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Scaling-up Anti-retroviral Treatment and Human Resources for Health

What are the challenges in Sub-Saharan Africa

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Abbreviations

ART	Anti-retroviral treatment
ARV	Anti-retrovirals
GFATM	Global Fund against HIV/AIDS, Tuberculosis and Malaria
HRH	Human Resources for Health
MoH	Ministry of Health
PLWA	People Living With HIV/AIDS
SDC	Swiss Agency for Development and Cooperation
SWAp	Sector Wide Approach
TEHIP	Tanzanian Essential Health Intervention Project
WHO	World Health Organization

Executive Summary

Challenges for scaling-up Anti-retroviral Treatment (ART)

Through making additional resources available for the delivery of Anti-retroviral Treatment (ART) in middle- and low-income countries it is hoped that 3 million people living with HIV/AIDS (PLWA) can have access to ART by the year 2005. **One of the biggest challenges for this scaling-up of ART consists in the availability and requirements of skilled and trained health workers for offering the services.**

The current documents assesses possible human resources for health (HRH) related constraints for scaling-up ART, identifies possible strategies for overcoming health workforce shortages in view of delivering ARV treatment, and, in a case study of Tanzania, reviews the current and future availability of human resources for scaling-up anti-retroviral treatment.

Human resource related constraints for scaling-up ART

Major HRH related constraints to overcome for an effective and equitable scaling up ART **include:**

- Human resource policies which detail the extension of initial and continuous training and/or the integration of unemployed health workers, for overcoming shortages;
- Existing training capacities of medical, nursing, laboratory and pharmaceutical training institutions;
- The proportional representation of staff with a distinct social and ethnic background in the workforce in order to assure access of poor and vulnerable groups to ART;
- Geographical imbalances in the distribution of health sector workforce for assuring the equitable access to ART,
- Low and inadequate performance of health workers due to low salaries and the absence of non-monetary incentives (e.g. adequately equipped work-places) for good performance;
- Absence of teams with an adequate skill mix for an efficient delivery of ART.

Options to overcome HRH related constraints

Options for rapidly expanding the health sector workforce for increasing the number of PLWA being able to access ART include:

- **Increase in the productivity of the health workers;**
- **Up-grading of skills of existing health workers;**
- **Investments in initial training for increasing the output of training institutions;**
- **Integration of unemployed health personnel in the workforce;**
- **Contracting of services to the private sector;**
- **Recruitment of personnel from other countries with an excess supply of health workers.**
- **Training and involvement of volunteers and unskilled categories of people for selected ART assignments.**

While raising capacities including those for providing ART of the existing workforce, the integration of currently unemployed health personnel is the most promising option in the short-run. In the mid-

term the most valid strategy is to increase the output of training institutions in order to boost the number of personnel.

HRH short-
ages in Tan-
zania

In Tanzania it is increasingly acknowledged that an important bottleneck for the extension of the coverage of ART is human resource related. The current health sector workforce of Mainland Tanzania is estimated to be in the order of 48'500 persons for a population of 33.5 million people and has substantially decreased over the last year mainly due to structural adjustment policies aiming at a retrenchment of the workforce. Today, the biggest share of personnel can be found in the category with nursing skills (22%), followed by personnel with clinical skills (12%). Better trained and higher qualified personnel works predominantly in urban centres with Dar es Salaam having nearly 30 times as many medical officers and medical specialists as other rural districts.

Rural districts in Tanzania report important staff shortages and the inability to fill the positions with personnel being currently unemployed in urban centres. In the context of scaling-up ART it is thus a challenge to address geographical equity in service provision.

Although no definitive data on attrition rates do exist, **it is possible that the workforce will further erode in the coming years** as the output of training institutions is not enough for compensating for losses.

Lessons to
learn

This paper on scaling-up ART and the challenges imposed on HRH related issues on these efforts has highlighted several **aspects of operational relevance of SDC supported initiatives/projects in the area of HIV/AIDS care and treatment:**

- Human resource related issues are an essential component of efforts to scale-up ART for PLWA in low-income countries in Africa;
- HRH constraints, including the availability of personnel with clinical, nursing, counselling, pharmaceutical and laboratory skills, are a key determinant for the pace of scaling up of ART;
- Besides the hiring of currently unemployed health workers (when appropriate), the increase in training capacities (investments in new training and retraining institutions) is the most feasible strategy and thus needs to precede the scaling up of ART services;
- Countries which have in the short run not sufficient numbers of health workers need to make strategic decisions on the relative importance of maintaining/strengthening existing district based health services versus priority interventions for addressing diseases such as malaria, HIV/AIDS and tuberculosis.
- Scaling-up ART at a massive scale may deplete seriously the provision of other priority services and more generally of the strengthening of district based health services.

