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DECENTRALIZING ANTIRETROVIRAL TREATMENT SERVICES AT PRIMARY HEALTH CARE FACILITIES

A GUIDE TO EXPANDING ACCESS IN RESOURCE-LIMITED, GENERALIZED HIV EPIDEMIC SETTINGS

TECHNICAL BRIEF

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AIDSTAR-One

John Snow, Inc.
1616 Fort Myer Drive, 11th Floor
Arlington, VA 22209 USA
Phone: 703-528-7474
Fax: 703-528-7480
E-mail: aidstarone-info@jsi.com
Internet: aidstar-one.com

BACKGROUND

In recent years, many countries, particularly those addressing a generalized HIV epidemic, have begun to decentralize HIV treatment to primary health care (PHC) centers. This effort is intended not only to increase geographic coverage of HIV clinical care, including antiretroviral treatment (ART), but also to decrease the burden of providing HIV services at existing facilities while making access to care easier for people living with HIV (PLHIV). The ultimate goal of many of these nascent efforts is to further foster a public health approach that will eventually bring universal access to HIV treatment.

Decentralization requires the expansion of small and concentrated ART programs to a greater scale, with an emphasis on increasing utilization to improve the quality of life for a significant number of PLHIV (Gilks et al. 2006). As part of the decentralization of HIV treatment, three primary scenarios have emerged:

1. A visiting physician initiates ART treatment at a selected PHC center (Stein, Lewin, and Fairall 2007).
2. Nurses assess patients and send blood samples for CD4 measurements and then refer those who are eligible for ART to a physician at a referral hospital or major medical center. After patients are stabilized on ART for six months, they are referred back to the initial PHC center for follow-up visits and for prescription refill (International Center for AIDS Care and Treatment Programs 2008).
3. The entire ART program is driven by nurses, including initiation and client follow-up (Shumbusho et al. 2008; WHO 2004a).

Although a variety of scenarios based on these approaches and models to decentralize ART services to PHC settings exist, overall decentralization entails

DEFINITION OF PRIMARY HEALTH CARE

“Primary health care” refers to the ideology that the first level of contact (the primary level) is the impetus behind the delivery of health care. This process is buoyed up by the secondary level of contact, which concentrates more on the complexities of secondary care (Gaye and Nelson 2009).

implementing a broad range of HIV services, including HIV counseling and testing, and care and support interventions at distal health care facilities. Providing these services, often by non-physician staff, requires:

- Policies allowing non-physicians to initiate and monitor treatment.
- Scaled expenditure for ART services at PHC centers.
- Development of a health workforce comfortable with and skilled in initiating and monitoring treatment, including treatment services for pregnant women, infants, and children.
- Effective forecasting, procurement, and supply chain management of antiretroviral (ARV) drugs, cotrimoxazole, and drugs for managing opportunistic infections.
- Expanded laboratory capacity to monitor treatment.

The purpose of this technical brief is to assist national program planners, stakeholders, and implementers in designing, planning, and implementing the decentralization process and in providing ART services at PHC facilities, with the ultimate goal of achieving universal access to treatment and care in generalized HIV epidemic settings.

PROGRAM CONSIDERATIONS

The information in this brief is drawn from programs in resource-limited countries that have undertaken efforts to decentralize ART services to the PHC level. The program interventions are grouped into eight major areas: 1) creating an enabling environment; 2) developing human resource capacity; 3) ensuring a continuous and secure supply of quality drugs and laboratory commodities; 4) improving the infrastructure; 5) building effective links among HIV services; 6) tapping into private-sector networks; 7) delivering quality ART services; and 8) addressing challenges that hamper service quality. Each intervention area is described in detail below, and resources are identified at the end of this brief.

Creating an Enabling Environment

The public and private sectors both have key roles to play in the successful decentralization of ART. The public sector is the main platform for scaling-up universal access to ART services, and policies and regulations can create an environment in which program planners and managers can harness the decentralization of ART services by introducing interventions such as task shifting. To create an environment that will enable the successful decentralization of ART, program planners and policymakers should undertake the following.

Understand the context. Planning for specific HIV clinical care interventions in a country requires knowledge of the local epidemiologic landscape and the resources available to scale-up access to ART. To gain this knowledge, national HIV program planners and managers should conduct a situational analysis of ART decentralization efforts, identify geographic priorities, and determine the profile and the distribution of the private sector. In addition, the country PHC infrastructure should also be examined, including human resources, health support systems, and financial resources. This exercise should also map the availability

of services while identifying the size of key population groups in need of existing clinical care and treatment (Gaye and Nelson 2009). Please see the resources page for tools to assist in these activities.

