Regional Network for Equity in Health in Southern Africa

DISCUSSION Paper NO. 24

Monitoring equity and health systems in the provision of anti-retroviral therapy (ART): Malawi country report

Ireen Makwiza, Lot Nyirenda, Grace Bongololo, Rene Loewenson, Sally Theobald

The REACH Trust
(Formerly EQUI-TB Knowledge Programme, Malawi)
With the Regional Network for Equity
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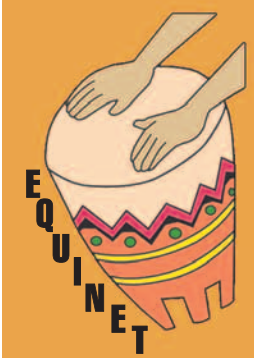

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May 2005

Produced with the support from IDRC (Canada), SIDA (Sweden), TARSC Zimbabwe and HIV/AIDS & TB Knowledge Programmes, Liverpool School of Tropical Medicine (UK)

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EXECUTIVE SUMMARY

Malawi has been severely hit by the HIV and AIDS epidemic, with AIDS being the leading cause of death amongst the 15–49 year-old age group. In 2003, 87,000 deaths among adults and children in Malawi were reported to be due to AIDS. Currently, it is estimated that about 170,000 people are in need of anti-retroviral therapy (ART). In 2002, Malawi received funding from the Global Fund for HIV/AIDS, Tuberculosis and Malaria (GFTAM) to start a rapid scale-up programme of ART delivery, with the aim of reaching 80,000 people by the end of 2005. The funds from GFTAM are enough to support 80,000 people on ART for five years.

There is a huge shortfall between the number of people in need of ART and available resources. This makes it imperative that ART services are delivered in an equitable manner and in a way that strengthen health systems.

In 2003 the Southern African Regional Network on Equity in Health (EQUINET) initiated a programme of work to understand and monitor the equity and health systems dimensions of expanding access to treatment. This programme is in support of the Southern African Development Community's (SADC) business plan on HIV and AIDS. At regional level, EQUINET is working through national governments, research institutions and regional organisations to promote health equity and to strengthen ART access. The Ministry of Health Malawi and the Malawi National AIDS Commission have recognised the importance of equity and health systems in the national scale-up of ART. Consequently, this report supports national and regional policy commitments and initiatives to improve ART scale-up.

In light of the limited available health resources, an analysis of equity in access to treatment requires not only the assessment of who will receive the drugs, but also an analysis of the impact of the provision of ART on the provision of essential health services. ART programmes could serve to strengthen health systems through further investment and support of essential health services. Alternatively, they could have a negative impact by diverting scarce resources from the wider health system, thereby undermining long-term access both to ART and to other public health interventions.

In 2003 and 2004, EQUINET, in co-operation with SADC, OXFAM (GB), the World Health Organisation (WHO [AFRO]), government, academic and civil society partners, produced a draft framework for monitoring equity in ART provision and the effects on health systems in southern

Africa. In Malawi, the development of a policy paper for equity in access to ART underlines the need to monitor and report on the situation in the country. This report presents an equity and health systems analysis of the provision and expansion of ART in Malawi. It aims to provide a working example of country level monitoring and evaluation. In line with the principles adopted in EQUINET regional consultations, it is produced within the context of the 'three ones'; in other words, relying mainly on available routine monitoring data, and within existing national monitoring and evaluation systems.

The report uses pre-existing information and indicators from different stakeholders, an analysis of sentinel data from Thyolo district, consultations with key informants, participation in meetings and insights from qualitative studies at the Lighthouse (a high burden ART service provision site in the capital Lilongwe) and in Thyolo district.

This paper analyses the current state of ART in Malawi according to the following principles:

- *equity, justice* and *accountability*, more specifically in terms of the following two principles:
  - fair policy development, monitoring and accountability through fair processes; and
  - equitable access to ART, with realistic targets; and
- *sustainability* and *efficiency*, more specifically in terms of the following five principles:
  - fair and sustainable financing and accountable financial management;
  - integrating ART programmes with the essential health package;
  - prioritising human resource development to deliver the essential health package;
  - the sustainable and accountable purchasing, distribution and monitoring of drugs and commodities for ART and the essential health package; and
  - ensuring that private sector ART provision complements and enhances the capacity of the public health system.

Fair policy development

ART policy in Malawi was developed through a documented participatory process, which included the mass media, public consultation with people living with HIV and relevant institutions, and a specially commissioned study in seven districts. The findings from the consultations were interpreted according to the National HIV/AIDS Policy in order to draw up policy principles to promote equity in access to ART.

Equitable access to ART

Progress has been achieved by making access to ART more equitable, according to realistic targets. The scaling up of ART started in 2004 and, since then, ART has been provided free in all public facilities, as well as those of the Christian Health Association of Malawi (CHAM). Most of the patients on ART (63%) were from the southern region, with 10% and 27% from the northern and central regions respectively. There were more women than men accessing ART in every region. To assess whether this reflects gender equity would require sex disaggregated prevalence data. However, this data will not be available in Malawi until the results of the Demographic Health Surveillance Survey are released (expected in September, 2005).

Despite these advances, access to ART remains low, as the following statistics show:

- From blood donor statistics, it was estimated that only 5.1% of people in need of ART were actually receiving it.
- Using projections from the estimates of pregnant women attending ANC clinics, it was found that a mere 3.4% of PLWHAs in need of ART were accessing ART.
- It was estimated that only 3.1% of children living with HIV/AIDS have access to ART. Few sites had the capacity to provide ART for children and most of those that did were found in the southern region, so most of the children who are accessing ART (75%) come from this region.

The analysis of sentinel data from Thyolo district reflected the epidemiological profile of HIV in Africa – with higher prevalence rates amongst younger women (aged 25–29) and older men (aged 35–39). Most ART patients came from urbanised communities, which, together with insights from qualitative research, suggests that rural communities are facing barriers in accessing ART.

Fair and sustainable financing and accountable financial management

The ART scale-up in Malawi relies mainly on support from The Global Fund for HIV/AIDS, Tuberculosis and Malaria (US$29m). Other donors include the United Nations Development Fund (UNDP), Centre for Disease Control (CDC), African development Bank (ADB) and Pooled Partners which include World Bank, Department for International Development (DFID), Norwegian Development Aid (NORAD) and Canadian International Development Agency (CIDA). At present, the Malawi government's contribution to the National AIDS Commission for ART services is smaller than donor contributions. However, the

assessment of fair and sustainable financing must also take into account the government's contribution to the core health services and personnel that are needed for scaling up ART access. This contribution should to be more thoroughly explored in future papers, as it impacts on the capacity to absorb additional funds and the sustainability of ART provision.

Integrating ART delivery with the broader health system

Integration with the National TB Control Programme is relatively strong, with joint training, cross referral and the employment of a TB/HIV officer who is responsible for facilitating integration. The data indicated that 11% of all patients accessing ART come from the TB programme. However integration with other programmes, such as those aiming to prevent mother to child transmission (PMTCT) and sexually transmitted infections (STIs), has been minimal.

Health staff have also been trained for both the public and private sectors, illustrating positive integration and joint working. By the end of December 2004, 59 facilities, (both public and CHAM) had been assessed for ART delivery and 756 health personnel had been trained by the Ministry of Health (MoH) in collaboration with The Lighthouse, Thyolo MSF-Luxembourg, Chiradzulu MSF-France, the College of Medicine, the Malawi Defence Force and the Kamuzu College of Nursing.

The major reasons behind attrition are death, resigning from the job, low salaries and poor working conditions. Currently clinical officers and nurses provide ART, with significant vacancy rates in these two staff categories. Efforts are being made to not overload these staff and divert them from the delivery of other essential health services. Currently, each centre has committed one clinical officer, a nurse and a clerk to the ART programme. As ART is scaled up, the work burdens on staff is likely to increase. Furthermore, evidence indicated that the limited human resources limited the numbers of patients that could start on ART. In response to these constraints, there are pilot plans to decentralise ART provision to medical officers and health surveillance assistants and also from district hospitals to health centres.

Sustainable and accountable purchasing, distribution and monitoring

It was difficult to get information on the sustainable and accountable purchasing, distribution and monitoring of drugs and commodities for ART and the essential health package, so information on this topic is not included.

Fair policy development

In Malawi, the approach to ART provision has been to try to ensure close collaboration between the public and private sectors. Working positively with the private sector is intended to take the pressure off the public sector, especially since human resources are limited. This should ideally enable more poor people to access public services for ART. A proposal has been finalised that formalises relationships between the MoH and the private sector in order to co-ordinate private sector delivery of ART. According to the proposal, ART will be provided by the private sector at a subsidised cost, and the private sector will be involved in monitoring and evaluating the ART programme.

ART provision in Malawi has brought additional resources and challenges to an already overstretched public health system. Malawi has made impressive progress in scaling up ART services, integrating these services into other health services and linking them with the private sector. There is evidence that this has been based on a process of fair policy development. ART services have also been integrated with TB programmes, and measures have been developed to co-ordinate private and public sector ART services. However, in rural communities and among children, access is still limited and ART services are less integrated with related services, such as PTMCT and STI treatment. As previously mentioned, limited human resources further limit the expansion of ART.

Conclusion and recommendations

It remains difficult to make clear conclusions or recommendations about the current situation in Malawi because there is no detailed disaggregated HIV prevalence data and also because the ART programme is still in its infancy. Nonetheless, this paper proposes ongoing monitoring and evaluation of equity and impacts on existing health systems. The results should be widely disseminated and complemented by qualitative data. This should help to ensure that challenges are understood and addressed early on in the programme.

MONITORING EQUITY AND HEALTH SYSTEMS IN THE PROVISION OF ANTI-RETROVIRAL THERAPY (ART): MALAWI COUNTRY REPORT

1. INTRODUCTION

It is estimated that 38 million people globally are living with HIV, the virus that causes AIDS (UNAIDS, 2004). The sub-Saharan region has been hardest hit by the epidemic with approximately 25 million people living with the virus (ibid). The introduction of life-prolonging antiretroviral therapy has reduced mortality and morbidity among HIV/AIDS infected individuals in developed countries. However, as of 2003, only 7% of the people who need anti-retroviral therapy (ART) had access to the drug in developing countries (ibid).

This discussion paper is a first attempt at conducting an equity analysis of ART provision in Malawi. In Malawi, it is aimed at policy makers, practitioners, members of the Country Coordinating Mechanism of the Global Fund, National AIDS Commission, the Malawi Health Equity Network, rights groups and groups of PLWHA. It aims to assess if ART implementation is committed to the policy principles of equitable access to ART in Malawi and if it informs recommendations for policy and practice at national and district level made to the HIV/AIDS technical working group, the Equity and ART Working Group and the Country Coordinating Mechanism (CCM).

In addition, the paper will also be summarised and produced as a short and accessible booklet that highlights the current equity and health systems situation regarding ART provision in Malawi. The booklet will complement the position paper on equity in access to ART and act as a template for producing an annual equity picture on ART scale-up in Malawi. This needs to be well disseminated through a participatory process so that stakeholders can reflect on the extent to which equity is (or is not) being achieved through ART scale-up and accordingly make changes to policy and practice.

At the October 2004 EQUINET/ Equi-TB meeting, it was proposed and agreed upon that other countries in the SADC region should go through a similar process to produce working examples of equity and health systems monitoring and analysis at country level, and to share all lessons learnt in the region. The work will feed into EQUINET training materials on how to strengthen health systems and promote equity approaches to ART expansion. It will also provide input to the SADC regional reports to the Integrated Council of Ministers on equity and health systems outcomes in ART scale-up and to WHO work on how to evaluate facilitators and lift barriers that prevent people from accessing ART.

2. BACKGROUND INFORMATION

2.1 Malawi: A brief overview

Malawi is a small landlocked country in sub-Saharan Africa with a population of about 11 million people. The country has been severely hit by the HIV/AIDS epidemic, with 14.1% of the population living with HIV/AIDS (NAC, 2003). In 2003, 87,000 adults and children died, reportedly from AIDS.

AIDS is the leading cause of death amongst the 15–49 year-old age group. The HIV/AIDS prevalence among females in this age group is reported to be four to six times higher than amongst males (NAC, 2003). The Global Fund for HIV/AIDS, Tuberculosis and Malaria (GFTAM) has pledged to Malawi a total budget of US$284 million from for its national response to the HIV and AIDS epidemic. A substantial component of this will be used to support the nation-wide scale-up of ART using a public health approach. This is a very recent process, since scale-up began only in the latter half of 2004.

An estimated 170,000 people in Malawi need ART at any given time (MoH, 2004). With the Global Fund for AIDS, Tuberculosis and Malaria (GFATM) resources, it is estimated that these funds are sufficient for only 80,000 people over a 5-year period, leaving an enormous shortfall. It is therefore important that ART access should be equitable and should not exclude certain population groups such as the poor and marginalised.