Background

Recent initiatives for Scaling-up of ART

Today it is estimated that in Sub Saharan Africa, nearly 30 million people carry the HI- virus, including three million children under the age of 15. There are countries in Africa where more than one-third of the adult population carries the infection.

Thus, **treatment and care services for People Living With HIV/AIDS (PLWA) in middle- and low-income countries are today seen by many as part of basic health service packages** along with other services such as malaria control, Integrated Management of Childhood Illness (IMCI), vaccination, etc. Consequently, governments should assure that PLWA in need not only can receive treatment for opportunistic infections, including tuberculosis, but also are enrolled in anti-retroviral treatment (ART).

Various agencies and institutions, such as Médecins Sans Frontières, have been engaged during many years in promoting better access to ART in low-income countries. More recently, new allies have joined the advocacy group for implementing ART at a wide scale. They include the World Bank, the World Health Organization, the Global Fund against HIV/AIDS, Tuberculosis and Malaria, the Clinton Foundation as well as the USA lead “President's Emergency Plan for AIDS Relief”.

Through making additional resources available for the delivery of Anti-Retroviral Treatment (ART) in middle- and low-income countries it is hoped that in the short run the number of people under ART can dramatically be increased. For example, plans widely announced by the WHO call for 3 million people under treatment by the end of 2005 (3by5 initiative) or President Bush has declared in 2003 that under the “President's Emergency Plan” 2 million HIV-infected people in the Caribbean and Africa shall benefit from treatment services.

Challenges for scaling-up ART

Despite advances in the therapy for AIDS and the commitment of many institutions and governments, **the number of PLWA currently receiving ARV remains remarkably low**. In Africa, for example, it is estimated that of the nearly 30 million people infected with HIV, more than 4 million of whom have a sufficiently advanced stage of the disease to warrant ARV treatment, but not more than 100,000 are receiving it.

A dramatic increase in the coverage of PLWA with care and treatment is imposing multiple challenges on already fragile health systems in low-income countries. These **challenges include:**

- Commitment of governments to combat the HIV/AIDS epidemics inclusive measures for social acceptance of HIV infected persons, information and prevention campaigns and measures against the stigmatisation of the disease;
- The availability of a legal and policy framework for the implementation of ART which allows for example the importation, production and procurement of generic drugs;

- Efficient and efficacious counselling and HIV testing services which are widely available and well used;
- Effective drug and consumable management which allows for an uninterrupted supply of ARV and a rational use of the drugs
- High adherence to therapy in order to avoid drug resistance
- Adequate laboratory diagnostic capacities for CD4 monitoring.
- Equitable provision of ART services (for further details see Shang and Kessler Bodiang, 2004)

An essential element and input for providing additional coverage for PLWA are Human Resource for Health. ARV care and treatment services require well-skilled and motivated personnel with clinical, nursing, counselling, laboratory and/or pharmaceutical skills. However, major shortages in HRH have to be expected while massively scaling-up ART. This situation is aggravated as many sub-Saharan countries underwent a retrenchment of the health sector workforce in the last decade.

Objectives and structure of this report

The current **paper aims** to:

- Review possible human resources for health related constraints for scaling-up ART;
- Identify possible strategies (response options) for overcoming health workforce shortages in view of delivering ARV treatment;
- Review the current and future availability of human resources for scaling-up anti-retroviral treatment with special consideration to Tanzania.

HRH related constraints for scaling-up ART

Categorisation of HRH related constraints

Constraints related to the development of human resources in the context of increasing coverage of ART for PLWA may be grouped along five levels:

- “Individual characteristics”
- Health service delivery level
- Health sector level
- Training capacities
- Socio-political and economic context of a country.