Review, adapt, and/or harmonize policy and medico-legal issues. Greater political commitment is crucial for scaling-up and strengthening PHC systems in general, and specifically for making them a central component in ART service delivery. Reviewing the country's policies for HIV clinical services is intended to inform the structuring of an environment that enables the scaling up of the national HIV response, including ART interventions. Policymakers should harmonize policies and regulations for HIV treatment to provide guidance that charts a comprehensive framework shaping all aspects of ART service delivery. Policies should provide a legal framework that enables ART program implementation at the PHC level. Program planners and managers should revise and adapt regulations that define the scope of work for nurses while clarifying roles for health practices, including task-shifting planning.

Estimate the cost of ART services and the available financial resources. Cost implications for decentralizing ART at PHC centers may be significant depending on the HIV prevalence rates, the number of health facilities to be included, staff salaries, teamwork design, local training capacity, and other operational considerations. Program managers and planners should:

- Estimate the size of the targeted population of adults and children, including pregnant women, using capture-recapture methodology (University of Pittsburgh 2009).
- Conduct a gap analysis comparing available funding and operational costs by using cost analysis for PHC.

- Estimate human development costs, including task shifting and training for nurses and non–health-care providers and hiring of additional staff as needed (WHO 2009b).
- Estimate the cost for infrastructure renovations, including furniture (WHO 2009a).
- Estimate the cost of diagnostic technologies and equipment for processing dry blood spot samples, measurement of CD4, chest radiography services, and the cost of processes for reliable transport of patient specimens to a larger site and a reliable system for the return of test results (WHO 2009a).
- Estimate the commodity procurement and supply chain costs for ensuring availability of rapid HIV test kits, tuberculosis (TB) microscopic tests, ARV drugs, including formulations for children, and cotrimoxazole (USAID | DELIVER PROJECT 2009).
- Estimate the cost of designing, implementing, and operating the monitoring, evaluation, and reporting (MER) system (World Bank 2004).

Funding for such interventions needs to address capitalization and one-time costs to begin program activities as well as continued funding to maintain services. Funding may come from a variety of sources, including the national government, the private sector, and international donors such as the Global Fund or the U.S. Government (USG).

Developing Human Resource Capacity

As a result of the response to HIV, health care systems and providers in developing countries, already saddled with overreaching demands, are asked to extend their resources even more. In addition, human resources are dwindling even though the need for them is increasing.

The development of adequate human resources is vitally important, as is developing strategies to implement HIV efforts in order to ensure the delivery of ART services (USAID 2009). Program planners and managers should undertake the following.

Build health care providers’ capacity. Around the globe, especially in resource-limited settings, a shortage of skilled medical professionals is an ongoing challenge. According to the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) and the World Health Organization (WHO), physicians in many countries are still the only cadre allowed to prescribe ART. As health care workers are distinctly influenced by their professional sense of duty, a dearth of supplies as well as deficient and/or improper human resource management leads to health care workers who are disillusioned and discomfited because they are not able to properly complete their duties (WHO 2004b). To address the staff shortage, task shifting has recently been promoted as the key to solving the human resource crisis in most settings (Zachariah 2006). To build human capacity at the PHC level, program managers and planners should consider the following.

- Standardize approaches for case finding, patient monitoring, reporting systems, in-service training, supervision, and guidelines related to ART regimens for patients who qualify—based on clinical and/or CD4 cell criteria—with a simple kit system for supplying the medication (WHO 2004b).
- Expand through task shifting the pool of clinicians who provide HIV treatment services (van Rensburg et al. 2008).
- Train all health care providers, including nurses and clinical officers, in how to assess PLHIV, initiate ART, follow-up with clients, identify and manage complications, and/or refer patients to hospitals as needed;

TASK SHIFTING

South Africa

"In Lusikisiki, a rural area of South Africa with a population of 150,000 serviced by one hospital and 12 clinics, Médecins Sans Frontières has been supporting a program to deliver human immunodeficiency virus (HIV) services through decentralization to primary health care clinics, task shifting (including nurse-initiated as opposed to physician-initiated treatment), and community support. This approach has allowed for a rapid scale-up of treatment with satisfactory outcomes... The greater proximity and acceptability of services at the clinic level has led to a faster enrollment of people into treatment and better retention of patients in treatment (2% vs. 19% lost to follow-up)" (Doescher, Ellsburly, and Hart 2000).