2.2 Equity in ART scale-up in Malawi and in Southern Africa

Equity in health implies addressing differences in health that are judged to be unnecessary, avoidable and unfair. 'These differences relate to disparities across socio-economic status, gender, age, racial groups, rural/urban residence and geographical region. Equity should therefore be achieved through the redistribution of the societal resources for health, including the power to claim and the capabilities to use these resources' (EQUINET Steering Committee, 2004).

Health systems have been defined as all activities whose primary purpose is to maintain and restore health. A health system encompasses national health policies and programmes, laws and regulations, organisations and management structures, and financing arrangements, which combine to result in preventive, curative and public health services aimed at improving health (SWEF, 2003). More specifically, a health system includes:

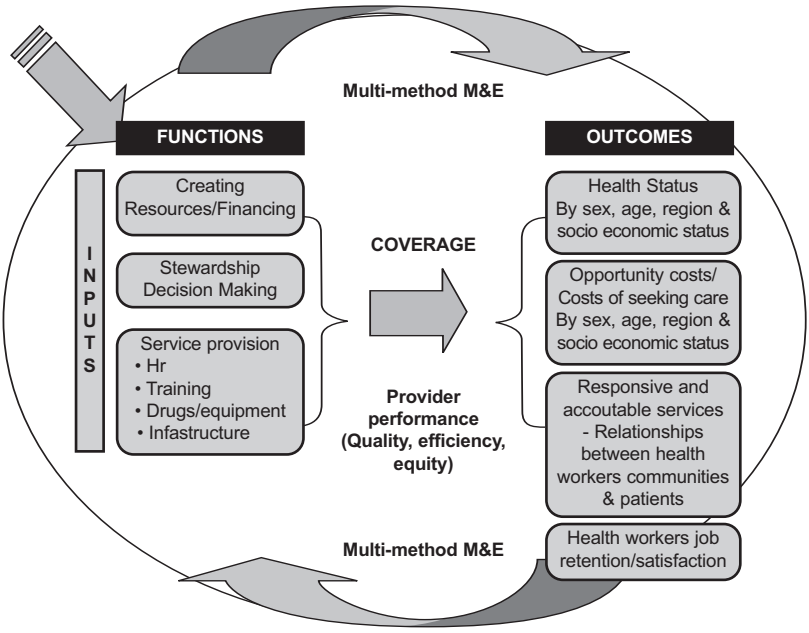
- aspects of drug and commodities procurement policies;

- financing;
- human resources;
- information systems;
- logistics systems; and
- the policy environment (ibid).

Health systems can be important vehicles for reducing poverty and redistribution of wealth in highly unequal societies. The potential for positive outcomes are reduced when health systems are inaccessible to, or costly, for low-income communities, when they are under funded or under staffed, particularly at the primary health care and district level (EQUINET, 2004). In a health system where resources are severely limited, the analysis of equity in access to treatment requires not only the assessment of who will receive the drugs, but more importantly, what impact provision of ART will have on 'equity' for the provision of essential health services (Kemp, Aitken, Le Grand and Mwale, 2003).

Refer to *Figure 1* for an illustration of how health systems work.

Figure 1: How health systems work (public & private sector)



Adapted from: WHO Health systems performance http://www.who.int/health-systems-performance/

ART provision affects all the aspects of health provision illustrated in Figure 1, such as:

- the functions of the health system;
- its performance in terms of efficiency, quality and equity; and
- its outcomes, for example provider–client relationships.

Ongoing monitoring and evaluation is necessary to assess the impact of ART on this complex and interactive system. Programmes aimed at delivering ART have the potential for strengthening health systems and widening access to ART and support provision of essential health services. On the other hand, programmes aimed at ART delivery can result in diverting scarce resources from the wider health system and undermining long-term access both to ART and to other public health interventions (EQUINET, 2004). ART provision has come with new resources, stewardship and service provision, which can potentially influence negatively or positively the health system outcomes (Figure 1). ART programmes should therefore be developed and expanded in ways that will not aggravate inequities or result in appropriate withdrawal of resources from other health interventions or from other parts of the health system (McCoy, 2003). Early monitoring and evaluation is necessary to identify the impact that ART programmes have on the health system. This is critical as in Southern Africa large-scale provision of ART will likely be achieved through fragile public health systems and limited funding streams.

A scenario of inadequate funds for provision of ART is prevalent in most countries in Southern Africa. Countries such as Malawi, Tanzania, Zambia and Mozambique have low per-capita health expenditure when compared to their burden of HIV prevalence. In 2000, Malawi's per-capita expenditure was US$38 and an estimated 170,000 people required ART (McCoy, 2003). With funding from the Global Fund for AIDS, TB and Malaria (GFTAM), Malawi will provide ART to about 80,000 people over the next five years, as compared to the170,000 people in need of treatment. This raises equity and ethical issues regarding access, rationing, targeting and the prescription of ART. It means that choices will have to be made about who accesses ART, given the limited resources. As ART is rolled out in the region, a comprehensive framework for monitoring and evaluating equity in access to ART and health systems issues will be needed.

Scale-up of ART in Malawi is very new and began in 2004. The fact that this is a very recent development has meant that collating data on the dynamics of scale-up has proved challenging. However, it is also important to attempt an equity analysis at an early stage so that recommendations can be acted on while new monitoring and evaluation systems and approaches to ART scale-up are still in their infancy.

2.3 Monitoring ART scale-up in Malawi and Southern Africa

Malawi has been fortunate in having a number of key stakeholders who have been interested in promoting equity in ART roll out. For example, NAC and UNAIDS have played a pivotal role in promoting a pro-equity stance in ART provision and scale-up in Malawi. This interest has been further consolidated and developed through joint working with EQUINET. The process of developing this report follows a particular history with some processes interlinked with work at a regional level that has been promoted by EQUINET.

In 2003 Kemp et al (2003) prepared a paper on equity in ART in Malawi as one of a series of four country papers, two issue papers and a regional paper on the same theme, commissioned by EQUINET in co-operation with OXFAM (GB) and with support from the International Development Research Centre, Canada (IDRC), DFID in 2003–2004. The papers were designed to inform the policy debates that have grown around health sector responses to HIV and AIDS in the region, particularly with respect to care and treatment access.

These papers pointed to three consequences of the rapid expansion of treatment access in the context of under-resourced and weak health care systems:

- the *worsening* of existing health and health care *inequities*;
- the *weakening of the public health system* through the adoption of inappropriate and inadequately coordinated vertical programmes and through the injudicious use of non-government delivery agents; and
- *undesirable and unintended opportunity* costs associated with the diversion of scarce health care resources to treatment programmes.

At the same time, the papers also highlighted opportunities for the expansion of ART to simultaneously strengthen the health care system, improve the delivery of primary health care more generally and promote health equity.

Following the publication of the Kemp paper, the Equity in ART Steering Group was established. This group is chaired by the Ministry of Health and it facilitated the production of a position paper on equity in access to ART in Malawi (NAC 2005). The process of producing this position paper involved consultations with different stakeholders (refer to the executive summary of this paper). The position paper is now finalised and has been adopted as policy. An official launch to produce the position paper is being held in 2005.

The position paper came up with 11 key principles to monitor equity (refer to Box 1 under section 4.1.3 of this paper). The position paper proposes a number of measures to promote equity in access to ART in Malawi, recognizing that equity is a judgement of fairness, which may involve different aspects that need to be balanced. The paper also proposes that equity issues in ART scale-up need to be monitored in order to assess the effectiveness of approaches to promote equity.

In follow up to this work, EQUINET, Oxfam GB and the Southern African Development Community (SADC) hosted a regional meeting in February 2004 to present and review the country, regional and theme papers and to discuss the follow-up work and policy interventions arising from the work. Among other areas, this meeting identified the monitoring of equity in access and health systems issues as an important, informative and integral part of ART programme expansion. The meeting established policy principles for equity and health systems strengthening in ART access.

With support from the Training and Research Support Centre, EQUINET carried out some of this follow-up work. An assessment was made of existing monitoring taking place in relation to expanding ART coverage. The policy principles were promoted within the SADC Business Plan on HIV and AIDS, which also noted the need for monitoring of health systems impacts and issues in ART expansion (EQUINET/TARSC, 2004) A country case study was commissioned to draft a framework for monitoring equity in access and health system issues in ART programmes in southern Africa, with Malawi as a case study (Kalanda, Makwiza and Kemp, 2004). This study explored options for an equity monitoring system to reflect the key themes identified in the policy principles established by the regional process:

Two areas of equity, justice and accountability were identified:

- fair policy development, monitoring and accountability through fair process; and
- equitable access to ART with realistic targets.

Five areas of sustainability and efficiency were identified:

- fair and sustainable financing and accountable financial management;
- the integration of ART programmes into the delivery of the essential health package;
- prioritised human resource development to deliver the essential health package;

- the sustainable and accountable purchasing, distribution and monitoring of drugs and commodities for ART and the essential health package; and
- ensuring that private sector provision of ART is complementary to and enhances the capacity of the public health system.

Various stakeholders from Southern Africa came together in October 2004 at a meeting hosted by EQUINET, Equi-TB Knowledge programme, Malawi, in co-operation with Southern Africa Development Community (SADC) and IDRC, in Malawi. They met to review and refine the proposed monitoring framework and indicators. The principles for this framework now required that the framework should:

- be simple, clear and use existing data;
- be owned by and useful to local, national and regional institutions;
- be integrated within a unified monitoring and evaluation system; and
- inform decision making and action.

A final document with three core indicators and 13 shortlist indicators for equity and health system ART monitoring was produced and circulated for review by different stakeholders including WHO, SADC countries and other organisations. The updated list of indicators is provided in Appendix 1 of this paper. This paper attempts, where possible, to collate and analyse the indicators proposed by Kalanda et al (2004) and the final indicators proposed from the October regional meeting referred to above. It is organised according to the seven key themes suggested by the policy principles.

3. METHODS

The study collated and analysed pre-existing information and indicators from different Malawian stakeholders, such as the Ministry of Health, the National AIDS Commission (NAC), the Ministry of Finance and the Lighthouse. It also analysed sentinel site data from the Thyolo district. All data for the year 2004 (number of patients = 1129) was analysed using epi-info. The team consulted with key informants by telephone or face-to-face. The main key informants consulted were Professor Tony Harries, HIV AIDS Technical Adviser, MoH and Dr Eric Schouten, HIV/AIDS Coordinator, MoH. The team also participated in meetings, policy-making fora and the National AIDS Commission annual conference. Insights and quotations from a qualitative research project conducted at the Lighthouse were used to help explain and contextualise some of the findings. The methodological approach and strategies to enhance trustworthiness in this project have been written up elsewhere (see Makwiza, Neuhann, Chiungezeni, Lalloo, Kemp, 2004). Insights were also drawn from an ongoing qualitative study in the Thyolo district.

The indicators, the approach and the findings in the report were developed in consultation with:

- EQUINET – who have been at the forefront of global and regional advocacy to promote the strengthening of equity and health systems during ART scale-up – through country and regional peer reviews;
- members of the Malawian Equity and ART Working Group (chaired by the Ministry of Health); and
- peer reviews from WHO, SADC and academic institutions in the EQUINET network.

The findings are presented in the following two sections in this paper:

- Section 4, which deals with equity issues; and
- Section 5, which deals with the strengthening of health systems.

4. EQUITY PERFORMANCE IN ART PROGRAMMES

4.1 Fair processes for policy development and monitoring implementation

Through the National AIDS Commission, the government of Malawi initiated a wide consultative process on issues of equity in access to ART. This involved accessing views from grassroots to national level. The decision for such a consultative process was based on recommendations from a special consultation with key stakeholders at a national level meeting held in 2003, where the technical paper by Kemp et al. (2003) on equity in health sector responses to HIV/AIDS, including access to ART, was presented.

The consultative process included the following strategies:

- radio and television programmes;
- a commissioned study; and
- consultative meetings.

4.1.1 Radio and television programmes

A team of five panelists conducted three live phone-in programmes on Malawi Broadcasting Corporation (MBC) Radio 1, FM101 Radio and Capital Radio 102.5 from 27 to 28 January 2004 in Blantyre. The team also conducted two panel discussions on Television Malawi. A total of 76 listeners participated in the programmes, mostly from the major urban centres. The phone-in programmes ensured wide coverage both in the urban and rural areas amongst those with access to radios. MBC Radio 1 in particular has good countrywide coverage catering for both urban and rural populations.

Challenges faced

A few challenges were faced during the phone-in programmes:

- There were limited lines used. For example, there was only one ground line at MBC Radio 1 while at FM101 and Capital Radio callers could only get through if they used a cellular phone. This resulted in only a limited number of people managing to phone.
- The programmes only lasted for 30 minutes, with only MBC Radio 1 having an extension of 15 minutes. Some people kept phoning to give their views after the closure of the programme at each station. In response to these challenges, feedback was also invited from listeners either by letter or telephone after the programme had finished.