Constraints at individual level: adequate representation of marginal and vulnerable groups in the health sector workforce

Coping with attrition (loss of health workers due to retirement, abandon of the work or premature death) requires the enrolment of new health personnel in the workforce. The decision to enter, remain and serve in the health sector workforce is influenced by “individual characteristics” such as the person’s socio-economic, ethnic, and cultural background. Important reasons for choosing a medical profession are the reputation of the medical and public health field, professional expectations and career advancement perspectives. In many low income countries other sectors than the health sector such as business offer better opportunities for “survival” which may negatively affect a decision to enrol in medical

training.

Equitable and effective access to ART by marginal and vulnerable population groups will require that these groups are adequately represented in the health sector workforce. In many situations these groups are under or not at all represented in the workforce. For example, a major reason for extremely low use of available health services by nomadic communities in Niger or Chad consists in linguistic and cultural differences to the health personnel.

In many places, including in African setting, health personnel prefers to become specialised in clinical fields such as surgery or gynaecology. Main reasons include the prestige of these disciplines sometimes linked to the possibility for conducting research and a higher monetary pay. These specialities do not directly contribute to the provision of treatment and care services for PLWA. In case efforts to scale-up ART are not able to address incentives in order to motivate enough personnel with clinical, nursing, counselling, laboratory and/or pharmaceutical skills to work in this field an efficient and effective provision of services is unlikely.

Constraints
at health service
delivery
level

Successfully improving ART for PLWA relies on committed health workers. Important motivational factors are a feeling of having responsibilities and working in a team environment where trust in each other and differences are dealt within a team spirit. In the current working environment there is scope for performance improvements of the staff. Today, deficiencies in this area leads to a situation where often required working hours are not respected or certain types of activities such as outreach visits are not carried.

In many settings unsatisfactory monitoring and evaluation mechanisms and practices, badly defined quality standards, and the absence of transparent processes and performance audits, may hinder an effective and efficient scaling-up ART.

The absence of decent physical working environment may be a further component for a low performance of health workers (including for the personnel with laboratory and pharmaceutical skills).

Today little is known about appropriate skill mixes - the mix of grades and occupations within a given health service – for the delivery of ART. In case there is no adequate composition across different job categories it is likely that surpluses or shortages of personnel with specific skills will be experienced. For example while there might be enough personnel with nursing skills there might be a lack of personnel with counselling skills.

Constraints
at health sector
level

The scaling-up of ART for PLWA needs to intimately be linked to on-going reforms in the health sector. Sector Wide Approaches (SWAp), decentralization, the promotion of private practice, and/or pharmaceutical reforms are currently promoted in many countries and there is a need that an increase in the coverage of ART ties closely into these reforms.

Coherent and well-formulated national HRH policies and strategies

are in many places absent. Or such policies are needed for considering specific needs of ARV treatment and care plans, for giving direction on HRH development and on how HRH relate to health sector reform issues (e.g. decentralisation, public-private mix), poverty reduction strategies, and training approaches.

Setting appropriate incentives in the health sector is of importance for having the right skill mix at the right place for the delivery of ART. Many African countries, such as Ghana, Mauritania or Zimbabwe, report deficiencies in certain professional categories.

Geographical imbalances in the distribution of personnel with specific skills need to be addressed. For example, career plans, salary levels, recruitment, appointment and retention procedures strongly influence where health workers practise and whether they are available for the provision of ART. Geographical imbalances are reported for many low-, middle- and high-income countries and are often worst for personnel with high skill levels including for personnel relevant for the provision of ART. For example countries such Tanzania, Zimbabwe, Chad or Ghana report a high concentration of personnel with (advanced) clinical skills in urban centres and the near absence of this category in rural, remote areas.

Salary level for health personnel are generally low, in both absolute and relative terms compared to the private sector. Subsequently, parallel activities, such as working during the morning shift for a public provider and in the afternoon for a private one is a common strategy to complement low salary levels. In order to retain health staff at the work place for ART and stimulate performance improvements, it will be necessary to consider salary increases when scaling-up care and treatment services. However, as in most countries HRH absorb already up to 90% of the sectoral budget, a significant increase in the pay of health sector workers may reveal difficult. There are current trends and risks to do harm by paying incentives for staff involved in ART and depleting essential basic health services.

Constraints at the level of training institutions

The scaling-up of ARV requires in many countries significant investments into medical, nursing, laboratory and pharmaceutical training institutes. Both, the up-grading of skills of current health personnel and the training of new personnel, is necessary and important decision about the centralisation/decentralisation of training are requested.

