

Taking stock:

Task shifting to tackle health worker shortages

Urgent action must be taken to tackle the human resource crisis in the face of the HIV epidemic.

At the June 2006 General Assembly High-Level Meeting on HIV/AIDS, United Nations Member States agreed to work towards the goal of 'universal access to comprehensive prevention programmes, treatment, care and support' by 2010.

Countries all around the world have made significant progress in scaling up HIV services. Nevertheless, major barriers must be overcome if universal access is to be achieved. One of the main constraints is a serious shortage of health workers – the people on the front line of the efforts to prevent and treat HIV infection.

The shortage of well-trained health workers is global but low- and middle-income countries, where HIV and AIDS are taking the greatest toll, feel the crisis most acutely. For example, providing antiretroviral therapy to 1000 people in settings in which resources are constrained requires an estimated one or two doctors, up to seven nurses, about three pharmacy staff and a wide range of community workers. The reality falls far short. In Mozambique, 1000 people living with HIV have less than 0.5 doctors and only three nurses. In Malawi, the shortage of health workers is so extreme that four districts have no doctor at all (Table 1).

Urgent and drastic action must be taken to tackle the human resource crisis in the face of the HIV epidemic.

In August 2006, the World Health Organization (WHO) launched the 'Treat, Train, Retain' plan to strengthen and expand the health workforce by addressing both the causes and the effects of HIV and AIDS on health workers.

Box 1

Burden of the HIV epidemic among health workers

- The world is experiencing a chronic shortage of well-trained health workers.
- A total of 57 countries, mostly in sub-Saharan Africa but also including Bangladesh, India and Indonesia, face crippling health workforce shortages.
- WHO estimates that more than 4 million health workers are needed to fill the gap.
- The global deficit of doctors, nurses and midwives is at least 2.4 million.
- At the end of 2006, 39.5 million people were living with HIV (range 34.1 million to 47.1 million).
- In 2006, 2.9 million people died from AIDS (range 2.5 million to 3.5 million).
- Botswana lost 17% of its health workforce to AIDS between 1999 and 2005.

The workforce crisis has no single cause. Public health care systems are not training and recruiting enough people. Then the pool of skilled workers is unevenly distributed, with high concentrations in urban areas and many working in the private sector rather than in public health care. Many resign due to the pressure of poor working conditions and low pay. Others migrate to better jobs abroad or with the private sector and nongovernmental organizations. Nevertheless, the leading cause of attrition is HIV itself. Health workers are not immune to infection and many become sick and die.

WHO estimates that more than 4 million health workers are needed to meet the global shortfall.

Box 2

TREAT a package of HIV treatment, prevention, care and support services for health workers who may be infected or affected by HIV and AIDS.

TRAIN measures to expand the human resource pool, maximize the availability of more highly skilled workers and empower health workers to deliver universal access to HIV services, including pre-service and in-service training for a public health approach.

RETAIN strategies to enable public health systems to retain workers, including financial and other incentives, occupational health and safety and other measures to improve the workplace as well as initiatives to reduce the migration of health care workers.

The 'Treat, Train, Retain' plan addresses all aspects of this problem by preventing and treating HIV infection among health workers, training and expanding the workforce and developing retention strategies to reduce exit rates from the public health service. The plan is an important component of WHO's overall efforts to strengthen human resources for health and to promote comprehensive national strategies for developing human resources across different disease programmes. It is also part of WHO's effort to promote universal access to HIV and AIDS services.

The publications listed at the end provide further information on the 'Treat' and 'Retain' elements of the plan. This booklet focuses on 'Train'.

Table 1

The human resources crisis: health care personnel (doctors and nurses) per 100 000 population

Cadre	South-Africa	Botswana	Ghana	Zambia	Tanzania	Malawi	USA	UK
Doctors	69.2	28.7	9.0	6.9	2.3	1.1	230	256
Nurses	388.0	241.0	64.0	113	36.6	25.5	1212	937

