There are country examples where doctors travel from one remote health facility to another to provide supportive supervision and on-the-job continuing education to MLWs (WHO/WPRO 2001). We anticipate that the mentors would visit on a regular basis and work alongside MLWs, co-consult on cases and initially do audits with the MLWs as training before handing over this monitoring and evaluation function to them. The mentors would talk through the implications of the findings and discuss how they could be used to change practice.

This intervention would create a capacity for self-review and promote agency, while meeting the needs identified by MLWs for supportive supervision, especially for those in remote and isolated areas. Three essential elements in quality assurance are taken into account: capacity building, communication and information, and rewarding quality (through mentor feedback and the MLW annual meeting; Silimperi et al. 2002). The costs of staff and transport, though expensive, would be a fraction of the finances currently spent on training staff (Chopra et al. 2009). A proportion of the money currently spent on ineffective training could be redeployed.

**Regional district management association and meeting**

There are two components to this proposed intervention: an annual meeting of district managers (usually senior health professionals) and a sabbatical learning exchange programme. The annual meeting would be similar to the annual MLW meeting – a forum where district managers would: focus on peer learning to present operational research projects conducted in their districts, present examples of well-functioning districts and their achievements, have invited presentations on
management skills and other issues important to district managers. The association will give recognition to district management itself and promote professionalisation, and the motivation behind the association is the same as that for the MLW association.

The sabbatical learning exchange component would require that learnerships and exchanges be organised to identified, well-functioning districts. This would be a form of sabbatical where managers would work for a reasonable period of time alongside another district manager in a different district or country to promote cross-fertilisation of ideas and peer learning. This would validate local knowledge and innovation by identifying centres of excellence from which to learn and counter the notion that solutions are mainly found outside of Africa. It would broaden district managers’ views by enabling them to participate in well-functioning districts and to observe practice and identify systems in place that can be implemented once they return. It provides the tools for them to exercise agency by taking action to implement learning once they return. Ad-hoc learning visits have been a feature of many research projects and have been successful in getting district staff to advocate for change in some settings (Fonn et al. 1997). Sabbaticals provide an opportunity to reflect and rejuvenate and would improve the motivation of district managers, enhancing the ‘discipline’ of district management and professionalisation.

This intervention is important to allowing district managers to support MLW interventions but would also benefit other health cadres and promote health systems development more generally. It recognises management of health services as a significant, distinct and valued task, providing opportunities for professionals with management expertise to provide training relevant to district managers in Africa. The aim of learnerships is to observe good practice and management rather than service provision, avoiding logistical problems related to professional registration.

These interventions create a complementary set of activities that attempt to respond to some of the needs and frustrations expressed by health care workers in Africa, built on findings in the literature of what has worked. The interventions also respond to an immediately felt need and can be implemented in the current situation alongside other health system strengthening measures. We postulate that if MLWs are appreciated, supported and recognised, and if they begin investing in their own environment, there will be positive secondary effects on other interventions such as new protocols for treatment or new services that are introduced. We recognise that providers are often limited by the environments in which they work, and it is for this reason that the district manager intervention is proposed; to improve district management skills and set in place the potential for motivated managers to create more conducive and responsive working environments and to provide leadership.

Clearly, these interventions need to be considered acceptable, appropriate and feasible in Africa among MLWs and district managers as well as Ministries of Health, Health Professional Councils and other professional bodies. A prerequisite for change is the endorsement of these interventions at the highest level, as well as the prioritisation on the political agenda of the resolution of the health human resource crisis. The acceptability and appropriateness of these proposals are currently being explored in a multi-country study in Uganda, Kenya, Nigeria and South Africa. Feasibility is more complex. MLWs and district managers will need permission to attend meetings, while mentors will need to be appointed and trained. Additional funding would be required to pay for meetings and travel, and in most
cases will require donor support as well as the deployment of national resources. Donors may be nervous to fund people to attend ‘talking shops’, so the meetings must be seen in the context of active participation and adult learning. Donors are interested in how to build sustainable, good quality health systems in Africa, especially if these interventions are evidence-based and will lead to stewardship at all levels in the health system.

Conclusions

The approaches we have proposed are a response to our critique of existing health systems interventions. Unlike many initiatives, we assume that health workers at every level of the system are able to analyse, critique and develop interventions. The trust and value placed in cadres at each level creates the conditions for agency. A bottom-up approach allows for a variety of context-specific responses to problems rather than uniform, top-down solutions. Processes are put in place to support and recognise individuals by supervisors and district teams who are themselves better supported. Peer endorsement, through participation at regional meetings with presentations of local problem-solving, offers more long-term solutions to issues around status and recognition. We postulate that the demonstrated success of a few will motivate others to become active agents in their own health services and create space for organisational learning.

What we are proposing will be a departure from current practice and culture. It will require sufficient investment for a more sustained period of time, which is not something that funders are enthusiastic about. However, the risk of ignoring the fundamental factors that motivate individuals who are essential to functioning sustainable health systems is that in 10 years time, we will still be describing the poor performance of African health systems. It is clear that previous strategies have not had the expected impact and that urgent additional, creative and supportive approaches are required. The results of the multi-country study under way will indicate the appetite for these kinds of health system interventions in four countries of Africa.

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Note

1. The outcome of the stakeholder analysis and acceptability review will be presented in a subsequent publication on completion of the research. The stakeholders from each country included mid-level health workers, district health managers, staff in hospitals employing MLWs, higher education trainers of doctors and MLWs, representatives of nursing, medical and pharmaceutical professional bodies, and representatives from the Ministries of Health and Finance.
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