In several sub-Saharan countries losses due to migration, retirement, change of the occupational sector of health workers and premature death in the health sector workforce outweigh the output of training institutes. An increase in the outputs of training institutions should not only compensate for the attrition of health personnel, but in the case of ART also increase the available health sector workforce.

With regard to continuous training of the current personnel, there is the opportunity to upgrade the skills of the workforce. This will require adequate training capacities of post graduate training insti-

tutes. In many African countries such institutions are only available in a rudimentary way.

With regard to initial training, appropriately trained staff requires significant changes in medical and nursing curricula, pedagogical methods, and in admission criteria. In many countries, the focus of medical training needs to shift from training in medical specialities to training that includes ART related assignments. Furthermore, administration and management skills and/or the training of district managers require attention. More generally, training approaches need to take account of required HRH skill patterns and mixes.

Investments in initial training require in most countries multi-sectoral collaboration and agreement as not only the Ministry of Health, but also the Ministry of Education usually are in charge of medical, nursing, pharmaceutical and/or laboratory training.

However, even with investments in training schools, there are time deferrals between enrolment and employment at a given workplace of several years which is a major obstacle for a rapid scaling-up of ART.

Constraints related to the socio-political and economic context of a country

Factors such as governance and the overall policy framework, (structural adjustment policies, political stability/instability, insecurity, priority accorded to social sectors, and accountability) influence in an important way whether and where health professionals practice.

Migration of medical professionals illustrates this well. Recruitment policies, immigration laws and regulations in better off countries may facilitate demand for health professionals in these countries. Opposite, living conditions in a low-income country determine whether health staff is encouraged to leave the country. There is a growing concern that emigration of health staff from low-income countries is an important constraint for an effective delivery of ART. For example for Ghana it is estimated that over 50% of doctors having graduated are living and practicing outside the country. Thus there is a need for well balanced and solidly elaborated national retention strategies.

Multi-sectoral approaches and policies are required for an effective and efficient HRH development, including human resources development for the delivery of ART. Unless health sector development is not an agreed high priority of a country, it is not likely that there is enough backing to carry forward the extension of services. Political support to HRH development will need to be followed by additional budgetary support, otherwise resource allocation to ART may result in depleting existing essential services.

Global initiatives (GHI) such as such as the Global Fund against HIV/AIDS, Tuberculosis and Malaria (GFATM), the World Bank Multi-Country AIDS Programme, the Clinton Foundation, the US President's Emergency Plan For AIDS Relief (PEPFAR) and private companies are bringing substantial new funding to many countries. These (new and hopefully not displaced) financial re-

sources do often not take account of necessary investments for extending the workforce and physical infrastructures thereby potentially undermining the strengthening of health systems by strongly orientate activities towards priority diseases (for further details see Hutton, 2004). It is likely that in countries such as Tanzania, national treatment plans will divert scarce governmental resources where it is estimated that at least 10,000 additional health workers are needed to reach the internationally recommended coverage levels. Therefore, it was recommended by Hutton (2004) that:

- **Global Initiatives should synchronize planning**, including HRH and infrastructure planning
- **Power of resource allocation**, including HRH allocation, **should be given back to national and local authorities.**

Options for overcoming health workforce shortages

As outlined in the previous chapter, **major HRH related constraints to overcome in view of an effective and equitable scaling up ART are:**

- Designing, testing and implementing human resource policies options, such as the extension of initial and continuous training and/or the integration of unemployed health workers, for overcoming shortages;
- Extending training capacities of medical, nursing, laboratory and pharmaceutical training institutions in order to avoid shortages of human resources.
- Addressing the proportional representation of staff with a distinct social and ethnic background in the workforce in order to assure access of poor and vulnerable groups to ART;
- Tackling geographical imbalances in the distribution of health sector workforce for assuring the equitable access to ART,
- Address performance improvements and monitoring of health workers through salary increase of health workers and non-monetary incentives (e.g. adequately equipped work-places) for good performance;
- Planning and setting up of teams with an adequate skill mix for an efficient delivering of ART

Subsequently, the potential of the following **response options for rapidly expanding the health sector workforce** for increasing the number of PLWA being able to access ART needs **to be explored:**

- Increase in the productivity of the health workers;
- Up-grading of skills of existing health workers;
- Investments in initial training for increasing the output of training institutions;
- Integration of unemployed health personnel in the workforce;

- Contracting of services to private (profit and non-profit making) providers;
- Recruitment of personnel from other countries with an excess supply of health workers.
- Training and involvement of volunteers and unskilled categories of people for selected ART assignments.