4.1.2 Commissioned study

A special study was commissioned in seven districts of the country, which facilitated the soliciting of views from the communities at grass-root level. The study was conducted in seven districts:

- Chiradzulu, Thyolo and Mulanje in the southern region;
- Lilongwe and Salima in the central region; and
- Karonga and Mzimba in the north.

The study mainly used focus group discussions.

Challenges faced

Most study participants were from the rural districts where ART, at the time of the study, was not being provided. So most participants were not familiar with ART, which limited their participation in the group discussions. In addition the reports did not contain enough information on the methodological process to be able to assess accurately the quality of the research process.

4.1.3 Consultative meetings

Six consultative meetings were held with different groups of people:

- 33 people living with HIV;
- 102 young people;
- 10 different public institutions;
- 16 NGOs;
- 29 faith-based organisations; and
- 15 different private organisations.

Five of these meetings were held in Lilongwe, while the meeting with the private sector was held in Blantyre.

Challenges faced

Participants from all the regions of the country attended most of the meetings, although it was noticed that in some meetings the northern region was poorly represented. For example, there were no participants from the north in the meeting with private organisations that was held in Blantyre.

The findings from the consultations were interpreted in the light of the National HIV/AIDS Policy in order to draw up policy principles to promote equity in access to ART. These have been presented in *Box 1* below.

Box 1: Policy principles for promoting equity in access to ART

1. The Government will progressively provide access to affordable, high quality ART and prophylaxis to prevent opportunistic infections (OI), to adults and children who have tested HIV-positive, understand implications of ARV therapy and are medically deemed to be in need of this drug therapy.
2. ART will be provided to the private sector at the subsidized rate of 20% of cost (currently MK500) (inclusive of drug costs, logistics and monitoring activities).
3. To receive ART at subsidised rates private sector providers will be trained, will be made to understand the implications of ART and will participate in national monitoring activities.
4. ART will be provided simultaneously in at least one public sector site in all districts.
5. ART will be free of charge at the point of delivery in the public health sector (including CHAM).
6. At the point of delivery in the public sector, ART enrollment will be on an open 'first-come, first-served' basis.
7. Targeted gender-sensitive health promotion of ART will be made to groups of people considered to be in 'strategic', or vulnerable, situations. These groups will be identified using the following principles:
   a. situations of moral obligation to treat (for example, mothers receiving PMTCT to prevent HIV transmission to their children);
   b. essential human resources in key front-line services (for example, health workers, teachers and civil protection workers);
   c. a maximum multiplier effect for society, whereby treating a strategic group may encourage more people to speak openly of HIV/AIDS, seek HIV testing and early access to care (for example, people living positively with HIV/AIDS);
   d. non-discrimination and pro-poor measures (for example, orphans, remote rural dwellers, sex workers and prisoners); and
   e. cost-effectiveness maximisation in existing public health interventions (for example, TB patients).
8. Implementers will be encouraged to overcome specific geographical barriers to access for remote populations.
9. In the unexpected event that demand for ART outstrips supply, priority considerations will be given to people already on ART, pregnant women and young children.

10. ART provision will support the provision of essential health services, particularly within the public health sector.
11. Equity monitoring (including disaggregation by sex and age) will be conducted as part of the ART scale-up.

The term 'health promotion', as used above, encompasses a wide range of activities that seek to create supportive environments for positive health and behaviour change. It recognises that there are many factors that influence individual behaviour and develops strategies to address barriers to adoption of safer health practices, including health-seeking behaviour, through targeted health education, community mobilisation, development of healthy health policies and laws, and reorientation of health service delivery.

Note that post-exposure prophylaxis (PEP) is treated separately to ART (long-term therapy), and should be available to anyone in need within the time frame specified in the clinical guidelines.

4.1.4 Was the treatment policy developed through a fair process?

The ART policy was developed through a documented and rather unique participatory process. This is to be commended. There were some challenges faced in the participatory process. For example it is arguable that poor women, men, boys and girls may have been excluded from participation in the television and radio programmes. It is also possible that there may have been regional bias in the selection of participants for the consultative meetings, as these took place in the central and southern regions only.

The study collated and analysed pre-existing information and indicators from different Malawian stakeholders, such as the Ministry of Health, the National AIDS Commission (NAC), the Ministry of Finance and the Lighthouse. It also analysed sentinel site data from the Thyolo district. All data for the year 2004 (number of patients = 1129) was analysed using epi-info. The team consulted with key informants by telephone or face-to-face. The main key informants consulted were Professor Tony Harries, HIV AIDS Technical Adviser, MoH and Dr Eric Schouten, HIV/AIDS Coordinator, MoH. The team also participated in meetings, policy-making fora and the National AIDS Commission annual conference. Insights and quotations from a qualitative research project conducted at the Lighthouse were used to help explain and contextualise some of the findings. The methodological approach and strategies to enhance trustworthiness in this project have been written up elsewhere (see Makwiza, Neuhann, Chiungezeni, Lalloo, Kemp, 2004). Insights were also drawn from an ongoing qualitative study in the Thyolo district.

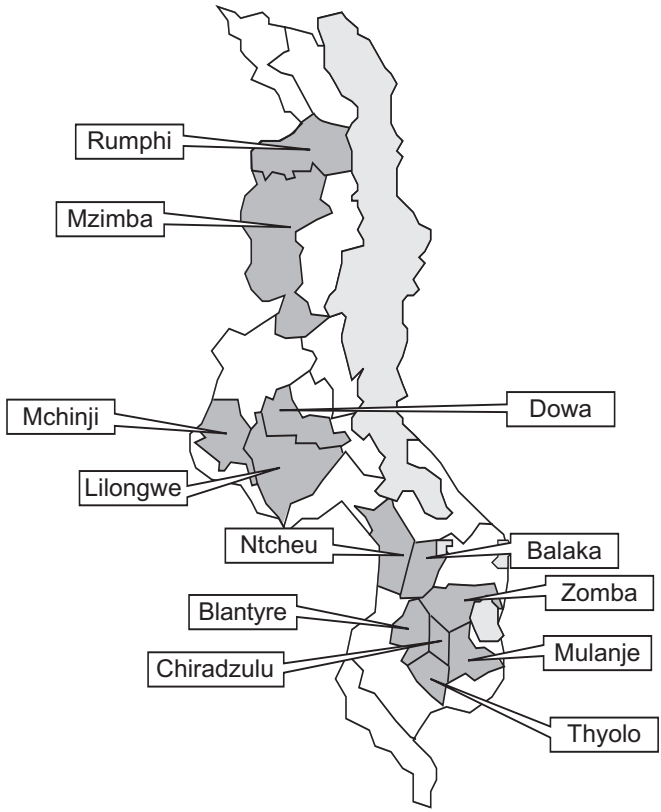
The challenge lies in ensuring that the participatory process is adhered to as ART scale-up unfolds. There needs to be opportunities for wide consultation and reflection on sustained equity monitoring in ART so that policy changes – that reflect the views of different stakeholders – can be made.

4.2 Equitable access to ART with realistic targets

4.2.1 The national picture

Malawi is divided into 26 districts. At the end of 2004, a total of 12 districts had at least 1 centre providing ART. This is illustrated in *Figure 2*. Some districts, especially the urban districts, have more than one centre providing ART: Lilongwe district alone has five centres. While Zomba has three centres (MoH, 2005). However Blantyre, which has a high HIV prevalence rate, has only one public health centre providing ART (ibid.).

Figure 2: Districts in Malawi where ART is provided



Source: MoH 2005.

The Malawi Ministry of Health has collated information on cumulative ART provision for 2004 in the 12 districts of Malawi where ART is provided. Between February and March, 2005, all the health facilities in Malawi that were providing ARV therapy up until the end of 2004 were visited by staff of the HIV Unit, who were accompanied and assisted by staff from their partners – The Lighthouse, MSF-Belgium and Thyolo, and the WHO country-office in Lilongwe. Financial support for these visits was given by the Global Fund. Each visit lasted half a day, during which a structured supervision was carried out, followed by a monitoring and evaluation exercise. Data on the parameters shown below were collected from the Patient Master Cards and the ARV Register. In many facilities, peripheral staff had already carried out their own cohort analyses, and these data sets were checked and amended as necessary by the visiting team. Checks and discussions were held on the system of recruiting and following up patients on ART, and also on how the referral system was working from counselling sites to ART clinics and whether this was being monitored in the VCT Registers (MoH, 2005).

Until the end of December 2004, only 13,183 patients had started ART through the Ministry of Health including Christian Hospitals Association of Malawi (CHAM) hospitals), consisting of 5,274 (40%) males and 7,909 (60%) females. Only 1,121 (8.5%) patients were accessing ART through CHAM facilities. In total, 95% of the patients were adults (13 years old and above), while only 5% were children.

The National AIDS Commission estimates prevalence of HIV/AIDS by districts. Table 1 below breaks down the percentage of total number of people living with HIV and Aids (PLWHA) on ART.

Table 1: Total patients accessing ART by the end of December 2004 in Malawi by sex, district and region

District	Projected numbers HIV positive (NAC, 2004)	ART Patients	Male ART patients	Female ART patients	% On ART	No of Sites per district
Northern region						
Mzimba	22,000	1,270	537	733	5.77	4
Rumphi	6,000	51	17	34	0.85	1
Total	28000	1,321	554 (42%)	767 (58%)	-	5
Central region						
Lilongwe	35,300	3,445	1,694	1,751	9.76	5
Dowa	21,000	11	7	4	0.05	1
Ntcheu	12,000	7	0	7	0.06	1
Mchinji	12,000	105	46	59	0.88	2
Total	80,300	3,568	1,747 (49%)	1,821 (51%)	-	9
Southern region						
Thyolo	46,000	1,666	591	1,075	3.62	2
Blantyre	128,000	1,264	544	720	0.99	1
Chiradzulu	18,000	4,761	1,662	3,099	26.5	2
Mulanje	4,200	225	60	165	5.36	1
Zomba	54,000	289	104	185	0.54	3
Balaka	22,000	89	22	67	0.40	1
Total	272,200	8,294	2,983 (36%)	5,311 (64%)	-	10

Source: MoH 2005 data.

It is important to note that the projected numbers of people who are HIV positive by district in Table 1 above, represents estimates of all PLWHA and is only calculated from the 15-49 age group (NAC, 2004). As a result, these estimates are an under-calculation. The actual percentages of those on ART are actually lower than those calculated above. It was not possible to obtain estimates of PLWHA by district covering the whole population. NAC prevalence estimates show that about 70,000 children are living with HIV/AIDS. From this figure, 0.94% (656) of children with HIV/AIDS are on ART.

4.2.2 Geographical differences in people accessing ART

Most of the patients on ART are from the Southern region: a total of 8,294 patients (62.9%). The Northern and Central regions had only 1,321 (10%) patients and 3,568 (27.1%) patients respectively.

These differences can be explained in part by the history of ART provision in Malawi. ART has been provided free in Chiradzulu and Thyolo by MSF since 2003. These two southern districts have by far the highest cumulative total of patients on ART (3,099 and 1,075 respectively). Through at cost hospital provision, Mzimba, Lilongwe and Blantyre districts in the northern, central and southern regions respectively, have also had longer experience in ART provision, whereas ART provision in other districts is still very new (beginning in 2004). Since June 2004, ART has been provided free in MoH facilities. The predominance of patients on ART in the Southern region can also be explained by the higher HIV prevalence and higher population in this region.

Within the districts themselves, sentinel data from Thyolo district provides some insights. Thyolo has a population of about 475,000 people and an estimated 50,000 people living with HIV/AIDS. Therefore approximately 7,000 to 8,000 people are in need of ART (MSF-Luxembourg, 2004). An equity analysis of routine ARV data from the district up to 2004 showed that the highest numbers of ART clients are coming from the more urbanised Traditional Authorities (TAs). These area include:

- Chimaliro (on the road to Blantyre – Malawi's biggest city);
- Nchilamwera (the site of the district hospital; and
- the two main trading centres in Thyolo – Luchenza and Bvumbwe.

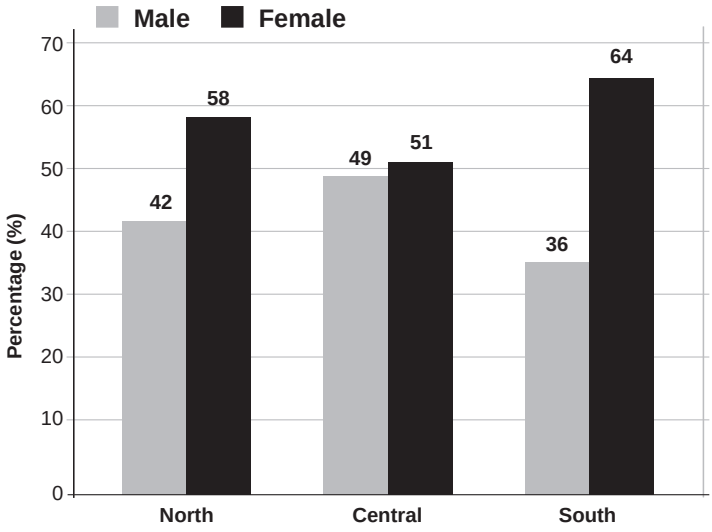
The lowest numbers of ART clients are from Thomas, Nsabwe and Changata which are the more rural and mountainous TAs. This could be indicative of less people from semi-urban areas accessing ART.

