Will we achieve universal access to HIV/AIDS services with the health workforce we have?
A snapshot from five countries

Task Force on Human Resources for Universal Access,
Global Health Workforce Alliance

World Health Organization
Will we achieve universal access to HIV/AIDS services with the health workforce we have?

A snapshot from five countries


This piece of work has been commissioned by the Global Health Workforce Alliance (the Alliance), a partnership hosted by the World Health Organization (WHO), as part of its mandate to implement solutions to the health workforce crisis. In preparation of the report the Alliance is grateful to all the members of the Task Force on Human Resources for Universal Access.
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Foreword

The world has committed to the target that by 2010 countries will have achieved Universal Access to prevention, treatment and care for HIV/AIDS for all who need it; and that by 2015, they will have halted and begun to reverse the spread of HIV/AIDS. The global shortage of human resources for health is a major obstacle to scaling up HIV services for universal access and achieving the health-related Millennium Development Goals.

Many diverse factors influence countries’ ability to achieve universal access, such as socio-economic issues, the strength of health systems, infrastructure, delivery and supply systems, personnel, programs for prevention, counseling, and testing, as well as equitable provision of anti-retroviral therapies.

Recognizing these many challenges, the Global Health Workforce Alliance (The Alliance) established a Technical Work Group (TWG) to examine and provide guidance on the HRH Implications of Universal Access to HIV Prevention, Treatment, Care and Support. The TWG was co-chaired by experts from UNAIDS and CDC/USA, who worked closely with all members of the TWG, which included experts from USAID, UNAIDS, USAID CapacityPLUS Project, WHO, and The Alliance. Support was provided by Intrahealth International which led the Secretariat.

Accepting an ambitious mandate, the TWG built on existing knowledge, analyses, and reports to collect and document evidence from different country contexts. The experts brought together evidence on how HIV/AIDS and HIV/AIDS investments impact health workforces. They identified innovative HRH strategies and approaches being used in different countries. They reviewed HRH issues arising in the interface between the HIV/AIDS response and health system strengthening in various countries. The group synthesized country experiences of concrete ways the HIV/AIDS response has enhanced or caused imbalances in HRH.

From this groundbreaking work emerged an evidence-based understanding of the essential ingredients needed to provide policy recommendations that can bring about better synergies between the scaling up of the AIDS response and the urgent need to build sustainable HRH, while maintaining progress made on AIDS.

To capture up-to-date information, between 2008 and 2010 the TWG conducted rapid situational analyses in 5 countries: Côte d’Ivoire, Ethiopia, Mozambique, Thailand, and Zambia. This collaborative effort involving The Alliance, Ministries of Health, international HRH specialists, and WHO country offices, has allowed us to identify in those 5 countries:

- the health workforce implications of scaling up to meet the MDG targets
- gaps and challenges that relate to country goals/targets for HIV/AIDS
- country-specific promising practices that promote scale-up towards universal access to HIV/AIDS services and progress made to date
- critical interventions that will address challenges and lead to effective scale-up
- a way forward to meet health workforce needs for Universal Access to HIV Prevention, Treatment, Care and Support, including leadership action and partner support required to enable critical interventions.
Three critical conclusions have emerged from this work and require the urgent attention of all stakeholders in all countries concerned:

1. As of mid-2010, the Universal Access to HIV Prevention, Treatment, Care and Support target is far from being met.

2. What is lacking is strong and unified action from countries and partners to build on knowledge gained and create momentum for resources, policies, and programs to tackle identified gaps.

3. The attention given to HIV prevention must be increased.

This report shares the evidence-based results from this effort and describes critical interventions to ensure there are sufficient human resources for health to support the scale up towards universal access to HIV/AIDS prevention, treatment, care and support.

National level decision makers, planners, and implementers who work to close the health worker gap will find in this pioneering report practical guidance to address the HRH challenges to scale up HIV/AIDS services.

It is our hope that decision-makers and all other stakeholders will act on the recommendations and strategic direction put forward in this report.

Dr Mubashar Sheikh
Executive Director,
Global Health Workforce Alliance
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Members of the Technical Work Group

- Co-Chairs: Dr. Mark Stirling (UNAIDS) and Dr. Tom Kenyon (CDC/USA)
- Dr. Estelle Quain (USAID)
- Dr. Karl Dehne (UNAIDS)
- Dr. Jim McCaffery (USAID CapacityPLUS Project)
- Dr. Erica Wheeler (WHO)
- Dr. Sonia Diaz-Monsalve (The Alliance)
- Dr. Badara Samb (WHO)

Members of Country Teams

- **Côte d’Ivoire**: Dr. Virginie Etiegne-Traore, Ministry of Health and Mr. Dick Wall, Capacity Project, Training Resources Group
- **Ethiopia**: Dr. Gijs Elzinga, Capacity Project, Intrahealth International; Dr. Degu Jerene, WHO; Dr. Gebrekidane Mesfin, WHO; and Dr. Samrawit Nigussie, Ministry of Health
- **Mozambique**: Ms. Wanda Jaskiewicz, IntraHealth International; Dr. Maria Ines Tomo, WHO; Dr. Francisco Langa, Ministry of Health; Dr. Hilde De Graeve, WHO; Dr. Catherine McKinney, CDC; and Dr. Lucy Ramirez, CDC
- **Thailand**: Ms. Thidaporn Jirawattanapisal, Ministry of Public Health; Dr. Suwit Wibulpolprasert, Ministry of Public Health; Dr. Sombat Thanprasertsuk, WHO; and Dr. Thidakorn Noree, Ministry of Public Health
- **Zambia**: Dr. Gijs Elzinga, The Capacity Project, Intrahealth International; Dr. Susan Tembo-Zimba, WHO; and Mr. Isaac Kakumbi, Ministry of Health

Secretariat for the Technical Work Group supplied by Intrahealth International

- Wilma Gormley, Training Resources Group
- Dana Singleton, Intrahealth International
- Vikka Moldrem, Intrahealth International
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>ANC</td>
<td>Antenatal care</td>
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<tr>
<td>ART</td>
<td>Antiretroviral Therapy</td>
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<td>ARV</td>
<td>Antiretroviral drugs</td>
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<td>CBO</td>
<td>Community based organization</td>
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<tr>
<td>CHW</td>
<td>Community health worker</td>
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<tr>
<td>CINAHL</td>
<td>Cumulative Index for Nursing and Allied Health Literature</td>
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<tr>
<td>CIDRZ</td>
<td>Center for Infectious Disease Research, Zambia</td>
</tr>
<tr>
<td>CL</td>
<td>Compulsory Licensing</td>
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<tr>
<td>COP</td>
<td>Country Operational Plan (required for PEPFAR assistance)</td>
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<tr>
<td>DFID</td>
<td>UK's Department for International Development</td>
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<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
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<tr>
<td>FBO</td>
<td>Faith-based organization</td>
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<tr>
<td>GFATM</td>
<td>Global Fund for AIDS, TB and Malaria</td>
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<tr>
<td>HEP</td>
<td>Ethiopia's Health Extension Program</td>
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<tr>
<td>HEW</td>
<td>Health Extension Worker, the CHW of Ethiopia</td>
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<tr>
<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<tr>
<td>HR</td>
<td>Human resources</td>
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<td>HRH</td>
<td>Human resources for health</td>
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<tr>
<td>HRIS</td>
<td>Human resources information system</td>
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<td>HRM</td>
<td>Human resources management</td>
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<td>HRMS</td>
<td>Human resources management system</td>
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<tr>
<td>HSP</td>
<td>Health Sector Plan</td>
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<tr>
<td>HSS</td>
<td>Health Systems Strengthening (a type of program funding by donors such as GFATM)</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>IST</td>
<td>In service training</td>
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<tr>
<td>MARP</td>
<td>Most At Risk Population (for potentially contracting HIV)</td>
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<td>MCH</td>
<td>Maternal and Child Health</td>
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<tr>
<td>MDG</td>
<td>Millennium Development Goal(s)</td>
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<tr>
<td>MoF</td>
<td>Ministry of Finance</td>
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<tr>
<td>MoH</td>
<td>Ministry of Health, sometimes called Ministry of Public Health</td>
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<tr>
<td>NGO</td>
<td>Non-government organization, usually referring to a non-profit service organization</td>
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<tr>
<td>OI</td>
<td>Opportunistic Infection</td>
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<tr>
<td>PEP</td>
<td>Post-exposure prophylaxis</td>
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<tr>
<td>PEPFAR</td>
<td>U.S. President's Emergency Plan for AIDS Relief</td>
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<tr>
<td>PLHIV</td>
<td>Person or People Living with HIV</td>
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<tr>
<td>PMTCT</td>
<td>Prevention of Mother to Child Transmission (of HIV)</td>
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<td>PPE</td>
<td>Positive Practice Environment</td>
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<tr>
<td>PSE</td>
<td>Pre-Service Education</td>
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<tr>
<td>PUBMED</td>
<td>A free digital archive of biomedical and life sciences journal literature maintained by the U.S. National Institutes of Health</td>
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<tr>
<td>STI</td>
<td>Sexually transmitted infection</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<tr>
<td>TIMS</td>
<td>Training Information Management System</td>
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<td>TWG</td>
<td>Technical Working Group</td>
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<tr>
<td>UA</td>
<td>Universal Access to HIV treatment, care, support and prevention services</td>
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<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
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<td>USAID</td>
<td>US Agency for International Development</td>
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<tr>
<td>UNGASS</td>
<td>United Nations General Assembly 26th Special Session, at which was adopted the Declaration of Commitment on HIV/AIDS</td>
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<td>WHO</td>
<td>World Health Organization</td>
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With universal access to HIV/AIDS prevention, treatment, care and support, UNAIDS estimates that approximately 6.7 million people would receive antiretroviral treatment, 2.6 million new infections could be averted and 1.3 million lives could be saved. While much progress has been made, of the 9.5 million HIV positive people in need of treatment in lower and middle income countries in 2008, only 42 percent had access. Among the many factors that affect countries' ability to provide universal access, the presence of a strong, motivated, and diverse health workforce where sufficient skilled health care providers are accessible by all segments of the population is a key programmatic need. Many countries with significant HIV/AIDS epidemics do not have enough health care workers to provide basic health, let alone HIV/AIDS services.

Recognizing the global human resources for health (HRH) shortage, the Alliance commissioned a task force to examine the HRH implications of scaling up to reach the Millennium Development Goal 6 of universal access (UA) to HIV/AIDS prevention, treatment, care and support by 2010. This report shares the results from this work and describes critical interventions to ensure there are sufficient HRH to support the scale up toward universal access.

The analysis and interventions recommended in the report are based on two research methods: literature reviews covering the period from 2000 to 2010, and a rapid situational analysis of five countries to confirm and add depth to findings from the literature reviews, provide insights on country-specific problems, and identify promising practices.

The literature reviews identified five major areas for needed action with broad applicability across countries:

- Investment in human resources strategies and initiatives to reduce health care worker turnover and emigration rates.
- Strengthening of human resource management (HRM) practices and systems capacity.
- Greater emphasis on HRH for HIV prevention to reduce the demands for treatment.
- Consideration of task shifting as a strategy to overcome health workers shortages.
- Improvements in productivity of existing health care workers.

For each of the country-based rapid situational analyses, a two- or three-person team, comprised of an HRH expert and an HIV program expert from the country (either from WHO or from the Ministry of Health) collected data and interviewed knowledgeable informants over a 10-day period. Côte d’Ivoire, Ethiopia, Mozambique, Thailand and Zambia were selected because of diversity in levels of progress towards UA, willingness of WHO and MoH officials to participate, and

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interesting program characteristics (such as task-shifting practices). Each country provided a steering group of HIV experts representing different stakeholders to identify key informants, guide the interview process, and follow up with relevant officials on report findings and recommendations.

Country interview teams focused on four main questions:

- What promising HRH practices exist that have a positive impact on scale-up?
- What are the HRH gaps or challenges that relate to the country goals/targets for HIV services?
- What are the most critical HRH interventions to address these challenges and lead to effective scale-up?
- What leadership action and partner support are required to enable implementation of HRH scale-up?

Findings from the five-country analyses were discussed and debated in Geneva on March 23 and 24, 2010, leading to agreement on key findings and needed actions, reflected in this report.

The five-country analyses identified these major gaps and challenges hindering scale up of HRH for UA:

- Inadequate resources for scale up: There are not enough resources to fund the HR required to scale up to universal access, despite substantial donor contributions. The exception is Thailand where UA has nearly been reached, thanks to long-term, continuous investment in health and strong emphasis on prevention services.
- Attrition and low morale: Dissatisfaction with low salaries, large workloads, and difficult working environment reduces health worker morale, increases absenteeism, and leads to high attrition, particularly in the rural and hardship areas and among hard-to-reach populations.
- Weak human resources management: Except for Thailand, HR management systems are overly bureaucratic and weak. This is a system-wide problem, not restricted to HIV/AIDS workers, and requires system-wide solutions.
- Poor information systems for human resources in health: Basic HRH information is often unavailable or fragmented. Computerized human resource information systems (HRIS) exist in all five countries, but are not yet sufficiently developed to provide needed information for health HR in general, including HRH working on HIV/AIDS.
- Poor resource allocation between pre-service education (PSE) and in-service training (IST): PSE is time-consuming and costly; tutors and instructors are scarce, making in-service training (IST) essential in the short term. However, IST is not well coordinated and is not tracked in HR information systems, leading to inefficient use of resources, which could otherwise be used to strengthen pre-service education.
Insufficient focus on the HIV prevention workforce. Because much effort has been focused on HRH for HIV treatment, there appears to be insufficient attention paid to the HIV prevention workforce.

Despite these challenges, there are areas of progress and innovation that can be built on.

- There is government ownership and commitment to counter the epidemic.
- Donors are engaged and provide significant support.
- Each of the five countries is engaged to some degree in task shifting practices, resulting in increased capacity to provide HIV/AIDS services, though some countries lack policies and regulations to guide the task-shifting process.
- Community health workers (CHWs) are becoming an integral part of the health workforce and have potential to expand HIV services, especially in prevention, care and support.
- The five countries are all engaged in activities to locate more health care providers in under-served areas and to improve retention.
- Some countries have begun integrating HIV/AIDS service delivery into their national package of health care services, in order to use scarce HRH more efficiently.
- All five countries either have developed HRH Strategic Plans or are developing them, though the plans are not fully operational because of lack of funding and other issues.

Based upon the gaps, challenges, and progress identified, the report suggests broad areas in which critical interventions are needed to scale up HR for UA. For each critical intervention, the report suggests specific actions that countries and the international community can take to implement it.

- Re-energize country leadership action through creation of an inclusive stakeholder leadership group tasked to develop an advocacy strategy to mobilize leadership support to close the HR gap to Universal Access (MDG) achievement.
- Develop global guidelines for appropriate human resources components of national programs to achieve universal access; e.g. how and when HIV/AIDS should be integrated into broader health services and when it is best treated as a vertical program. Guidelines should be developed and agreed on through a global collaborative effort of key donors (e.g., GFATM, PEPFAR, WHO, UNAIDS, DFID) to provide consistent guidance to countries.
- Estimate country HRH requirements to achieve national UA targets for HIV services, including numbers needed by skill and service delivery level, competencies needed for each level, current workforce and vacancy rates by cadre and distribution.
- **Strengthen human resources management systems** through development and strengthening of professional, and adequately funded HR units or directorates in Ministries of Health.

- **Initiate prioritized implementation of costed HRH Strategic Plans**, presented as an assembly of separate, coherent “building blocks”, each with carefully developed budgets, which can be implemented within financial limitations and as management systems are able to support them. A small but inclusive inter-sectoral steering group led by an HRH plan implementation leader should direct and monitor implementation of these building blocks.

- **Expand successful HRH approaches**, particularly task shifting and community health worker cadres, including the development and implementation of national policies to support these practices.

- **Address health worker retention, motivation and job satisfaction** through financial and non-financial incentives, several of which are described in the report.

- **Going forward, increase the attention given to HIV prevention.**
“Universal access is a global commitment to scale up access to HIV treatment, prevention, care and support. The movement, enshrined in the 2006 UN Political Declaration, is led by countries worldwide with support from UNAIDS and other development partners including civil society.”

A. Purpose of this report

As of 2008 according to UNAIDS 7,400 people become infected with HIV every day. With universal access to HIV/AIDS prevention, treatment, care and support, UNAIDS estimates that approximately 6.7 million people would receive life-saving antiretroviral treatment, 2.6 million new infections could be averted and 1.3 million lives could be saved. Achieving universal access would also be a critical mid-way point to reaching the Millennium Development Goal 6 (MDG 6) to “halt and reverse the AIDS Epidemic” by 2015. Achieving universal access would also have a significant impact on broader health and development goals such as maternal mortality, poverty and gender equality.

There are many factors that influence countries’ ability to achieve universal access: social issues addressed by multi-sectoral programs such as legal reform, women’s empowerment and basic education; strength of health systems; and programmatic needs (infrastructure, equipment, delivery and supply systems, and personnel) of programs for prevention, counseling and testing, ART and PMTCT. Among these factors, the presence of a strong, motivated, and diverse health workforce where sufficient skilled health care providers are available in service delivery sites accessible by all segments of the population is a key programmatic need. Many countries with significant HIV/AIDS epidemics do not have enough health care workers to provide basic health services, let alone HIV/AIDS services. The World Health Organization (WHO) in its 2006 World Health Report estimates a global shortage of 4.3 million health care workers. The Alliance estimates that an additional 1.5 million trained workers are needed to address the health care shortfall in Africa alone. It is estimated that the needed investment in the health workforce will require US$ 62 billion until 2015, or 25% of the total additional investment in health over and above current commitments.

Recognizing the global health worker shortage, the Alliance commissioned a Task Force to examine the HRH implications of scaling up to reach the MDG of universal access to HIV/AIDS prevention, treatment, care and support. From this Task Force, a Technical Work Group (TWG) emerged, supported by a secretariat staffed by Intrahealth International, the lead organization in the

3 See the UNAIDS publication “What Countries Need: Investments needed for 2010 targets”, UNAIDS/09.03E – JC1681E (English original, February 2009).
4 Dr Hirotsugu Aiga, Alliance Coordinator, Global Health Workforce Alliance, XVIII International AIDS Conference, Vienna, Austria, Mar 2010 Unpublished PowerPoint.
Will we achieve universal access to HIV/AIDS services with the health workforce we have?

USAID-funded human resources for health (HRH) project, CapacityPLUS. The TWG’s work covered a literature review, protocol development for a common study across countries, preparation and completion of rapid situational analyses in five countries, and dissemination of results and follow on action.

This report shares the results from this work and describes critical interventions to ensure there are sufficient HRH to support the scale up toward universal access to HIV/AIDS prevention, treatment, care and support. Target audiences for this report are national level decision makers, planners, and implementers who work to close the gap in health workers essential for scaling up services for HIV/AIDS as well as national level decision makers concerned about HRH gaps for the country’s general health care workforce. Addressing the critical shortage of health workers is a challenge that must be owned by country leaders with the support of global partners.

B. Methodology

Review of the literature

In the fall of 2008 a literature review was completed for searches for relevant articles and reports for the time period 2000 to 2008. The following databases and sources were used: The Cochran Library, Google Scholar, CINAHL, PUBMED, HRH Global Resource Center, USAID Development Experience Clearinghouse, World Health Organization, Human Resources for Health Journal, World Bank, and UNICEF. In the spring of 2010, an additional (rapid) literature review was completed searching for relevant articles and reports on the HIV Prevention Workforce. Sites searched were: African Index Medicus, Development Experience Clearinghouse, Google, HRH Global Resource Center, PUBMED, World Health Organization, UNAIDS Website, Human Resources for Health Journal. Two summaries from the two literature reviews are found at Annex 3.