Productivity increase

Various studies and observations in Africa indicate that an important share of the working time is used for unproductive activities such as waiting for patients or simply being absent from the service without explanation. For example, a study in Cameroon found that around 60% of the working time was used for activities which are not related to the production of services. Similar studies in Tanzania and Chad showed that there this percentage was situated around 30% (for further details see Wyss 2003). Subsequently, **productivity increases would lower the need for additional personnel in the context of scaling-up ART services.**

Unfortunately the **existing evidence on performance increases of health workers is low.** In the context of extending ART coverage and of assuring high quality services, the potential of various measures needs to be explored and tested.

Up-grading of skills of existing health workers

It is widely acknowledged that extension of ART in Africa requires substantial investments for boosting clinical, nursing, pharmaceutical and laboratory skills of the existing health personnel. Personnel with clinical skills needs to be trained for correctly diagnosing the disease and applying ARV, personnel with nursing skills has to be able to act as treatment counsellors, personnel with laboratory skills needs to perform CD4 counts and personnel with management skills has to correctly plan, supervise, monitor and evaluate the implementation of ART.

Health workers have not been trained for these assignments and thus their skills need to be upgraded. Based on the recommendations of WHO there is **necessity to define training and continuous education requirements at a national scale. This definition should rely on well established ART treatment guidelines which outline necessary skill levels and qualifications of relevant health cadres for the delivery of ART.** For example shall the personnel with nursing skills be trained as counsellors? Or in the case of shortfalls of laboratory technicians, which type of personnel should acquire laboratory skills?

Plans for continuous education have also to consider, the number of persons to be retrained and the capacities and location of existing training institutions. In what time period shall the skills of the existing personnel with clinical, nursing, counselling, laboratory and/or pharmaceutical skills be upgraded? Shall the re-training be done on decentralised level or shall it be organised in centralised way? Do the existing continuous training institutions have the institutional and human capacities for training large numbers of health workers in a short time period?

Investments in initial training	<p>Taking into account important requirements for health personnel able to deliver ART, an increase in the output of institutes training personnel with clinical, nursing, counselling, laboratory, and pharmaceutical skills is required.</p> <p>Time delays between increasing capacities of training institutions and the availability of the new trainees will be important. Even in case such decisions would be taken in an early phase of the scaling-up of ART, it has to be expected that the newly trained personnel will only be available after several years.</p>
Integration of unemployed personnel	<p>The integration of currently unemployed personnel amongst the workforce and make them available for increasing the coverage of ART is clearly the most pragmatic solution. Although in many countries no detailed information on the size of unemployed health personnel is available, it is likely that this personnel will only cover a small proportion of the required health workers. This would need a reversal of policies introduced under structural adjustment in 1990's aiming at a retrenchment of the governmental employees.</p> <p>Further an important reason for the unemployment is in many instances the unwillingness of the persons to work in rural areas where in many instances positions are already vacant. Thus, the strategy of integration of unemployed may be suitable in an early phase of scaling-up ART for increasing the capacities of providers in urban centres. At the same time, the motivation of health personnel to be posted at decentralised levels should be supported by measures as those discussed earlier in this paper.</p>
Contracting of services to private (profit and non-profit making) providers	<p>Contracting work to the private sector is an instrument of extension of services which offers an opportunity to overcome the scarcity of human resources in the public sector and eventually problems related to the retention of staff in the public sector. The delegation of health services provision to the private sector must carefully be designed in order not to underline already existing inequities (typically private providers are concentrated in urban areas). However, contractual approaches are not likely to be a major contributor to an increase in the health sector workforce though they may help to addresses shortages (e.g. of doctors) in specific circumstances.</p>
Recruitment of personnel from other countries	<p>An alternative approach would consist in the hiring of personnel from countries with an excess supply of health workers. This may be a suitable approach in very specific settings. But for most situations such a strategy for increasing the health personnel able to provide ART will only underline already existing migration patterns from the poorest to less poorer countries and from less poorer countries to high-income countries. Furthermore, shortages of health personnel for scaling-up priority interventions in Africa are widely reported. For example in East Africa Malawi, Zambia, Tanzania, Botswana, Zimbabwe and Kenya all report shortages and job vacancies and thus would compete for the same personnel.</p>