Rwanda

Family Health International's pilot project provided specialized training in HIV care and treatment to nurses. The project shifted all of its doctors' primary tasks, except for management of complex cases (including children) and monitoring and supervision, to the nurses. Nurses started 435 of their 1,000 patients on ART during the period of the pilot project, between September 2005 and March 2008, with results comparable to other projects throughout Rwanda with physician-centered care. Of the initial 1,000 patients, 88% were alive and on ART in March 2008, 6.7% had died and less than 3% were lost to follow-up, with no reported cases of stopped treatment (WHO 2008b).

and non-health professionals (lay counselors) in how to provide counseling, use rapid HIV tests, and provide nutritional support (WHO 2008a).

- Mentor local managers and strengthen the supervision of health care delivery (Mathauer and Imhoff 2006).

Strengthen district health management. District and provincial health management structures play an important role in ART program planning and implementation. These entities often address day-to-day challenges such as poor performance, shortage of skills and low productivity, inadequate infrastructure, and laboratory and procurement supply services. Implementing quality ART activities depends on the ability of local health managers to successfully manage and monitor the decentralized PHC centers. To build capacity within PHC centers, district health

management teams (DHMTs) should be trained in project management and supervision (Stein et al. 2008).

Improve recruitment, training, and retention. High turnover rates are of increasing concern in health care cost management and in service delivery. Health care workers' social backgrounds, ethnicity, age, gender, education, values, and beliefs are all determining factors in their deciding whether or not to take a post in a rural area. Also, the fact of growing up in a rural community has been associated with a higher probability of practicing in rural areas, and women are less prone to accept rural posts (British Columbia Ministry of Health Services 2009; Doescher, Ellsburly, and Hart 2000). To retain staff, WHO recommends that ART program planners and managers:

- Expand ongoing training capacity and clinical support and supervision at the PHC level through training, mentoring, and continuing medical education.
- Improve the engagement of staff by increasing incentives (for example, in terms of housing and salary) to stay in rural areas and by incorporating a period of time where the health care worker who is trained at the expense of the public is required to serve in a public health capacity.

Ensuring a Continuous and Secure Supply of Quality Drugs and Laboratory Commodities

Efficient and effective supply chains are critical to the provision of quality ART services that depend on the continuous availability of life-saving ARV drugs, laboratory reagents, supplies for diagnosis and monitoring of patients on ART, and other medicines and supplies for care and treatment. Antiretroviral treatment program planners, managers, and implementers should establish a secure and reliable supply chain. Successful provision of health services at the PHC level requires the ability to effectively quantify, procure, and distribute drugs and other health commodities to PHC centers through existing supply chain structures (Population Council 2009; WHO 2008b). National program managers, DHMTs, and local managers at PHC centers should:

Strengthen existing supply chain performance. To strengthen supply chain management of commodities needed for HIV diagnosis, treatment, and care, logistics managers should:

- Improve technical capacity for forecasting demand for ART services and quantifying commodity requirements at the national level.
- Coordinate procurement lead times and shipment delivery schedules at the national level to ensure

uninterrupted supply and to maintain adequate stock levels for the program.

- Establish standardized inventory control procedures for reporting, ordering, and distributing ARVs and laboratory supplies, including HIV test kits and blood sample collection commodities, at all levels of the health system.
- Promote effective and efficient in-country distribution systems and procedures that ensure timely delivery of commodities to service delivery points.
- Monitor storage conditions and practices at all storage facilities and service delivery points to maintain the quality of ARVs and lab supplies.
- Establish a logistics management information system for collecting, reporting, and analyzing data on consumption and stock levels of ARVs and other commodities at the facility and national levels.

Establish reliable laboratory services (WHO 2008c).

Establishment of appropriate clinical laboratory services in resource-limited settings is feasible, but may be challenging when technical knowledge, quality assurance training, access to repair services, and monetary resources are limited (Scott et al. 2007). There is usually an insufficient infrastructure to maintain long-term operation of modern clinical laboratory instruments, retain skilled personnel, and provide enough funds for reagents and maintenance. To provide laboratory services that support ART decentralization efforts, program planners and implementers should:

- Define the essential laboratory services that include the minimum lab tests needed to offer comprehensive HIV services.
- Establish regular quality management and provide standard operating procedures (SOPs) for blood sample collection.

- Establish a relationship with the district hospital laboratory or any other laboratory service provider, along with detailed transportation services for patient specimens and a calendar with hours of collection and delivery of results.
- Put in place laboratory safety measures and ensure that they are known by all staff, including post-exposure prophylaxis in case of an occupational needle stick injury.
- Develop a duty roster for collecting specimens and ensuring that results are registered into patients' clinical records.
- Establish purchasing and inventory SOPs by providing a clear plan for maintaining a supply of test kits and other consumables, including phlebotomy and blood tube supplies, so that stockouts do not occur.
- Disseminate specific guidance on quality assurance for rapid testing and for the specimen collection for CD4, toxicity monitoring viral load measurements (if available), and pediatric virologic testing.