Five key themes emerged from these literature reviews:

1. Invest in human resources strategies and initiatives to reduce health care worker turnover and emigration rates. The inflow of health care workers required to achieve universal ART coverage is substantially reduced if retention rates are improved. In addition to conditional scholarship programs and training of new cadres of health workers, simple, low cost strategies include non-financial rewards for staff performance, supervision and management training for district and facility level managers. This measure will help all workers, not just those dedicated to HIV/AIDS.

2. Strengthen human resource management (HRM) practices and systems capacity. In many cases, government HRM policies, practices and procedures are over-centralized, fragmented and bureaucratic. This affects setting of salary levels, determining disciplinary procedures, recruitment and promotions, and establishing an attractive career path. Again, this is a measure that affects all health workers, not just HIV/AIDS staff; but it is essential for creating a human resources environment which improves HIV/AIDS staff motivation and productivity.

3. Place greater emphasis on HRH for HIV prevention. HIV prevention efforts have not kept pace with the large increases in availability of ART to those already infected. For every person who began ARV in 2006, six new
infections occurred. Several studies reviewed argue that prevention efforts ultimately could save more lives than treatment of those already infected. Unlike the clinical workforce that is clearly defined with an accreditation system, the prevention workforce is not always well defined, and frequently not adequately scaled and trained. The HRH issues facing prevention workers are similar to those facing treatment staff: supervision, training, addressing commodity supply and health systems strengthening, and retention.

4. Consider challenges in using task shifting as a strategy to overcome shortage of health workers. Task shifting can offer real benefits in scaling up HIV/AIDS coverage, though the literature notes significant implementation challenges that need to be considered, including adequacy of supervision of health workers with new tasks, inadequate buy-in from professional associations, and failure to address regulatory issues. Task shifting can be an effective strategy for prevention as well as treatment personnel. Ethiopia’s approach, in which task shifting is part of a larger reengineering of core processes in the health system, is considered a “better practice”.

5. Maximize the productivity of existing health care workers. Studies highlight the fact that the number of health care workers cannot be increased quickly because of the long educational requirements; so maximizing productivity of existing workers is a critical step. While poor infrastructure, inadequate equipment and supplies impede health worker productivity and motivation, small, inexpensive interventions can make a difference. In addition to the measures mentioned in number 1 above, other productivity factors include level of staff participation in decision making and work planning, quality of communications among staff, patient communication and patient flow management.

These five themes carried through to the five-country rapid situational analysis.

Rapid situational analysis in five countries

The TWG employed rapid situational analysis as a low-cost alternative to a traditional, longer-term qualitative analysis. This technique uses a small, reliable sample, is of short duration and examines a small, select set of variables, employing intensive interaction with knowledgeable individuals or focus groups to quickly develop a preliminary understanding of a situation from the insiders’ perspectives. It is appropriate for situations that are complicated, where issues are not very well defined, and where there are insufficient resources for more in-depth studies. In this case, it was used to confirm and add depth to findings from the literature reviews, to provide insights on country-specific problems, and to identify promising practices. It does not provide new quantitative data on HRH or undertake statistical analyses; rather, it offers insights from experts and practitioners in the affected countries who deal with issues of HRH for HIV/AIDS every day.

Six countries were initially selected for rapid situational analyses: Côte d’Ivoire, Ethiopia, Haiti, Mozambique, Thailand, and Zambia. Countries were selected on these criteria:

1. Differing stages in progress towards universal access, including at least one country which is close to reaching its UA goals (Thailand);

2. Representation from different geographic regions;
(3) Willingness and enthusiasm of WHO country representatives and Ministry of Health officials from the country to participate,

(4) Avoidance of countries that have been overburdened with recent HRH studies,

(5) Knowledge by members of the TWG about program characteristics in different countries which might make them particularly interesting, and

(6) Inclusion of at least one post-conflict country.

Unfortunately, after-effects of the earthquake precluded work in Haiti; so the TWG continued with five countries.

The TWG developed a common protocol to be followed in each country:

1. The TWG collected country information on HIV epidemiology, HIV program indicators, strength of the health workforce, national HRH system including HRH plans and strategies, and progress on implementation of task-shifting policies.

2. One international HRH expert teamed up with one HIV expert from the national WHO office and/or HRH or HIV expert from the Ministry of Health (MoH) in each country. This two- or three-member team spent two weeks in country carrying out the analysis.

3. A small steering group within each country was formed from national HRH and HIV experts, representatives from the MoH and other appropriate ministries or stakeholder groups, selected key informants, and international partners. This group met with the field team to provide guidance and input into the rapid analysis and will continue to engage with the government and partners to use the key messages and recommendations coming from this study. An important role of the steering group was to identify the knowledgeable key informants who should be interviewed for the rapid analysis. While this resulted in different types of experts being interviewed in different countries, it ensured that the most knowledgeable people were involved, and helped achieve buy-in by the country steering committee of analysis findings.

4. The field teams interviewed key informants focusing on these four questions:
   a. What promising HRH practices exist that have a positive impact on scale-up?
   b. What are the HRH gaps or challenges that relate to the country goals/targets for HIV services?
   c. What are the most critical HRH interventions to address these challenges and lead to effective scale-up?
   d. What leadership action and partner support are required to enable implementation of HRH scale-up?

These questions served as basic guidelines for the discussion. The field teams were free to ask other questions and to probe for more complete responses needed to answer these key questions as completely as possible.

5 Leadership action and partner support are defined in the glossary at Annex 3.
Final report preparation and review

A concise report of the rapid situational analysis for each country was made available in each country and provided to the TWG. Findings from the five-country analyses were presented at the final TWG meeting in Geneva on March 23 and 24, 2010. Discussion and debate at that meeting led to agreement on key findings and needed actions, which are reflected in this report.

This final report analyzes the broad HRH for HIV/AIDS issues that emerged from the five country analyses and the literature review, identifies promising practices that may have larger application, and offers recommendations for addressing HRH constraints to universal access so that better progress can be made. Throughout the report, except for the tables and graphs and where specific references have been footnoted, findings come from country discussions during the rapid situational analyses, reinforced by the literature. A glossary of frequently used terms is at Annex 2.

The report does not attempt to list all of the many recommendations that emerged from individual country analyses, but provides a short list of broad interventions that can have the greatest impact.

Limitations

1. **Data accuracy.** The report relies on secondary data. No original quantitative data were collected. Accurate and comprehensive HRH data – both general and HIV specific - at country level are hard to come by. The data, if they exist, are compartmentalized – the Ministry of Health (MoH) has pockets of data on the public sector, NGO/FBO headquarter organizations have data on their constituents, and so on. Most national level data reported here do not include personnel of the private sector, government organizations other than the MoH, or NGO’s/FBO’s, although all of these do provide significant numbers of HRH. The five study countries are gearing up their human resource information systems (HRIS), but at this point data are not fully available.

2. **Focus on government health employees.** Despite the large role played by the private sector (both for-profit and NGO/FBO) in these countries, as noted above, very few of the key informants interviewed represented the private sector, especially the private non-profit organizations. Consequently NGO/FBO perspective on HRH issues is largely missing from this analysis.

3. **Data comparability.** HRH data when available are difficult to compare across countries because there are no commonly accepted definitions for health workforce labor cadres. For example, a nurse in one country may not have the same training, certification requirements or responsibilities as in the next country.

4. **Individual team member biases.** With a different team carrying out the analysis in each country, there were differences in the way they interpreted the key questions and in the emphasis they put on different factors. This limits cross-country comparisons of qualitative data.

5. **Time constraints.** Time (10 days per country study) limited the number of informants and site visits. It was inevitable that some important informants were unavailable during country visits.
6. *Information on HIV prevention workers.* The focus of this study is on all aspects of HIV/AIDS services, not on prevention activities. There is more information in the report on treatment and care than there is on prevention, despite the clear importance of prevention activity.

7. *Overlap of HRH issues in general with HR HIV issues.* Though the report is concerned with HRH for HIV/AIDS specifically, it is not possible to consider the needs for HIV/AIDS without looking at the broader picture of HRH for health. Other health services besides HIV/AIDS are in great need of workers with many of the same skills. The factors that impede worker motivation and retention, skill development and scale up are similar for those working on HIV/AIDS and those working on other health issues. Country HRH strategies consider their total HRH needs, often without breaking out the specific needs for universal access to HIV/AIDS. Consequently, this report refers frequently to issues of human resources for health generally, rather than human resources for HIV/AIDS specifically. The report tries to make these distinctions clear.
A. Universal Access to HIV/AIDS Prevention, Treatment, Care and Support

According to UNAIDS 123 countries have held national consultations to identify obstacles to scaling up to universal access (UA); 111 countries have set ambitious national targets to reach UA; 83 countries have integrated their national UA targets into their National Strategic plans; 99 countries have set targets for treatment while 98 countries have set targets for one or more prevention interventions.6

B. Epidemic Updates

As of December 2008, approximately four million people in low- and middle-income countries were receiving antiretroviral therapy (ART), which is a 10-fold increase over five years. It is estimated that two million [1.7 million–2.4 million] deaths due to AIDS-related illnesses occurred worldwide in 2008. Epidemiological data on the five countries visited for this analysis is shown in the figure below.

![Figure 1. HIV Epidemiology Snapshot across Five Countries](image)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Côte d’Ivoire</th>
<th>Ethiopia</th>
<th>Mozambique**</th>
<th>Thailand</th>
<th>Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Adult HIV prevalence</td>
<td>3.9%*</td>
<td>2.1%*</td>
<td>12.5%*</td>
<td>1.4%*</td>
<td>15.2%*</td>
</tr>
<tr>
<td>Estimated deaths (pediatric and adults) due to AIDS</td>
<td>43,000 (2001)*</td>
<td>70,000 (2001)*</td>
<td>47,000 (2001)*</td>
<td>66,000 (2001)*</td>
<td>78,000 (2001)*</td>
</tr>
<tr>
<td>% TB patients tested for HIV</td>
<td>80% (2009)1</td>
<td>2.6%2</td>
<td>86% (2009)4</td>
<td>42%2</td>
<td>-----</td>
</tr>
<tr>
<td>% HIV + TB patients</td>
<td>----</td>
<td>40%2</td>
<td>64% (2009)3</td>
<td>26%2</td>
<td>50–70%3</td>
</tr>
</tbody>
</table>

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*Epidemiological Fact Sheet on HIV and AIDS (UNAIDS/WHO), 2008
**Used data from Epidemiological Fact Sheet on HIV and AIDS (UNAIDS/WHO), 2008 instead of data in Universal Access report to have same comparison base of data from 2007 across the five countries

1 Rapid situational analysis for Côte d’Ivoire, 2010
2 Country TB Profile 2008
3 Rapid situational analysis for Zambia, 2010
4 Rapid situational analysis for Mozambique, 2010
5 Mozambique TB Program 2009 Annual Report

In 2008, an estimated 2.4 million to 3.0 million new HIV infections occurred. This is a decrease of 17 percent between 2001 and 2008. The latest epidemiological data indicate that globally the spread of HIV appears to have peaked in 1996, when 3.2 million to 3.8 million new HIV infections occurred. In 2008, the estimated number of new HIV infections was approximately 30 percent lower than at the peak of the epidemic 12 years earlier. The graphs below show clearly how, while adult HIV prevalence has stabilized, both rates of new infections and deaths due to AIDS are on the decline.

Figure 2. Global AIDS Prevalence and Trends

In many ways this is remarkable progress, considering that the health systems in many low and middle-income countries are not strong. It has occurred despite shortages in human resources. But maintenance of the gains that have been made and further progress towards universal access are at great risk without significant scale up of the HIV/AIDS workforce – and the health workforce more generally.

AIDS-related illnesses will continue to be one of the leading causes of death globally in the years ahead. Improved access to treatment is having an impact.

7 UNAIDS Report of the Secretary-General to the United Nations General Assembly, April 1, 2010: Progress made in the implementation of the Declaration of Commitment on HIV/AIDS and the Political Declaration on HIV/AIDS.
While the rapid expansion of access to ART is helping to lower AIDS-related death rates, it is also contributing to increases in HIV prevalence.\(^8\)

At mid point in 2010, it is important to reflect on how the epidemic and the ways we work to contain it are changing. In the nineties before ART the response was emergency in nature. Severely ill patients received little more than a test, some counseling, and possibly symptomatic treatment, and then were left to face the prospect of death. While health systems gradually adapted, the impact on health of patients was limited because of lack of treatment, capacities of health services in general, and reluctance of many positive people to reach out for help.

Now, with ART becoming widely available and health systems becoming more experienced in dealing with the continuous flow of HIV/AIDS clients, the picture has changed. PLHIV know that with ART there can be life, and are much more willing to come forward for treatment. Stigma has diminished (though by no means ended), making HIV services more acceptable and accessible. Health care workers feel more empowered and motivated than before, because they can provide treatment and save lives. Although HIV incidence is not falling very rapidly, and in some places not falling at all, the mismatch between the demands for HIV/AIDS related services and the capacity of the system is nowhere near where it was during the earlier phases of the epidemic.

With these changes, as the next two graphs demonstrate, in each of the five study countries there has been impressive progress in coverage of ART and PMTCT services. Much more progress is needed, however, even in Thailand, which has achieved universal coverage except among certain hard-to-reach groups.

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Source: 2004-2007 data is from each country’s 2008 UNAIDS Fact Sheet; 2008-2009 data from each country’s UNGASS 2010 progress report.

8 UNAIDS Epidemic Update 2009.
Will we achieve universal access to HIV/AIDS services with the health workforce we have?

These countries have been able to expand HIV services rapidly despite workforce shortages through a variety of strategies, including increased production of new health workers, task shifting, pilot efforts to improve retention and improve distribution of existing workers, integration of HIV services into mainstream health services, and engagement of new categories of community-level workers to perform tasks that require lower skill levels. Some of these innovations show promise, and are discussed further in this report. Nonetheless, for these and other countries, as the capacity of their health systems to address HIV/AIDS programs has increased, their human resource needs have expanded, and must expand further to serve individuals already in treatment, to identify and begin treatment to the large percentages of HIV positive people who have not yet been reached, and to expand prevention services so that the rate of new infections will decline.

Sources:

Côte d’Ivoire, Ethiopia, Zambia: 2004-2007 data is from each country’s 2008 UNAIDS Fact Sheet; 2008-2009 data is from each country’s UNGASS 2010 progress report (Ethiopia 2007 data was used for 2008 since a specific 2008 figure was not found).

Mozambique: 2004 data is from 2008 UNAIDS Fact Sheet; 2005-2009 data is from UNGASS 2010 progress report.

Recently-published data from WHO for the 20 low- and middle-income countries with the highest number of people receiving ART give a sense of the progress, just in one year. Under the new guidelines for estimating coverage of ART that WHO used in 2010, however, the remaining coverage gap is even greater than was shown on Figure 3 (Percent of ART coverage) – indicative of the urgency to expand HRH for UA.

**Figure 5. Twenty low- and middle-income countries with the highest number of people receiving antiretroviral therapy in December 2009, progress between 2008 and 2009 in these countries and their representative share of the total number of people receiving antiretroviral therapy in 2009.**

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of people receiving antiretroviral therapy in December 2008</th>
<th>Number of people receiving antiretroviral therapy in December 2009</th>
<th>Antiretroviral therapy coverage in 2009 (range) based on 2006 WHO guidelines</th>
<th>Antiretroviral therapy coverage in 2009 (range) based on 2010 WHO guidelines</th>
<th>Percentage of total people receiving ART, 2009</th>
<th>Percentage increase, 2008 – 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>730 183</td>
<td>971 556</td>
<td>56% [48–65%]</td>
<td>37% [34–40%]</td>
<td>19%</td>
<td>33%</td>
</tr>
<tr>
<td>Kenya</td>
<td>250 576</td>
<td>336 980</td>
<td>62% [52–76%]</td>
<td>46% [40–54%]</td>
<td>6%</td>
<td>34%</td>
</tr>
<tr>
<td>India</td>
<td>234 581</td>
<td>320 074</td>
<td>40% [28–55%]</td>
<td>26% [18–36%]</td>
<td>6%</td>
<td>36%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>238 659</td>
<td>302 973</td>
<td>31% [25–38%]</td>
<td>21% [18–25%]</td>
<td>6%</td>
<td>27%</td>
</tr>
<tr>
<td>Zambia</td>
<td>219 576</td>
<td>283 863</td>
<td>85% [72–95%]</td>
<td>64% [56–75%]</td>
<td>5%</td>
<td>29%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>148 144</td>
<td>218 589</td>
<td>49% [42–57%]</td>
<td>34% [31–38%]</td>
<td>4%</td>
<td>48%</td>
</tr>
<tr>
<td>Thailand</td>
<td>185 086</td>
<td>216 118</td>
<td>76% [62–95%]</td>
<td>61% [xx–xx%]</td>
<td>4%</td>
<td>17%</td>
</tr>
<tr>
<td>Uganda</td>
<td>153 718</td>
<td>200 413</td>
<td>54% [44–69%]</td>
<td>39% [34–48%]</td>
<td>4%</td>
<td>30%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>154 468</td>
<td>199 413</td>
<td>44% [36–53%]</td>
<td>30% [27–34%]</td>
<td>4%</td>
<td>29%</td>
</tr>
<tr>
<td>Malawi</td>
<td>147 497</td>
<td>198 846</td>
<td>63% [53–77%]</td>
<td>46% [40–53%]</td>
<td>4%</td>
<td>35%</td>
</tr>
<tr>
<td>Brazil</td>
<td>190 101</td>
<td>...</td>
<td>82% [70–95%]</td>
<td>66% [53–102%]</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>132 379</td>
<td>176 632</td>
<td>73% [60–92%]</td>
<td>55% [47–66%]</td>
<td>3%</td>
<td>33%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>128 330</td>
<td>170 198</td>
<td>39% [29–52%]</td>
<td>26% [20–34%]</td>
<td>3%</td>
<td>33%</td>
</tr>
<tr>
<td>Botswana</td>
<td>117 045</td>
<td>145 190</td>
<td>&gt;95% [98–96%]</td>
<td>91% [80–95%]</td>
<td>3%</td>
<td>24%</td>
</tr>
<tr>
<td>Rwanda</td>
<td>63 149</td>
<td>76 726</td>
<td>&gt;95% [84–99%]</td>
<td>85% [72–95%]</td>
<td>1%</td>
<td>21%</td>
</tr>
<tr>
<td>Cameroon</td>
<td>59 960</td>
<td>76 228</td>
<td>41% [34–51%]</td>
<td>28% [25–33%]</td>
<td>1%</td>
<td>27%</td>
</tr>
<tr>
<td>Russia</td>
<td>54 900</td>
<td>75 900</td>
<td>35% [27–44%]</td>
<td>20% [16–24%]</td>
<td>1%</td>
<td>38%</td>
</tr>
<tr>
<td>Côte d'Ivoire</td>
<td>51 820</td>
<td>72 011</td>
<td>39% [33–47%]</td>
<td>28% [24–32%]</td>
<td>1%</td>
<td>39%</td>
</tr>
<tr>
<td>Namibia</td>
<td>59 376</td>
<td>70 498</td>
<td>&gt;95% [82–95%]</td>
<td>76% [62–92%]</td>
<td>1%</td>
<td>19%</td>
</tr>
<tr>
<td>China</td>
<td>48 254</td>
<td>65 481</td>
<td>21% [17–28%]</td>
<td>21% [17–28%]</td>
<td>1%</td>
<td>36%</td>
</tr>
</tbody>
</table>

9 2010 WHO Universal Access Report
C. Increasing Need for HRH

One of the most critical challenges in scaling up access to HIV prevention, treatment, and care is the shortage of adequately prepared human resources. As participants in the International AIDS Conference of Mexico City in 2008 concluded:

“The serious shortage of health workers across the world is recognized as one of the critical bottlenecks in efforts to reach international health and development goals, including the goal of universal access to HIV treatment, prevention, care and support. Conversely, the HIV epidemic has further exacerbated the health workforce crisis by significantly increasing workloads while simultaneously devastating existing workforces.”