Case study: HRH availability of scaling-up ART in Tanzania

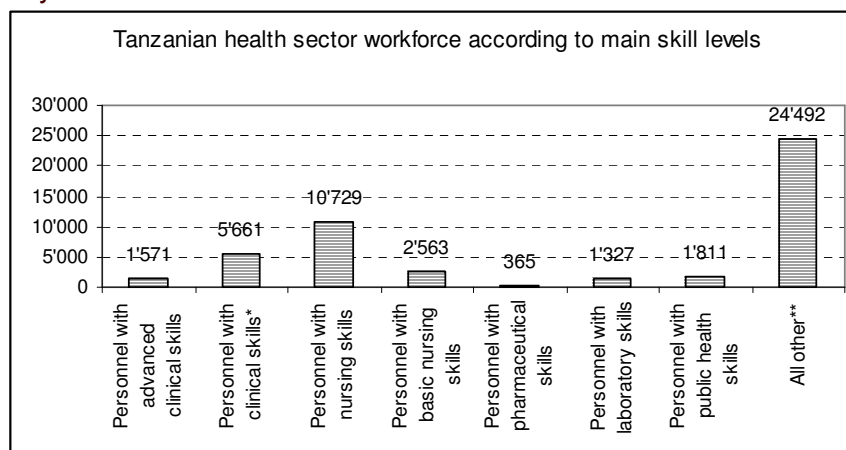
Current state of the art

Like many Governments and Ministries of Health in Africa, Tanzania is committed to substantially increase the number of PLWA covered by care and treatment services. The Ministry of Health of the Government of Tanzania and its partners are hoping to raise the number of persons under treatment and the related coverage targets by the end of 2005 to at least 65'000 from around 2'000 persons currently enrolled (the country target of the 3by5 initiative is situated at 220'000 PLWA).

In Tanzania it is increasingly acknowledged that an important bottleneck for the extension of the coverage of ART is human resource related.

Current health worker availability in Tanzania

For **Mainland Tanzania** (population of 33.5 million), the last workforce census conducted in 2001/2002 indicated **a number of around 48'500 health workers**. Personnel with nursing skills constitutes with 22% the most important share of the personnel, followed by personnel with clinical skills. Concerning the validity of the collected data it is to say that governmental health workers are adequately represented in the census results. Opposite numbers reported for some categories of personnel working in the private sector are estimated to be too low. This is especially true for personnel with pharmaceutical skills, where persons working at the level of private pharmacies have only been included in a limited way.



* Category includes medical specialists such as gynecologists, surgeons, etc.

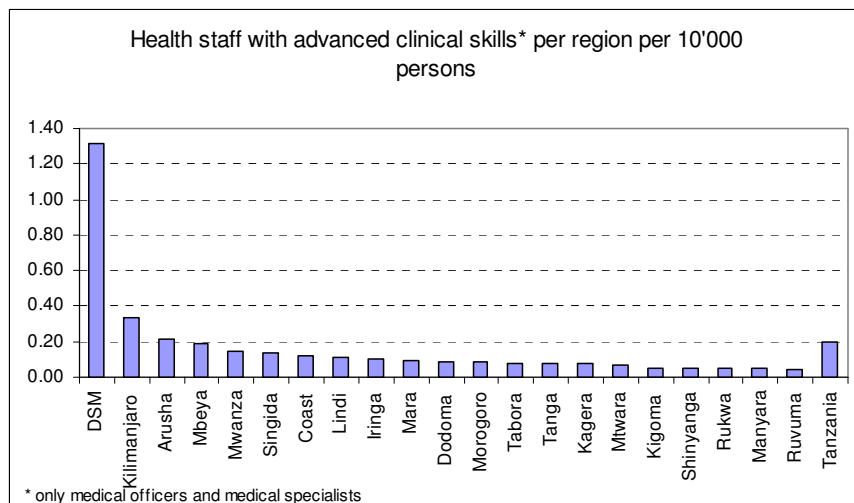
** Category includes skilled and unskilled personnel: dentists, engineer, optometry, orthopaedics, launderers, catering, secretaries etc. not relevant for ART