Improving the Infrastructure

Because PHC centers provide a broad range of services to a large segment of the population, they offer an opportunity to implement a sustainable continuum of care across different areas of service delivery (Walley et al. 2008). Studies have shown that, as the number of people accessing ARV services grows, space at PHC centers can become inadequate for patient waiting areas, consulting rooms, and counseling services (Population Council 2009). To introduce ART services at PHC centers, program planners and implementers should:

- Assess the need for improvements in physical space, equipment, utilities, waste management, transport, and communications, and address the gaps identified.
- Provide sufficient space and ventilation to control the spread of TB and other airborne pathogens.
- Maintain the privacy of clinical consulting rooms.
- Ensure that adequate space and systems are in place so that HIV status is not identifiable to others in any way.

BUILDING EFFECTIVE LINKS AMONG HIV SERVICES

The WHO recognizes that people are more likely to adhere to treatment when they receive comprehensive services. When decentralizing ART efforts, program planners, managers, and implementers should:

Expand the entry points to ART and care. Program managers and implementers should:

- Introduce provider-initiated counseling and testing (PITC) for pregnant women who attend PHC facilities, including virological tests for early infant diagnosis through dry blood drop collection tech-

DEFINITION OF LINKAGE BETWEEN AND INTEGRATION WITH OTHER HEALTH SERVICES

Linkage in the context of decentralization of ART refers to a relationship between HIV treatment services at PHC centers, community services, and a district hospital. Integration can be defined as “the management and delivery of health services so that clients receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health system” (WHO 2008b).

niques in pediatric health sections, such as under-five immunization and services for sick children.

- Offer routine PITC to patients presenting with TB and sexually transmitted infections (STIs), and to any other client seeking medical attention.
- Ensure integration of HIV testing and prevention of mother-to-child transmission (PMTCT) into antenatal care (ANC), and assess the need to integrate pediatric screening into routine well-child care visits (e.g., immunizations).

Integrate cotrimoxazole prophylaxis into ART services. The WHO recommends that program managers integrate cotrimoxazole prophylaxis into their package of standard care for HIV-infected adults receiving ART (WHO 2009c). Cotrimoxazole prophylaxis is also recommended for all HIV-exposed infants around four to six weeks of age, on first contact with a PHC center.

Provide wrap-around services. Program managers should incorporate the following into ART efforts:

- **Nutritional support, including infant feeding.** The WHO recommends exclusive breastfeeding for infants of HIV-infected women for the first six months of life unless replacement feeding is acceptable, feasible, affordable, sustainable, and safe for mothers and their infants before the first six months. Otherwise, all HIV-infected women should avoid breastfeeding. HIV-infected adults should be provided with nutritional support, including counseling, supplements, and food.
- **Family planning for all HIV-infected men and women.** Antiretroviral treatment program planners and implementers should provide counseling and family planning services to people living with HIV. Implementers should also provide information on the effectiveness and safety of contraceptive methods to prevent pregnancy and HIV transmission.

DEFINITIONS OF NON-STATE PROVIDERS AND ALTERNATIVE HEALTH CARE PROVIDERS

Non-state providers encompass both formal (e.g., nongovernmental [NGO]-run medical clinics) and informal providers (e.g., traditional healers). Market-based, for-profit providers (from large firms to small entrepreneurs) as well as nonprofit providers (e.g., NGOs and faith-based organizations) are included in this definition.

Alternative health care providers are those who are not licensed as health care providers. They may provide advice and/or drugs or vaccines. They commonly work in the patient's home, the community at large, and at PHCs. Included under this title are community health workers and traditional healers, among others (IDS Health and Development Information 2008).

Establish strong linkages. Program managers should put in place a referral network and coordination between service providers and different levels of the health system, and forge relationships between PHC centers and communities through supportive mechanisms and other community-based organizations.

Tapping into Private Sector Networks

Non-state providers of health care, whether philanthropic or commercial, exist outside the public sector and also provide primary health contacts with the health system to poor and rich alike (Baru 1998). The private sector includes health care providers ranging from traditional healers, to private health care facilities, to more complex entities such as hospitals, supply chain management systems, and specialized laboratories. The private sector offers an important potential complementary effort to public sector HIV efforts.