The map shown below highlights the 57 countries considered by WHO to have a severe workforce crisis, defined as a ratio of less than 2.3 doctors, nurses, and midwives per 1000 population, a figure associated with reaching 80 percent coverage with essential MCH services at the country level.

Figure 6. Countries Experiencing a Health Workforce Crisis

Lessons from our five countries prove the seriousness of this shortage. Precise data on both the current health care workforce and projected needs is not complete; nor is there comparative information specifically on the health workforce dedicated to HIV/AIDS; however, the following limited information is still informative.


• **Côte d’Ivoire** (21 million population – est.): Current public sector health care workforce is estimated at 40 percent of need. Precise numbers are not available.

• **Ethiopia** (79.2 million population – est.): 2009 public sector healthcare workforce was 66,300. Draft strategic plan 2009-2020 calls for scale up to 193,264 by 2020. Even if this can be met, with population gains it will still be only 85 doctors, nurses and midwives per 1,000 population.

• **Mozambique** (21.3 million population – est.): 2006 public sector healthcare workforce was 25,683, or 1.26 per 1,000 population. Target is to increase to 45,904 by 2015, which with population growth will be 1.87 per 1,000 population.

• **Thailand** (63.5 million population – est.): Health workforce shortage is not severe, but is growing in remote, difficult service areas. Projections show shortages by 2015 of doctors between 2,416 and 4,733, of nurses 17,000, and of pharmacists between 7,637 and 8,574.

• **Zambia** (12.2 million population – est): Current public sector healthcare workforce is approximately 33,000. Government-approved target is 52,000.

Considerations that affect health workforce needs include task assignments, delivery models, other staff responsibilities and program size, making it difficult to generalize across countries for health care in general, let alone to generalize on workforce needs to address HIV/AIDS. One study estimates that overall, the number of health care workers required to provide ART to 1,000 patients include one or two physicians, two to seven nurses, up to three pharmacy staff, and a much wider range of counselors and treatment supporters.11

Preliminary conclusions from UNAIDS groups working on envisioning a strategy to prepare for the long-term burden of HIV/AIDS over the next 20 years include varying assumptions in terms of future prevention and treatment coverage, response priorities, and new technologies. However there is agreement that, considering the needs created by population growth, ongoing treatment for current ARV patients, new patients on ARV medications, and continued high infection rates, there will be a massive increase in the need for skilled health care workers. The cost of the workforce, including training, supervision, and maintenance of the human resources management system, imposes one of the major financial requirements for full coverage of HIV/AIDS programs. Increases in both national and donor resources are required to scale up human resources sufficiently to achieve universal access.

UNAIDS has estimated the global need to achieve universal ART as shown below, under two different scenarios. Under the “current” approach, doctors initiate and provide case management for ART; under the “delegated” approach, nurses take over these responsibilities for uncomplicated cases. In both cases, the need for additional staff at all levels increases annually, but particularly for nurses.

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Will we achieve universal access to HIV/AIDS services with the health workforce we have?


Other international task forces and working groups are also examining the gaps between available and needed health workforce for scale up of HIV/AIDS and other health services, notably the High Level Taskforce on International Financing for Health Systems. While estimates vary depending on assumptions made, there is agreement that the discrepancy between available and needed HRH resources is large.

Figure 7. Total Human Resources Required to Achieve Universal Access for ART
III. How Health Workforce Approaches Enhance or Inhibit Universal Access

A. Important HRH Gaps and Challenges

Key informants were asked the question: What are the HRH gaps or challenges that relate most to the country goals/targets to scale up toward universal access to HIV/AIDS prevention, treatment, care and support? Country study teams found the following to be the most important:

1. **Financial resources are insufficient.** There are not enough resources to fund the HR required to scale up to universal access. Most countries are already heavily dependent on donor support to finance much of their HIV/AIDS program activity, including training and salary support for health workers. Only in Thailand, thanks to significant government commitment and incorporation of HIV/AIDS services into health insurance have financial resources issues been largely overcome.

   - **Côte d’Ivoire:** Structural adjustment measures and financing gaps have limited recruitment of government workers, including health workers. The number of health workers hired from 1996 to 2005 represented only 40 percent of the needs identified by the MoH, and the deficit of health workers is increasing over time.

   - **Ethiopia:** Ethiopia’s government contributes only modestly to total health expenditures, relying heavily on donor support. Its Health Sector Development Plan (2005-2010) reveals substantial financing gaps, which affect rollout of the Health Extension Program (HEP – described later), as well as needed upgrading of health centers and hospitals.

   - **Mozambique:** Mozambique’s health budget has not increased in the last three years and relies on donor financing for most of the program, including HIV/AIDS. This has affected, among other things, government ability to provide incentive payments for medical staff serving remote areas.

   - **Thailand:** Thailand interviewees did not note a serious financing gap, thanks to long-term, continuous investment in health systems and human resources for all, and universal health insurance program that covers HIV/AIDS treatment.

   - **Zambia:** Government budget for health decreased in 2010, contributing to its inability to hire teachers for pre-service education and in-service training. Estimates indicate that a total investment of US$ 60 million and 360 additional teaching staff are required to scale up government schools to meet quality standards and increase number of students to targeted levels.  

2. **Dissatisfaction with low salaries, large workloads, and difficult working environment reduces health worker morale, increases absenteeism, and leads to seriously high attrition** among the higher-skilled government practitioners, particularly in the rural and hardship areas and among hard-to-reach populations. Even Thailand, which offers very high compensation

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12 Information collected from Zambia informants during rapid situational analysis.
to practitioners in remote areas, has difficulty retaining doctors and nurses in these locations. Retention is an issue for the entire workforce, not just HIV/AIDS workers, though the latter may be more affected by issues of stigma and fear of infection.

- **Côte d’Ivoire**: Though much of the massive attrition of health workers occurred during the conflict in 2002, the numbers have decreased since then. Deficit is most severe among nurses, both because of attrition and because few nurses are joining the public sector. Health workers are disproportionately concentrated in Abidjan.

- **Ethiopia**: Because of extremely low salaries and poor working conditions, there is a seriously high attrition rate among health professionals in public service, both to emigration and to internal “brain drain” to the private sector, including NGO programs for HIV/AIDS control. Health worker productivity suffers from lack of motivation and rampant absenteeism. The MoH is addressing this with incentives and bonus schemes.

- **Mozambique**: Retention is a serious problem especially for health workers with specialized skills and higher-level managers. Low motivation and job satisfaction are attributed to low salaries, difficult working conditions, weak career progression, and unsystematic use of incentive policies. Shortage of health workforce is greatest in the periphery.

- **Thailand**: Retention of health workers in rural and hardship areas is difficult despite significant salary supplements. Rapid turnover, especially among medical doctors, requires continuous training and retraining on HIV/AIDS and task shifting.

- **Zambia**: Concerns about medical personnel leaving government service to seek more attractive employment elsewhere led the Zambian government to pilot a Health Workers Retention Scheme for doctors, nurses, midwives and clinical officers. Motivation remains an issue – a health worker productivity study found that implementing the HIV/AIDS workplace policy and taking other measures to improve productivity could lead to substantial productivity gains.

Efforts to improve retention of HIV/AIDS workers can have a negative impact on the overall health workforce. For example, in Mozambique it was reported that better working conditions and equipment for health workers engaged in HIV/AIDS (enabled by donor support) created disparities with other health workers, and drew them away from their basic health care activities towards work on HIV.

3. Except for Thailand, **HR management systems (HRMS) are overly bureaucratic and weak**. Basic systems to recruit, hire, pay, supervise and support are challenges in themselves and cannot be relied upon to support HRH. Centralization of Zambia’s HRMS has led to long delays in key decisions, e.g. recruitment. Côte d’Ivoire and Mozambique have decentralized systems, but lack institutional capacity at both central and local levels to develop and implement policies that empower managers and motivate workers. Similarly, Ethiopia’s MoH suffers from an acute shortage of well-trained human resource managers who could help develop good HRMS.

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13 The program has had some success in recruitment and retention, especially among the lower-level workers (e.g. clinical officers), and offers many lessons. More on this program is available at [http://www.who.int/workforcealliance/forum/presentations/Hilary_Francis.pdf](http://www.who.int/workforcealliance/forum/presentations/Hilary_Francis.pdf)
These countries are not atypical. A desk study commissioned by the Alliance in 2009 carried out by the Royal Tropical Institute (KIT), Netherlands, found that only 6 of the 57 countries identified as having HRH crises had implemented plans for incentives, working environments, and deployment and distribution of health workers.¹⁴

Figure 8 below provides a snapshot of the status of key human resources management indicators in the five study countries.

4. Basic HRH information is often unavailable or so fragmented that it is hard to collect in one place and use to make decisions. Computerized human resource information systems (HRIS) exist in all five countries, but are not yet sufficiently developed to provide needed information, as summarized in the figure below. Again, Thailand is the exception, but even there, the study team noted a need to continuously develop estimates on future shortages of HRH in underserved areas.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Côte d’Ivoire</th>
<th>Ethiopia</th>
<th>Mozambique</th>
<th>Thailand</th>
<th>Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRH Costed-plan completed?</td>
<td>Yes</td>
<td>Being developed</td>
<td>Yes</td>
<td>No</td>
<td>Yes, but limited</td>
</tr>
<tr>
<td>HRH Strategic plan being implemented?</td>
<td>Just beginning, but funding is a major barrier</td>
<td>Not yet</td>
<td>Donors committed $ but have not yet come through</td>
<td>N/A</td>
<td>Yes, but funding levels have slowed implementation</td>
</tr>
<tr>
<td>HRH Plan takes universal access into consideration?</td>
<td>Yes</td>
<td>Data exists; will be included</td>
<td>No</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>HRM unit exists in the MoH?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Specific plans to scale-up HR cadres?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Specific approaches for retention and productivity?</td>
<td>Yes (Pilot)</td>
<td>Limited</td>
<td>Yes</td>
<td>Yes</td>
<td>Limited</td>
</tr>
<tr>
<td>Are retention and productivity approaches widely adopted?</td>
<td>Only in pilot areas</td>
<td>No</td>
<td>Not fully implemented</td>
<td>Yes</td>
<td>Limited</td>
</tr>
<tr>
<td>Human resource information system (HRIS)?</td>
<td>Yes (being initiated)</td>
<td>Very limited</td>
<td>Yes</td>
<td>Yes</td>
<td>No, but TIMS &amp; payroll initiative exist</td>
</tr>
<tr>
<td>Is HRIS fully operational?</td>
<td>No</td>
<td>No</td>
<td>Partial</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>HIV/AIDS policy/strategy for CHWs, access to prevention, care, and ART</td>
<td>Policy being developed; not implemented</td>
<td>Yes; not fully implemented</td>
<td>Yes; not fully implemented</td>
<td>Yes</td>
<td>Yes; not implemented</td>
</tr>
</tbody>
</table>

5. The balance between pre-service education (PSE) and in-service training (IST) is not always appropriate. PSE is time-consuming and costly, working against meeting HRH targets for universal access. Scarcity of tutors and instructors makes it even more difficult. This makes use of in-service training essential in the short term. However, in-service training (IST) tends to be carried out

¹⁴ Dr Hirotsugu Aiga, op cit.
by different actors (including donors and NGOs), is not always coordinated, and is not tracked in most HR information systems. (The KIT desk study cited earlier found little evidence of donor coordination mechanisms to harmonize their support.) This leads to inefficient and wasteful use of resources, which could otherwise be used to strengthen pre-service education, in addition to contributing to excessive work absences while health care workers attend training.

6. **Because much effort has been focused on HRH for HIV treatment, there does not appear to be sufficient focus or attention paid to the HIV prevention workforce.** While prevention practices show some results, in some countries (Ethiopia, Mozambique, Zambia) HIV incidence has held steady or is increasing. The result is a constant need to expand treatment and care HRH to keep pace with the need. Reducing the number of people who contract HIV in the first place is important to reduce incidence, and this may mean reconsidering the emphasis given to prevention versus treatment.

Thailand offers an example of how early attention to prevention can have an important impact on the need for treatment and care HRH.

In the early stages of the epidemic, Thailand rapidly engaged in prevention measures – particularly a very effective intervention of 100 percent condom use among sex workers, along with strong social campaigns. It is notable that these interventions did not require major increases in health care workers, as they relied on existing STD workers for VCT services, and on educating brothel owners, sex workers and customers of the importance of condom use. In Figure 9 below one can see the impact of the 100% condom program on new infections beginning in 1991. HIV infection went from a peak of 100,000 new infections per year in the early 1990’s to less than 14,000 new infections per year in 2009. Successful PMTCT programs, with more than 97 percent coverage, also reduced vertical transmission from 33 percent in 1999 to less than 5 percent in 2009. With fewer new infections, the strains on the health system and the demand for additional health care workers are lessened. It is estimated that UA to ARV treatment requires less than 2 percent of total workload of doctors and nurses.¹⁵

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¹⁵ Sources for the information in this paragraph can be found in the Thailand rapid situational analysis, 2010.
B. Enabling factors in Strengthening HRH for Universal Access Scale Up

All five countries are making progress toward their goals to provide HIV/AIDS prevention, treatment, care and support. Much of this has been accomplished in the midst of serious resource constraints. Significant factors aimed at improving health systems and expanding human resources for health underlie the progress thus far in rolling out ART and other HIV services, and form an essential foundation and important lessons for further progress.

1. Government ownership, political will, and commitment to counter the epidemic. Within the five countries, multi-sector approaches, public awareness campaigns and free ART are common. While these are not directly HRH-related, they do signal government commitment to address the AIDS epidemic.

- Côte d’Ivoire has expanded its Prevention of Mother-to-Child Transmission (PMTCT) program with free ART for HIV positive pregnant women.
- Ethiopia provides widespread access to free HIV/AIDS services, employs awareness raising efforts and public campaigns, and has mainstreamed HIV/AIDS into the curricula of vocational, general and higher education.
• In Mozambique the President and Minister of Health conduct high-level advocacy among international partners and donors regarding the health workforce crisis and the correlated delay in reaching the MDG milestones.

• Thailand has integrated ARV drugs into its universal health insurance program, enabling it to be financed mainly from local resources.

• Zambia decided in 2005 to make ART drugs and services freely available and declared HIV/AIDS a National Disaster. A sector-wide approach was developed and all sectors addressed HIV/AIDS in their strategies and policies.

Factors Contributing to Thailand’s Progress Towards Universal Access

Thailand has nearly achieved universal access to HIV services, except for difficult to reach groups such as men who have sex with men, intravenous drug users and illegal migrant workers. Thailand credits its success to:

1. Strong multi-sectoral political commitment and leadership;

2. Strong civil society organization (CSO) movement;

3. Long-term continuous investment in health care systems (Thailand has increased its national health expenditures from 3.82% of GDP in 1980 to 6.1% of GDP in 2005) and a shifting of budget allocation from urban to rural health facilities leading to increase in access to primary health care at lower service delivery levels;

4. Early on aggressive actions to prevent the spread of HIV along with significant financial support by the government (more than US$ 15 million) and GFATM grants for innovative prevention programs, resulting in fewer cases and reducing the strain on the health care workforce;

5. Increased production of HRH, continuous training on universal access to ARVs and task shifting for ARV delivery to follow-up patients; and

6. Supervision and coaching system that supported health workers involved in providing HIV services.

2. Donor support to supplement government financial commitments for prevention, treatment, and care. Donor support has been a major contributing factor in all five countries to counter the epidemic and strengthen the HIV health care workforce.

• Côte d’Ivoire received 88 percent of its HIV/AIDS financing from external donors (2006 data), with Global Fund being the largest donor.

• Ethiopia has 30 to 40 development partners and donors who in 2008-2009 contributed over $650 million to add to the domestic $253 million invested in the health sector overall, which includes HIV/AIDS.

• Mozambique financed its HIV/AIDS expenditures 85 percent from external sources in 2006, with at least 19 major donors.

• While Thailand has reduced its dependency on donor funding, it still (as of 2009) relies on Global Fund for about 25 percent of ART funding, and for the bulk of its in-service training.
• In Zambia Global Fund and PEPFAR contributions alone increased public per capita expenditure for health in 2008 from US$ 11 to approximately US$ 34.

While funding recurrent costs for health workers with donor aid and/or debt relief has been controversial, more donors and international organizations are realizing the importance of providing financial support to key HRH initiatives. GFATM has built health systems strengthening (HSS) components into its grants programs, which include measures to strengthen human resources. The U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) and World Bank are increasing funding for health worker education and training. PEPFAR and Clinton Foundation, for example, are actively funding programs that increase the numbers and skills of the health workforce.

Over-reliance on donor partners for strengthening of HR resources for HIV/AIDS is not sustainable, however, over the longer term. Government financing to increase and retain the country’s HRH is essential to demonstrate their commitment to donors and to assure sustainability.

3. Task shifting

In the HIV/AIDS context, task shifting is the reassignment of clinical roles by shifting tasks to different cadres of health workers. Nurses may become involved in prescribing drugs, lay counselors may be involved in testing, new cadres may be introduced to perform specific tasks, and patients may be engaged to take over some elements of their own care. Community health workers can potentially deliver a wide range of HIV services, thus freeing the time of qualified nurses.16 The objective is a streamlined, rationalized chain of care that relieves pressure on each worker involved while maintaining quality standards for patients and increasing access to interventions. A systematic review of task shifting for HIV treatment and care in Africa concluded that:

“Task shifting has repeatedly been identified as an effective strategy for addressing shortages of HRH in HIV treatment and care. Task shifting offers high-quality, cost-effective care to more patients than a physician-centered model. The main challenges to implementation will be the adequate and sustainable training, support and pay for staff in new roles, the integration of new members into healthcare teams, and the compliance of regulatory bodies.”17

The same review provided evidence that task shifting for HIV treatment and care, when carefully implemented, can increase efficiency by reducing dependence on doctors, improve access to counseling and treatment without harming quality of care, improve health outcomes (e.g. involvement of community-based lay workers to strengthen social and family support and relationships), and improved job satisfaction for the involved health workers. The review concluded that task

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16 Taking Stock: Task Shifting to Tackle Health Worker Shortages. WHO 2007; and A systematic review of task shifting for HIV treatment and care in Africa; Mike Callaghan, Nathan Ford, Helen Schneider; Human Resources for Health 2010, Vol. 8:8.

17 A systematic review of task shifting for HIV treatment and care in Africa; Mike Callaghan, Nathan Ford, Helen Schneider; Human Resources for Health 2010, Vol. 8:8.
shifting appears to expand access to HIV services and should be considered for careful implementation where HRH shortages threaten rollout programs.18

Each of the five countries is engaged to some degree in task shifting practices, which are resulting in increases in capacity to provide HIV/AIDS services. Study teams raised some concerns, however, such as absence of written policies or regulations to guide the task shifting process and potential over-reliance on task shifting to workers with insufficient skills.

- **Côte d’Ivoire** has no written policy or guidance on task shifting. Only medical doctors can prescribe antiretroviral drugs (ARVs), though a project is underway testing the efficacy of initiating some task shifting from doctors to nurses.19 Informally, task shifting occurs in prevention activities from counseling and testing to care and treatment including carrying out certain lab tests and prescribing drugs for sexually transmitted infections (STIs) and opportunistic infections (OIs). Absence of clear guidelines was a major concern to key informants.

- **Ethiopia** has successfully shifted ART from doctors to nurses, and also engages lay counselors. Its ambitious Health Sector Plan (HSP) 2009 – 2020, still under development, relies on the “flooding” concept (volume-speed-quality)20 to expand the health workforce. The study team believes that shortage of resources may require over-dependence on task shifting, which will compromise quality, and this needs to be considered in finalization of the HSP. Ethiopia’s Health Extension Program (HEP) has enabled task shifting of some HIV/AIDS services to Health Extension Workers (HEWs).