By mid-March 2005, Thyolo had 1,795 patients on ART. This figure represents 3.59% of the population living with HIV/AIDS in the area (50,000) and 22% of the PLWHA in need of ART. More people are accessing ART in Thyolo, when compared to levels of national access. However Thyolo is an unusual situation, as there are many extra resources in terms of human resources, financial support and laboratory capacity. Follow-up of ART patients is also decentralised to health centres.

4.2.3 Gender differences in ART access

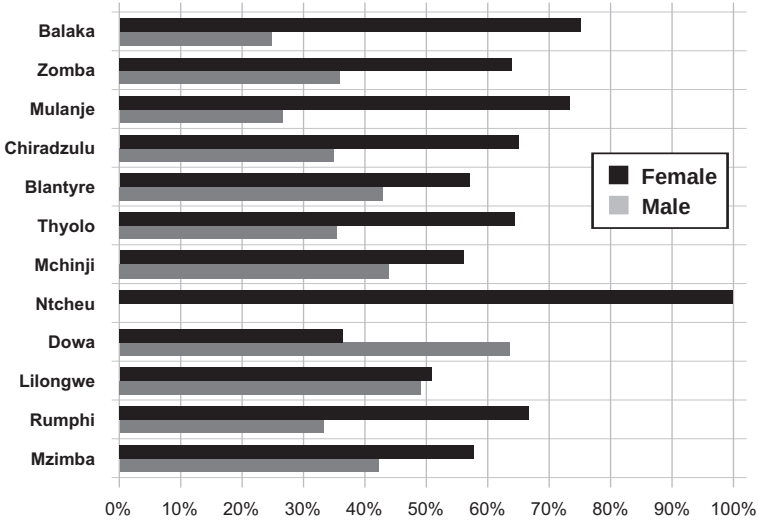
As demonstrated in *Figure 3* there are more women accessing ART than men in every region. Gender differences are particularly pronounced in the Southern region, which has a particular history (see above paragraph). *Figure 4* shows how proportionally there are more women than men accessing ART in every district, apart from Dowa. In Ntcheu no men are recorded as having started ART, so in this district, clients are all women (100%), although the sample size is only 7.

Figure 3: Patients on ART by sex and region



Source: MoH 2005 data.

Figure 4: Percent of women and men accessing ART by district



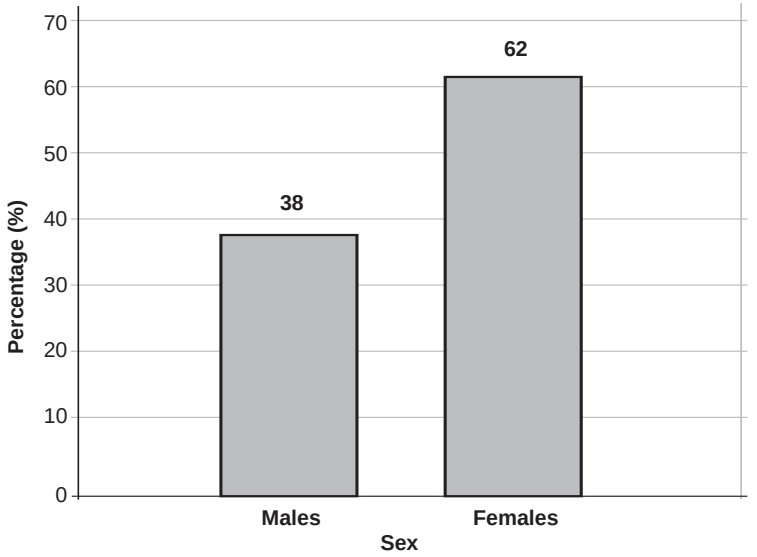
Source: Created from MoH 2005 data.

It is somewhat surprising that there are more women than men accessing ART in every region in Malawi. There is significant global literature documenting the barriers women face in accessing treatment for tuberculosis (TB) and HIV. In the case of TB, the ratios between women and men are very similar. For example, 51.4% of new smear positive cases for TB in 2004 were female. Also, ART access by service points such as tertiary facilities, district hospitals, CHAM facilities consistently show more females than males, except for the army barracks facilities, which have relatively more men (66.1%) than women (33.9%).

In order to interpret gender differences in enrollment on ART it is imperative to know gender differences in HIV prevalence. Limited evidence suggests that more females in Malawi are infected by HIV/AIDS. For example, in the age group 15-24 years, the prevalence among females is four to six times higher than amongst males (NAC, 1999). The HIV infection estimates among the adult population (age group 15-49) is estimated at 58% female and 42% male (NAC, 2004).

All data for the year 2004 (number of patients = 1129) from Thyolo district through MSF-Luxembourg, who are the sole providers of ART in this district was analysed using epi-info. The sex breakdown of ART clients is shown graphically in *Figure 6* and is similar to the national gender differences discussed above.

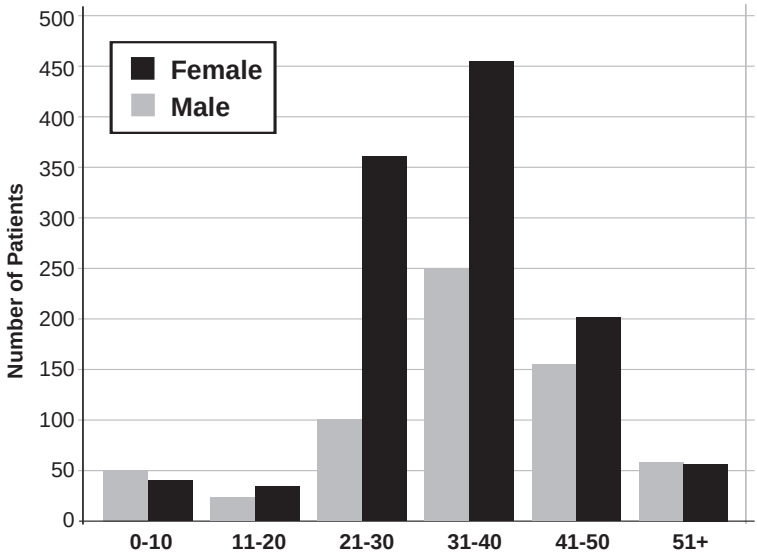
Figure 5: ART clients in Thyolo by gender in 2004



Source: Thyolo site data 2004.

From the Thyolo data the profile of ART clients by sex and by age was analysed. This analysis is presented in Figure 6. The age profile shows that the highest rates of ART access are amongst the 30-34 year-old age group for both women and men. However for women, the second highest rates are in the 25-29 year age group, and for men the 35-39 year age group. This is likely to reflect the epidemiological profile of HIV in Africa – with higher prevalence rates amongst younger women and older men (UNAIDS, 2004). This is because of the dynamics of sexual interactions between older men and younger women.

Figure 6: Number of people accessing ART by sex and age in Thyolo district



Source: Thyolo site data, 2004.

4.2.4 Estimating the proportion of PLWHA who have access to ART by region

Two ways to estimate regional prevalence of HIV/AIDS were used in order to calculate the proportion of people with HIV accessing ART in Malawi:

- *Estimation 1* is based on a 2003 sentinel survey of pregnant women attending antentatal sites (NAC, 2003). This survey was carried out in 19 sites in all three regions of the country. A total of 7,977 pregnant women were captured from 18 February to mid-April 2003 (ibid.). Over 80% of the sample were under 30 years of age.
- *Estimation 2* is based on the proportion of blood donors tested who are HIV positive. Professor Tony Harries (Technical Adviser HIV, MoH) recommended taking either the HIV+ proportion of blood donors or the HIV+ proportion of those accessing VCT services as a way to calculate HIV prevalence. *Table 2* shows that these are fairly similar and blood donors were selected to estimate prevalence.

Unfortunately neither of these estimations are gender sensitive: the first contains only women, and, in the second, sex was not recorded.

Tables 3 and *4* project two different calculations based on these different estimates of PLWHA by region. These calculations can only be seen as broad projections and they are based on projected population estimates data from 2003. The first estimation of HIV prevalence, using a sentinel survey of pregnant women attending antenatal sites, is calculated from the 2003 data, as data for 2004 is not yet available. The projected % of PLWHA on ART is very low and, with the exception of the Southern region in *Estimation 2*, is below 1% in all regions in both estimates. However, not everyone living with HIV/AIDS needs ART. In Malawi, it is estimated that 170,000 people need ART, representing 15 to 20% of all PLWHAs (NAC 2004). Hence we also calculated access to ART according to presumed need, using the mid-point of 17.5% (see last column of both *Tables 3* and *4*). Using this projection, the % range of PLWHA who have access to ART (when needed) is between 2.72% (in the Northern region, based on the 2003 sentinel survey - see *Table 1*) to 6.33% (in the Southern region, based on the percentage of HIV+ blood donors – see *Table 2*).

Table 2: Percentage of HIV positive clients amongst blood donors and VCT clients by region

	HIV tests carried out in 2004 according to region		
	Northern	**Central**	**Southern**
Blood donors tested	8,820	25,423	28,153
Blood donors HIV-positive (%)	1,271 (14%)	289 (11%)	3,928 (14%)
MACRO Site:			
Clients tested	14,700	16,585	17,242
Clients HIV-positive (%)	1,569 (11%)	2,069 (12%)	3,408 (20%)

Source: Situational analysis report, MoH 2005.

Table 3: Estimation 1: Based on a 2003 sentinel survey of pregnant women attending antenatal sites

Region	Total no. of ART patients (Dec 2004)	% HIV+ in 2003	Projected population estimates (2003)	Projected no. of PLWHA (2003)	% of PLWHA on ART	% of PLWHA on ART (presuming 17.5% need to be)
North	1,321	20	1,389,475	277,895	0.475	2.72
Central	3,568	15.5	4,814,321	746,220	0.478	2.73
South	8,294	23.7	5,345,045	1,266,775	0.655	3.74

Source: NAC 2003.

Table 4: Estimation 2: Based on a 2004 analysis of HIV positive rates amongst blood donors

Region	Total no. of ART patients (Dec 2004)	% HIV+ in 2004	Projected population estimates (2003)	Projected no. of PLWHA (2004)	% of PLWHA on ART	% of PLWHA on ART (presuming 17.5% need to be)
North	1,321	14	1,389,475	194,527	0.679	3.89
Central	3,568	11	4,814,321	529,575	0.674	3.85
South	8,294	14	5,345,045	748,306	1.108	6.33

Source: NAC 2005.

It can be seen that in both estimates there are more people accessing ART in the south than in the centre or the north.

4.2.5 Children's access to ART

From an interview with key informant Professor Tony Harries, it is estimated that of the total ART eligible population (170,000), 10 to 15% are children. This translates to about 21,250 children in need of ART. By the end of December 2004, 656 children were on ART, representing a mere 3.1% of all children eligible for ART. There are few sites in Malawi with the capacity to provide ART for children. *Table 5* below shows the sites currently providing ART for children.

Table 5: Sites providing ART for children and number of children on ART

District	Hospital	Number of children on ART
Northern region		
Mzimba	Mzuzu Central Hospital	3
Mzimba	Ekwendeni Mission Hospital	1
Rumphi	Livingstonia Mission Hospital	3
Total		**7**
Central region		
Lilongwe	Lighthouse	151
Mchinji	Kapiri Mission Hospital	4
Total		**155**
Southern region		
Thyolo	Thyolo District Hospital	92
Thyolo	Malamulo Mission Hospital	4
Blantyre	QECH	68
Chiradzulu	Chiradzulu District Hospital	291
Chiradzulu	St Joseph Mission Hospital	20
Mulanje	Mulanje Mission Hospital	5
Balaka	Andiamu Clinic	14
Total		**494**
Grand total		**656**

Source: MoH 2005.

Overall, children's access to ART is lower than adults (3.1% as compared to 3.4% of the adult population for Estimation 1 and 5.1% of the population for Estimation 2). There are also more severe regional disparities. The southern region has more sites and represents 75% of all children on ART. The northern region faces particular constraints in providing ART to children – only seven children so far have been able to access ART in this region.

There are particular challenges in the delivery of ART to children – these include the need for specially trained clinical officers and often longer client–health provider interactions due to the need for more thorough clinical investigations.

4.2.6 How equitable is ART provision nationwide?

At the end of 2004, 12 out of 26 districts (46%) had at least one centre providing ART. This is a dynamic situation and changing quickly as ART scale-up gathers pace. The MoH hopes to have a public sector site providing ART in every district by June 2005 (MoH, 2004).