Studies have shown that lower-income households are more likely to spend a higher proportion of their

BENEFITS AND BARRIERS OF THE PRIVATE HEALTH CARE SECTOR IN LIMITED-RESOURCE SETTINGS

Advantages include flexible access, shorter waiting times, greater confidentiality, and greater sensitivity to user needs. Private health care professionals provide quality of care, and they are close to the communities.

Challenges include dual practice, in which experienced service providers devote more attention to their private practices than to public facilities where they are still employed full-time; the unregulated services tariff fees; and the unpredictable “. . . quality of care offered by providers who are not regulated, not qualified, or are informal” (Rao, Nundy, and Dua 2005).

income on private-sector care than do higher-income houses. However, the rich tend to access higher-quality services than the poor. Engaging the private sector in the provision of ART has become increasingly important. A first step in finding common ground is identifying private sector partners who can provide these services. A variety of formally and informally trained and licensed private providers are in practice, including physicians, nurses, midwives, and paramedical staff, such as clinical officers and physician assistants. In resource-limited settings, the private sector also includes such health care practitioners as traditional healers, traditional birth attendants, and market drug sellers, all of whom are less regulated.

To involve private health care providers, program planners and implementers should undertake the following.

- Take an inventory of private health care providers in all areas of service delivery, including clinical services,

supply chain management, and specialized laboratories, to identify, assess, and select local service providers, including medical practitioners, clinical officers, nurses, traditional leaders, home-based care volunteers, and community treatment supporters.

- Develop a mechanism to monitor and regulate private sector activity at national, regional, and local levels. These efforts should include plans to routinely monitor private sector prescribing practices to ensure that they are compliant with national guidelines related to regimen selection and initiation of treatment. These efforts should also specifically address the role of private pharmacists in ARV distribution.
- Enable smaller providers, who may have greatest coverage of the poor, to come together and form a network. The network can interact with governments and donors in order to benefit from technical assistance, and to build a strong referral system that can help ensure continuous care between health care providers and public health facilities.
- Train and build human capacity and ensure technical monitoring by including qualified private sector providers in public sector or donor-funded ART trainings, or by facilitating clinical mentorship between public and private sector providers.

Delivering Quality ART Services

The WHO recommends efficient and decentralized services as a key strategy in moving toward universal access to HIV treatment. This requires a public health approach to scaling-up services, with an emphasis on simple, standardized regimens and formularies; algorithmic clinical decision making; effective supervision; program monitoring and evaluation; and patient follow-up. Key steps to delivering quality ART services include:

Build community capacity and promote ART services. To achieve this goal, program planners and implementers can use the following process.

- Create awareness of the benefits of ART and the demand for formal health services through information, education, and communication activities such as radio and television spots and print messages, as well as public campaigns.
- Reinforce support for civil society organizations and networks, particularly associations of PLHIV and organizations working to combat common misconceptions and myths around HIV.
- Train community health workers to provide basic clinical care and support.
- Implement ART adherence activities to increase ART literacy so that communities and clients are fully informed and aware of the prerequisites needed to initiate ART, as well as the costs and benefits of ART.
- Developing and implementing a QI plan that follows national guidelines and methodically describes how it will identify specific areas for improvement and deliver ART services that better meet patients' needs.
- Developing PHC center-specific strategies, based on local data collected on ART activities, that can be used to inform updates or changes to current systems to improve quality of care.
- Introducing an organizational culture of QI at the PHC level by establishing a QI team, building staff capacity and motivation, dedicating time to measure clinic performance, and stressing the importance of complete documentation to help determine whether or not patients are getting the care they deserve.

Support continuous quality improvement. Quality improvement (QI) is “an approach to quality management that builds upon traditional quality assurance methods by emphasizing the organization and systems: focuses on the ‘process’ rather than the individual; recognizes both internal and external ‘customers’; promotes the need for objective data to analyze and improve processes” (Medical University of South Carolina 2009).

Quality improvement is designed to improve service systems and processes through the routine use of health and program data for meeting patient and program needs (National Committee for Quality Assurance 2007).

To improve the quality of ART services, program managers and implementers should focus on the key processes and functions within PHC centers, and determine how they can achieve desired outcomes through the following activities (WHO 2008c).

Implement sound MER systems. It is widely accepted that MER systems enhance delivery of high-quality care, including treatment for women, men, and children, while providing population-level information for program decision making. The ability of PHC staff to implement and use these MER systems in their daily work is critical to improving the quality of data collection, analysis, and reporting patterns (MEASURE Evaluation and UNAIDS 2009). The WHO recommends ART program managers and implementers proceed as follows.