- **Mozambique** is using task shifting to help address HRH shortages. The MoH has agreed to progressive task shifting to delegate HIV treatment, care, and support responsibilities to less skilled cadres, though more work needs to be done to fully implement this program.

- **Thailand**’s national practice guidelines include recommendations for task shifting. Though not as extensive as in other countries in this study, some task shifting is required in areas where recruitment of doctors has been particularly difficult.

- **Zambia** allows task shifting, which occurs in virtually every health facility in the country, including treatment and care, but no formal task shifting guidelines exist. As more and more HIV/AIDS responsibilities, including delivery of ARVs, have been passed to community health workers, Zambia has prepared (but not yet finalized) a Community Health Worker strategy to harmonize and organize their activities.

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19 This project receives technical and financial support from the International Center for AIDS Care and Treatment Program of Columbia University, and JHPIego, an affiliate of Johns Hopkins University.

20 Defined briefly in the glossary.
4. Involvement of community health workers

Community health workers (CHWs) are becoming an integral part of the health workforce in many countries as it becomes increasingly apparent that insufficient numbers of health workers is a major barrier to reaching health-related MDG targets. Côte d’Ivoire, Ethiopia, Mozambique and Zambia are all in various stages in building this cadre; however, Ethiopia has the most extensive program (HEP). Other countries are rolling out their programs more slowly for several reasons: lack of funds; insufficient human resource management and training systems to support this new cadre; or weak or over-stretched leadership. For CHWs to provide quality and efficient service, adequate provision must be made for the additional costs and resources required (training, supervision, equipment, transport, and supplies).

CHWs in some study countries provide basic HIV services. In Côte d’Ivoire, Community Advisors provide HIV counseling to pregnant women, provide support for Post Exposure Prevention (PEP), and assist in initiation of ART. In Mozambique, ancillary workers (atendentes) are being trained to take blood samples, provide bedside HIV care including infection prevention, and address stigma and discrimination questions. Ethiopia’s HEWs provide HIV/AIDS-related prevention, care and support services, and there are plans to expand HIV responsibilities to include household counseling and testing and PMTCT in the future.

Realizing the growing importance of CHWs, the Alliance will soon report on a study on the global experience of community health workers for Delivery of Health Related Millennium Development Goals.

5. Programs to improve motivation, retention and distribution of health workers

The five countries are all engaged in activities both to locate more health care providers in under-served areas and to improve retention. These are serious problems that affect the entire public health workforce, not only HIV/AIDS workers. They need to be addressed at a system-wide level, and there are no magic solutions. It is promising, however, that the countries are aware of the problems created by excessive health worker turnover and are experimenting with methods to resolve these problems.

- Côte d’Ivoire is piloting a project in one northern district using three types of financial incentives to improve health worker retention and performance: individual monthly bonuses, quarterly bonuses depending on performance achieved by the facilities – including HIV/AIDS performance, and a collective quarterly bonus based on achievement of pre-identified objectives. Should results be conclusive, the project will be scaled up.

21 CHWs, defined in the glossary in Annex 3, refer here to government sponsored and paid basic health workers, usually working in preventive health services and recruited from their own communities.

• **Ethiopia** has introduced financial and non-financial incentives and bonus schemes for employees especially in rural and remote sections of the country. It is also giving more attention to regular supportive supervision. In-service training is an important incentive but without improved coordination may actually be counterproductive as it removes people from needed service delivery. Internal “brain drain” of HIV/AIDS technical workers, physicians in particular, is partly due to positions offered to them by partners, NGOs, and training institutions. Ethiopia’s draft Health Sector Plan suggests strategies to address retention, but the plan has not been finalized.

• **Mozambique**’s MoH provides financial incentives for health workers with specialized skills and managers to work in rural areas; and has included incentives as well as salary increases in its HR development plan: specifically, it plans that 14 percent of the HRH budget should be for retention incentives; however, there is little or no money to finance them. Since HIV/AIDS services are in the process of being integrated with other health services, retention of health personnel in general has important implications for scale up of HIV services.

• **Thailand** provides significant financial and nonfinancial incentives to health professionals who work in rural areas. Since HIV/AIDS services are integrated with other health services in Thailand, retaining workers in underserved areas is essential for universal access. Doctors in the remote rural district hospitals can now earn higher monthly income than the health minister and can be promoted to the same level as provincial chief medical officers.

• In **Zambia**, the Center for Infectious Disease Research (CIDRZ) receives partner support for providing supplementary income to staff that work overtime.

Our literature review concluded that policies and strategies are needed to ensure that health workers able to provide HIV services are available in rural and remote areas. At a minimum, retention rates need to be tracked and monitored and the reasons health workers are choosing to leave the health system clearly understood.

There is wide global support for finding solutions to health worker retention and better distribution, as evidenced by the work of the WHO Expert Group on Retention, the Alliance work on community health workers, and the recently-formed Health Workforce Information Reference Group of the Alliance, which will provide technical advice for the construction of a global strategy for strengthening health workforce information and monitoring systems in countries and regions. In addition, the Private Sector Task Force is engaged in work aimed at: a) accelerating the scaling up and cross border implementation of private health-sector initiatives to increase health worker supply and retention; b) building the capacity of health systems in selected African countries to interact more effectively with the private sector; and c) developing a health workforce private model in three African countries. To develop strategies for increasing motivation of the HRH workforce – including reduction of stigma – the Alliance’s Positive Practice Environment (PPE) Campaign aims at improving practice environments in three African countries.
6. Integration of HIV/AIDS treatment into mainstream health service delivery

Countries have to different degrees begun integrating HIV/AIDS service delivery into their national package of health care services. This is a strategy to expand HIV/AIDS services in the face of resource shortages (both personnel and infrastructure) by adding HIV/AIDS to the services offered by general health personnel in general health facilities.

Thailand has effected integration, and has taken steps to increase capacity or include pre-service training on essential HIV/AIDS skills for doctors, nurses, laboratory technicians and pharmacists. Since 2006 HIV/AIDS services have been included under universal health insurance and fully funded by national resources.

Mozambique has broadened access to ART and TB treatment by integrating HIV/AIDS services into the essential health package. This has greatly aided the expansion in the number of health units providing ART in the past five years, but it has also led to some problems: large workload increases of health center staff; discrepancies in working conditions and staffing between the parts of health facilities dealing with HIV/AIDS and other parts, causing staff dissatisfaction; and insufficient training and quality standards for general health staff with new HIV/AIDS responsibilities.

Other, non-study countries are working to integrate their HIV/AIDS programs as well. For example, South Africa announced in 2009 its intention to provide HIV testing at all health care facilities and to make ART available at all primary health care facilities. Implementing this program has important impacts on human resources: the need for task-shifting from doctors to nurses to meet the needs for testing and treatment; development of in service training programs for key staff; creation of a new category of “clinical assistant”; and provision of greater support of front-line workers. It is too early to assess progress of this venture.

Integration potentially is an important means of stretching countries’ limited health workforce to achieve greater coverage of HIV/AIDS services, but further research and review are needed of countries’ experiences with integration and the conditions that need to be in place for a successful undertaking.

7. Human Resources For Health Strategic Plans

Alliance HRH experts have urged countries to conduct comprehensive assessments of current and future numbers and types of health care workers required to scale up HIV services and to use this information to develop HRH Strategic Plans. From our rapid situational analyses we found all five countries either have developed HRH Strategic Plans or are developing them, an indication that they are thinking strategically about how to address their HRH needs. (See Figure 8, A Snapshot of the HRH Systems in Five Countries, in section III A 4 above.)

Yet these HRH strategic plans are not always operational due to lack of funding, weak human resource management systems, and over-stretched leadership. Côte d’Ivoire has a costed and budgeted strategic plan, but it has not yet been implemented. Ethiopia is still developing its HRH strategic plan. Mozambique has developed a comprehensive, costed plan, and has commissioned four technical

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23 “Will we Achieve Universal Access to HIV/AIDS Services with the Health Workforce we Have? South Africa’s program to strengthen Human Resources for HIV scale up”; Yogan Pillay; unpublished PowerPoint presentation; Satellite session at the XVIII International AIDS Conference, Vienna, August 2010.
advisors to help roll out and coordinate the operational plan. Thailand does not have an HRH plan but has implemented Universal Access policy into strong existing health care systems. Zambia has a costed plan for which implementation is ongoing, mainly for activities that require limited financial resources.

Only two of the study countries, Côte d’Ivoire and Ethiopia, have factored in or plan to factor in the needs for universal access. According to UNAIDS senior officials, human resource requirements to achieve universal access targets are increasingly being estimated in other countries and reflected in their national HRH strategies; and this is of great importance for realistic appraisal of resource needs and development of actionable plans.
It is clear from our analysis that actions taken thus far by governments and their partners in most countries are insufficient to achieve universal access. Severe human resource constraints are among the important factors that impede progress, and the steps governments are taking, with donor support, fall far short of what is necessary to improve the quality and quantity of the HIV/AIDS workforce. Much has been learned about what needs to be done, and many countries, including those studied for this report, are engaged in a variety of efforts to address these needs. What is lacking is strong unified leadership action from both countries and partners to build on the knowledge that has been gained and create the momentum for resources, policies and programs to tackle the specific gaps that have been identified.

The following interventions provide a “way forward”, with actions for both countries and their international partners.

### A. Re-energize country leadership action

*Joint actions for country leaders and their international partners:*

We recommend that an inclusive stakeholder leadership group develop an advocacy strategy to highlight and mobilize leadership support to close the HR gap to Universal Access (MDG) achievement. This strategy needs to include accurate figures as to what the HRH needs are to achieve universal access targets. Once these figures are clear, HRH gaps can be identified and actions identified that would be required to close the gap. As a part of this advocacy effort, action can be taken to strengthen the UA content of national HRH strategic plans. Perhaps even more important, initiatives can be undertaken to support strategic plan implementation. As one such step, an expert group consisting of global and country level representatives can be formed to develop a tool kit for use by HIV and HRH leaders to use in applying rigorous implementation strategies.

### B. Develop global guidelines for appropriate HR components of national programs to achieve universal access

*Actions for international partners:*

Neither countries nor donors themselves agree on what the appropriate organization of the health system is to best achieve UA. For example, there is no agreement as to when and how HIV/AIDS should be integrated into the broader health service program, and when it is best treated as a separate, vertical program. Yet this has major implications on HRH needs to achieve UA.
We recommend that a global collaborative effort be undertaken by key donors (e.g., GFATM, PEPFAR, WHO, UNAIDS, DFID) to provide consistent guidance to countries describing how they can strengthen UA HR components of national HRH and HSS strategies. Once there is a reasonable degree of agreement about what constitutes a sound and acceptable approach that donors can agree on, then countries would be in a better position to develop their own strategies and programs for HRH system strengthening to move towards UA.

In addition, it will be advantageous to design and implement skill building meetings for countries interested in submitting HSS Global Fund proposals or strengthening Country Operational Plan components on HR for UA. The initial focus might be on southern Africa – Zimbabwe, Zambia, Mozambique, Swaziland, and Lesotho. It might also be desirable for WHO and PEPFAR to co-host meetings like this as part of the next round of GFATM funding preparation.

C. Estimate HRH Requirements to Achieve National Universal Access Targets for HIV Services

Actions for countries:

Key informants indicated that analysis to estimate the health care workers needed in the public sector was mostly for the general health care workforce, and that more detailed information is needed to accurately estimate and plan for the appropriate cadres, numbers and distribution of HRH needed to scale up HIV/AIDS services. Doing so need not, and should not, wait on donor action to develop global guidelines, as we have recommended above. To achieve progress quickly, countries need to base their estimates on the systems and personnel they have in place. This can be revised later if global recommendations so warrant. We recommend that countries take these actions:

- Know the country’s epidemic and project the number of health workers, by cadre and service delivery level that will be required to achieve universal access to HIV as well as other priority programs.
- Document the skills and competencies required for each cadre.
- Gather the information required to count and track how many health workers are delivering HIV services, their cadre, and their geographical distribution. Include information about community health workers.
- Determine vacancy rates by cadre and the distribution by cadre, especially to underserved and hard-to-reach areas and populations, and perceived retention issues.
**D. Strengthen human resources management systems or the gains being made will not be sustainable**

The human resources management system (HRMS) is a key foundation for addressing the HRH gaps to universal access. Actions to strengthen the health care workforce depend on a HRMS strong enough to carry through the needed changes. In many cases, government HRM policies, practices and procedures are in need of radical reform to permit available funds or technical assistance to be used in a way that creates meaningful changes or results.24

The way health workers are recruited, managed and supported in the delivery of both HIV/AIDS services and general health services is central to the quality of services that they are able to deliver. A modern and responsive HRM system that is managed by HR-qualified professionals can work to ensure that staff are treated fairly (salaries, benefits, promotion, training opportunities), receive orientation and know what they are supposed to do (job descriptions), get timely feedback (supervision and performance review), feel valued, and have opportunities to grow on the job.

**Actions for countries:**

- Strengthen HR professional leadership for the effective planning and management of HRH. HR staff must be specialists in the field of human resources. They should be enabled to have input into operational and strategic decisions about HRM.

- Establish, staff and strengthen HR Units or Directorates in Ministries of Health to raise their profile and visibility, ensure that they have a reasonable budget and are strategically placed within the organizational hierarchy to contribute ideas and decisions to meet the goals of the national health system. Staff should include some individuals who understand the issues faced by health workers providing HIV/AIDS services such as stigma and fear of infection.

- Expand the number of HR positions within these more strategically aligned HR units as needed to provide services effectively and increase the likelihood of sustaining strengthened HR functions. If necessary, seek funding from donors who are now more open to health system strengthening for the initial resources.

- Develop and deploy HR managers to high-volume facilities and larger clinics and, in decentralized systems, establish provincial and district HR focal point persons. In some cases, this may require the hiring of new HR qualified staff, but in most cases it may just involve recalibrating the role of existing staff, especially health administration officers where they exist, and giving them additional HRM training and support to begin assuming a fuller HR-specific role.

- Initiate and support efforts to streamline and redesign HR processes at both the strategic and operation levels as well as central, regional and district levels.

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• Advocate strongly among key officials with responsibility for domestic budget to receive sufficient budget to create needed positions for HRH. UA cannot be achieved, or maintained, if donors are relied on for HR costs over the long term. Insist that strong exceptions be made to overall government policies aimed at limiting government workforce growth (such as those promoted in some countries by the IMF) for HRH staff that provide and support critical health services, especially HIV/AIDS.

• If the prevention workforce is located in ministries outside the MoH, the country should ensure that HR management policies and practices intended to support universal scale up apply to HIV prevention staff of these ministries as well.

• Develop and deploy HR managers to high-volume facilities and larger clinics and, in decentralized systems, establish provincial and district HR focal point persons. In some cases, this may require the hiring of new HR qualified staff, but in most cases it may just involve recalibrating the role of existing staff, especially health administration officers where they exist, and giving them additional HRM training and support to begin assuming a fuller HR-specific role.

• Initiate and support efforts to streamline and redesign HR processes at both the strategic and operation levels as well as central, regional and district levels.

• Build monitoring and evaluation capacity to monitor system effectiveness.

*Actions for international partners:*

Partners can encourage and support country actions to strengthen their human resource management systems.

• Fund and support appropriate HRM development efforts such as short-term certificate workshops/courses, longer term training, coaching and consultation at the country level. Donors should coordinate HRM-related IST programs to ensure consistency and prevent duplicative training of the same individual multiple times.

• Support actions to strengthen the basic HRM systems that are needed to address the HRH issues.

• Participate actively in inter-sectoral stakeholder leadership groups that focus on HRH development and coordination.
E. Initiate Prioritized Implementation of Costed HRH Strategic Plans

HRH plans often are not being implemented because of absence of sufficient resources. Some plans are quite comprehensive and ambitious and do not have accompanying operational plans to detail how to carry out the strategies and activities. When there is less funding than is needed, difficult choices have to be made about what gets funded and what does not. Too often these difficult choices are not made; no action is taken; and the plan begins to lose momentum.

Actions for countries:

- HRH plans should be developed and presented as an assembly of separately costed, coherent building blocks, which can then be prioritized and implemented as funding becomes available and as management systems are able to support these changes. Prioritizing and costing out HRH needs into manageable segments can provide strong justification with MoH and MoF decision-makers for needed budgetary increases particularly if analysis of each segment demonstrates the cost-effectiveness of its implementation. Portions that have minimal recurrent cost budget implications may also be attractive to donors.

- A broad range of in-country stakeholders and partners should be invited to participate in developing HRH plans. If these groups have been consulted and invited to participate in developing plans, they are more inclined to support and champion implementation. Provincial and district managers should also be involved to decentralize decision-making and facilitate action. Involvement of HIV/AIDS-related NGOs, activists, and workers can help to ensure issues of importance in HIV/AIDS service delivery are considered.

- HRH plans should be mainstreamed and included as part of or annexed to the national health strategy and plan, as the latter is the document that typically is considered by ministries of finance and donors for funding.

- A person should be appointed to be in charge of HRH strategic plan implementation and announced publicly with appropriate fanfare. A small but inclusive inter-sectoral steering group should be formed to work with the HRH plan implementation leader, including representation from public service commissions, finance and education ministries and other key stakeholders, to ensure that bottlenecks are addressed and clear milestones set to ensure accountability. A small secretariat should be established and funded to support the implementation agenda.

- Leadership, both senior and mid levels, should acknowledge the importance of HRH strategic plan implementation, and publically recognize in a variety of ways those who achieve implementation goals. Leaders should recognize and celebrate publically when important implementation milestones are reached.

Actions for international partners:

- Be willing to fund implementation work. One good way to do this is to provide funding for a small secretariat in the ministry of health that would serve as the engine for strategic plan implementation. Partners could also watch for particular areas of the implementation process where funding is a bottleneck and provide the resources to move it forward.
F. Scale up successful HRH approaches, particularly task shifting and community health worker cadres, including the development and implementation of national policies to support these practices

Task shifting can make more efficient use of health workers, but experience highlights potential complications when support in the form of supervision, training, and supplies and equipment for those health workers receiving the new tasks is inadequate, when there is insufficient buy-in or support from the respective health professional associations, and when the new cadres, especially at community level, are not linked to the formal health care system.

Actions for countries on task shifting for HIV/AIDS services:

- Ensure that national policies that guide and support task shifting are developed, disseminated and implemented at service delivery levels

- Strengthen the systems supporting task shifting to ensure successful scale up:
  a. The most appropriate cadre has been designated to take on the shifted tasks;
  b. Training curricula and materials by program area are available and appropriate training methodologies are used; and
  c. Supportive supervision is in place to mentor and support cadres assuming new responsibilities.

Many countries see community health workers as a way to address the HRH gap; however, to bring the CHW up to scale requires financial resources; leadership at national, district, and community levels; and the human resource management systems to support the cadre.

Actions for countries on use of CHWs for HIV/AIDS services:

- Make sure there is a comprehensive CHW policy and strategy and that it is integrated into the HRH Strategic Plan and the national health systems.

- Involve key HRH stakeholders in the decision-making process, including relevant government bodies, community leaders, civil society, private not-for-profit and health professional groups.

- Ensure that any scale up of the CHW cadre in national health systems and/or in non-governmental initiatives makes adequate provision of the additional costs and resources required for supporting the cadre (including training, supervision, equipment and supplies, transport).