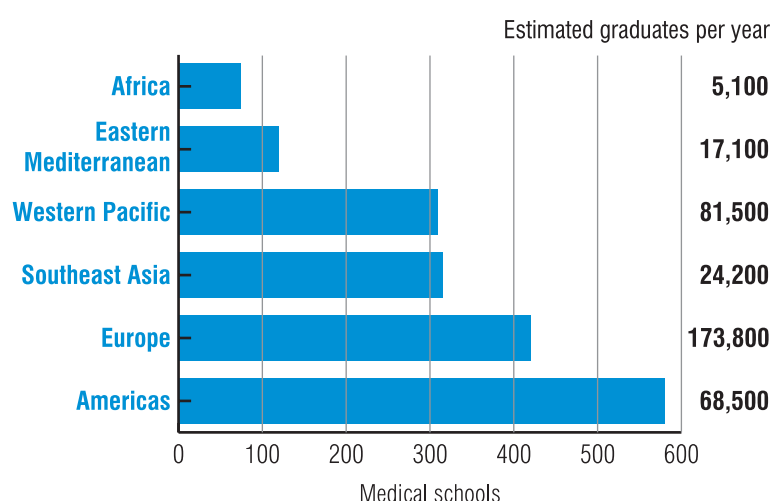
Source: *The world health report – Working together for health*. Geneva, World Health Organization, 2006
<http://www.who.int/whr/2006/en>. accessed 27 April 2007.

The training crisis

WHO estimates that the WHO African Region has a shortfall of 817 992 doctors, nurses and midwives, which means a need to more than double the workforce among these professional categories. Yet it takes six years to train a new doctor, three or four to train a nurse and four to train a midwife. Moreover, current training facilities are insufficient to meet the need fast enough. The medical schools in continental Africa currently turn out only 5,100 graduates per year, and many of these newly qualified doctors migrate to jobs abroad. Waiting for enough new workers to graduate through the conventional systems will mean lengthy delays in providing urgently needed services (Figure 1).

This means that measures to raise recruitment rates and expand training facilities, although important, are not the whole solution. In addition to these measures, alternative and simplified models need to be developed that can quickly expand the capacity of the current health workforce.

Figure 1
Filling the gap: graduates from medical schools by WHO region, 2002



Source: Eckhart NL. *The global pipeline: too narrow, too wide, or just right?* *Medical Education*, 2002, 36:606-613.2002.

A radical approach

WHO, in collaboration with the Office of the United States Global AIDS Coordinator (OGAC), has therefore launched the WHO/OGAC Task Shifting Project as a key contribution to the 'Train' element of the 'Treat, Train, Retain' plan.

There are not enough health workers to deliver universal access to HIV prevention, treatment, care and support.

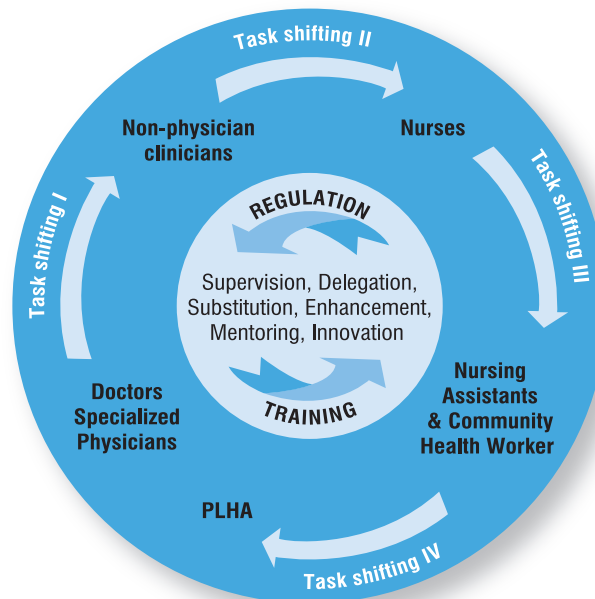
Task shifting is the name now given to a process of delegation whereby tasks are moved, where appropriate, to less specialized health workers. By reorganizing the workforce in this way, task shifting can make more efficient use of the human resources currently available. For example, when doctors are in short supply, a qualified nurse could often prescribe and dispense antiretroviral therapy. Further, community workers can potentially deliver a wide range of HIV services, thus freeing the time of qualified nurses. Training a new community health worker takes between one week and one year depending on the competencies required. This compares with three or four years of training required for a nurse to fully qualify.

In Ethiopia, an estimated 20% of the time of the limited nursing workforce is currently spent counselling people living with HIV and taking blood samples and then forwarding blood to technicians to perform rapid tests. Task shifting would allow trained community health workers to perform these tasks and free up that 20% of the country's nursing time to provide clinical care. People living with HIV can also undertake much of the responsibility for their own care if they are adequately advised in self-management.

Figure 2

Task shifting: expanding the pool of human resources for health

Task shifting is a process of delegation whereby tasks are moved, where appropriate, to less specialized health workers.