- Establish simple, standardized, but flexible MER systems.
- Set national standards for minimum data and tools needed to monitor ART services at PHC centers (i.e., standardized ART cards, and pre- and ART registers).
- Formally enroll each HIV-infected patient into HIV care and maintain a longitudinal medical record for each HIV-infected patient.

- Make appointments and actively follow-up on missed appointments.
- Track HIV patients transferring in or out of PHC facilities.
- Monitor referral and linkages of HIV patients to home and community services.
- Integrate monitoring of ART to other HIV services such as PMTCT, TB, STIs, and maternal and child health care.
- Establish space, file storage, and other infrastructure needed for monitoring.
- Maintain confidentiality and security of patient records.

Addressing Challenges that Hamper Service Quality

ART programs will benefit from addressing wider social issues that have an impact on access and quality of services, including the presence of poverty, hunger, gender discrimination, and stigma, all of which present barriers to successful treatment and contribute to the spread of the infection. To address these challenges, program managers and implementers should undertake the following.

Implement activities to address gender-based inequalities. Social norms in some settings lead men to ignore health issues, thus preventing many men from receiving ART on a timely basis. These barriers vary across settings and within populations, and they often create different sets of issues for the community. To address these barriers, the Joint United Nations Programme on HIV and AIDS recommends that ART program planners and implementers do the following (UNAIDS 2007).

- Develop information education and communication materials that promote ART in communities.

- Increase community awareness campaigns at places such as bars and sports venues to reach out to men and boys.
- Support faith-based organizations and prayer facilities to promote ART and address misconceptions and myths.

Address stigma and discrimination at PHC centers.

Even though there is widespread HIV-related stigma and discrimination, with negative effects in terms of public health and the rights of patients, these issues are largely ignored in the majority of national responses to HIV (UNAIDS 2007). To address these issues, HIV program managers and implementers should do the following.

- Empower PLHIV with education about HIV and activities that foster direct or indirect interaction among affected groups and key audiences.
- Provide leadership on the necessity of reducing stigma and discrimination in national HIV responses.
- Conduct community awareness campaigns to fight against stigma and discrimination and their negative consequences, as well as fear of acquiring HIV through casual contact, and linking HIV with behavior that is considered immoral or improper.

REDUCING STIGMA AND DISCRIMINATION

In Zambia, a referral system exists among community-based care providers, support groups, PLHIV networks, community leaders, youth groups, and ART facilities and health clinics. PLHIV work in ARV clinics and are coordinators within the community. This has promoted higher levels of adherence to treatment, lower rates of clients lost to follow-up, and has minimized stigma (Horizons-Population Council and International AIDS Alliance 2007).

CONCLUSION

The USG, through PEPFAR, and its international partners, such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria, has significantly contributed to achieving universal access to ART services in many generalized HIV epidemic settings. As a result of these efforts, many lives have been prolonged and individuals have been able to actively contribute to the development of their communities. However, in

many countries, ART services have, for the most part, been available only at large, urban health care facilities where physicians provide services, effectively excluding coverage for most rural populations. To address this issue, some countries have begun to introduce ART services at the PHC level. The information in this technical brief can be used as a tool for national ART planners and managers, as well as implementing organizations, in successfully undertaking similar efforts.

RESOURCES

The following resources (with hyperlinks) provide up-to-date information, guidelines, tools, and recommendations for addressing the decentralization of care for HIV.

1. Family Health International's (FHI's) Strategies for Expanded and Comprehensive Response (ECR) to a National HIV/AIDS Epidemic, 2001

Note: Although this document focuses on expanding HIV/AIDS treatment, rather than specifically decentralizing it, it covers many important subjects that are relevant for considering decentralizing ART.

Module 1: Strategic Planning

www.fhi.org/en/HIVAIDS/pub/guide/ecrhndbk/mod1.htm

Module 2: Technical Strategies

www.fhi.org/en/HIVAIDS/pub/guide/ecrhndbk/mod2.htm

Module 3: Operationalizing ECR: Administration and Management

www.fhi.org/en/HIVAIDS/pub/guide/ecrhndbk/mod3.htm

Module 4: NGO Involvement

www.fhi.org/en/HIVAIDS/pub/guide/ecrhndbk/mod4.htm

Module 5: Human Capacity Development

www.fhi.org/en/HIVAIDS/pub/guide/ecrhndbk/mod5.htm

Module 6: Costing and Use of Resources

www.fhi.org/en/HIVAIDS/pub/guide/ecrhndbk/mod6.htm

Module 7: Managing the Supply of Drugs and Commodities

www.fhi.org/en/HIVAIDS/pub/guide/ecrhndbk/mod7.htm

Module 8: Measuring for Impact Overview

www.fhi.org/en/HIVAIDS/pub/guide/ecrhndbk/mod8.htm

2. Towards Universal Access by 2010: How WHO is Working with Countries to Scale-up HIV Prevention, Treatment, Care and Support, 2006