- Prepare and engage the community from the start of the initiative in planning, selecting, implementing, monitoring and supporting CHWs.
• Integrate the management and supervision of CHWs with other health workers, using a team approach. It should be developmental, systematic, planned and budgeted for accordingly, in order to achieve the desired service delivery and health outcomes.25

G. Address health worker retention, motivation and job satisfaction to maximize current health care workforce potential

Financial incentives, while helpful, are not affordable for most countries, and even in Thailand, where very attractive financial incentives have been put into place, they are not entirely successful. Further, lack of alignment of donor policies on salary supplements and discrepancies in pay and work conditions between HIV/AIDS workers in activities receiving donor support and other workers can cause unintended disincentives.

There are relatively simple, low cost strategies that can be implemented at the workplace level and can be used to improve distribution, promote retention, and improve motivation and job satisfaction. These suggested actions are in line with the newly published WHO paper on retention, Increasing Access to Health Workers in Remote and Rural Areas Through Improved Retention.

Actions for countries:

• For deployment to hard-to-reach populations to be viewed more favorably, develop and implement a policy of defined assignments of three to five years in a facility in a remote or undesirable location with guarantee for further study, career progression, and/or placement in other health facility. More significant incentives may be required to entice more specialized health workers to rural areas such as bank loans, free housing, scholarships for further study, and access to internet.

• Recruit from areas of the country with the largest HRH gaps. Health workers are more apt to stay if they work in their home province or district.

• Assess health worker motivation preferences to determine the most relevant and realistic package of incentives for improved retention. Motivational factors vary by type of health worker, geographical region, gender, and culture. Secure funding to implement incentives, and develop the human resources management processes to ensure they are well administered. With scarce resources, it can be more cost effective to use incentives to keep a health worker than it is to train a new one.

• Implement work climate improvement interventions to relieve some of the stressors in the work environment, improve performance and productivity, and give dignity and pride to health workers and patients seeking care at the health facility. Teams at health facilities can determine what interventions would improve their motivation and performance and work together to

implement them. Low cost but impactful interventions including painting the facility, cleaning the yard area around the facility, providing adequate seating, providing tea breaks, posting clinic hours and clear signs to improve client flow, ensuring supply of essential drugs and commodities, strengthening workplace safety procedures, and providing protective supplies and equipment, among others.

- Institute an HIV/AIDS workplace safety policy and free (or at least reduced cost) medical services for all HRH workers and family. Health workers are more motivated and productive when their own health and that of their family is stable and well provided for. The work of the Alliance Private Sector Task Force is relevant here. It is aimed at: a) accelerating the scaling up and cross border implementation of private health-sector initiatives to increase health worker supply and retention; b) building the capacity of health systems in selected African countries to interact more effectively with the private sector; and c) developing a health workforce private model in three African countries. In addition, the Positive Practice Environment (PPE) Campaign, which aims at improving practice environments in three African countries, is relevant to provide lessons and models to improve motivation and retention.

**H. Going forward, increase the attention given to HIV prevention**

In order to address the issue, there is a pressing need to define and operationalize the HIV prevention workforce.

*Action for International donors:*

- We recommend the formation of an inter-agency task force – possibly under the Alliance umbrella or the existing HIV & HSS Working Group – aimed at bringing prevention and HRH experts together to define HR requirements to implement key components of national prevention strategies. This might include, for example, how to organize HRH for HIV prevention treatment and care among MARPS, HR for HIV prevention in generalized epidemic.
Annex 1: Summary of Five Country Rapid Situational Analyses

Côte d’Ivoire
Ethiopia
Mozambique
Thailand
Zambia

The complete reports – Human Resources for Health Implications of Scaling Up for Universal Access to HIV/AIDS Prevention, Treatment, and Care – can be found on the Global Health Workforce Alliance Website. www.who.int/workforcealliance/about/taskforces/access/en/index.html
SUMMARY – CÔTE D’IVOIRE RAPID SITUATIONAL ANALYSIS

Context
Côte d’Ivoire, a medium-size country with a population estimated at 19 million, is the largest economy in the West African Economic and Monetary Union. Civil conflict over the last 10 years has resulted in serious disruptions for the country. Up to 3,000 people were killed during this civil conflict and up to 700,000 were displaced. During this period, poverty increased at an alarming rate. Access to and delivery of basic social services, especially in the war-affected areas, deteriorated. As the political situation normalized in 2007, the economy has recovered somewhat and growth is estimated to have reached 3.7% in 2009, bolstered by continued post-crisis recovery activities, consolidation of the peace process, successful elections, and restored investor confidence.26 Côte d’Ivoire is a high-burden, low-income country with an estimated 480,000 adults and children living with HIV/AIDS at the end of 2007. The epidemic is generalized with an estimated adult prevalence of 3.9%. The prevalence is higher in urban areas. Data from urban antenatal care clinics surveyed show that prevalence has declined since 1998. In 2007 the coverage of antiretroviral therapy (ART) was around 25%, and prevention of mother-to-child transmission (PMTCT) services was 15%.27

Substantial efforts have been made in prevention, care, and treatment. Decreasing costs of drugs, social mobilization, and increased numbers of ART sites have contributed to significant progress in treatment coverage. Similar improvements have been seen in PMTCT with free ART for HIV positive pregnant women, expansion of the number of sites, and integration of services. Improvement in prevention is much more significant in specific high risk groups, such as sex workers and men having sex with men, than in the general population in which knowledge on HIV and testing service uptake is still low.28

HRH Promising Practices
Côte d’Ivoire has engaged in activities to address their HRH crisis. Among these are:

- Developed an HRH Strategic Plan. Through 3 major HRH assessments since 2005, and in collaboration with stakeholders and partners MoH has developed an HRH Strategic Plan to address the HRH gaps.
- Using GESPERs software to support the collection of human resources information. This is the beginning of a human resources information system.

26 World Bank Côte d’Ivoire Country Brief.
27 Côte d’Ivoire Progress on Universal Access and the Declaration of Commitment on HIV/AIDS. Data from Côte d’Ivoire UNGASS country progress reports (2003, 2005 and 2007).
• **Putting HIV content into schools of medicine.** They have launched a new 6-month course in the diagnosis and treatment of HIV, including practice and community training, into the schools of medicine. There is also a 12-month postgraduate course for medical students on HIV, TB, and malaria management.

**HRH Gaps and Challenges Affecting Universal Access**

Following a massive attrition rate among health workers due to the conflict in 2002, the current supply of health workers meets only 40% of the identified needs. The lack of nurses is a major constraint to meeting HIV/AIDS targets. The following are the most critical gaps:

- Significant gaps in skilled health workers throughout the country, however, it is especially severe in the regions where there was significant conflict.
- Inadequate institutional capacity in HRH management at the central and decentralized levels, which causes problems throughout the health care system.
- Insufficient capacity in the production of HRH by certified pre-service training institutions.
- Insufficient focus on HRH as a serious factor in providing all health services, not just HIV/AIDS.
- Insufficient budget allocation to HRH.

**Important Key Messages**

Côte d’Ivoire is making progress in its efforts to achieve universal access for HIV/AIDS services, and doing so in the midst of significant challenges – disruptive internal conflict, declining numbers of health workers, and insufficient financial resources. There are several actions to be taken that could have a positive effect:

1. **Task shifting.** Currently there is no written policy or guidance on task shifting; however, it is taking place. The MoH should hold a forum of all stakeholders in the country and reach a common understanding and agreement on how task shifting will be implemented.

2. **Leadership and advocacy needed to implement the strategic plan.** The plan courageously addresses all major health issues in the country, and implementing it will be a major task. Forming a stakeholder leadership group whose members come from various stakeholder groups could help the MoH provide leadership and advocacy for carrying out implementation activities. It also helps to prioritize implementation activities using available funding to work on the most urgent activities.
3. **Donor support critical.** Donor support and funding are critical to progress in strengthening HRH in Côte d’Ivoire. Over the last several years the country has received HIV/AIDS grants from the Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM) for $54 million and has disbursed approximately $44 million to support their HIV programs. The Côte d’Ivoire Round 9 GFATM proposal has been approved for approximately $64 million.\(^{29}\) This grant has a health systems strengthening component, which is focused on strengthening the health information system. It will be important that country resources and donor support focus on ensuring that the grant is implemented successfully, and that grant funds are programmed to address the large HRH gaps in the country. The Country Coordinating Mechanism (CCM) should make every effort to obtain and use GFATM grants to address HRH.

4. **Increase the number of certified health workers.** Promote the training of health auxiliaries (nursing assistants, community health workers, etc.) and their effective use. Strengthen the capacity of pre-service training institutions.

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\(^{29}\) GFATM Website Information on Grants to Côte d’Ivoire.
SUMMARY – ETHIOPIA RAPID SITUATIONAL ANALYSIS

Context

Ethiopia is one of the poorest countries in sub-Saharan Africa, with a gross domestic product (GDP) per capita of $223 per year. For the past five years, the HIV/AIDS prevalence was 2.2% and is expected to rise to 2.4% in 2010. There are substantial prevalence differences between urban (7.7%) and rural (0.9%) settings. With a population of approximately 74 million, Ethiopia is home to one of the largest populations of people living with HIV and AIDS.

In order to address this problem, Ethiopia provides widespread access to free HIV/AIDS services and there are awareness-raising efforts as well as public campaigns to promote voluntary counseling and testing (VCT) and antiretroviral therapy (ART). There are programs in place to accelerate the training of health officers, and through the health extension program, two governmentally employed health extension workers (HEWs) were placed in each health post, totaling 30,000 HEWs. HEWs received one year of training and were then responsible for rolling out four packages of promotive and preventive services at the community level, including HIV/AIDS related prevention, care, and support. Plans are underway to further involve them in service delivery, household counseling and testing, and prevention of mother-to-child transmission (PMTCT).

There are scale up issues with ART, VCT, PMTCT and ANC, which are a likely result of the severe limitations of the Ethiopian health workforce, and in view of the country’s modest GDP, there are limitations to closing these gaps. However, there are promising practices in place to address these, and the country has shown progress in rolling out universal access for HIV/AIDS prevention, treatment, care and support.

HRH Promising Practices

A number of reasons underlie Ethiopia’s relative success in rolling out universal access:

• **Addressing retention as a matter of urgency.** The draft Human Resources for Health Strategic Plan (HSP 2009-2020) lists a number of suggestions to address retention, which is agreed to be a priority, and promising practices are being tested.

• **Decentralization.** Federal and regional level structures and mechanisms for policy setting and implementation are in place in Ethiopia. Policy development and standard setting takes place at the federal level. Implementation (including more specific budgetary choices; HRH management; and the hiring and firing of health workers) has been decentralized to the regional, zonal, and district levels.

• **Expansion of facilities.** In the last ten years there has been an expansion of health centers, universities, and private sector health science teaching institutions.
• **Multisector approach.** HIV/AIDS is mainstreamed in the curricula of all three education sub-sectors, vocational, general, and higher education.

• **Task shifting.** ART has been successfully shifted from doctors to nurses; lay counselors have also been engaged.

### Significant HRH Gaps and Challenges Affecting Universal Access

While Ethiopia has shown progress in addressing their HRH problems, there remain serious gaps and challenges. The most serious remaining HRH problems are:

- Substantial financing gaps limit funding of approved health center positions.
- Shortage of qualified pre-service education staff and tutors.
- The HRH Strategic Plan, HSP 2009-2020, is not finalized nor costed.
- Relationship between pre-service training and in-service training needs improvement.
- High attrition rate among health professionals in public service, internally to private sector and externally to other countries offering higher pay and better conditions.
- Extremely low salaries.
- Unequal distribution of health workers (37% of public sector physicians are in Addis where only 5% of the population lives).
- Low capacity for supportive supervision.

### Important Key Messages

The integration of HIV/AIDS services is a leading theme of the Ethiopian MoH and all partners, and a multisector approach is embraced, which is necessary to address many of the gaps mentioned above. However, there are limited resources available and incidence is not declining. The below recommendations are intended to focus on actions that, in this context, would have significant impact on scaling up universal access at a modest cost.

1. **Address HRH retention.** Retention approaches in the draft HRH Strategic Plan, HSP 2009-2020 should, with the support of all partners, be developed into a general policy and implementation plan.

2. **Strengthen the health workforce by regulating, coordinating, and managing in-service training.** Coordination is needed between the various organizations, programs, projects, and initiatives for HIV/AIDS pursuing in-service training. A clear in-service training policy is needed that will address how to optimize efficiency through coordination and where additional training is really needed for better service delivery.
3. **Boost mechanisms to focus pre-service education on all aspects of service delivery and to maximize efficiency in the balance between pre-service education and in-service training.** Strengthen pre-service education so health workers are fully equipped to handle health services delivery challenges. Strengthen the linkage between PSE and IST to prevent expertise gaps.

4. **Support and regulate private sector human resources for health education and health service delivery.** The private sector is an integral part of the health sector for which the government is equally responsible. Norms, standards, and support should be the same for the health sector as a whole.

5. **Reconsider the conceptual flooding sequence: volume-speed-volume.** Quite a number of the promising mechanisms and practices listed above are achieved by the “flooding strategy”, which recommends training thousands of health professionals to resolve the weaknesses of the Ethiopian health workforce, and to respond to migration. The pressures exerted on the system by this approach leave little room for pilot studies, oversight, M&E, or operations research.

6. **Accelerate completion of the HRH Strategic Plan 2009-2020 (HSP II) with full partnership support.** Completion of the HSP II can only be pursued with full engagement of all partners under the leadership of the MoH. Priorities must be agreed to due to resource limitations. As it will be some time before the plan is finalized, begin implementing priority actions.
SUMMARY – MOZAMBIQUE RAPID SITUATIONAL ANALYSIS

Context
Mozambique is a high-burden, low-income country with an estimated 1.7 million adults and children living with HIV/AIDS in 2010, and an estimated adult prevalence of 14%. Government has embarked on an effort to broaden access to antiretroviral and TB treatment by decentralizing the integration of HIV/AIDS services into the essential health package. There has been a tremendous expansion in the number of health units providing antiretroviral therapy from 39 in 2005 to 221 health units in 2009 with further expansion to an additional 82 facilities in 2010. Although the proportion of eligible HIV-positive patients 15 years of age or older who received ART increased from 2% in 2003 to 32% in 2009, about two-thirds of eligible persons still do not receive treatment.

Prevention of mother-to-child transmission (PMTCT) has been a particular success story. In 2002, the Ministry of Health (MoH) launched a comprehensive national PMTCT program, which then was integrated with existing maternal and child health (MCH) facilities and linked to other services, such as nutrition, pediatric treatment, and malaria control to ensure the program reaches as many pregnant women as possible. The number of PMTCT sites has increased from eight in 2002 to 832 in 2009. Currently almost 80% of all pregnant women receive counseling and testing.

The shortage of health workers in Mozambique is a major barrier to fully attaining MDG goals. Government and the MoH have developed a comprehensive Workforce Development Plan for 2008-2015 that addresses issues such as lack of training capacity, recruitment bottlenecks, low pay, low motivation, misdistribution, movement out of the public sector, limited management capacity, and a severe absolute and relative deficit of health workers.

HRH Promising Practices
Mozambique has engaged in a number of activities that are showing very promising results. Among these are:

- **Decentralization and integration of HIV services to scale up access.** By integrating HIV/AIDS services into decentralized levels the Moh is seeking to rapidly expand access to care and treatment by bringing the services closer to the population in their districts.

- **Development of the National HRH Development Plan.** The Moh developed a comprehensive, costed plan to substantially increase the numbers, management, and support for HRH over the period 2008-2015.

- **Government-partner coordination human resources (HR) technical working group.** The Moh, led by the director of the HR Department, chairs an effective technical working group with 11 in-country donors and partners to coordinate closely on HR-related issues.
• **Accelerated training plan.** To respond to the health worker shortage in 2006 the Moh implemented an accelerated training plan to increase the number of basic and mid-level health workers prepared to provide integrated HIV/AIDS services. A high level of funding was provided to the public training institutions to conduct additional courses to produce over 3,000 new health workers.

• **Task shifting to scale up HIV services.** To help redress HRH shortages and workload issues while scaling up HIV services, the Moh has agreed to progressive task shifting to delegate HIV treatment, care, and support responsibilities to other cadres.

• **Decentralization of human resources management.** To increase autonomy, reduce bureaucracy and decrease the time required to process a number of HR procedures, the government has decentralized HR management to the provincial and district levels.

**Significant HRH Gaps and Challenges Affecting Universal Access**

The health workforce gaps and challenges in Mozambique most assuredly affect their ability to move toward universal access to HIV prevention, treatment and care. Without significant progress in resolving these workforce challenges, universal access will not be attainable. The most serious HRH problems are:

• Implementation of the costed, strategic HRH plan is slow due to funding constraints;
• Insufficient numbers and types of qualified health workers to address HIV/AIDS;
• Unequal distribution of the health workforce;
• Attrition of specialized health workers and managers;
• Low motivation and job satisfaction among health workers;
• Insufficient pre-service training capacity;
• Limited human resources management capacity;
• Limited procurement and logistics management capacity;
• Weak health information systems.

**Important Key Messages**

Without adequately resolving the HRH crisis, Mozambique will not be able to achieve universal access for HIV/AIDS treatment, care, and support; nor the more comprehensive integrated health package. Country leadership and partner support are needed to carry out these essential recommendations:

1. **Need to move the costed, strategic HRH development plan to prioritized implementation as swiftly as possible.** There are many barriers to implementation of HRH strategic plans. Among these are funding, political will, and leaders overwhelmed with the magnitude of the problems. It will be important that leaders with the participation of international partners actively advocate, set priorities and begin implementing the plan according to these priorities.
2. **Strengthen pre-service training capacity to increase numbers of professional health workers.** It will be important to a) develop a systematic plan for improving training institution capacity in terms of human, physical and financial resources to ensure steady increase quality production of new health workers; b) focus on increasing the number and quality of teaching staff and c) consider outsourcing training to private training institutions that have proven quality and adequate capacity.

3. **Improve distribution, motivation and retention of health workers.** The National HRH Development Plan contains timely and relevant actions that if taken will bring about these essential improvements. It will be important for leaders to advocate for these practices and ensure they are among the first steps taken in prioritized implementation of this plan.

4. **Increase capacity for HRH management.** Without effective human resources management systems, it will be extremely hard to achieve and maintain gains made in addressing the health worker gaps in Mozambique. HR systems should be analyzed and weaknesses addressed. Plans to strengthen the HR information system should be carried out. HR managers both at district, regional, and national levels will need professional-level training and support in order to carry out their functions.

5. **Continue to emphasize multi-sector participation/coordination and provincial and district level involvement.** The intersection of HRH and HIV/AIDS involves a broad range of in-country stakeholders and requires multisectoral participation and coordination to ensure maximum use of resources. Key players should be the HR department and other key departments in the Moh, Ministries of Finance, Public Administration, National AIDS Council, donors, and partners. It is important to include actors outside government such as nursing association, civil society organizations, faith-based organizations, and people living with HIV/AIDS. In addition while most policies and decisions are made at the central level, their implementation takes place at the provincial and district levels. As such decentralized levels should be true partners in operationalizing new policies and plans.
SUMMARY – THAILAND RAPID SITUATIONAL ANALYSIS

Context

Thailand has been hit hard by the AIDS epidemic since the mid 1980s. The HIV incidence in the early 1990s was more than 100,000 per year. With effective preventive measures, especially the 100% condom usage among commercial sex workers started in late 1980s, the epidemic was halted and the trend reversed. The incidence in 2009 was only around 14,000 per year. This greatly exceeds the target set forth in the Millennium Development Goals. In October 2003, universal access to antiretroviral (ARV) drugs was approved as the national policy and was achieved rapidly. Since 2006, it has been integrated into the universal health insurance scheme and mainly based on local resources.

HRH Promising Practices

There have been four important factors that have contributed to Thailand’s success:

- **Strong multi-sectoral political commitment and leadership.** Since 1990 Thailand has had a multi-sectoral National AIDS Committee (NAC), chaired by the Prime Minister. The strong top political support allowed effective inter-sectoral collaboration (as in the case of the 100% condom program) and the allocation of adequate resources (e.g. to universal access to ARVs) to tackle the epidemic.