This process expands the human resource pool very rapidly (Figure 2). It has the added advantage of building bridges between the health facility and the community and creates local jobs and new opportunities for people living with HIV. Adopting a public health approach is central to task shifting for HIV services. In essence, a public health approach to health care envisages providing services for everyone, including poor people. Achieving this, especially in resource-constrained settings, demands a departure from conventional models that depend on highly specialized professionals and are therefore highly concentrated and very costly. Instead, the public health approach uses standardized, simplified and decentralized systems that can maximize the role of primary health care and community-led care. For programmes that aim to increase access to antiretroviral therapy, the public health approach necessitates using standardized and simplified drug regimens that can realistically be administered by less highly trained professional health care workers and non-professional community members.

Box 3**Putting theory into practice: task shifting in Uganda**

In Uganda, task shifting is already the basis for providing antiretroviral therapy. With only one doctor for every 22 000 patients and an overall health worker deficit of up to 80%, Uganda is making a virtue of necessity.

Uganda's nurses are now undertaking a range of tasks that were formerly the responsibility of doctors. These include: managing people living with HIV who have opportunistic infections such as herpes zoster, oral thrush and diarrhoea; diagnosing tuberculosis sputum positive; prescribing medicine to prevent other infections; determining the clinical stage of people living with HIV; deciding whether people living with HIV have medical eligibility for antiretroviral therapy; and managing people on antiretroviral therapy who have minor side effects such as nausea.

In turn, tasks that were formerly the responsibility of nurses have been shifted to community health workers, who have training but not professional qualifications. These tasks include: HIV testing; counselling and education on antiretroviral therapy; monitoring and supporting adherence to antiretroviral therapy; filling in registers; triage; clinical follow-up; taking weight and vital signs; and explaining how to store antiretroviral drugs.

As part of the approach, Uganda has expanded its human resources for delivering HIV and AIDS services by creating a range of non-professional types of health care workers. These people receive specific training for the tasks they are asked to perform.

The following examples provide a snapshot of what the task shifting approach really involves.

Field officers are recruited from among social workers who have a university degree and are given brief training. They can take over care from the clinical team about two months after antiretroviral therapy is initiated and are made responsible for home delivery of antiretroviral therapy. Field officers use standardized tools for following up and evaluating people receiving antiretroviral therapy and refer to clinicians when faced with a challenging situation.

Community antiretroviral therapy supporters are community members with no health professional background. They receive training and refresher training. Under the guidance of a community supervisor, they are charged with education on HIV prevention, treatment and adherence to medication. They are also involved in determining the readiness of a client for antiretroviral therapy and contribute to the ongoing support and monitoring of adherence for people receiving antiretroviral therapy and tuberculosis medication.

Antiretroviral therapy aides are trained during a 12-day course focusing on preparing them to offer support to nurses at health centres. In particular, they offer support in triage, adherence support, group education, counselling before and after HIV testing and ongoing support counselling.

Community health workers include people living with HIV with no prior medical background. They follow a 12-week course involving 6 weeks of classroom teaching and 6 weeks of clinical clerkship covering a comprehensive range of theoretical and practical clinical skills.

Expert patients are people living with HIV who undertake three days of training to prepare them to offer support in triage, education and counselling as well as training of health workers.

The evidence

Improving the numbers and skills of the health workforce could transform the response to the HIV epidemic and save millions of lives.

Task shifting is a recent term but such delegation has a long history outside HIV service delivery from which lessons can be learned.

The experience of task shifting within a professional health team – from physicians to other health professionals who have shorter pre-service training and fewer qualifications such as nurses – has been largely positive. One of the earliest and most systematic studies was undertaken in the 1970s and 1980s in the Democratic Republic of the Congo (then Zaire) where shortages of fully trained health workers made it necessary to use auxiliary personnel in health care. This freed doctors to use their time and expertise for people with more complicated diseases and many other people benefited by receiving treatment closer to home in local health centres rather than having to travel to hospital.

High-income countries such as the United Kingdom have also had practical experience with task shifting. Empowering nurses to prescribe routine medication has been successful both in expanding services and improving clinical outcomes for patients. Indeed, some reviews from the United Kingdom suggest that people are more satisfied with treatment by nurse-practitioners, who often have better interpersonal skills than physicians do.

