Task shifting for antiretroviral treatment delivery in sub-Saharan Africa: not a panacea

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Task shifting should not be viewed as a panacea for the human-resources challenges facing sub-Saharan Africa. Rather, it must be part of an overall strategy that includes measures to increase, retain, and sustain health staff.

In health care, the term "task shifting" generally refers to a process of delegation of tasks to health workers with lower qualifications. It may include task shifting between different groups of professional workers or from professional to lay health workers. This concept is not new in public health. Task shifting is common in high-income countries, examples include nurse practitioners in the USA, nurse clinicians in Sweden,[1] and expert patients for diabetes care.[2] In several countries in sub-Saharan Africa, specific cadres of non-physician health workers have been created to do clinical tasks in places where physicians are scarce, such as in rural areas.[3–5] Besides these non-physician clinicians, well known examples of the use of lay workers include the community health worker and the community-based volunteer for giving guardian-based directly observed treatment, short course (DOTS), for tuberculosis.[6]

	Doctors	Nurses
WHO minimum standard	20	100
Malawi	2	56·4
Lesotho	5	63
Mozambique	2·6	20
South Africa	74·3	393
USA	247	901
UK	222	1170

Table: **Number of doctors and nurses per 100 000 inhabitants in selected sub-Saharan African countries compared with the WHO minimum standard[9]**

In developing countries, and especially in sub-Saharan Africa, the lack of qualified health workers is recognised as a crisis by the international community[7] (table). Deficiencies in financial and human resources are strongly limiting coverage of essential care in public-health services. In HIV/AIDS care, the advent of antiretroviral treatment (ART) and the humanitarian imperative to scale-up this treatment to thousands of people in Africa have further highlighted the gaps in human resources for health care. The scale-up of HIV/AIDS care, in particular, poses challenges for health systems that are already struggling with an absolute shortage of qualified health staff.[8,9]

Within WHO's Treat, Train, Retain (TTR) initiative, task shifting is receiving increasing attention as a measure to allow ART roll-out in contexts with shortages of human resources. Task shifting has consequently gained renewed interest, propelled further by the launch of WHO policy guidelines on task shifting in January, 2008.[10] Countries such as Uganda, Ethiopia, and Malawi are considering task shifting in efforts to deliver ART. However, offering HIV/AIDS care that includes ART is far more complex than simply dispensing pills; task shifting thus raises several concerns.

One of the main concerns related to task shifting is how to maintain quality of care. But what do we mean by quality of care and how should it be measured? For instance, the most important indicator for quality of care in patients with advanced AIDS is commonly argued to be survival. If this argument is pushed, the provision of treatment to any standard that permits survival will always compare positively to a situation in which people get no treatment. Furthermore, although medical doctors are commonly perceived as the guardians of technical quality, a clinical approach isolated from the community is not ideal. The involvement of other cadres[11] and communities in support and care[12–14] brings benefits by increasing coverage and improving overall outcomes.[11,13] Patients, health staff, and policy makers need to be involved in setting measurable targets and indicators for what they deem to be an acceptable level of quality of care.

It is important not to repeat errors from the past when it comes to the roles of lay workers and community members.[15,16] First, lay and community workers,[11] must be remunerated correctly so that they sustain their outputs over time, without the need to make patients pay for their care. Second, these workers should not be expected to do many different tasks because quality of care is compromised by excess work load and complexity. In low-income and high-income countries alike, experience shows that lay workers can successfully do clearly defined tasks.[4–6] But with every task added to a work-package, quality is likely to decline.[17] Thus, to avoid compromising of quality, it might be important to ensure that new cadres have dedicated responsibilities (ie, are specialised) and are not overburdened or face a progressive increase and diversification of workload. However, cost-effectiveness and the need for integration are often used to argue against specialisation.

In the long-term, there are real concerns on ART regarding adherence and detection of treatment failure. Detection of treatment failures by lower cadres could be improved through easy-to-use technologies. For example, the availability of methods for CD4 counts or viral-load measurements would provide objective

***Panel 1:* Task shifting can increase workload for supervision**

In 2007, the Government of Malawi approved ART initiation by nurses rather than exclusively by doctors or other clinical staff; this has been perceived as a breakthrough in expanding the workforce to meet HIV/AIDS treatment needs. Almost simultaneously, 6000 extra health surveillance assistants were recruited to strengthen the workforce at the health-centre and community levels. For the nurses this means a great increase in clinical responsibilities linked to giving ART and added responsibility for supervising health-surveillance assistants, thus bringing them additional workload and increasing the complexity of their tasks. Nurses need to develop the capacity and confidence to manage these cases, cope with unfamiliar clinical features, and apply newly acquired skills.

referral criteria, assuring quality of care in the absence of experienced clinicians. Without such methods, as in the current situation, quality control is likely to be a daunting task.