The number of people accessing ART by the end of 2004 represents 38% (13,183) of the target population (34,500) that the MoH aims to reach by the end of June 2005 (MoH, 2004). The MoH plans to have 80,000 people in Malawi on ART by December 2005. It has worked hard to make ART accessible in challenging circumstances (such as limited human resources). This is to be commended – there are many challenges ahead in increasing scale-up and key equity issues that need to be addressed are:

- geographical issues (some areas still have no provision);
- distribution by age (children have less access); and
- the need to strengthen the human resource base.

There are insights from the more detailed data from Thyolo. The gender breakdown of ART clients in Thyolo is similar to the national picture. There are some gender differences by age – with proportionally more younger women and older men accessing ART, which probably reflects the epidemiological profile. In actual numbers there are more ART clients from semi-urban areas, which may indicate barriers in access to rural clients, but this needs further investigation. It is likely that the semi-urban areas have higher HIV prevalence but it should also be recognised that Thyolo is a largely rural district and it's likely that proximity to the hospital plays a key role. ART provision in the district is now decentralised; therefore it would be important to analyse through time to assess if decentralisation of provision means enhanced access for rural people. Early analysis of qualitative research has highlighted transport to the hospital as a key barrier for rural people in Thyolo in accessing and adhering to ART. Developing strategies to enhance the access of rural people to ART is an important equity consideration in the scale-up of ART in Malawi.

The key challenge we faced in determining whether ART provision is equitable was the type of data that was available for analysis. The data collated on ART clients by the MoH is disaggregated by adult and child only so it was not possible to produce detailed analyses by age band. We

were able to disaggregate regional sex differences in the cumulative number of ART clients by the end of 2004 (which shows more women than men accessing ART in every region) but this is difficult to interpret without data on regional HIV prevalence by sex.

We strongly recommend that data collated in the annual HIV Malawi survey report is sex disaggregated (i.e. male and female status is recorded). This data is collated by the National Tuberculosis Control Programme, MoH, HIV / AIDS Unit, Department of Clinical Services, MoH and the National AIDS Commission.

Sex disaggregation would allow for calculation of the proportion of females and males accessing ART against projected sex disaggregated HIV prevalence rates to enable a thorough gender equity analysis.

It was also challenging to make a meaningful assessment of whether ART is allocated by need at a regional and district level. Our calculations varied depending on which source of prevalence data we used (either sentinel site survey 2003 or the HIV+ rate amongst blood donors, 2004).

The study found numerous challenges in making ART access equitable. For example, the maximum number of patients who can start ART per health unit in a month is set according to the drug ceiling allocated to the particular unit by the MoH. Health facilities are categorised as high-, medium- or low-burden units. The low-burden units provide ART to 25 patients per month while the medium-burden units provide services to 50 patients per month. The high-burden units provide ART to 150 patients per month. In major high-burden units, such as the Lighthouse in Lilongwe and Queens Hospital in Blantyre, demand has outstripped supply, resulting in long waiting lists of patients in need of ART. This has prompted the MoH to raise the drug ceiling for these units. However, this would place additional demands on already overworked staff (see section 5.3 for further discussion on human resources). Staff at one of these high-burden sites felt that they would not be able to cope with putting more patients on ART (Discussion at a meeting to put together the first year plan for National Action Framework for HIV/AIDS, May, 2005).

There were also challenges faced in collecting the data:

- It was difficult to use the prevalence rates estimated by the National AIDS Commission as they do not include children or age groups over 49 years old.
- Other sources that have been used, such as blood donors and prevalence estimates using sentinel surveys of pregnant women attending ANC clinics, are not disaggregated by sex.

- The estimates from the sentinel surveys of pregnant women attending ANC clinics are based on 2003 prevalence, thereby leading to a comparison of 2003 data with the 2004 population of ART patients.
- The proportion of children and adults accessing ART are not really comparable, as they have been calculated differently. The proportion of adults was calculated from estimations from blood donors and sentinel surveys of pregnant women, while the proportion of children was calculated from MoH estimates.

The problems listed above are likely to be reduced by positive developments, as results from the District Health Survey will be available in September 2005 (see Box 2). These results will provide estimates of HIV prevalence disaggregated by sex and age, allowing a meaningful analysis of equity access to ART.

Box 2: The DHS – sampling and information sought

The sampling frame used in the DHS will provide national and regional estimates of HIV prevalence. Respondents include 13,000 women aged 15-19 and 5,000 men aged 15-54. A total of 15,000 households were sampled.

The features and modules on HIV/AIDS in the DHS include:

- AIDS Behaviour;
- AIDS Knowledge – Questions to assess knowledge/sources of knowledge/ways to avoid contracting AIDS; and
- AIDS Testing.

Source: http://www.measuredhs.com/countries/metadata

The forthcoming availability of prevalence data from the DHS is a welcome development. However, ongoing age and sex disaggregated data collection is still needed, as the DHS is conducted only every five years. To ensure ongoing gender and equity monitoring and evaluation, annual data is needed.

4.2.7 How have user charges affected ART uptake in Malawi?

The Malawian situation is interesting as ART was provided at cost at some centres, namely The Lighthouse in Lilongwe from 2002 and Queen Elizabeth Central Hospital in Blantyre. With funding from the Global Fund, ART was provided free from June 2004. The Lighthouse provides a useful case study to explore ART uptake by gender and socio-economic status before and after ART became free.

The Lighthouse, which registered as a charitable trust in 2001, provides a continuum of care for people affected by and infected with HIV. Under the umbrella of the Ministry of Health (MoH), it has operated the ART clinic for Lilongwe Central Hospital since July 2002. It also offers a variety of other services, including home-based care, HIV voluntary counselling and testing, and clinical care (WHO, 2004).

A study by Mhango et al (2005) compared patients seeking care at the Lighthouse from 2001 to 9 June 2004 (n=2164) with patients seeking care after 10 June 2004 (n=693), when ART started to be provided free. The analysis found out that patients initiating ART at the Lighthouse after the 10 June 2004 (n=693) were more likely to be women (58% after 10 June vs 50.3% before 10 June) and younger (mean age: 34.7 years vs 37.2 years, $p<0.0001$) and have a higher CD4 count (97.4 vs125.6, $p<0.001$).

The study showed that free ART may enable more women, younger patients and those at an earlier stage of immnunosuppression to start ART.

In qualitative research conducted during the time when patients had to pay for ART, cost clearly emerged as the main barrier for patients to access and adhere to ART. The research explored HIV-positive patient's perceptions of the barriers to access and adherence to ART through a naturalistic qualitative study, using critical incidence narratives (CIN) and focus group discussions (FGDs) with female and male patients. These were conducted by Ireen Makwiza, an experienced social scientist. Analysis was conducted by a broader research team using a framework approach.

Cost was the main barrier for both female and male patients. The cost of accessing ART has implications for individuals, family units and the broader extended family networks.

The following are quotes from women and men on the barriers presented by cost:

'Yes it true that most people are failing because of lack of money, they know that there are these drugs but they cannot come because of money' (Focus Group discussion [FGD] with women).

'It is expensive, it is the money which will cause most of us even though we have started we will die early because we will stop taking the treatment' (FGD with women).

'The main thing that cause people not to start treatment is money because most people's income in Malawi is less that K3000, so if you think of

getting K2,500 just for yourself to buy medicine, how are you going to survive in the house? Most people still buy the medicine with an intention to protecting their lives but it is bringing a lot of financial problems' (FGD with men).

"Only that most of the money is going to buy medicine so that to feed your family then there are also some children in school and it means they will need to have enough money for school even in your family you cannot even eat decently [eat three food groups] so that because of the medicine other things do not go well so this in future could make some one to say it is better I just stop taking the medicine and die' (CIN with a woman aged 34).

(Source: Makwiza et al, 2005)

In a context of limited resources and costly drugs, individuals and families have to make very difficult decisions about who should access ART. There was some evidence that where men are the breadwinners they are likely to prioritise access to ART drugs for themselves.

The following are quotes from men, explaining the difficult decisions that have to be made when accessing ART:

'So the problem that is there is that we men are selfish, selfish in the way that we are only buying medicines for ourselves and denying our partners to buy the medicine as well. May be if it were halved but K2500, how much money are do we get?'

'Like some of we are failing to have our partners at home to be getting the medicine as it is expensive and I cannot pay K5000, and then make sure we are eating and paying rent from the same amount. I can't manage, so it would help if the cost was lowered a little.'

(Source: Makwiza et al, 2005)

From a qualitative study focusing on caregivers of children, cost of drugs was reported as a major reason why parents and guardians could not put their children on ART.

The following are quotes from women on the difficulty of accessing ART for their children:

'My child did not start treatment because of money as now I am alone, and my parents are not wealthy so from the money that I get I cannot afford to use MK2,500 for the drugs, as well as pay rent and even if you buy medicine you also need a good diet other wise what is the point sleeping hungry. It would be better if may be I could find a bit more money which I

could use to start a business to help. But right now it is difficult' (CIN with a woman whose child was not on ART).

'I told her father that our child had been found with the problem of HIV but because at the time we did not have money we did not start the child on treatment earlier on' (CIN with a woman whose child was initiating ART).

(Note: At the current exchange rate (2005), MK2,500 is the equivalent of US$22 per month.)

Source: Makwiza et al, 2005.

Both sets of data arguably highlight the barriers faced in accessing ART by poor women and men and people with more advanced HIV when drugs were provided at cost. The data therefore provides a powerful argument to the notion that making ART drugs free should increase access to all groups. The challenge is to ensure that this is the case as ART roll out increases.

5.HEALTH SYSTEM ISSUES IN ART PROGRAMMES

5. 1 Fair and sustainable financing and accountable financial management

Table 6 shows the proposed financial plan for all HIV/AIDS programmes, including the provision of ART for the year 2004/5.

Table 6: Financial plan for the financial year 2004/05: AWP according to source of funding and contributions by funding partner

Pillars	Global Fund (US$000)	UNDP (US$000)	CDC (US$000)	ADB (US$000)	Pooled Partners* (US$000)	TOTAL (US$000)
Prevention & behavioural change	761	34	0	68	1,594	2,457
Sectoral mainstreaming	0	1,996	0	0	3,356	5,351
Treatment care and support	36,046	35	537	26	1,251	37,895
Impact mitigation	600	295	0	26	1,288	2,209
Monitoring, evaluation and research	367	177	236	11	1,810	2,602
Leadership, coordination & programme management	750	366	66	69	4,017	5,467
TOTAL	**38,523**	**2,903**	**839**	**400**	**13,317**	**55,982**

*Pooled Partners consist of World Bank, DFID, NORAD, Canadian CIDA and Malawi Government.

Source: NAC, 2004.

Table 7 shows clearly that by far the greatest amount of funding for treatment care and support is coming from the Global Fund. A similar trend is observed in funding specifically for the scale-up of treatment for opportunistic infections (OIs) and ART.

Table 7: Funding specifically for the scale-up of OI treatment and ARV therapy

Funding Source	Amount (US$)
Global Fund	29,141,424
UNDP	35,000

Source: NAC, 2004.

According to information available, the scale-up of ART in Malawi mainly relies on funding from the Global Fund. It is difficult to ascertain the share of domestic versus external funding for HIV care and treatment, as the contribution from the Malawi Government is captured within the pooled funding.

Overall it is estimated that the Malawi Government contributes about a quarter of national health expenditure. The first National Health Accounts (NHA) exercise in 2001 showed that the government contributed US$3 per capita towards the total health expenditure of US$12.4 per capita. The remaining contributions were from donors (US$4) and from private sources, with US$3 coming from out-of-pocket expenditure from households (Kemp et al, 2003). Malawi, like many countries in Sub Sahara Africa, will in the near future need the support of the international world in scaling up its ART access initiatives. However, it should be recognised that government makes other significant health systems contributions to ART provision, including the provision of infrastructure, trained staff and laboratories, as well as providing stewardship and decision making.

The current GFATM commitment to funding HIV/AIDS programmes is for five years starting from 2003. For ART provision to be sustainable, given the relatively low levels of Malawi budget resources, Malawi will need mechanisms for ART funding that can withstand changes in international donor funding for ART (NAC, 2005). For the higher-income users of the private sector, the policy on equity to access ART suggests putting cost-recovery measures within the private sector for the cots of drugs. It is proposed that this should happen after the capacity has been built in the private sector for ART delivery and ART provision has scaled up. Initially the cost of providing ART in the private sector is set artificially low in order to scale up ART provision, build the capacity of the private sector and relieve the burden on the public sector. Given the potential negative impact of user charges on access, the policy paper also suggests other mechanisms for domestic resource mobilisation, including the government introduction of a 'levy' on items such as fuel, tobacco and beer to support the purchase of ART. The sustainability and equity of financing for ART will need to be more thoroughly explored in future equity analyses.

5. 2 Integrating an ART programme into priority health services

The HIV/AIDS unit in the Ministry of Health assesses health facilities and trains health personnel for ART delivery, with assistance from partners.