Other countries such as the United States of America and Australia are also adopting task shifting from professionals to non-professional community members. Many people with chronic conditions, such as asthma, diabetes and HIV infection, are trained to manage their own diseases on a daily basis. These people have better health outcomes and require less health care. Further, people living with diseases are also trained to act as tutors for other patients in expert patient programmes. In the face of the HIV epidemic, many resource-constrained countries have also recognized the value of task shifting. For example, in Malawi and Uganda doctors do not deliver the basic care package for people living with HIV. Instead, the package is designed for delivery by less specialized professionals, often called clinical officers, and by nurses supported by nursing assistants, community health workers and people living with HIV (Box 3). In another example, Ethiopia is implementing a plan to hire non-professional lay providers to expand the current workforce delivering HIV services.

The broad consensus is that this type of delegation can and will positively affect health outcomes. However, good management, support, supervision and political commitment characterize the programmes that succeed.

Checks and balances

Task shifting must be implemented within systems that contain checks and balances that are sufficient to protect both health workers and the people receiving health care.

Task shifting represents a radical departure from traditional delivery models that depend on specialist workers and could make a major contribution to expanding access to HIV services, especially among poor and marginalized populations. Nevertheless, countries wanting to implement task shifting on a large scale need to overcome significant challenges.

Task shifting must be implemented within systems that contain adequate checks and balances to protect both health workers and the people receiving treatment and care. This requires appropriate health legislation or administrative regulation that can both enable and regulate task shifting practice. For example, current legislation in some countries may permit only doctors to prescribe antiretroviral therapy. This would prohibit qualified nurses from carrying out this task even if they were fully competent to do so. Similarly, lay providers could be trained to handle HIV testing but may be prevented by law from carrying out this duty.

Task shifting must be implemented such that it improves the overall quality of care. It should not and must not be associated with second-rate services.

Because countries are implementing task shifting as an urgent response to the health workforce shortage, the practical work is advancing at a faster pace than the legislative processes, which can be slow and cumbersome. In some countries, the urgency of the situation is generating momentum to help create an enabling environment for innovation. For example, the Governments of Ethiopia and Malawi have already lifted their respective legal and regulatory restrictions on non-physicians prescribing antiretroviral therapy. However, elsewhere tasks are often shifted outside the current regulatory framework, either because the law does not specifically govern tasks and who can perform them or because the practice is taking place outside the formal public health system, such as in health facilities operated by nongovernmental organizations rather than governments.

Health workforce representatives agree on the need for an adequate regulatory framework for protecting patients and health workers. Moreover, without a formal and enabling environment, government support and the necessary resources for task shifting will be lacking and the approach is unlikely to be sustainable. This is why WHO is working with partners to develop a series of global recommendations for an enabling regulatory framework that can support the implementation of task shifting more broadly.

No compromise on quality

Although task shifting arose from the need to address the chronic shortage of health workers, the strategy could and should be a means of improving the overall quality of health services. Not only will task shifting increase the human resources for health but the accompanying demographic reorganization of services will move them closer to the communities where they are needed. This means that support will be better tailored to local needs. For example, health professionals who are highly specialized are often disconnected from the reality of life in the community and may not therefore be the best equipped to deliver certain services. Local services provided by community-based health workers have been shown to bring positive benefits in an increased uptake of services, more timely detection and treatment, avoidance of overtreatment and enhanced adherence to treatment. One study in Malawi found that support provided by community nurses and volunteers significantly increased the percentage of people living with HIV adhering to antiretroviral therapy regimens.

Task shifting can rapidly expand the number of health service providers by better using the available human resources.

Thus task shifting need not and should not be associated with second-rate services. However, if task shifting is to improve the overall quality of care there must be agreed standards governing the recruitment and training of the new types of health workers that are established under the model and ensuring that existing health workers are appropriately qualified for the new tasks they will be asked to undertake. These standards involve defining the training and experience needed for each type of health worker, establishing examination and mentoring procedures and ensuring that there are opportunities for continuing education. Assurance that the appropriate standards are being met can be provided through credentialing.

Credentialing can include a range of quality assurance mechanisms such as licensure, registration, certification or accreditation. These bring benefits to health workers as well as to service users. Greater confidence, increased job satisfaction and more rapid career progression can all result from forms of credentialing. Further, the formal recognition of new types of health workers through credentialing can help to overcome resistance to change.

However, agreed standards are required for credentialing to serve its purpose in public health systems. So far, such agreement is lacking. Several different training and certification models for new types of health workers are currently being used in countries to implement a task shifting model. WHO is working towards aligning these models and helping to ensure adequate institutional capacity for implementing credentialing for task shifting.

Funding task shifting

Task shifting can reduce costs in certain circumstances but successful implementation also requires new and additional resources.