Source: 2001/2002 Health worker census Ministry of Health Tanzania

There is not international standard on the number of required personnel with a given skill level per population. Tanzania, as many other countries, uses a norm based approach for defining staffing patterns for different types of health facilities and there are indications that suggested norms are not met and that many positions especially in rural areas are vacant. However if the number of personnel with advanced clinical skills in Tanzania is compared to the number of physician in Switzerland, it is observed that Switzerland accounts for 175 as many doctors as Tanzania (Switzerland: 35

physicians per 10'000 population in 2002; Tanzania: 0.2 personnel with advanced clinical skills per 10'000 population).

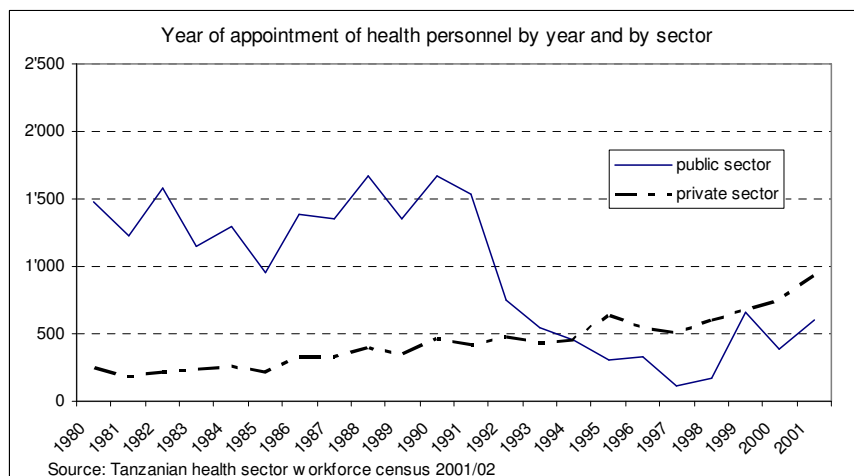
The **geographical distribution of the personnel is very uneven**. Better trained and higher qualified personnel works predominantly in urban centres. The figure below illustrates this at the example of health personnel with advanced clinical skills: Dar es Salaam has nearly 30 times as many medical officers and medical specialists as Ruvuma a rural district in the South. **The scaling-up of ART may further entrench these geographical imbalances** in the distribution of health personnel, and subsequently lead to strong inequities in the provision of ART.



Source: 2001/2002 Health worker census Ministry of Health Tanzania

Tendencies in HRH availability

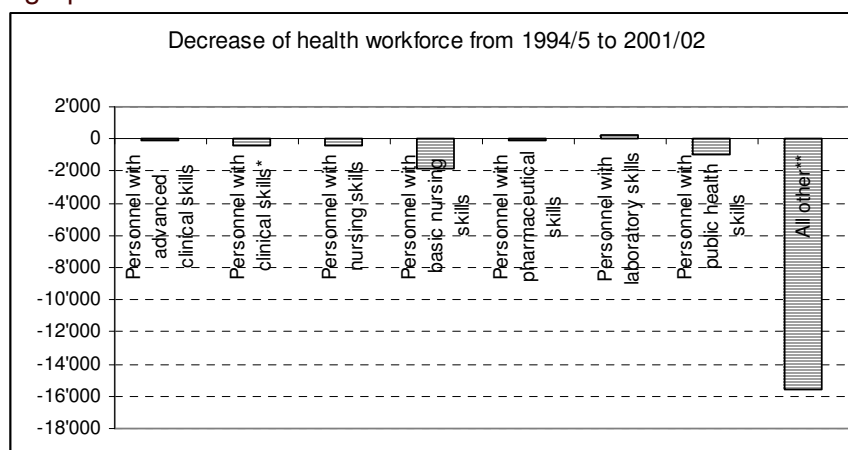
In the 1990s, Tanzania underwent **structural adjustment policies which included in the health sector a retrenchment of the governmental workforce** and a parallel liberalisation of the private sector. In the context of these policies the automatic integration of health personnel in the public function was stopped. Consequently, the number of new appointees in the public sector decreased from the early 1990s onwards.