www.who.int/hiv/pub/advocacy/towardsuniversalaccess.pdf

3. The WHO Operations Manual: For Delivery of HIV Prevention, Care and Treatment at Primary Health Centres in High-prevalence, Resource-constrained Settings, 2008

www.who.int/hiv/pub/imai/operations_manual/en/index.html

4. Health System Assessment

The Demographic and Health Surveys website offers country-based health statistics and examples of how particular countries have previously conducted health system assessments. www.measuredhs.com

John Snow International's Tool to Assess Site Readiness for ART, or for Assessment of Current ART Site

http://deliver.jsi.com/dlvr_content/resources/allpubs/guidelines/ToolAsseSiteRead.pdf

5. Costing

John Snow International's Deliver Project Costing Tools: HIV Test Assessment and Costs Assessment www.deliver.jsi.com/dhome/resources/tools/softwaretools/proq

John Snow International's Deliver Project Costing Tools: ARV Costs/Facts Sheets

www.deliver.jsi.com/dlvr_content/resources/allpubs/factsheets/LogiFactShee_ARV_Comp.pdf

6. Quality Assurance and Quality Improvement (QAQI)

The FHI's QAQI Checklists

www.fhi.org/NR/rdonlyres/enclDts2ktbjegmktruyf14qfovnj4pttrj2oqg34e2wgse7k7bcpzwnleq6wqnonnzxbmusxwd2dl/QAQIHealthFacilityChecklistsHV.pdf

The FHI QAQI Clinical Facility and Services Assessment Field Guide

www.fhi.org/nr/rdonlyres/eajjgyypire3jwyjxtequ7eb2rrehglyrvnwl6dksu7vld4pwymiwhlxajifbtvjag3bwiiygzjck/qaqihealthfacilitieshv.pdf

7. Task Shifting and Integrated Management of Adult Illness/Integrated Management of Child Illness (IMAI/IMCI)

The WHO's IMAI/IMCI Health Center and Primary Care Guidelines-Module I: IMAI/IMCI Chronic HIV Care with ARV Therapy and Prevention