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In many cases, establishing the infrastructure needed for training and credentialing new types of health workers will require significant investment. Task shifting increases levels of responsibility throughout the health care workforce and this can improve job satisfaction. However, additional responsibility – including the responsibility for supervision – can reasonably be expected to go along with increased pay. This means that money must also be found for salary rises. Similarly, community workers who may in the past have worked as volunteers without pay are unlikely to be able to take on an expanded role without remuneration. Therefore, task shifting should generally be promoted for its potential for improving services – not saving money.

Resources for task shifting will be included in health-sector financing policy, and management must be geared towards country-specific priorities. However, funding for task shifting, as for the overall 'Treat, Train, Retain' plan, raises many of the broader issues and challenges around financing and development that have been discussed in recent years. The most important of these is the need for funding to be predictable and stable. However, public health care spending also has other constraints. For instance, some countries impose ceilings on expenditure in order to preserve macroeconomic stability. These spending limits have resulted in moratoriums on recruitment and salary increases in the health sector and have slowed the expansion of health systems. The effect can be an overall shortage of health workers alongside significant unemployment among more highly qualified health workers such as doctors and nurses.

Negotiating fiscal space for the health workforce is essential and requires international health development agencies to engage productively with finance ministries, international financial institutions and major international stakeholders.

WHO's role

WHO is the lead agency for the 'Treat, Train, Retain' plan. Taking action on the 'Train' element, WHO and US Office of the Global AIDS Coordinator have established a task shifting partnership that includes representatives from HIV programmes and human resources for health departments from health ministries. The partnership also includes professional associations, academic institutions, civil society organizations and other United Nations agencies.

At the country level the Task Shifting Project is already underway. Under the auspices of the Project, seven selected countries – Ethiopia, Haiti, Malawi, Namibia, Rwanda, Uganda and Zambia – are implementing the task shifting approach for HIV service delivery with notable success. WHO and its partners are working closely with these countries to identify and document the routine and best clinical practices and to explore and understand the existing regulatory frameworks that are enabling the task shifting approach to be implemented in these countries. The partners are also exploring the financial and fiscal constraints that may present obstacles to the success of task shifting.

These efforts in countries are informing WHO's activities at the global level, all of which are being undertaken in close consultation with partners. Firstly, WHO is identifying which tasks may be safely and usefully shifted from one group of workers to another and helping to establish what degree of training, evaluation and continuing and supportive supervision is required to enable such shifts.

Secondly, WHO is developing a series of recommendations for an enabling regulatory framework to support the implementation of task shifting more broadly.

Thirdly, WHO is developing a standardized and systematized programme for training and credentialing professional and non-professional types of health worker to guarantee standards of care.

Fourthly, WHO is defining mechanisms to finance the extra costs that will be associated with implementing task shifting.

This work will result in the development of global guidelines on task shifting by the end of 2007. These guidelines will facilitate the widespread implementation of task shifting in countries that choose to adopt the approach.

Action is imperative

Action on human resources for health is imperative if global commitments to the Millennium Development Goals, and to providing universal access to HIV services, are to be met. Action on task shifting is imperative as it provides the only realistic possibility of increasing the human resources fast enough to meet the urgent need.

Task shifting will make a positive contribution to overall health systems strengthening.

But task shifting is not just a quick-fix solution to a workforce crisis. The approach has the potential to positively contribute to strengthening health systems overall. Just as the crisis represented by the HIV epidemic has generated new and increased funds for the health care systems in some countries, task shifting for delivering HIV treatment and care could also be part of the solution to increasing health workforce capacity generally.

As one part of the range of strategies under the 'Treat, Train, Retain' plan, the Task Shifting Project will aim to produce a strengthened and flexible health workforce that can respond to the changing landscape of public health needs.

Additional information

Taking stock: Health worker shortages and the response to AIDS. Geneva, World Health Organization, 2006 available at <http://www.who.int/hiv/toronto2006/takingstocktr.pdf>

The World Health Report – Working together for health. Geneva, World Health Organization, 2006 available at <http://www.who.int/whr/2006/en>

Treat, Train, Retain: The AIDS and health workforce plan. Report on the consultation on AIDS and human resources for health, WHO, Geneva, 11-12 May, 2006. Geneva, World Health Organization available at <http://www.who.int/hiv/pub/meetingreports/ttr/en/index.html>

Everybody's Business: WHO's Framework for Action for strengthening health systems to improve health outcomes. Geneva, World Health Organization, 2007 available at http://www.who.int/healthsystems/strategy/everybodys_business.pdf

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