5.2.1 Readiness assessment

ART is only provided to health facilities if they are assessed as 'ready' to provide treatment. Formal site assessments were carried out in 59 hospitals/health facilities in the country. By 29 Dec 2004, 47 hospitals/health facilities had passed, 5 had failed, and 7 still had some tasks to do before final approval for starting ART. To be assessed as ready to provide ART, facilities need to meet the following criteria:

- A health team must attend a formal classroom training and all members of the team must pass the classroom exam.
- An ART clinician and nurse must complete a satisfactory clinical attachment.
- A satisfactory report on a site assessment.

An initial briefing of all 54 health facilities on ART scale-up took place in March 2004. All 54 health facilities sent application forms to commit personnel and the health facility to supporting ART scale-up by the deadline on 1 May 2004. Two key resource materials (guidelines for ARV treatment and guidelines for the treatment of HIV-related diseases) were completed earlier in the year. A thousand copies of each set of guidelines were distributed to health-care workers.

Staff training has two major components: classroom training and clinical attachments. The classroom training aims to make staff knowledgeable about the ARV treatment guidelines and guidelines for the treatment of HIV-related diseases. It involves lectures, group sessions, problem oriented exercises and reading. The HIV Unit at MoH is the major 'trainer' of health staff, assisted by The Lighthouse, the College of Medicine, Thyolo-MSF, Chiradzulu- MSF, the Malawi Defence Force and Kamuzu College of Nursing. The MoH has conducted intensive training of staff from 59 facilities. The training was based on lectures, group sessions, problem-oriented exercises and reading in class. A pre- and post-exam is taken and the current pass rate for the post-course test is 70%. By the end of 2004, 10 six-day ARV training modules and three five-day training modules for the private sector had been developed. The MoH provides private sector health personnel with a two-day training, followed by an examination. Staff from 49 private facilities underwent the training and passed, with results forwarded to the Malawi Medical Council. Participant feedback on the course is positive.

Table 8 below shows the number of personnel who have undergone the ART training by 6 March 2005 from the 59 public sector sites, the TB programme, the MoH and NGOs from the private sector. A further 40 pharmacy technicians at hospital level were trained to provide ART in August 2004.

Table 8: Number of staff trained for ART delivery

Health staff	Number trained
Public sector:	**631**
Doctors	85
Clinical officers	216
Nurses	295
Other staff (TB programme, MoH, NGO)	35
Private sector:	**155**
Doctors	31
Clinical officers	30
Nurses	94

Source: MoH, 2005.

Clinical attachments follow classroom training and are based at The Lighthouse, Queen Elizabeth Central Hospital and Thyolo-MSF. By the end of December 2004, 112 staff from 59 sites have satisfactorily completed the attachments.

The MoH now has plans to include ART training in the pre-service training in College of Medicine, Kamuzu College of Nursing and the Malawi School of Health Sciences Curricula. A crash course has also been arranged for the all final year students (MoH, 2005)

5.2.2 Capacity to plan, monitor and evaluate the ART programme

The HIV unit at the MoH is responsible for monitoring and evaluating the ART programme. The unit is also involved in spearheading the provision of ART therapy, counselling and HIV testing, and the management of HIV-related diseases. The Unit has seven members of staff, including a driver and a secretary. The number of personnel is small considering the enormous work that they are entrusted to do.

Tools have been developed for monitoring and evaluation and were pilot tested in Thyolo. Quantities of the tools required countrywide have been printed. These tools have been distributed to all 59 facilities in the country.

Table 9: The monitoring tools and the number of copies printed

ART monitoring tools	Number printed/copied relative to the number of service points and the number of patients still to be initiated on ART
ARV patient register	90
ARV drug register	60
ARV patient master card	65 600
ARV patient master ID	60
ARV patient ID stamp for health passport	32 000
ARV Quarterly cohort analysis forms	810
ARV cumulative cohort analysis forms	300
ARV/CT monitoring forms for NTP	300
ARV site assessment forms for ART readiness	60

Source: MoH, 2005.

Quarterly monitoring is conducted by the HIV/AIDS unit in the MoH, in conjunction with partners from The Lighthouse, MSF-Belgium and the WHO country office.

5.2.3 Impact of the monitoring and evaluation on ART delivery

Feedback from Professor Tony Harries indicates that it is still too early to determine whether the findings from the monitoring and evaluation (M&E) of ART delivery are affecting management, functioning, responsiveness and the outcomes of the ART programme. However, the information provided has meant that the third and latest HIV/AIDS situational analysis (2004) is the most robust and comprehensive so far. For the MoH the information provided through these tools gives a strong indication of how well each site has scaled up according to the drug ceilings they were allocated.

Data collection for M&E has been increasingly merged with supervision (as in the NTP model). This trend is positive because supervision, and feedback, is built on actual M&E data, which is done on regularly, in other words, quarterly. This will make the ART programme more responsive in monitoring the effects of inputs on health outcomes (Diagram 1) The MoH have also deliberately included a number of partners, i.e. from the Lighthouse and CDC in these monitoring/supervision visits in order to build capacity amongst partner organisations.

Quarterly data collection and the situational analysis report have been widely circulated within the country and internationally. This is good practice in terms of the dissemination of programme outcomes and debate.

A lot of energy and resources have gone into preparing sites to be able to deliver ART. Health providers are enthusiastic to help, as shown by 100% return of application forms to commit personnel and the health facility to supporting ART scale-up by deadline on 1 May 2004, despite chronic understaffing in the Malawian health sector (see next section). Training has been organised for staff from both the public sector (HIV- and TB-health providers) and the private sector (to date 544 staff have been trained from the public sector and 118 from the private sector), illustrating a positive attempt to include both.

The integration of services is strongest between HIV and TB services. The TB programme has a post for a TB/HIV Officer whose responsibilities include integrating TB and HIV services. Routine counselling and testing is offered to all TB patients, and those who are HIV + are offered Cotrimoxazole. This service has been scaled up countrywide to include all adults and children living with HIV/AIDS (MoH, 2005). In sites where ART is available, TB patients are referred for ART services. For example, according to the MoH (2005) data, 11% (351) of ART clients nationwide in 2004 were initiated on ART as a result of being diagnosed with TB. The TB/HIV Officer also takes the lead in the situational analysis data.

The MoH HIV unit plans to learn from the TB experience and push out routine counselling to patients with sexually transmitted infections (STIs), inpatients in hospital and pregnant women attending ANC. There are plans to proactively give priority for CD4 testing to pregnant women, and so increase the numbers who are eligible for ART (as they may seem well but have low CD4 counts). Pregnant women are also identified as a strategic group to be treated in the policy for equity in access to ART. Providing ART to pregnant women is important for women's own health, will reduce transmission to babies and should also decrease the numbers needed for PMTCT. Providing ART to pregnant women has not yet started to take place but is in the planning process.

Table 10 synthesises the information collected in this section to demonstrate the different levels of integration of ART services with other health services.

Table 10: Integration of ART with other health services

Health service points	Integration
TB	++++
ANC	++
STI	+
In patients in hospitals	+

Source: Author's interpretation of available data.
Legend: The higher the number of +s the higher the level of integration

Integration may be impeded by programmes being funded by different donors and therefore reporting differently according to the requirements of different donors. As a potential barrier to integration, these differences will be addressed under the unfolding 'sector-wide approach', which will facilitate integration through joint planning and pooled funds.

5. 3 Production and retention of human resources for priority health services

Malawi is facing a severe human resource crisis. It cuts across all sectors, but is particularly problematic in health. The vacancy rate – the number of established posts that are unfilled – at MoH stands at 75%, the highest of all sectors (DHRMD and UNDP, July 2003; cited in Africa Human Development Report, 2005). *Table 11* shows the vacancy rates in MoH and CHAM in 2003.

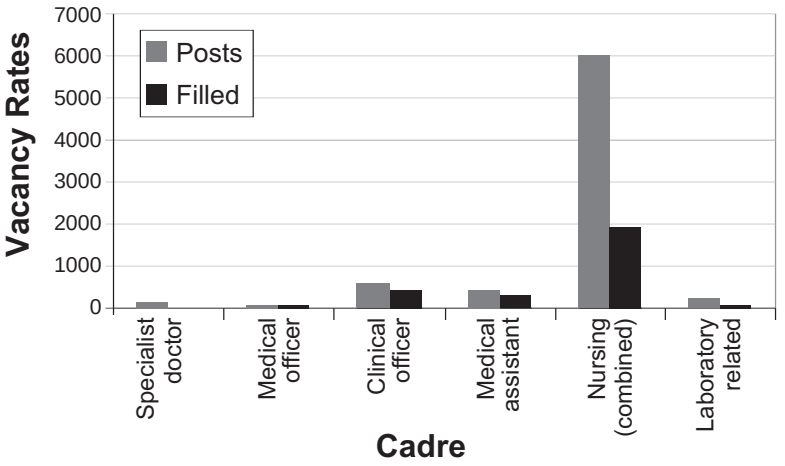
Table 11: Vacancy rates by cadre for the MoH and CHAM, 2003

Staff	MoH			CHAM		
	Posts	Filled	Vacancy rate (%)	Posts	Filled	Vacancy rate (%)
Specialist doctors	151	27	82.0	n.a.	n.a.	n.a.
Medical officers	93	63	32.3	36	21	41.7
Clinical officers	563	425	24.5	123	79	35.8
Medical assistants	464	285	38.6	278	154	44.6
Nursing (combined)	5,966	1,932	67.7	1,933	905	53.2
Laboratory -related staff	190	76	41.0	183	73	60.1

Source: Health Planning Services Department (2003) Tables 7 & 11; Issues and Challenges paper, p.33 for CHAM [reproduced from the Africa Development Report, 2005, p. 23].

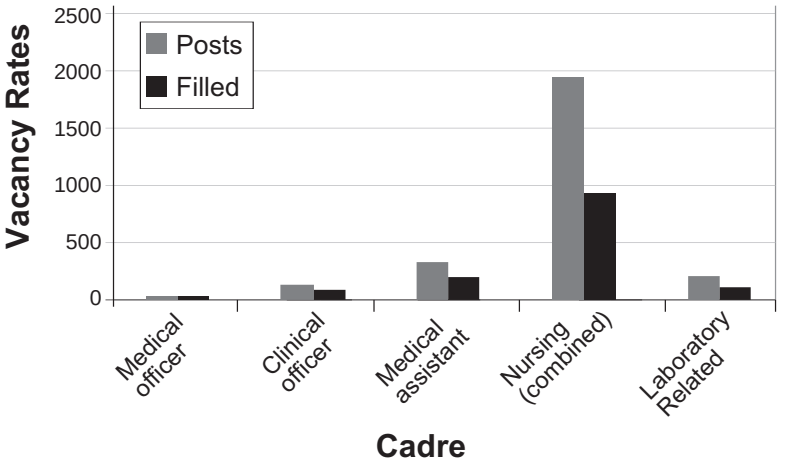
The numbers given in *Table 11* are illustrated in the form of graphs in *Figures 7* and *8*.

Figure 7: Vacancy rates in the MoH by cadre



Source: Health Planning Services Department (2003) Tables 7 & 11; Issues and Challenges paper, p.33 for CHAM [reproduced from the Africa Development Report, 2005, p. 23].

Figure 8: Vacancy rates in CHAM facilities by cadre



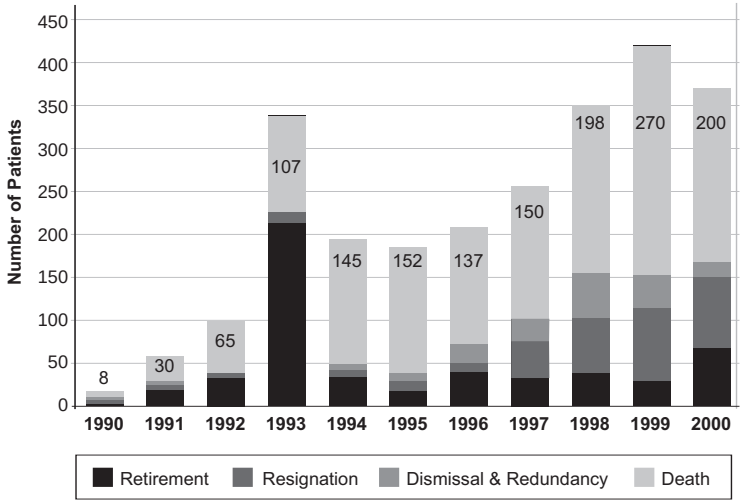
Source: Health Planning Services Department (2003) Tables 7 & 11; Issues and Challenges paper, p.33 for CHAM [reproduced from the Africa Development Report, 2005, p. 23].

The high vacancy rates in the MoH pose serious challenges to the equitable and sustainable delivery of ART in Malawi. Vacancy rates in those posts that are essential in ART delivery are particularly high – namely, doctors (82%) and nursing officers (77.4%). Clinical officers are also critical to ART delivery and have relatively high vacancy rates (24.5%). The ratio of doctors to population is estimated at 1 : 100,000, as compared to the WHO recommendation of 1 : 12,000. At the same time, the ratio of nurses to population is 1 : 3 500 (MoH, 2003, quoted in Aitken and Kemp, 2003).