Source: 2001/2002 Health worker census Ministry of Health Tanzania

These policy measures translated in a **decrease of the workforce**

over the last years. If results of the Tanzania health sector workforce census 1994/95 and 2001/02 are compared, the number of health workers decreased by 19'000 person. Most of this decrease was however, observed in job categories with less direct relevance for the provision of ART such watching personnel, cooks and cleaners and can be explained by attrition or improved and more accurate management of salary and inventory lists of the personnel. No major decrease could be observed in categories such as personnel with clinical or nursing skills which is requested for scaling-up ART. No information is available



Source: 2001/2002 Health worker census Ministry of Health Tanzania

The health workforce in Tanzania may shrink further in the next years. **Although no definitive data on attrition rates are available, the current output of training institutions is likely to be insufficient for compensating losses in the workforce.** This tendency will increasingly affect the categories of personnel with clinical, nursing, counselling and laboratory skills.

For an extension of ART coverage this implies that the necessary increase in the numbers of services to be produced contrasts with a decrease in the number of health workers.

HRH short-ages

Various districts in Tanzania indicate health worker shortages. **No comprehensive data for the whole of Tanzania is available but the two rural districts, Morogoro and Rufiji, report shortages up to 57% of positions which are not filled.** For certain job categories this percentage may even be higher. For example in Rufiji district 75% of the positions available for personnel with clinical skills (clinical officer) are not occupied.

Rural district management teams are not able to fill vacant positions even on the fact that there are unemployed workers (e.g. clinical officers) in urban areas. Apparently working conditions in rural and remote areas are not sufficiently good for attracting unemployed persons to these places.

With regard to the delivery of ART there is the risk that such a situation **may lead to strong regional inequities in service provision** between urban centres and rural regions.

HRH re-
quirements
for ART

While the optimal number of health workers per population or the number of workers required for the delivery of ART is unknown, it is obvious that the number is grossly insufficient for the wide-spread implementation of priority interventions such as ART.

In 2003, a study by Kurowski et al. has estimated for Tanzania that the delivery of HIV/AIDS interventions at a high coverage would require a large proportion of the health workforce (around 40%) and would correspond to an estimated 17'000 to 33'000 health workers (current workforce 48'500 persons).

Lessons to learn

Lessons
learnt

While assisting the scaling-up of ART, **it is recommended that SDC considers** that: (1) an essential element of successful improvement of ART delivery to PLWA consists in addressing HRH related constraints including the availability of HRH for implementing ART; (2) HRH strategies in the context of scaling-up ART need to be comprehensive in nature, not only outline the availability and requirements of health workers but also address education and training, performance assessment and more generally working conditions, including salary levels, of health workers.

The establishment of realistic time frames for the scaling-up is crucial in order to underline and not undermine on-going health sector reform and health service strengthening efforts.

This paper on **scaling-up ART** and the challenges imposed on **HRH related issues** on these efforts has highlighted **aspects of operational relevance of SDC supported initiatives/projects in the area of HIV/AIDS care and treatment**. They include:

- Human resource related issues are an essential component of efforts to scale-up ART for PLWA in low-income countries in Africa;
- HRH constraints, including the availability of personnel with clinical, nursing, counselling, pharmaceutical and laboratory skills, are a key determinant for the pace of scaling up of ART;
- Besides the hiring of currently unemployed health workers (if appropriate), the increase in training capacities (investments in new training and retraining institutions) is the most feasible strategy and thus needs to precede the scaling up of ART services;
- Countries which have in the short run not sufficient numbers of health workers need to make strategic decisions on the relative importance of maintaining/strengthening existing district based health services versus priority interventions for addressing diseases such as malaria, HIV/AIDS and tuberculosis.
- Scaling-up ART at a massive scale may deplete seriously the provision of other priority services and more generally of the strengthening of district based health services.

With regard to Tanzania it is recommended to SDC to consider that: (1) Essential elements of successful improvement of the coverage of ART and the related HRH issues consists in providing as-

sistance to strategies that fit into health sector reforms and the political and macroeconomic context. Of special importance is to avoid a rerouting of resources, particularly of human resources, from existing services thereby undermining principles of district health systems; (2) The expansion and upgrading of the skills of the workforce in the context of scaling-up ART tie on realistic timelines into health systems strengthening approaches.

Resources used and Selected Links

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