- **Strong Civil Society Organizations (CSOs) movement.** The CSO networks play instrumental roles in de-stigmatization, accessing the difficult groups like the IVDUs and the MSM, and the movement on universal access to ARVs. They were included in the NAC from the beginning. They are also the Principle Recipients (PRs) for the Global Fund grants (GFATM) since 2003. They are members of the sub-committee on HIV/AIDS to implement the universal access program. They also pushed for the government use of patent to the 2nd line ARVs.

- **Long-term Continuous investment in health care systems.** This continuous investment has resulted in the universal coverage of basic health infrastructures and services since late 1980s. The universal health insurance coverage in 2002 further eliminates the financial barriers to essential health care, including ARVs.

- **Early on aggressive actions to prevent the spread of HIV.** The very effective 100% condom coverage among sex workers program, supported by a strong social campaign, has rapidly reduced the incidence by as much as ten times in less than 20 years.
Remaining Challenges Affecting Universal Access

There are still gaps in preventing the emerging trend from casual sex, especially among teenagers and married men, men who have sex with men (MSM), and intravenous drug users (IVDUs).

- Access to counseling and testing is still low. This results in most patients starting to receive specific treatment at very low CD4 level. There is also a need to provide appropriate care to asymptomatic positive people.
- Compliance to the first-line ARVs, although quite high (more than 75%) requires close monitoring to ensure continuity to avoid ARV resistance.
- Retention of health workers in the rural and hardship areas is difficult. The rapid turnover, especially among medical doctors, requires continuous training and retraining on HIV/AIDS and task shifting.
- Transmission and access to care among more than 4 million migrants, especially illegal migrants, as well as half a million stateless people is difficult.

Important Key Messages

1. The Ministry of Public Health should immediately and continuously carry out estimates on the future shortage of HRH in the rural areas, especially doctors and nurses. Plans to increase the production, in response to the shortage in the rural areas, should be effectively implemented. As we have more than 50 nursing colleges and 15 medical schools, both public and private, we should be able to scale up production quickly, without having to build new colleges. The standards, especially the number and quality of teaching staff, should be very carefully prepared, however. This increase in production should be based on the rural recruitment, local training, and hometown placement concepts. This will ensure higher retention in the rural areas. All the current financial and non-financial incentives to ensure higher retention of HRH in the rural areas should be maintained and effectively implemented.

2. The Ministry of Public Health and related partners should ensure the continuity of and improve the regular in-service training programs on HIV/AIDS care for the five cadres of HRH that are essential to deliver the services for universal access. These include medical doctors, nurses, counselors, pharmacists, and laboratory technicians. There should be additional training of nurses to become counselors with more focus on those hard hit areas.

3. Enroll those clearly defined stateless people into the universal health coverage program. The National Health Security Office should enroll the clearly defined stateless people into the universal health coverage program as soon as possible. Funding support from GFATM and other donors should be mobilized to provide highest access to essential prevention, treatment, and care services to the unregistered stateless people, and the mobile illegal migrant workers. Special effective and comprehensive long-term programs, based on local resources, should be formulated and implemented among the illegal migrants.
4. Secure continuous funding support from the Global Fund and other donors to ensure highest access to essential prevention, treatment, and care services for stateless people, mobile illegal migrant workers, and difficult to reach high-risk groups (especially MSM and IVDUs via CSO networks). These high-risk groups are either outside of the national universal access program, or difficult to reach by normal public services. Thailand spends around US$ 250 million to deliver universal access to AIDS prevention, treatment, and care; 20% or around $US 50 million are supported by the GFATM grants. These Global Fund budgets are mainly for prevention and delivery of essential services to illegal migrants and stateless people.

5. Long-term continuous investment in health care infrastructures and qualified health workers is the most important essential determining factor for the long-term sustainable success of the universal access to HIV/AIDS prevention, treatment, and care. Vertical programs should not be expected to be the mechanism for long-term investment on health care systems. Thus, Thailand must ensure adequate long-term commitment to further strengthen the health care infrastructure.

6. Universal access to HIV/AIDS prevention, treatment, and care should continue to be integrated as part of Universal Access to overall essential health care, based on primary health care and should not be treated separately. The budget to provide universal access should be part of the universal health insurance systems so that it has firm commitment and can be allocated appropriately along with the budget for other essential health services.

7. Intensive prevention program on healthy sexuality to promote safe sex among youth, and extensive expansion of counseling and testing should be planned for and carried out. Training on life skills and healthy sexuality should be an essential part of the curricula in all high schools, with the support of good learning materials and resources. This movement would, in the long run, help address the problems of unplanned teenage pregnancies, HIV/AIDS and sexually transmitted infections, and violence against women.

8. Special long-term, sustainable, continuous, effective, socially acceptable, and comprehensive solutions, integrated within the health care delivery programs, should be formulated and implemented among the high risk groups such as youth, MSM, IVDUs, and migrants and stateless people. Operational research should be established to test innovative effective solutions to be implemented among youth, MSM, and IVDUs. The knowledge gained should then be channeled into the national policies and the actions under the universal health care coverage scheme as soon as possible. The 4 million migrant workers are a high risk but neglected group of people that may spread the disease beyond the national boundaries. Both legal and illegal migrant workers should be provided with adequate social and health care services, including AIDS care. Provision of services to the legal migrant worker has already been implemented. The quality of services needs to be improved. The provision of essential services to the illegal groups is quite challenging, as they are both illegal and also highly mobile.
SUMMARY – ZAMBIA RAPID SITUATIONAL ANALYSIS

Context
Zambia has a population of 12.2 million with a population growth of 3.1% per year. The HIV/AIDS prevalence of 15.6% in adults aged 15-49 reported in 2001 has declined slightly to 14.3% in 2007. Zambia has one of the most rapid scale-up treatment programs on the African continent. ART coverage rose from 0.6% to 51% in the period 2003-2008, and is 66% currently. A combination of factors made rapid scale up of ART possible, one of which was that in 2005 the Government of Zambia made ART drugs and services freely available, and declared HIV/AIDS a National Disaster. A sector-wide approach was developed, and all sectors addressed HIV/AIDS in their strategies and policies.

The number of individuals receiving care has also increased. According to the World Health Report of 2006, Zambia is one of the 57 countries with a critical shortage of health workers. One successful activity that addressed this shortage was the 2006 pilot of the Zambia Health Workers Retention Scheme for doctors. It brought a doctor to every district and has been expanded to include nurses, midwives and clinical officers. Currently 825 health workers are enrolled, and the target is set at 1500.

The Government of Zambia, through the Moh, is responsible for the health sector at large. The Moh manages not only the public sector, but also carries responsibility for the private not-for-profit and the private-for-profit sectors through rules, regulations, and standards, with the objective to promote and protect the health of the people.

Although an HRH information system is still under development and numbers are not entirely reliable, the size of the present health workforce is 33,000 while the governmentally approved target is 52,000. Moving more fully toward universal access to HIV services will require HRH solutions.

HRH Promising Practices
There are several HRH improvements that have led to better and more HIV/AIDS services in Zambia, including:

- **Productivity and Motivation.** A health worker productivity study found that implementing the HIV/AIDS workplace policy and boosting motivation could lead to substantial gains in HRH productivity. This formal HIV/AIDS workplace policy covers the treatment of the health workers themselves. While this policy has not yet been widely implemented in the health facilities, it is an important HRH improvement.

- **Leadership.** The Zambian government strongly supports HIV/AIDS prevention, and various ministers speak out about new interventions and address underlying issues.

- **Task shifting.** Lower cadres, who can identify the patients for referral to a higher-level service provider, can also adequately deal with medicating patients and have contributed to the rapid scale up in ART delivery.
Significant HRH Gaps and Challenges Affecting Universal Access

A fair number of assessments, analyses, and plans addressing health and the health workforce problems in Zambia have been undertaken. Though there are many options and there is no shortage of actions that can and should be taken, nor is there much uncertainty about what steps to take. Major challenges preventing implementation are the lack of funds for HRH, lack of coordination, and governance issues.

- Although ART is rolling out rather rapidly, prevention still lags. HIV incidence remains virtually unchanged. This will rise if no effective prevention is implemented, and the HIV/AIDS burden will continue to overburden the limited health workforce.

- At many health facilities, health worker motivation remains an issue.

- Community health workers have contributed greatly in the rapid expansion of ARV delivery. However, a comprehensive community health policy and strategy does not exist. Community Health Workers National Strategy of 2009 addressed the situation and offered a number of strategic options. However, little action has resulted due to a lack of funding.

- Over 50% of the total health sector budget comes in from outside of the country, and the government budget for health has decreased due to economic recession.

Important Key Messages

1. **Leadership.** Additional leadership and action is needed for Zambia to implement the eight core areas listed in the National Strategy for the Prevention of HIV and STIs.

2. **Community Health Workers.** A clear and effective CHW strategy, policy and structure are required and should include priority conditions that may be prevented, handled or supported at the community level.

3. **Productivity and motivation.** Institute the HIV/AIDS workforce policy from the HR strategic plan of 2006, which provided for free medical services for all HRH workers and family.

4. **HRIS Strengthening.** Develop the payroll-based HRH database into a full HRIS for more accurate and reliable information on all sectors of the health workforce.

5. **Advocacy.** Promote development and implementation of an HRH advocacy plan to promote awareness of the value of health workers and that a strong health workforce is needed for a healthy and productive population.

6. **Partnership and capacity building.** NGOs should promote professional development of the Moh staff to ensure sustainability. While over 50% of the funding for the health sector comes from abroad very little of this funds additional posts for health workers. Large-scale efforts to control the HIV/AIDS epidemic do not make the system any less labor intensive. Therefore, more resources should be considered for strengthening the healthcare workforce that will be required to move towards universal access.
Will we achieve universal access to HIV/AIDS services with the health workforce we have?
Access to prevention: Continuous availability to everyone of the full range of HIV interventions that prevent infection, including programs targeting individual behavior (information and education and programs affecting the range of behavior changes that reduce the risk of HIV transmission); broad-based efforts to alter social norms and address the underlying drivers of the epidemic; and effective use of biomedical or technological tools, such as treatment of sexually transmitted infections (STIs), medical male circumcision, substitution therapy for chemical dependence, and programs that provide access to clean injecting equipment.

Chronic care model (CCM): Used in Mozambique in this study, a CCM is a structure for organizing health care for chronic disease conditions such as HIV/AIDS; and is comprised of four parts: (1) self-management support, (2) delivery system design, (3) decision support and (4) clinical information systems. Self-management plays an important role, includes the patient's family, and requires that patients and families should be informed about the condition, including expected course, complications, and strategies to prevent complications and how to manage symptoms.

Community health worker: The umbrella term “community health worker” (CHW) embraces a variety of community health aides selected from and working in the communities from which they come. A widely accepted definition was proposed by WHO:

Community health workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers.

CHWs are trained to carry out one or more functions related to health care. CHWs may receive training that is recognized by the health services and national certification authority, but this training does not form part of a tertiary education certificate. In this study, CHWs refers to workers who were trained under guidelines approved by the government and are paid by the government. Individuals receiving training as long as one year, such as the Ethiopia Health Extension Workers, are considered CHWs, as are workers with much less training.

Costed, prioritized HRH strategies, or costed “building blocks”: Each component (or building block) of the HRH strategy is separated out and given a priority (in terms of timing and funding); and sufficient costing information provided to convince a Ministry of Finance or donor that the activity can be completed within the time and budget requested. In this way, separate elements of the strategy can be marketed and funded, so that even if the entire strategy cannot be implemented, the highest-priority elements are funded.
Decentralization of HRH management: This refers to delegation of authority to regional and facility managers to make the key personnel decisions affecting their operations, within national guidelines and policies. This may include recruitment, hiring, performance appraisal and termination of staff, and training/professional development activity.

Flooding method: Ethiopia’s strategy to train and field thousands of health care workers quickly to fill the gaps. Emphasis is, in order of priority, on volume (large numbers of individuals trained and fielded), speed (rapid implementation), and quality (quality issues related to rapidity of scale-up to be addressed as they occur).

Fully operational: Fit or ready for use, with each of the processes or series of actions necessary for complete functionality in place, and in force or in operation. In this report, “fully operational” is used to describe an HRIS that functions as intended, on time, and in all parts of the health system.

Human Resources for Health (HRH) Strategic Plan: The purpose of an HRH strategic plan is to provide guidance for the staffing of a government’s health services and the training of health service personnel over a specified multi-year period. It analyzes main issues and dimensions in HRH and proposes strategies to meet the workforce requirements needed to achieve planned health targets, taking into account for each of the major categories of health personnel, the present level of staffing, expected losses and entry into the workforce, training requirements and budgetary needs. The HRH strategic plan should be a part of, and aligned with, the country’s overall health sector strategy.

Human resources information system (HRIS): A data collection and analysis system, usually using a software or online solution, for the data entry, data tracking, and data information needs of the Human Resources, payroll, management, and accounting functions within an organization. Typically, the better Human Resource Information Systems (HRIS) provide overall:

- Management of all employee information.
- Reporting and analysis of employee information.
- Company-related documents such as employee handbooks, emergency evacuation procedures, and safety guidelines.
- Benefits administration including enrollment, status changes, and personal information updating.
- Complete integration with payroll and other financial software and accounting systems.
- Applicant tracking and resume management.

Human resources management system (HRMS): Integrated use of data, policy and practice to plan for necessary staff, recruit, hire, deploy, develop and support health workers. The system includes well-supported human resource units with capacity to carry out defined HRM functions.
Integration of HIV into national health care services: Incorporating HIV/AIDS prevention, counseling and testing, treatment, care and support into the other services provided by general health workers at the community and hospital levels, rather than treating it as a vertical program. This may involve training primary and secondary health care workers in HIV/AIDS prevention, care and support rather than hiring a separate cadre of HIV/AIDS workers and specialists; providing HIV/AIDS services at community health care facilities rather than at separate facilities; and following lines of professional development, supervision and performance appraisal that apply to other health care workers, rather than separate lines applicable only to HIV/AIDS workers. There are various levels of integration – it can occur at the facility level, at the regional level, and at the national level. The emphasis in this report is on integration at the community and facility level, and as part of the overall HRH management system.

Leadership Action: Actions that need to be taken by high-level leaders, such as heads of state, Ministers of Health or other high officials of the Ministry of Health (or other government agencies that have responsibilities for HIV/AIDS prevention and services), to generate the enthusiasm and provide the momentum needed for important changes in policies and practices, or to push forward the implementation of previously agreed-on strategies and practices, to improve the human resources base to scale up HIV/AIDS services. For most of the critical interventions suggested in this report, strong support and promotion by high-level leaders will be required.

Partner support: Technical assistance, financial support, and advocacy with government decision-makers provided by international development partners, in particular the multilateral aid organizations (GFATM, WHO, UNICEF, World Bank) and bilateral donor countries.

Productivity: The level of quality output expected from a specific type of employee. In this report, productivity is used interchangeably with employee performance, which includes both productivity (output while on the job) with availability (absenteeism), responsiveness and competence. These factors are in turn affected by characteristics of the individual, the facility and health system, and the wider political and socioeconomic environment.

Promising practices: HIV/AIDS programs or practices that are meeting success or have promise for success in a country or countries, and that merit evaluation or analysis to determine whether aspects of these programs should be recommended for replications in other countries as well. They are short of “best practices” because they have not yet been fully evaluated.

Retention approaches/strategy: A systematic effort by employers to create and foster an environment that encourages current employees to remain employed by having policies and practices in place that address their diverse needs.

Task shifting: A process of delegation whereby tasks are moved, where appropriate, to less specialized health workers. Task shifting involves the rational redistribution of tasks among health workforce teams. Specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use
of the available human resources for health. Where further additional human resources are needed, task shifting may also involve the delegation of some clearly delineated tasks to newly created cadres of health workers who receive specific, competency-based training.

Universal access: A global commitment to scale up access to HIV treatment, prevention, care and support. The movement is enshrined in the 2006 UN Political Declaration, which states a commitment to setting, “through inclusive, transparent processes, ambitious national targets,… in accordance with the core indicators recommended by the Joint United Nations Programme on HIV/AIDS, that reflect the commitment of the present Declaration and the urgent need to scale up significantly towards the goal of Universal access to comprehensive prevention programmes, treatment, care and support by 2010, and to setting up and maintaining sound and rigorous monitoring and evaluation frameworks within their HIV/AIDS strategies.” The UA movement is led by countries worldwide, guided by ambitious national targets which they set for themselves against key outcome areas – such as ART coverage, prevention of mother to child transmission, coverage of prevention programmes for most at risk groups and testing coverage.

Workplace safety programs: Workplace safety refers to the working environment at a company or organization and encompasses all factors that impact the safety, health, and well being of employees. This can include environmental hazards, unsafe working conditions or processes, drug and alcohol abuse, and workplace violence. In the case of health workers who have contact with HIV positive clients, it may include providing training for employees in HIV prevention and awareness and to prevent stigma and discrimination; precautions to insure that transmission does not occur through contact with contaminated blood or blood products; non-discrimination against employees who are or become HIV-positive; and medical care and counseling for health workers who contract HIV.
Annex 3: Literature Review Summaries

**Literature Review: Scaling-up HIV/AIDS Services (October 2009)**

**Background**

Health care systems cannot perform adequately without sufficient numbers of skilled, motivated, and supported health care workers (HCWs). Yet, a critical shortage of 4.3 million HCWs exists worldwide,\(^{30}\) hampering the delivery of important health interventions, including scaling up HIV/AIDS services toward universal access. In fact, limited human resources for health (HRH) is considered the single biggest obstacle to attaining universal antiretroviral therapy (ART coverage).\(^{31}\) Globally, there are approximately 33 million people living with HIV/AIDS (PLWHA) and two million die each year from the disease. Efforts to scale-up ART for HIV/AIDS are expanding access and 700,000 people received ART for the first time in 2006. However, although progress has been made, approximately seven million PLWHA who needed treatment in 2006 did not receive ART.\(^{32}\) As a result, efforts such as the President’s Emergency Plan for AIDS Relief (PEPFAR), the Global Fund, the WHO 3 x 5 initiative, World Bank programs, and the Millennium Development Goals (MDGs) are directed toward expanding HIV/AIDS services. In addition, the General Assembly of the United Nations (U.N.) has committed itself to providing universal access to HIV/AIDS care by 2010.

In low and middle-income countries, it is estimated that two million PLWHA were receiving treatment by the end of 2006, representing 28% of the seven million in need. In spite of international initiatives to scale-up treatment, coverage of ART varies by region with a low of 6% in North Africa and the Middle East, 15% in Eastern Europe and Central Asia, 19% in Southeast Asia, 28% in sub-Saharan Africa (up from just 2% in 2003), to Latin American and the Caribbean at 72% overall.\(^{33}\)

Sub-Saharan Africa has the highest HIV prevalence worldwide with 23 million PLWHA.\(^{34}\) Sixty-seven percent of all people on ART live in sub-Saharan Africa.

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and almost 90% of the two million children under the age of 15 in this region are in need of treatment for HIV/AIDS.35

Purpose of this Document

In June 2006, at the U.N. General Assembly High-Level Meeting on HIV/AIDS, member states agreed to work toward “universal access to comprehensive prevention programmes, treatment, care and support” by 2010. Five strategic directions were identified: 1) enabling people to know their HIV status, 2) maximizing the health sector’s contribution to HIV prevention, 3) accelerating the scale-up of HIV/AIDS treatment and care, 4) strengthening and expanding health systems, and 5) investing in strategic information to guide an effective response.