The distribution of available health personnel also favours urban areas, with 50% of doctors working in the four tertiary hospitals of the country. Staff shortages have a negative impact on the end users, who have reported poor staff attitudes and long waiting times as barriers faced in government health facilities (Chilowa, Devereaux, Kadzandira and Mvula, 2001; Kabwazi, Kishindo, Salanoponi, Squire and Kemp, 2001; Kapulula, Chilimampunga, Salaniponi, Squire and Kemp, 2001). The human resource crisis in the public sector is one of the key reasons behind the explicit decision in Malawi to collaborate with the private health sector in the delivery of ART, as further overloading of the public sector could be detrimental (see section 5.4 for further discussion).

The documented reasons behind attrition in the MoH are summarized in *Figure 9.*

Figure 9: Attrition of personnel from the Ministry of Health



Source: UNDP (2002), taken from the African Human Development Report.

Figure 9 clearly shows that attrition has increased throughout the 1990s. The reasons behind this attrition and consequent human resource crisis have been well articulated elsewhere (Africa Development Report, 2005; Aitken et al, 2003); and can be briefly summarised as due to the following causes:

- *Death:* The proportion of attrition of health workers due to death is increasing and is likely to be in part at least due to HIV/AIDS (see Figure 9). The age and sex profiles of the deaths corresponded with the prevalence of HIV in the general population. Particularly high mortality rates were found among technical and front-line staff.
- *Resignation to work elsewhere within Malawi* (for the private sector, non-governmental organisation [NGOs] and donors): The current training capacity is only directed at replacing staff lost each year. In 2000/01, 30 nurses graduated from Kamuzu College of Nursing and only 2 joined the government of Malawi (GoM) while the rest went to NGOs.
- *Resignation to work overseas* (referred to as 'the brain drain', especially amongst doctors and nurses).
- *Resignation due to low and stagnant salaries:* Non-governmental organisations can offer wages 8 to 10 times higher than government can. (Salaries in the MoH in Malawi are significantly lower than those in Tanzania and Zambia [Valentine, 2003]). See Table 12.
- *Resignation due to poor working conditions.*

Table 12: Comparative monthly salaries of health workers in sub-Saharan Africa

Country	Minimum salary-earner (US$)	Median salary-earner (US$)	Top salary-earner (US$)	Ratio top to minimum compensation	Ratio top-to median compensation
Botswana	127	857	3,803	30 : 1	4 : 1
Malawi	31	45	3,403	110 : 1	76 : 1
Tanzania	58	251	1,028	18 : 1	4 : 1
Uganda	44	192	1,108	25 : 1	7 : 1
Zambia	40	145	1,357	34 : 1	9 : 1

Source: Valentine, TR (2003), Table 1, from the Africa Human Development Report, 2005.

There is a critical need to address Malawi's human resource crisis in order to try and promote equity in the provision of ART, as well as in the delivery of all health services per se. A plan is underway to begin tackling this human resource crisis (see *Box 3*), although this has not yet been realised.

Box 3: Planning to address the human resource crisis in the Malawian health sector

The Ministry of Health developed a comprehensive approach to the human resource crisis in Malawi's health sector - its *Proposed Six-Year Human Resource Relief Programme for the Malawi Health Sector.* The programme is dovetailed with the Programme of Work and takes account specifically of the requirements for the scale-up of ART. This relief package is short of the minimal acceptable outcome for providing a basic level of health services, but represents the maximum affordable and implementable initial target. The proposed programme offers a three-prong strategy for reaching staffing targets for ten professional and technical health cadres of Ministry of Health and Christian Health Association of Malawi (CHAM) staff. It will balance long-term goals with short-term measures by:

- improving incentives for the retention and recruitment of Malawian staff;
- providing external stopgap recruitment of physicians, and
- ensuring a significant expansion of domestic training capacity.

Source: Department for International Development (DFID), 2004.

In a human resource crisis such as the one in Malawi, there is a real danger that the provision of ART could have negative effects on personnel time available for the delivery of other services. Vacancy rates amongst key health staff pose a serious danger to equity in ART provision and equity in the provision of all other services. This problem needs to be addressed urgently and the six-year Human Resource Relief Package offers a good way forward. Health workers are attempting to rise to the challenge of providing ART, which brings additional workloads. Their efforts and commitment need recognition and endorsement.

At this early stage of the ART programme, there is limited evidence to suggest increased workloads. Efforts have been made for each centre to commit one clinical officer, a nurse and a clerk for ART services. However, with increasing number of patients, the core staff may not be enough. In one site, human resource capacity has had a direct impact on the numbers that can be initiated on ART, as the staff feel they cannot cope with more patients if drug ceiling for the hospital were raised. Qualitative

monitoring would be required to further assess the burden that ART programme has on health systems.

Currently clinical officers (COs) and nurses provide ART. This will not be sustainable with the present numbers of clinical officers in the country and the targets for ART delivery. If COs continue to be mainly responsible for ART provision then it is likely that this will become their main responsibility, to the detriment of other services. This is well recognized by the MoH and there are plans to pilot the decentralisation of service provision in the following ways:

- by cadre, in other words, by ensuring that medical officers and health surveillance assistants play a role; and
- according to institution/levels of care, in other words, by moving ART services from hospitals to health centres.

Decentralisation will be piloted in more-established ART delivery sites, such as Thyolo, Blantyre and Lilongwe districts. In Thyolo, treatment initiation is done at the district hospital but follow-up is decentralised to the health centres. ART delivery in Thyolo started in 2003 with support from MSF- Luxembourg.

However, despite the need for decentralisation due to the demand for the treatment, there is also a need to establish skills and infrastructure amongst core staff first. The MoH would like to build up skills and systems amongst clinical officers and nurses in the hospital setting in the first instance before decentralising further.

5.4 Private sector provision of ART that complements and enhances public health services

It is estimated that 17% of health care is provided by companies, while private for-profit providers account for 14% of health care (National Health Accounts, 2001). The JICA inventory of health facilities indicates that there are over 51 private providers in Malawi (excluding CHAM and other non-profit providers). CHAM provides approximately up to 37% of healthcare in Malawi (Martin –Staple, 2004).

Private sector provision of ART that is complementary to and enhances public health services is part and parcel of Malawi's approach to the provision of ART. The explicit focus on incorporating the private sector in the provision of ART (which is evidenced in the joint training discussed earlier) has been for the following reasons:

- the lack of capacity in the public health sector;
- the argument that, if more of the middle classes access ART in the

private sector, there will be more resources for poorer people retained in the public sector; and

- to try to reduce the possibilities of resistance (source: Key informant interview with Erik Schouten)

A proposal to formalise the delivery of ART through the private sector and relationships between the MoH and private sector providers was finalised in 2005. Following a number of consultations, it was approved a high level committee in the MoH. The proposal details the modalities of this cooperation. The major features of the proposal are the following:

- *Costs of ART in the private sector:* ART will be provided to the private sector at the subsidised rate of 20% of costs, inclusive of drug costs and logistics and monitoring activities. The price of consultations will not be regulated – only the price of the ARVs. The factors influencing the cost of ARVs are noted. In order to create clarity for all involved, especially the patients taking ARVs, and to prevent confusion, prices for ARVs should ideally be uniform and irrespective of the composition and or form of the tablets The policy therefore proposes a flat rate price (MK500) for ARVs in the private sector, to be paid by patients for a month's supply of ARVs, regardless of the kind of drugs provided (whether first-line, alternative first-line or second-line drugs).
- *Dispensing fee for the private sector:* The private sector will deliver the ARVs for MK500 for each month's supply of ARVs. The private sector will pay these collected monies, minus a fee for the delivery of the ARVs, to the NAC where they will be used to support the ART programme in the private sector. The policy therefore proposes a dispensing fee for the private sector of MK200 per month's supply of ARVs.
- *Payment:* Payment to the NAC is to be quarterly and paid in retrospect.
- *Application to become an official ART delivery site and certification of approved ART delivery sites:* The process for receiving applications from and the certification of private sector ART delivery sites will be similar to the application and certification processes in the public sector.
- *Contract (MOU) between the MoH, the NAC and the private sector ART delivery site:* A contract (MOU) between the MoH, the NAC and potential private sector ART delivery sites is to be developed.
- *Procurement of ARVs and the modalities of drug distribution:* Currently Malawi is procuring ARVs through UNICEF with Global Fund monies. There are enough monies available to

purchase extra ARVs using monies from the Global Fund. The current starter packs and continuation packs will be used and purchased with monies from the Global Fund. Starter packs and continuation packs do not need to be adapted.

- *Dispensing of ARVs:* All private sector ART delivery sites must possess an accreditation certificate.
- *Monitoring and supervision:* The HIV/AIDS Clinical Unit in the MoH has limited capacity to take on board the rollout of ARV therapy in the private sector. The Malawi Business Coalition to Fight HIV/AIDS (MBCA) is willing to take a lead in the rollout of ARV therapy in the private sector. The MoH will therefore develop a proposal with MBCA and/or any other relevant body to manage the management, monitoring and supervision of the ART rollout programme in the private sector.

Working collaboratively with the private sector is therefore an explicit strategy in the delivery of ART in Malawi. The plans to take this forward are underway. The challenge will be to monitor and evaluate how ART delivery operates in practice and to collate information on who (by age, sex, district and so on) accesses services from which type of provider.

6. CONCLUSIONS AND RECOMMENDATIONS

As illustrated in Figure 1, ART provision in Malawi has the potential to strengthen health systems in terms of:

- creating extra resources for service provision;
- maintaining and motivating health staff;
- providing opportunities for stewardship;
- creating positive links with the private sector; and
- ensuring more equitable service delivery, and responsive and accountable services.

It is too early to make clear statements about whether ART provision will strengthen (virtuous cycle) or weaken (vicious cycle) the Malawian health system. However, it is clear that the increased resources coming with ART provision and the increased demands on health service provision will affect the health system in multiple ways (such as resources, allocations, strains on human resources and the relationship between health service providers and clients). There is a critical need for responsive and ongoing monitoring and evaluation to highlight the situation on the ground. This needs to be well disseminated so that interventions and adaptations can be made to try to maximise the chances of ART provision supporting rather than undermining the functioning of the health sector and the accountability and responsiveness of the health sector to the needs of Malawian women, men, girls and boys.

Malawi's policy on equity in access to ART is commendable both as a participatory process and as an end product. The policy is, however, arguably limited, as it does not look at broad health system issues such as human resource capacity, financing, drug and pharmaceutical issues. Access to ART needs to be seen as part and parcel of the whole health system.

ART scale-up has been relatively impressive in Malawi. It is a great credit to Malawi that ART drugs have been provided free since June 2004. This has indisputably positive implications from an equity and rights perspective. Qualitative insights from The Lighthouse from before June 2004 clearly highlighted the barrier that payment presented to patients accessing and adhering to ART. Complementary quantitative analysis from the same site demonstrates that, since ART has been provided free, more younger clients, more females and more patients with lower

immuno-suppression have been accessing services. These people might otherwise have faced barriers to access because of their inability to pay.

It is difficult to conclude if ART access is equitable because of the absence of data with gender- and age-sensitive prevalence rates in the country. The situation is also complicated by different approaches to estimating prevalence. It is hoped that the findings from the DHS will facilitate easier interpretation, as they will provide more accurate and better-disaggregated estimates of HIV/AIDS prevalence. However, in addition to the five yearly DHS, there is an urgent need for ongoing data disaggregation according to age, sex and whether patients are living in urban or rural areas. Unfortunately, this will result in an extra workload to those collecting the data but it is necessary for equity analysis. The need for data to be disaggregated is being increasingly recognised by policy makers. They have to work hand-in-hand with data collectors to develop an awareness of why this additional data is needed to inform decision-making processes in Malawi.

The analysis shows that, from an equity perspective, children have relatively less access to ART than adults. In Estimation 1, 3.1% of children accessed ART, compared to 3.4% of adults. In Estimation 2, 1% of children accessed ART, compared to 5.1% of adults. Clearly, this is an area that arguably needs enhanced investment.

There are also critical geographical barriers that need addressing. By the end of 2004, the majority of districts did not have access to ART, but this situation is changing and by the end of 2005, all districts should have at least one health centre providing ART. Sentinel analysis from Thyolo (indicating that there is less access to ART by people living in more rural tribal authorities) and insights from qualitative data (indicating that transport and opportunity costs are a barrier to access) show that people living far from centres that provide ART may struggle to access these services.

At the end of 2004, estimates based on the data collated for this report show that 7.8% of Malawians from the NAC estimates of 170,000 people in need of ART, actually had access to ART. So from an equity perspective there is a clear need for further provision of ART:

- to all districts in Malawi;
- where possible, in a decentralised way, to enhance access; and
- in such a way that takes into consideration the particular needs for certain groups, such as children.

Further provision obviously places additional demands on an already overstretched health system, which already has high vacancy rates amongst the very cadres that are integral to ART provision (clinical

officers, nurses and pharmacists). This problem has been well recognised by the MoH and key players in the health sector in Malawi. Being mindful of human resource challenges, there have been admirable efforts to try to integrate ART services within the broad health system and for the public sector to work hand in hand with the private sector in ART provision.