Task shifting might have important consequences for health staff and patients, imposing new responsibilities on some staff and removing tasks from others. To avoid stress and burn-out, they need adequate training, supervision, and support (panel 1).

The acceptability of certain types of staff to communities might be shaped by societal preferences in terms of age, gender, or professional experience.[18] For example, women in some communities might prefer to receive care from other women rather than from men. Increasing insight into such issues, which might affect ART enrolment, staff motivation, and long-term adherence, should be part of the planning process.

Task shifting does not equal a need for fewer staff. It can help relieve (to a certain extent) dependence on specific qualified cadres (eg, medical doctors) to roll out ART. The strategy thus promotes a more strategic mix of skills. However, task shifting alone, will not fill the gaps in the many peripheral health facilities in sub-Saharan Africa that do not presently meet the minimum requirements of qualified staff.

Although the employment of less qualified staff might imply lower remuneration per staff member, this will need to be balanced with additional staff—both to do the initial tasks and to ensure that necessary supervision and back-up for referrals are provided.[19] This new team organisation is likely to add up both in terms of number and costs.

Staff-retention issues will also have to be addressed. Without a fundamental change in remuneration and other retention measures, retention of professional health staff or lay workers in active clinical work will be hard.[3,16] Such losses carry repetitive costs linked to training and supervision of new personnel in the medium and long term.

Task shifting might improve the skills mix for ART delivery, and thus allow for better use of existing staff, but it is not a panacea and must be coupled with growth and reinforcement of the existing workforce. Task shifting alone is unlikely to significantly increase ART capacity (panel 2).[20]

Task shifting, in particular to lay workers or the community, should not become an excuse for failing to remedy deficient public-health services. Furthermore, solutions to the human-resources crisis might have context-specific approaches that are worthwhile exploiting. For example, in several countries the shortage of qualified health staff in public-health services is linked to constraints in attracting, recruiting, and retaining health staff who are actually present in the country but are unable to join the workforce[21,22] because of limits on recruitment and salary in the public sector. Zambia, Kenya, Tanzania, and Rwanda have substantial numbers of unemployed clinicians and nurses in their capitals.[23,24] In these countries, recruitment of extra qualified staff available on the local market would seem a rational adjunct, which could be coupled with task-shifting initiatives to achieve a stronger strategic skills mix. The main hurdles here are wage-bill restrictions or salary freezes dictated by the International Monetary Fund, Ministers of Finance, the World Bank, or health-reform strategists that block

***Panel 2:* Médecins Sans Frontières' experience in Thyolo district in Malawi**

Since Médecins Sans Frontières began providing ART in this poor rural district of Malawi, treatment has been provided to 10 000 people, with 8500 alive and on treatment by August 2007. Every month, 450 new patients are started on ART. In 2005, the central hospital clinic couldn't take any more new patients. Task shifting from doctors to clinical officers was implemented and ART initiation and follow-up were decentralised to health centres. However, there were simply not enough qualified health staff to train in ART. Therefore, further task shifting took place, with medical assistants (and later nurses) taking on initiation and clinical follow-up, while nurses, health surveillance assistants, other lay workers, and volunteers did testing and counselling, preparation of patients, adherence counselling, and nutritional and psychosocial support.

Far from being used in isolation, task shifting was combined with the recruitment of extra clinical staff, provision of coaching, support, and incentives, and reorganisation of treatment to shorten waiting times, to rationalise the process, and to increase efficiency and quality. The results obtained are encouraging, showing scale-up and roll-out of ART is possible in rural and poor districts such as Thyolo. However, serious additional investments had to be made in financial and human resources to expand the workforce.

employment of extra health staff as well as the use of international funds for salary increases in the public sector.[25]

Task shifting is a welcome strategy but cannot be considered in isolation: it needs to be part of an overall strategy in trying to address the human-resources challenges facing countries with a high prevalence of HIV. When used in conjunction with other measures to retain and sustain health staff, task shifting is likely to prove a valuable mechanism of ART roll out despite severe health-worker shortages. Our experience in Thyolo, Malawi, shows that even in situations where there is a serious lack of qualified staff, this hurdle can be overcome locally if there are political will and sufficient resources. Governments, donors, and international agencies need to mobilise the necessary extra resources to address pressing issues of conditions of service, hiring new staff, training, distribution, and motivation to ensure that long-term solutions to resolve these challenges are not ignored. Exceptional measures are needed to address the current human resource crisis and these go beyond task shifting alone.

Conflict of interest statement

We declare that we have no conflict of interest.

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