This document represents the outcomes of a literature review undertaken to identify and explore the HRH challenges associated with Strategy 3 – scaling up HIV/AIDS services toward universal access and achievement of the health MDGs. The literature review represents Phase 1 of a 3 Phase initiative intended to formulate a set of guidelines and framework for scaling up HRH toward universal access. The framework will include implementation guidelines for countries working to address their health system wide HRH needs and gaps and will form part of the GGWA strategy to address and guide the management and resolution of the HRH crisis.

Document Organization

The literature review is organized into the following sections:

Section 1, Methods – Lists the specific databases and information sources accessed and investigated as part of the literature review. It also lists the key terms and concepts used in the literature search.

Section 2, Findings – Presents the most relevant findings and studies resulting from the literature review around the topic of scaling up HRH toward delivery of HIV/AIDS services. This section also describes the results of a literature review and research undertaken for the 8 target countries in the scaling up HIV/AIDS services. These target countries include Cambodia, Ethiopia, Haiti, Kenya, Mali, Mozambique, Sierra Leone and Zambia. Please note that no relevant studies were found for Mali or Sierra Leone.

Section 3, Discussion – This section distills from the overall findings key themes from the literature review in terms of promising and best practices and recommendations related to scaling up HRH toward achieving universal access. It is intended that material in this section be used to help shape recommendations and implementations guidelines for countries working to address their health system wide HRH needs and gaps.

Appendix A – Provides the broad results of the initial literature search conducted for each of the target countries.

Methods
Searches for relevant articles and reports for this review covered the period from 2000 to 2008 and included the following databases and sources:

- The Cochrane Library
- Google Scholar
- CINAHL
- PUBMED
- HRH Global Resource Center
- USAID Development Experience Clearinghouse
- World Health Organization
- Human Resources for Health Journal
- World Bank
- UNICEF

Key terms used in the literature review included the following:

- HRH, Human resources for health
- Health workers
- Universal access
- HIV
- HIV services
- AIDS
- AIDS services
- HIV / AIDS services
- Scaling up HIV / AIDS services
- Service scale up implications
- Ethiopia / Cambodia / Haiti / Kenya / Mozambique / Mali / Sierra Leone / Zambia

In terms of approach, citations were examined, titles and abstracts screened for eligibility, full text reviewed in greater detail if deemed relevant, and findings pertinent to this literature review presented. Criteria for inclusion included studies or detailed descriptions of the HRH implications of scaling up HIV/AIDS services. Articles and documents that only tangentially discussed the HRH implications or simply mentioned that there are HRH issues to scaling up HIV/AIDS services were not included.
Findings

The WHO recommends the following strategies for strengthening and sustaining efforts to scaling-up HIV/AIDS care and treatment: Capitalizing on recent progress made in access to treatment, ensuring timely access to care and high levels of retention in treatment programs, reducing the cost of second-line regimens (costs have declined for first-line regimens), enhancing collaboration between HIV and tuberculosis (TB) programs, scaling-up access to care (including co-trimoxazole prophylaxis for HIV exposure) and developing comprehensive strategies to prevent, diagnose and treat viral hepatitis co-infection. In addition to these strategies, the Global HIV Prevention Working Group recommends that donors and national governments significantly increase funding for treatment and prevention of HIV.

Researchers have offered other suggestions for scaling-up based on study findings. Gilks (2006) recommends implementing a public-health approach based on decentralized, integrated, equitable delivery of care that uses simplified and standardized operational approaches provided through district networks with treatment teams headed by doctors/medical officers, but primarily comprised of nurses, clinical officers, PLWHA and (trained and paid) lay/community health workers.

Harries, Schouten, and Libamba (2006) also suggest that simplifying the system is essential to success. In addition, regular and secure supplies of drugs to the facilities, good adherence with therapy by patients and compliance with follow-up to lower the chance to develop resistance are needed. Additionally, Bautista-Arredonda, Mane and Bertozzi (2006) found that treating large numbers of patients at low adherence is far less effective than treating fewer numbers with high adherence. Also, non-adherence was found to be associated with ineffective rapid scale-up and poor prescribing practices. Binswanger (2000) suggests initial implementation of programs at the district level to refine processes, after which replication and scale-up to the national level can proceed quickly. Community participation and local coordination are needed and funding should be available locally and not allocated to predefined categories. Empowerment and accountability should also be promoted.

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Another strategy for scaling-up HIV/AIDS care involves task-shifting. Task-shifting expands the skills of less specialized cadres of health workers, enabling them to complement doctors and HIV specialists, which are often in short supply. For example, nurses may be trained to deliver ART, or community health workers to provide outreach and follow-up care. This approach directly addresses one of the biggest problems in scaling-up HIV/AIDS prevention, treatment and care: the shortage of HCWs to deliver needed services.

Challenges
Many low and middle-income countries face numerous challenges in health care delivery including weak national health systems, poor infrastructure, civil war, corruption, and meager financial resources.

In addition to overall supply deficiencies, health workers are distributed unevenly. Countries with the lowest relative need actually have the greatest number of health workers. Conversely, the African region has the greatest burden of disease (24%) with only 3% of the world’s health workers and 1% of the financial resources. Uneven distribution also exists within countries through urban/rural and public/private imbalances.

Scaling-up ART is estimated to require between 20% and 50% of the available health workforce in many African nations. Specifically, it is projected that (at best) the supply of health workers would reach only 60% of the need in Tanzania and would be 300% greater than the available supply in Chad by 2015. Therefore, efforts to address HRH are essential to the successful scaling-up of HIV/AIDS interventions. Yet, such efforts require much planning and coordination.

HRH: Assessing and Planning
First, a comprehensive assessment of current HRH should be conducted in order to obtain national and regional level data. (Examining only national level data may obscure trends within the country.) The implementation of a Human Resources Information System (HRIS) in Uganda serves as an example of how such an assessment can be conducted. The Uganda Ministry of Health (MoH) and four health professional regulatory councils needed continuously updated and reliable information on how many health professions by cadre were licensed to work in the country, what training they have received and if they are leaving the workforce. The existing paper-based system could not aggregate or analyze information and even impeded users’ ability to readily locate or update individuals’ addresses and licensing information. A HRIS was developed which utilized open source (free) software, data was entered into the system from the paper records, all relevant personnel were trained on the system, data was then analyzed and plans to address problems identified in the assessment were developed and implemented.


Additionally, a needs assessment or projected estimation of future numbers and types of HCWs required to deliver HIV/AIDS services should be determined and compared to available HRH in order to identify shortfalls in specific regions and by specific cadres. Policy implications based upon one model used by Baringhausen, Bloom, and Humair (2007) of future HRH needs for HIV/AIDS include the need to account for the fact that there is a positive feedback effect of increasing HRH. As more HCWs become available, ART coverage will expand and more PLWHA will live longer, thereby increasing the number of people who need to receive ART and the number of HCWs needed to deliver services. Additionally, simply to maintain current levels of ART in developing countries, health policies must focus on increasing the number of HRH as well as implementing prevention efforts effective in reducing the incidence of HIV infection. Furthermore, the net inflow of HCWs into ART programs will need to increase substantially in order to achieve universal access. Policies that increase the inflow should be coupled with interventions to decrease emigration rates.46

An example of estimating future HRH needs is outlined in a USAID paper on scaling-up HIV/AIDS services in Ethiopia. First, current human resources data was collected. The projected growth in the number of public sector doctors, nurses, pharmacists and laboratory technicians was compiled using current data and trends while assuming existing conditions would be unchanged. Next, projected population growth was factored in and it was determined that the low number of doctors represented a limiting factor to the maintenance and expansion of health services. Subsequently, the estimated number of ART/ prevention of mother-to-child transmission (PMTCT) patients per doctor per year were determined using number of patients seen per workday (20) multiplied by 180 workdays per year (=3600) and divided by average number of visits per year (9). Thus it was determined that one doctor could provide ART/PMTCT services to 400 patients per year. Using projected numbers of patients needing care, the deficit in physicians became quantifiable and resources could be directed at addressing the issue.47

Funding sources should also be identified. All of the data collected can then be used to create a national human resources strategic plan. Such plans should be targeted toward specific goals to achieve universal access, be comprehensive (include health workforce compensation, policy, education, partnership, leadership, and management factors), cover all cadres and sectors and link to a broader health strategy. Additionally, they should promote equity, safety, education, training, retention, and quality.48 Strategic plans must therefore consider both short-term and long-term solutions to HRH issues.

While antiretroviral drugs, medicines to prevent or treat opportunistic infections, laboratory equipment and health care facilities can be scaled-up relatively quickly if funding is available, HRH cannot be increased rapidly due to long education and training times. It is estimated that 2912 HCWs are needed annually to achieve universal ART coverage in developing nations and that current education

capacity falls short of meeting this goal. Although training facilities may be built quickly, scarcity of secondary school graduates qualified to enter the programs as well as lack of health care teachers compound the problem.49 A case study from Ghana demonstrates how a national HRH plan dealt with education challenges. A community-based health planning and services program places trained community health officers in rural and deprived areas to work with health aides from the community. Additionally, practicing health workers and new graduates from universities are being encouraged to take on teaching roles. New training sites are planned and in the long run, every hospital is expected to have training capacity. Furthermore, mid-level cadres are quickly being expanded, salaries are increasing, bonuses and bonding schemes are being rolled out and health management training programs are being implemented.50

Countries facing severe HRH shortages must examine innovative means of extending resources as far as possible. Utilizing mentoring programs, strategic partnerships and staff exchange programs among institutions, as well as sharing technical expertise and experience with other countries may be beneficial. Donors should take measures to build and sustain national capacity, upgrade pay scales and aid in expanding the roles of all levels of health workers as well as PLWHA.51 All of these suggestions, guidelines and plans to scale-up HIV/AIDS prevention, treatment and care have costs associated with them. Determining the cost of scale-up is essential, yet difficult to do.

Costs

Defining the costs of scaling-up services for HIV/AIDS is challenging. Achieving the WHO/UNAIDS ART “3 x 5” goal of three million people on ART by 2005 was estimated to cost between US$ 5 billion and US$ 6 billion over two years for drugs, support programs, administrative and logistic costs. Support program estimates include training of existing clinical personnel, supervision of ART delivery, and remuneration of volunteers who provide ART adherence support.52 The U.N. estimates that US$ 8.3 billion was spent on HIV/AIDS programs in low and middle-income countries in 2005.53 However, the search for a global figure that can be consistently applied to a more meaningful national or local level remains elusive. One systematic review of the literature by Johns and Torres (2005) on the costs of scaling-up health interventions found that typical cost projections are difficult to determine due to the scarcity of cost data, varying staffing and infrastructure levels across countries, differences in purchasing power exchange rates, and inconsistencies in how fixed, semi-fixed,

and variable costs are determined and measured. The costs of scaling-up an intervention are specific to both the type of intervention as well as its particular setting. Therefore, some experts advocate for moving away from specific global estimates to the use of simple costing methods using country-level or regional data based on local factors such as training costs, transportation expenses, use of various technologies, and availability and capacity of human resources. However, some studies have estimated annual costs per person per year for HIV/AIDS services. Bertozzi (2004) found the cost of testing, prophylaxis, treatment, drug costs and laboratory monitoring to be US$ 913 for low-income countries and US$ 4743 for middle-income countries (constant 2000 US$). A study in Mexico by Bautista-Arredondo, Mane, and Bertozzi (2006) found average annual drug costs per patient to be between US$ 2430 and US$ 4270 (prior to the availability of generic drugs). Binswager (2000) determined that in a district with 300,000 people and a HIV prevalence rate of 5-10%, a comprehensive HIV prevention program (controlling STDs, providing intensive health education, offering youth activities, promoting and distributing condoms, training HCWs, and maintaining a safe blood supply) would cost US$ 350,000 or US$ 1.16 per person. These extreme cost variations support the notion that costs reflect national and regional differences and are difficult to consistently measure.

Targeted Country-Specific Findings

HRH implications of scaling up HIV/AIDS services in the following eight countries were examined: Cambodia, Ethiopia, Haiti, Kenya, Mali, Mozambique, Sierra Leone, and Zambia.

In 2003, Cambodia unveiled its plan to meet the need for HIV/AIDS services, the comprehensive Continuum of Care (CoC) service delivery model, which includes integrated provision of treatment for PLWHA. By the end of 2005 the program was providing free ART to approximately 11,000 of the 19,000 people in need. The main principles of the CoC incorporate a strong and consistent plan, participatory and local ownership and referral hospital/community links. The provision of services include: 1) voluntary and confidential counseling and testing, 2) community services such as home-based care, 3) health facility-based care and treatment, and 4) the Center for Friends Help Friends activities which

provide education and a sense of solidarity and companionship. Positive spillover effects to the rest of the health system have been noted.59

**Ethiopia** faces the sixth highest rate of HIV infection in the world60 and a severe HRH shortage. The 2003 physician to patient ratio was five times lower than the sub-Saharan Africa average at 1:34,000. The nurse to patient ratio of 1:4,900 was four times lower. Recommendations to address these issues include: 1) that the government take a strong leadership role in addressing the human capacity issue – in collaboration with development partners, 2) that an alternative ART staffing pattern, using a “nurse-intensive” staffing scenario should be considered, 3) that supplementation of salaries for public health workers by development partners, to reduce attrition, should be evaluated, and 4) that measures be taken to reduce patient out-of-pocket expenditures for HIV/AIDS services.61 Additionally, other suggestions to maximize program impact while utilizing current resources involves the integration of HIV/AIDS programs into existing Family Planning services (and vice versa) which has been shown to be very cost effective and an excellent point of entry.62

**Haiti** is the poorest country in the western hemisphere, has an unemployment rate of 70%, a heavy HIV burden, and critical HRH shortages. Community-based care of AIDS has been highly effective in rural Haiti. A pilot program of HIV/AIDS services in Haiti involved the integration of such services with an existing TB-control program and infrastructure through the HIV Equity Initiative. Lessons learned from TB programs, including strict treatment guidelines and standards of care were successfully applied to HIV/AIDS care and treatment.63 Another study in Haiti determined the mean total cost of treatment per patient to be US$ 982 per year, with direct medical costs of US$ 846 (medications, hospitalizations, lab tests, nutrition, and referrals), overhead costs of US$ 114 and societal costs of US$ 22. It was also estimated that 1.5 doctors and 2.5 nurses were needed to treat 1,000 patients in the first year of ART and recommendations for rural areas included the use of community health worker and assistant medical

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officer staffing models. Another program to scale-up a successful HIV/AIDS treatment project and provide comprehensive care to an entire Département du Centre (population 550,000) in rural Haiti demonstrated that community-based treatment of HIV is feasible and highly effective in resource-limited settings, and serves as a successful model for others to replicate. ART was provided in the context of a comprehensive program of HIV, TB and sexually transmitted disease (STD) treatment and prevention, along with women’s health services at four sites in the first year. At each site, the medical facility was renovated, additional staff was hired as needed, and a network of community health workers was established throughout the surrounding villages to serve as a link with the community and to provide directly observed treatment. In the first year of scale-up, over 8000 patients were followed for HIV and over 1050 were treated with ART. Adherence was very high, and clinical outcomes were excellent. In another effort to address the HRH shortage and increase the number of nurses trained in HIV/AIDS care, The Ministry of Health and Population collaborated with the International Training and Education Center on HIV over a period of 12 months to create a competency-based HIV/AIDS curriculum to be integrated into the 4-year baccalaureate program of the four national schools of nursing.

Kenya has a 9.4% HIV prevalence with 525,000 PLWHA. One study found that HIV/AIDS has severely impacted the health workforce (with an estimated 3500 infected health workers) resulting in widespread attrition due to death, illness and absenteeism. In fact, death was the leading cause of attrition at 31.4%, with nurses having the highest death rate of any cadre (10%): fifty percent of these deaths were from AIDS. Additionally, the workload has increased drastically causing health workers to resign or move away from clinical work. Therefore, this study recommends that interventions to protect and treat health workers be implemented. One study examined specific HRH requirements for Kenya and found that in order to meet the PEPFAR targets for voluntary counseling and testing (VCT), ART, and PMTCT through 2008, the public sector needs to hire additional staff (55 doctors, 87 clinical officers, 137 nurses, and 158 VCT counselors) over the next two years. The number of additional lab specialists needed (262) indicates a 15 percent increase in this category over the total number of lab specialists in 2005. The requirements for pharmacy specialists are even higher: 219 additional staff must be hired in the public sector over the next two years, which is equivalent to a 50 percent increase in the total number of

pharmacy specialists from the number available in the public sector in 2005. Addressing competency concerns, one study of nearly 2,000 HCWs looked at their preparedness to deliver HIV/AIDS services. Recommendations based on the findings of the study include assessing competency and providing health worker training, increasing HCW knowledge of national guidelines for treatment and awareness of post-exposure prophylaxis, addressing stigma, resources for coping with familial burdens of HIV, examining the incidence of substance abuse and promoting HIV testing among HCWs.69

Note – No relevant studies were found for Mali or Sierra Leone.

3. Discussion
This section distills from the overall literature review findings, key themes in terms of promising and best practices and recommendations related to scaling up HRH toward achieving universal access. It is intended that material in this section be used to help shape recommendations and implementations guidelines for countries working to address their health system wide HRH needs and gaps.

Invest in HR strategies and initiatives to reduce HCW turnover and emigration rates
Policies and strategies to increase the inflow of HCWs to provide ART services need to be combined with initiatives to retain existing HCWs. The literature review concluded that the inflow of HCWs required to achieve universal ART coverage is substantially reduced if HCW retention rates are improved. HRH program options to address high turnover rates include conditional scholarship programs and training of health worker cadre who are not internationally recognized to deliver ART services, e.g. health officers. A number of relatively simple, low cost strategies that can be implemented at the workplace level can also be used to address situations of high turnover rates. These include the use of non-financial rewards to recognize staff performance, supervision and management training for district and facility level managers, etc. At a minimum, retention rates need to be tracked and monitored and the main reasons HCWs are choosing to leave the health system clearly understood.

Development and implementation of a computerized HRIS for the MoH in Uganda is a good example of a relatively low cost initiative that can be used to record, track and report on this type of critical HRH data.

An often overlooked but significant impediment to current efforts to scale up HIV services in many countries is the capability and configuration of the Human

Resource Management (HRM) function. In many cases, government HRM policies, practices and procedures are found to be over-centralized, fragmented and bureaucratic, and in need of radical reform in order to permit available external funds or technical assistance to be spent or utilized to create any meaningful changes or results.  

Although governments, donors and non-governmental organizations spend a lot of resources on health workers and health systems, there is a general feeling that such investments could produce better benefits than they currently do, if the systems used to manage and support health workers are also improved and strengthened.

The way health workers are recruited, managed and supported in the delivery of both ART and general health services is central to the quality of services that they are able to deliver. A modern and responsive HRM system that is managed by HR-qualified professionals can work to ensure that staff are treated fairly (salaries, benefits, promotion, training opportunities), receive orientation and know what they are supposed to do (job descriptions), get timely feedback (supervision and performance review), feel valued and respected, and have opportunities to learn and grow on the job.

The reality in most public health sector organizations in developing countries is that HRM is treated in a fragmented manner. For example, most MoH in sub-Saharan Africa have limited or no authority in key personnel areas such as setting salary levels, determining and implementing disciplinary procedures, recruitment and promotions and establishing an attractive and equitable career path that can help with retention. Moreover, the fracture of these key HRM functions is inherent in the government structures themselves. In Kenya, for instance, the Public Service Commission works closely with the Directorate of Personnel Management in the Office of the President (a different entity) to define jobs for all established positions within the civil service and determine qualifications and salary levels; the Ministry of Finance controls and determines the overall budget.

A review or assessment of how the human resource function is currently configured and organized to recruit, manage and support HCWs within a country is an important first step in working with a particular country to help scale up and sustain ART coverage.