Overall progress on the implementation of the ART equity policy principles is shown in *Table 13* below.

Table 13: Progress on the implementation of ART equity policy principles

Policy principle	Progress
1. The Government will progressively provide access to affordable, high-quality ART and prophylaxis to prevent opportunistic infections (OI), to adults and children who have tested HIV-positive, who understand the implications of ARV therapy and who are medically deemed to be in need of this drug therapy.	Government is providing ART free to patients deemed eligible for ART, who understand the implications of the drug and who are deemed medically in need of the drug. This is a very positive development. However, there are long waiting lists in some major centres. There are few ART centres – therefore not all PLWHAs have access to ART.
2. ART will be provided to the private sector at the subsidised rate of 20% of cost (currently MK500) (inclusive of drug costs, logistics and monitoring activities).	A memorandum of understanding has been agreed with the private sector. Drugs have been ordered for 30 private facilities (some from companies).
3. To receive ART at subsidised rates, private sector providers will be trained, will understand the implications of ART and will participate in national monitoring activities.	Training of private sector by Ministry of Health has started. As of May 2005, the MoH has trained 250 private sector providers.
4. ART will be provided simultaneously in at least one public sector site in all districts.	Twelve districts will have at least one public sector site providing ART by the end of December 2004, and 16 districts by February 2005. Forty more health sites will receive drugs by the middle of June.

Policy principle	Progress
5. ART will be free-of-charge at the point of delivery in the public health sector (including CHAM).	ART is free of charge at the point of delivery in the public health sector.
6. At the point of delivery in the public sector, ART enrollment will be on an open 'first-come, first-served' basis.	Enrollment is on a 'first come, first served' basis. However, there are anecdotal observations that queue jumping does occur.
7. Targeted gender-sensitive health promotion of ART will be made to groups of people considered to be in 'strategic' or in vulnerable situations. These groups will be identified using the following principles: a. situations of moral obligation to treat (for example, mothers receiving PMTCT to prevent HIV transmission to their children); b. essential human resources in key front-line services (for example, health workers, teachers and civil protection workers); c. a maximum multiplier effect for society, whereby treating a strategic group may encourage more people to speak openly of HIV/AIDS, seek HIV testing and get early access to care (for example, people living positively with HIV/AIDS); d. principles of non-discrimination and pro-poor measures (for example, orphans, remote rural dwellers, sex workers, prisoners); and e. cost-effectiveness maximisation in existing public health interventions (for example, TB patients).	The Health Education Unit has taken on board the development of health promotion materials. There are plans for CD4 counts to be made available to all HIV-positive mothers, so that they can access ART early. Routine counselling and testing of all TB patients implemented.

Policy principle	Progress
8. Implementers will be encouraged to overcome specific geographical barriers to access for remote populations.	
9. In the unexpected event that demand for ART outstrips supply, priority considerations will be given to people already on ART, pregnant women and young children.	There is evidence of long waiting lists in high-burden centres, largely due to human resource constraints. Prioritisation in this situation has not taken place.
10. ART provision will support the provision of essential health services, particularly within the public health sector.	ART is now costed within the essential health package.
11. Equity monitoring (including disaggregation by sex and age) will be conducted as part of the ART scale-up.	Monitoring is conducted by the HIV unit. Within the MoH initially, data was not disaggregated by age but this issue has been taken up, resulting in increasing sex disaggregation of data. REACH Trust, with the Equity and ART Working Group and EQUINET, has conducted an equity analysis of ART scale-up, which will be an annual activity.

Integration of ART services within the essential health package and the broader health system should have synergistic benefits. For example, the additional resources provided for ART delivery (largely through the Global Fund) could strengthen other essential health services and might facilitate the early entry of patients into ART treatment. Integration between TB and ART services in Malawi is strong, and joint monitoring and data collection takes place, which reduces the burden on human resources. There is a need for stronger integration with other services such as ANC and STI service delivery points and hospital inpatients. Plans for this are underway.

Impressive strides have been made in the development of collaborative working relationships between the public and private sector in ART provision through, for example, joint training, monitoring and data

collection processes. This partnership should be further strengthened when the proposal for work with the private sector comes on line.

Increasing human resource capacity is probably the major challenge for ART service delivery in Malawi. The country is facing a severe human resource crisis. The vacancy rate in the MoH at 75% is the highest of all sectors (DHRMD and UNDP, July 2003; cited in Africa Human Development Report, 2005). Despite this there appears to be an enthusiasm amongst staff to deliver ART and it is impressive that all 54 health sites submitted application forms to commit personnel and the health facility to supporting ART scale-up by the 1 May 2004 deadline. There is a need for ongoing opportunities for dialogue with health service providers on the effects of ART provision on work loads, work experience and morale. There is also a clear need to strengthen human resources in the health sector through efforts to retain current staff and to train new staff. This is a priority for MoH and is being supported by donors, such as DFID.

Finally what is paramount is the ongoing need for multi-method monitoring and evaluation so that challenges can be addressed early and opportunities can be found to both promote equity in ART provision and the provision of the broader essential health package. Analysis of existing quantitative data is important, but can raise challenges in interpretation. There is a need for complementary qualitative monitoring which can facilitate the interpretation of findings from the quantitative analysis and the development of interventions to promote equity and the strengthening of health systems. For example qualitative monitoring could bring further insights into barriers to access, especially in the rural areas and with regard to health care providers' perceptions on what ART provision means for their workload, interaction with patients, motivation and retentions. In addition, due to severe human resource constraints, feasibility studies should be conducted to inform and support decentralisation of ART according to cadre and health centre level.

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APPENDIX: MONITORING INDICATORS

Core indicators and 13 other indicators developed in the October 2004 EQUINET/Equi-TB meeting with SADC and other partners (EQUINET, Equi-TB, TARSC 2004) as revised through consultation (EQUINET December 2004)

Indicator(s) proposed in 2004 regional meeting	Proposed revised indicator(s)
Core indicators	
Three core indicators were identified: 1. The number of clients on ART disaggregated by gender and by age as a share of the total number of people eligible for ART. 2. The number of clients on ART disaggregated by level of care (primary, secondary/district, tertiary or quaternary /central) as a share of total clients on ART. 3. The number of clients on ART disaggregated by rural/urban tenure as a share of the total number of people eligible for ART.	**Two core indicators were identified:** **Equity:** 1. The number of ART clients as a share of the total number of people eligible for ART disaggregated by: – gender (male or female); – age (adult or child); and – tenure (rural or urban). **System:** 2. The number of clients on ART as a share of the total number of clients on ART disaggregated by: – level of care (primary, secondary/district, tertiary or quaternary/central); and – geographical area (province or district). *In interpreting this data, it would be necessary to complement indicators with mapping of ART points by district and an assessment of the levels of migration across areas to access ART.*

Indicators of fair policy development	
3. Publicly available documents describe a consultative process through which the policy was developed, and provide the rationale for decisions that were made.	3. Publicly available documents that describe a consultative process through which the policy was developed, the rationale for decisions made and who was involved in the decisions. *Complement this with descriptive information on other aspects of fair process listed in the wider set of parameters developed at the Malawi meeting.*
Indicators of equity in access to ART	
4. The number of clients on ART disaggregated by gender and by age as a share of the total number of people eligible for ART. 5. The number of clients on ART disaggregated by urban/ rural status as a share of the total number of people eligible for ART.	4. The number of clients on ART as a share of the total number of people eligible for ART disaggregated by: – gender (male or female); – age (adult or child); and – tenure (rural or urban). 5. Percentage of districts with ART facilities, by province. *Deeper equity monitoring needs to be supported by sentinel site monitoring, where more accurate SE indicators can be collected.*
Indicators of fair financing	
6. Share of domestic vs external funding for ART and for HIV and AIDS programmes. 7. Annual change (increase) in ART financing relative to total HIV and AIDS budget. 8. Annual change in ART financing relative to total funding of PRSP sectors.	7. Share of domestic vs external funding for ART specifically, and for HIV and AIDS programmes in general. 8. Annual change (increase) in ART financing relative to changes in: – the total amount of money allocated to HIV and AIDS; – the total amount of money allocated to the health sector; and – the total amount of money allocated to PRSP priority sectors.

Indicators of fair financing	
9. Proportional allocation of ART financing relative to equity gap, as measured by number of people on ART in the target population as a share of the number of people eligible for ART.	9. Percentage of change to ART funding above current allocations needed to finance the gap of differences between actual and target outcomes (for example, the difference between the number of people eligible for ART and the number of people on ART in the target population). 10. Proportion of people on ART paying for or sharing the costs of treatment over the total number of people on ART. *Assessments of external funding shares would also need to comment on the time frames of external support. Deeper equity monitoring needs to be supported by sentinel site monitoring, where more accurate SE indicators can be collected.*
Indicators of integration into health services	
11. Proxy: Percentage of TB patients referred for ART screening; percentage of ART clients coming from TB programmes. 12. Proxy: Number of ART carers who are specialist for ART as a share of the number of ART carers who are general health workers. 13. Immunisation rates in districts with and without ART services.	10. Percentage of TB patients referred for ART screening; percentage of ART clients coming from TB programmes. 11. Percentage of PTMCT patients referred for ART screening; percentage of ART clients coming from PTMCT programmes. 12. Ratio of ART carers who are specialists for ART to ART carers who are general health workers. 13. Change in immunisation rates and ANC attendance before and after ART. *These indicators need to be complemented by operations research, interviews with health programme managers and more detailed surveillance.*

Indicators of equity in the public-private mix	
14. Number of ART clients accessing treatment from public sector services as a share of the total number of ART clients (disaggregated by age and gender). 15 Percentage of people with advanced HIV accessing ART through the public, private for-profit and private not-for-profit sector facilities as a share of people with advanced HIV – disaggregated by age and gender.	9. Percentage total ART clients accessing treatment from the following service providers: – public sector facilities; – private for-profit facilities; – private not-for-profit facilities; – workplace facilities; and – faith-based services. *This indicator should be disaggregated by gender and age.* *This area needs to be complemented by operations research on public-private resource flows, in part due to the difficulties in accessing private sector data.*
Indicators of human resources for health	
16. Number of health care workers per 100,000 members of the general population in the public, private for-profit, private not-for-profit sectors.	16. Number of health care workers (specifically doctors, nurses and counsellors) per 100,000 members of the general population within the public, private for-profit and private not-for-profit sectors. *This area needs to be complemented by district surveillance of health worker internal migration, assessment of HIV prevalence in health workers*

LIST OF ABBREVIATIONS AND ACRONYMS

ADB	The African Development Bank
ART	Anti-retroviral therapy
ARV	Anti-retroviral
CCM	Country Coordinating Mechanism
CDC	The Centre for Disease Control, USA
CHAM	The Christian Health Association of Malawi
CIDA	The Canadian International Development Agency
DFID	The Department for International Development
DHS	Demographic Household Survey
EQUINET	The Southern Africa Regional Network For Equity in Health
GFTAM	The Global Fund For Tuberculosis, AIDS and Malaria
GOM	The Government of Malawi
IDRC	The International Development Research Centre, Canada
JICA	The Japan International Cooperation Agency
LH	The Lighthouse
MBC	The Malawi Broadcasting Corporation
MBCA	The Malawi Business Coalition Against HIV/AIDS
MoH	The Ministry of Health
MSF	Medicins Sans Frontiers
NAC	The National AIDS Commission
NHA	National Health Accounts
NORAD	Norwegian Development Aid
NTP	The National Tuberculosis Programme
OI	Opportunistic infections
PLWHA	People living with HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission
SADC	The Southern African Development Community
SWAp	Sector Wide Approach
TB	Tuberculosis
UNAIDS	The Joint United Nations Program For HIV/AIDS
UNDP	The United Nations Development Fund
VCT	Voluntary Counseling and Testing
WHO	The World Health Organisation

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Equity in health *implies addressing differences in health status that are unnecessary, avoidable and unfair. In southern Africa, these typically relate to disparities across racial groups, rural/urban status, socio-economic status, gender, age and geographical region. EQUINET is primarily concerned with equity motivated interventions that seek to allocate resources preferentially to those with the worst health status (vertical equity). EQUINET seeks to understand and influence the redistribution of social and economic resources for equity oriented interventions, EQUINET also seeks to understand and inform the power and ability people (and social groups) have to make choices over health inputs and their capacity to use these choices towards health.*

EQUINET implements work in a number of areas identified as central to health equity in the region:

- Public health impacts of macroeconomic and trade policies
- Poverty, deprivation and health equity and household resources for health
- Health rights as a driving force for health equity
- Health financing and integration of deprivation into health resource allocation
- Public-private mix and subsidies in health systems
- Distribution and migration of health personnel
- Equity oriented health systems responses to HIV/AIDS and treatment access
- Governance and participation in health systems
- Monitoring health equity and supporting evidence led policy

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