Challenges in Using Task Shifting as a Strategy to Overcome a Shortage of HCWs

Task shifting is intended to improve the efficiency of the current health care workforce through a more rational division of tasks between various cadres of health workers. It does not always imply a simple transfer of tasks to a lesser-qualified health worker and can be used as a temporary or permanent solution to workforce shortages.

While task shifting can offer real benefits in scaling up HIV/AIDS coverage for universal access, the literature review highlights a number of significant implementation challenges or potential obstacles that need to be considered.

These include:

- Support in the form of supervision and training for those health workers receiving the new tasks is often inadequate.
- New cadres, especially at the community level are not linked to the formal health care system.
- Inadequate buy in or support from the professional associations that represent the health care workers receiving the new or additional tasks.
- A failure to address key questions regarding the regulation of practice. For example whether the change in role between cadres is a short or long term change.

The approach taken by the Ministry of Health in Ethiopia offers examples of “better practices” when attempting to implement task shifting as part of scaling up HIV/AIDS programs. Firstly, task shifting was implemented as part of a larger reengineering of seven core processes in the health system, and therefore was not viewed as a stand-alone initiative. Secondly, the reintroduction of the mid level health officer position and movement of tasks to this cadre was supported by a well developed and comprehensive curriculum and accelerated program for nurses to upgrade to the new health officer cadre.

Maximize the Productivity of Existing HCWs

Many of the studies included in this literature review describe the binding constraint to increasing ART coverage as not drugs, adequate facilities or laboratory equipment, but a lack of HCWs. These studies also highlight the fact that the number of HCWs, unlike other inputs cannot be increased quickly because of the long educational and training requirements. Examining and maximizing the productivity or output of existing HCWs is therefore a critical step in any effort to scale up ART coverage.

For example, two recently conducted studies on mainland Tanzania and Zanzibar revealed that on aggregate, health workers spent only 55% – 60% of their time performing productive activities. These observational time and motion studies point to a potential productivity gain of approximately 20 – 25%, or stated differently, an extra day per week of output from existing health resources. It is important to note that productivity in these studies examined how health workers “utilized” their time between a predefined set of productive versus unproductive tasks. Examples of productive activities include providing direct patient care, preparing for a patient consultation, attending training, etc., while unproductive tasks included waiting for patients, unexplained absences, etc.

Clearly the findings from these and other similar studies point to a significant and exciting opportunity to improve the output and utilization of existing health workers and in doing so help reduce the current health worker deficit. While factors such as poor infrastructure, inadequate supplies and equipment directly impede health worker productivity and motivation, current development programs in mainland Tanzania and Zanzibar – as well as extensive literature research, reveal an array of other factors that directly impact health worker
productivity and performance. Significantly, many of these “productivity factors” are small, inexpensive, district and facility level interventions that when “bundled” together and carefully implemented can positively impact health worker productivity, motivation and importantly retention – at a relatively low cost. These productivity factors can be broadly categorized as follows:

- Internal Factors – level of staff participation in decision making, work planning and allocation procedures, effective team work and quality of communication between staff.
- Patient Management & Community Mobilization – clearly displayed facility service hours, effective patient referral processes, quality of HCW – patient communication, effective patient flow management, ability of the facility to adjust to changes in the service delivery environment.
- HRM factors – use of non-monetary incentives, in-service training opportunities, clear job expectations, established mentoring/coaching programs, staff recognition, new staff orientation programs, quality of supervision between the facility and district levels, management skills of facility in-charge staff.

Any recommendations or guidelines for scaling up HRH toward increased ART coverage and for countries working toward addressing their HRH needs should include an assessment of how existing health workers are being utilized and how the health system in which they work can be strengthened to maximize their productivity. Many of the factors associated with improving health worker productivity are also associated with motivation, job satisfaction, and ultimately decisions to leave or remain in the health system.

Next Steps
This literature review represents Phase 1 of the Task Force's overall mission to explore and address the HRH challenges associated with universal access to HIV/AIDS services and its impact on national health plans. It is intended that the findings and recommendations resulting from the literature review be used as input by the Task Force toward accomplishing the following stated goals:

- Develop evidence based recommendations for a global strategic direction to guide the process and approaches needed to meet country level HRH requirements to achieve national targets for scaling up towards universal access that enhances other national health delivery systems.
- Make strategic recommendations that will inform, contribute to and influence political and policy discussions and action at global, regional and country levels to address the HRH crisis to assist countries in implementing the recommendations.
Appendix A – Literature Search by Target Country

Ethiopia


Description: Ethiopia is currently one of the countries most seriously affected by HIV/AIDS, with the sixth highest number of infections in the world. This paper discusses how to combat this epidemic. As the country scales up HIV/AIDS services, increased attention is focused on identifying constraints to program expansion. One of the most important constraints is that of human resources. [from publisher’s abstract]


Description: To maximize program impact with current resources, integration of Family Planning into existing HIV/AIDS programs is a very cost effective and an excellent point of entry. This is a study of an intervention program focused on initiating and also strengthening existing integration of FP into functional VCT, ART and PMTCT sites. The intervention encompassed an orientation on integration benefits to heads of health facilities; identification of challenges of integration and drawing of plan of action on how to overcome the challenges and improve integration. Major challenges identified were related both to health workers, such as high workload, staff burnout and turnover, as well as to efforts in scaling up of facilities operations to adequately incorporate integration activities. [from abstract]

Cambodia


Description: This document evaluates the Continuum of Care service delivery model established to address the problem of providing care and ART treatment to those suffering with HIV. The study documents the elements of the service delivery model including the focus on linkages between clinicians and the community and details the district-based success of the program.

Description: This assessment evaluates the RACHA program in Cambodia which was intended to strengthen the capacity and sustainability of the public and private sectors to deliver quality reproductive health and child survival services. The five technical intervention areas were birth spacing, STD/HIV prevention, safe motherhood, childhood diarrheal diseases and micronutrient deficiencies. One of the key intermediate results identified within these areas was improved human resource capacity to address these issues. [adapted from author]

Haiti


Description: The Ministry of Health and Population collaborated with the International Training and Education Center on HIV over a period of 12 months to create a competency-based HIV/AIDS curriculum to be integrated into the 4-year baccalaureate programme of the four national schools of nursing. Using a review of the international health and education literature on HIV/AIDS competencies and various models of curriculum development, a Haiti-based curriculum committee developed expected HIV/AIDS competencies for graduating nurses and then drafted related learning objectives. The committee then mapped these learning objectives to current courses in the nursing curriculum and created an “HIV/AIDS Teaching Guide” for faculty on how to integrate and achieve these objectives within their current courses. The curriculum committee also created an “HIV/AIDS Reference Manual” that detailed the relevant HIV/AIDS content that should be taught for each course.


Description: OBJECTIVE: To scale-up a successful HIV/AIDS treatment project and provide comprehensive care to an entire Département du Centre (population 550 000) in rural Haiti, thereby demonstrating that community-based treatment of HIV is feasible and highly effective in resource-limited settings, and serving as a successful model for others to replicate. PARTICIPANTS: In the Département du Centre of rural Haiti comprehensive HIV and tuberculosis treatment is provided free of charge to anyone who presents for care. All those who meet clinical enrolment criteria are treated with highly active antiretroviral therapy (HAART). INTERVENTION: HAART was provided in the context of a comprehensive programme of HIV, tuberculosis (TB), sexually transmitted disease (STD) of the project, treatment and prevention, and women’s health services at four sites in the first year. At each site, the medical facility was renovated, additional staff were hired as needed, and a network of accompagnateurs (community health workers) was established throughout the surrounding villages to serve as a link with the community, and to provide directly observed treatment (DOT).
RESULTS: In the first year of programme scale-up, over 8000 patients were followed for HIV, and over 1050 were treated with DOT HAART. Adherence to HAART was very high, and clinical outcomes were excellent: all patients responded with weight gain and improved functional capacity, and fewer than 5% required medication changes due to side effects. Viral load was tested among a subset of patients showing that 86% had undetectable viral loads.

CONCLUSION: Community-based care of AIDS has been highly effective in rural Haiti. With more international financial support for HIV/AIDS treatment in resource-limited settings, there should be no barriers to access to life-saving HAART for those who need it most.


Description: Initial ART treatment in Haiti costs approximately $US 1,000 per patient per year. With generic first-line antiretroviral drugs, only 36% of the cost is for medications. Patients who change regimens are significantly more expensive to treat, highlighting the need for less-expensive second-line drugs. There may be sufficient health care personnel to treat all HIV-infected patients in urban areas of Haiti, but not in rural areas. New models of HIV care are needed for rural areas using assistant medical officers and community health workers.


Description: The main objections to the use of [antiretroviral therapies] in less-developed countries have been their high cost and the lack of health infrastructure necessary to use them. We have shown that it is possible to carry out an HIV treatment programme in a poor community in rural Haiti, the poorest country in the western hemisphere. Relying on an already existing tuberculosis-control infrastructure, we have been able to provide directly observed therapy with highly-active antiretroviral therapy (HAART) to about 60 patients with advanced HIV disease. [author's description]


Description: Fact sheet on status of Haiti in gaining universal access

Kenya


Presentation: http://www.hrhrsourcecenter.org/node/1084

Description: This presentation is not the presentation necessarily given at the above conference. This presentation was given as part of the ECSA Regional Health Ministers’ Conference in 2003, but it describes the same study. It describes an HIV/AIDS impact assessment done in Kenya and gives the detailed findings of the study.

Description: This report presents a comprehensive analysis of the human resources for health (HRH) currently available and required to reach the targets set by the President’s Emergency Plan for AIDS Relief and the Millennium Development Goals (MDGs) in both the public sector and the faith-based organizations (FBOs) in Kenya. A stratified convenience sample of health facilities at all levels of care (primary, secondary, tertiary) in each of the eight provinces was selected for the assessment. Detailed information on human resources and provision of services related to HIV/AIDS, tuberculosis (TB), malaria, maternal health, and child health was collected.


Description: This survey is the first attempt to examine the preparedness of the health system to implement guidelines for HIV testing in clinical settings, and to provide comprehensive AIDS management. This includes availing HIV testing in clinical settings to both adult and pediatric patients, and providing treatment for HIV disease. The survey also examines the working environment in health care facilities, with an emphasis on HIV infection control and access to post-exposure prophylaxis for health workers themselves.

**Mozambique**


Description: This report focuses on the impact of human resource shortages witnessed by MSF teams in four southern African countries – Lesotho, Malawi, Mozambique, and South Africa. While the focus is largely on nurses in rural areas, it should be acknowledged that health staff is lacking across the spectrum – from doctors to laboratory technicians to pharmacists – at all levels of care. In all these cases the need for access to ART, as well as other health needs, is outstripping human resource capacity. [from introduction]


Description: One of the most significant challenges in fighting the AIDS epidemic in Southern Africa is securing the health care workforce to deliver care in settings where the manpower is already in short supply. The authors produced a demand-driven staffing model based on treatment protocols for HIV-positive patients that adhere to Mozambican guidelines. The model can be adjusted for the volumes of patients at differing stages of their disease, varying provider productivity, proportion who are pregnant, attrition rates, and other variables. The planning tool proposed could lead to more realistic and appropriate estimates of workforce levels required to provide high-quality HIV care in low-resource settings.

Description: Drug Resources Enhancement against AIDS and Malnutrition (DREAM) was created by the Community of Sant'Egidio to fight AIDS in sub-Saharan Africa. The project takes a holistic approach, combining Highly Active Anti-Retroviral Therapy (HAART) with the treatment of malnutrition, tuberculosis, malaria, and sexually transmitted diseases. It also strongly emphasizes health education at all levels. DREAM aims to achieve its goals in line with the gold standard for HIV treatment and care.

Elements of the DREAM model for a health systems response to HIV:

- optimal use of personnel,
- intensive training,
- scaling-back investment in institutional development and investing instead in a stronger field presence,
- intensive use of technology and innovative methods in the fields of communication, informatics and diagnostics.


Description: This is not a study, but contains a lot of information about what Mozambique is doing to scale up HIV/AIDS services. Of particular interest is page 78 (79 of the PDF), where there is a brief summary of HR related challenges and progress made.

Zambia


Description: This study documents the contribution made by religion and religious entities to the struggle for health and wellbeing in Zambia and Lesotho, in a context dominated by poverty, stressed public health systems and the HIV/AIDS pandemic. By mapping and understanding these Religious Health Assets (RHAs), the study calls for a greater appreciation of the potential they have for the struggle against HIV/AIDS and for universal access and offers recommendations for action by both public health and religious leaders at all levels. Through respectful engagement these assets have the potential to increase in strength and value and become more effective in the long-term sustainability, recovery and resilience of individuals, families and communities. [publisher's description]

**Other**


Description: Despite recent international efforts to scale-up antiretroviral treatment (ART), more than 5 million people needing ART in low- and middle-income countries (LMIC) do not receive it. Limited human resources to treat HIV/AIDS (HRHA) are one of the main constraints to achieving universal ART coverage. We model the gap between needed and available HRHA to quantify the challenge of achieving and sustaining universal ART coverage by 2017. [from abstract]

**Mali**

nothing found

**Sierra Leone**

nothing found
Appendix B – Second Literature Review (July 2010) on HIV Prevention Workforce

**Question: What has been written about the HIV Prevention Workforce?**

**Sites searched**
- Development Experience Clearinghouse
- Google
- HRH Global Resource Center
- PubMed
- World Health Organization
- UNAIDS Website
- Human Resources for Health Journal

**Terms searched**
- HIV Prevention
- Human Resources for Health
- Health Workforce
- Health Manpower
- Health Workers
- Health Personnel
- PMTCT
- Counseling and Testing
- Male Circumcision
- Condom Promotion
- Task Shifting
- Community Health Workers
- Prevention vs Treatment/ART

**Summary**
Many authors and organizations have written about the need to balance available HIV/AIDS funding and resources between prevention and treatment efforts. In some countries, funds marked for prevention have remained flat, increased modestly or even decreased while those for treatment have risen drastically.
HIV prevention efforts have simply not kept pace with the large increases in the availability of ART to those already infected. For every one person who began ARV in 2006, six new infections occurred (Global HIV Prevention Working Group, 2007). Effective prevention efforts could prevent 28 million new infections over a ten year period, and several authors argue that while treatment should of course be provided, prevention efforts ultimately save more lives than focusing on the treatment of those already infected (Henderson et al., 2009).

The Global HIV Prevention Working Group lists the following prevention strategies as those proven to be effective at reducing the transmission of HIV (2007).

**Preventing Sexual Transmission**

- Behavior change programs (to increase condom use, delay initiation of sexual behavior in young people, and reduce the number of partners)
- Condom promotion
- HIV testing
- Diagnosis and treatment of sexually transmitted infections
- Adult male circumcision

**Preventing blood borne transmission**

- Provision of clean injection equipment to injection drug users
- Methadone or other substitution therapy for drug dependence
- Blood safety (including routine screening of donated blood)
- Infection control in health care settings (including injection safety, universal precautions, and antiretroviral prophylaxis following potential HIV exposure)

**Preventing mother-to-child transmission**

- Primary HIV prevention for women of childbearing age
- Antiretroviral drugs
- Prevention of unintended pregnancy in HIV-positive women
- Breastfeeding alternatives
- Caesarean delivery (in the case of high maternal viral load)

To be effective, these strategies require available, trained and supported human resources for health (HRH), and organizations such as UNAIDS have identified the limited human capacity to manage and deliver HIV programs as a barrier to effectively scaling up prevention efforts as well as treatment and care efforts (UNAIDS, 2005).
Much has been written on the human resources for health (HRH) issues and solutions for scaling up HIV treatment and care in developing countries, with a particular emphasis on ART and task shifting. A recent systematic review has shown task shifting to be an effective strategy for addressing shortages of HRH in treatment and care by shifting treatment and care to non-physician health workers (Callaghan et al., 2010). Reviewing the treatment literature, one gets a good sense of the cadres and roles of health workers involved in providing treatment and care, from hospital based physicians overseeing ART to nurses and clinical officers managing routine treatment and monitoring tasks to the laboratory workers needed for testing to community health workers who are performing a variety of roles ranging from adherence monitoring, palliative care, referral and in some cases even provision of ART. HRH issues related to support, supervision, clear scopes of work, recruitment, retention, policy and remuneration, to name a few, have also been documented within the context of HRH and HIV treatment (Callaghan et al., 2010; World Health Organization & UNAIDS, 2006; Hermann et al., 2009).

However, the same focus on HRH is not apparent in the HIV prevention literature. The cadres and roles of health workers involved with prevention is farther ranging than those for the more discretely defined tasks of treatment and care. What constitutes HRH for HIV prevention? The Centers for Disease Control and Prevention, Division of HIV Prevention (CDC/DHAP), on a website, defines the HIV Prevention Workforce as “key staff from health departments, community-based organizations, public and private hospitals, clinics, social service centers and other sectors that contribute to reducing risks for either contracting or transmitting HIV and other sexually transmitted diseases.”

In the background section of an August 2009 RFP for an HIV Prevention Workforce Analysis and Mapping, UNAIDS states that “HIV prevention is complex and, therefore, is implemented by many medical and nonmedical players, ranging from individual citizens in their own right to highly trained HIV specialists. The workforce conducting HIV prevention activities comprises a range of vocations operating in different industry settings, such as counselors in VCT clinics, primary care nurses in medical wards, condom and other commodity procurement and logistics specialists, teachers in schools, and peer educators at the workplace. It also includes social, behavioral and political scientists, human rights campaigners, media broadcasters on the radio, community health workers in their regions, and health promotion and family planning practitioners who have added on HIV prevention over the years. Unlike the clinical workforce that is well defined with a clear accreditation system, the prevention workforce is not always well defined, and frequently not adequately scaled and trained. This affects the strategic positioning and accountability of HIV prevention at the country level, as well as the coordination, consistency and quality of HIV prevention services.”

In the RFP, UNAIDS was justifying the need for prevention workforce analysis and mapping, and a concentrated scan of the literature confirms this need. HRH issues and strategies are certainly included to some extent in the HIV prevention literature, but not analyzed or mapped within the broader HRH for HIV prevention context. For example, articles and studies describing HIV prevention training needs for a specific cadre of health worker (e.g. mental health workers,
community health workers, counselors, nurses) about a specific aspect of HIV prevention (e.g. counseling and testing, PMTCT, etc.) abound (Collins et al., 2006; Hiner et al., 2009). The integration of HIV prevention with other health services has also been explored in specific contexts (Yoder and Amare, 2008). As with treatment, task-shifting and the use of community health workers have been identified as promising strategies for extending specific prevention services such as voluntary counseling and testing, infant feeding counseling, syndromic treatment of STIs and condom distribution (Sanjana et al., 2009; Bunmi and O’Grady, 2001; Daniels et al., 2010; Ward et al., 2003). Some articles point out the need for Public Health Leaders in order to run effective large scale prevention initiatives (Jones et al., 2009). Reviewing these types of specific articles about narrow aspects of prevention, HRH issues similar to the ones in the treatment and care literature start to emerge – supervision, training, addressing commodity supply and health systems strengthening, trainee selection criteria, retention, etc. (Yoder and Amare, 2008). Noticeably absent, however, are studies describing the HRH needs, priorities and strategies for a comprehensive community, national or regional prevention strategy.


Launched in 2006, the **Global Health Workforce Alliance** is a partnership dedicated to identifying and coordinating solutions to the health workforce crisis. It brings together a variety of actors, including national governments, civil society, finance institutions, workers, international agencies, academic institutions and professional associations. The Alliance is hosted by the World Health Organization.

The Global Health Workforce Alliance  
World Health Organization  
Avenue Appia 20  
1121 Geneva 27  
Switzerland  
Tel: + 41.22.791.26.21  
Fax: + 41.22.791.48.41  
E-mail: ghwa@who.int  
www.who.int/workforcealliance

*Health workers for all and all for health workers*