www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf

The WHO's IMCI Chart Booklet for High HIV Settings

www.who.int/hiv/pub/imai/primary_chart/en/index.html

The WHO's Pre-ART,ART,ANC and L&D Registers

www.who.int/hiv/pub/imai/imai_registers_preart.pdf

The WHO's HIV Care/ART Card

www.who.int/hiv/pub/imai/imai_art_card.pdf

The FHI's Nurse Training for ART

www.fhi.org/training/en/hivaids/ncpguide/index.htm

REFERENCES

- Baru, R.V. 1998. *Private Health Care in India: Social Characteristics and Trends*. New Delhi: Sage Publications.
- British Columbia Ministry of Health Services. 2009. *Physician Compensation Branch*. Accessible online: www.healthservices.gov.bc.ca/pcb/index.html
- Doescher, M., K. Ellsbury, and L. Hart. 2000. The distribution of rural female generalist physicians in the United States. *Journal of Rural Health* 16(2): 111-8.
- Gaye, P.A., and D. Nelson. 2009. Effective scale-up: avoiding the same old traps. *Human Resources for Health* 7(2). Accessible online: <http://www.human-resources-health.com/content/7/1/2>
- Gilks, C. F., et al. 2006. The WHO public health approach to anti-retroviral treatment against HIV in resource-limited settings. *The Lancet* 368: 505-10.
- Horizons-Population Council and International AIDS Alliance. 2007. *The Involvement of People Living with HIV/AIDS in the Delivery of Community-Based Prevention, Care and Support Services in Zambia: A Diagnostic Study*. Accessible online: www.aidsalliance.org/publicationsdetails.aspx?id=206
- IDS Health and Development Information. 2008. *Non-State Health Care Providers*. Accessible online: <http://www.eldis.org/go/topics/resource-guides/health/health-reporter/december-2008>
- International Center for AIDS Care and Treatment Programs (ICAP). 2008. *HIV Services Expand to Primary Health Care Facilities in Rural South Africa*. Accessible online: <http://www.columbia-icap.org/news/icapnews/OctoberENews.html>
- Mathauer, I., and I. Imhoff. 2006. Health worker motivation in Africa: the role of non-financial incentives and human resource management tools. *Human Resources for Health* 4(24). Accessible online: <http://www.human-resources-health.com/content/4/1/24>
- MEASURE Evaluation and UNAIDS. 2009. *Panel 3: Framework for Monitoring and Evaluation of AIDS Programmes*. Accessible online: www.cpc.unc.edu/measure/publications/un aids-00.17e/panel3.html
- Medical University of South Carolina. 2009. *Family Medicine/ Rural Clerkship*. Accessible online: http://www.musc.edu/fm_ruralclerkship/cqi.htm
- National Committee for Quality Assurance. 2007. *Multicultural Health Care: A Quality Improvement Guide*. Accessible online: <http://www.ncqa.org/tabid/676/default.aspx>
- Population Council. 2009. *Exploring Current Practices in Pediatric ARV Rollout and Integration with Early Childhood Programs in South Africa*. Accessible online: http://www.popcouncil.org/projects/262_PedARVRolloutSouthAfrica.asp
- Rao, K. S., M. Nundy, and A. S. Dua. 2005. Delivery of health services in the private sector. In: *Financing and Delivery of Health Care Services in India*. New Delhi: Government of India, Ministry of Health and Family Welfare, 89-91.
- Scott, M. G., et al. 2007. Establishing a simple and sustainable quality assurance program and clinical chemistry services in Eritrea. *Clinical Chemistry* 53(11): 1945-53.
- Shumbusho, F., et al. 2008. Task shifting to achieve universal access to HIV care: evaluation of a pilot program of antiretroviral treatment service delivery by nurses in Rwanda. Presentation, PEPFAR 2008 HIV/AIDS Implementers' Meeting, Kampala, Uganda, June 3-7, 2008.
- Stein, J., S. Lewin, and L. Fairall. 2007. Hope is the pillar of the universe: health care providers' experiences of delivering anti-retroviral therapy in primary health care clinics in the Free State Province of South Africa. *Social Science & Medicine* 64(4): 954-64.

- Stein, J., et al. 2008. Building capacity for antiretroviral delivery in South Africa: a qualitative evaluation of the PALS PLUS Nurse Training Programme. *BMC Health Services Research* 8: 240.
- UNAIDS. 2007. *Reducing HIV Stigma and Discrimination: A Critical Part of National AIDS Programmes*. Accessible online: http://data.unaids.org/pub/Report/2008/JC1521_stigmatisation_en.pdf
- University of Pittsburgh. 2009. *Capture-Recapture*. Accessible online: www.pitt.edu/~yuc2/cr/main.htm
- USAID. 2009. *Achieving a Sustainable Workforce: The Human Resources for Health Action Framework*. Accessible online: http://www.usaid.gov/our_work/global_health/aids/TechAreas/sss/hrhbrief.html
- USAID | DELIVER. 2009. *HIV & AIDS*. Accessible online: www.deliverjsi.com/dhome/resources/tools/printedtools/hivaidsprint edtools
- van Rensburg, D. H. C. J., et al. 2008. Human resource development and antiretroviral treatment in Free State Province, South Africa. *Human Resources for Health* 6, 15–18.
- Walley, J., et al. 2008. Primary health care: making Alma-Ata a reality. *The Lancet* 372(964): 1001–7.
- WHO. 2004a. *Chronic HIV Care With ARV Therapy and Prevention*. Geneva: WHO. Accessible online: www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf
- WHO. 2004b. *Ensuring Equitable Access to Antiretroviral Treatment for Women: WHO/UNAIDS Policy Statement*. Geneva: WHO.
- WHO. 2008a. *IMAI Sharepoint*. Accessible online: <http://www.who.int/hiv/capacity/IMAIsharepoint/en/>
- WHO. 2008b. *Integrated Health Services—What and Why?* Accessible online: www.who.int/healthsystems/service_delivery_tech-brief1.pdf
- WHO. 2008c. *Operations Manual for Delivery of HIV Prevention, Care and Treatment at Primary Health Centres in High-Prevalence, Resource-Constrained Settings*. Geneva: WHO. Accessible online: http://www.who.int/hiv/pub/imai/operations_manual/en/index.html
- WHO. 2009a. *Cost Effectiveness and Resource Allocation*. Accessible online: http://www.who.int/choice/publications/p_2003_programmecosts.pdf
- WHO. 2009b. *Department of Health Systems Financing: The Costs of Scaling Up Interventions and Systems*. Accessible online: www.who.int/choice/publications/Present_HSF%20Work%20on%20costing.pdf
- WHO. 2009c. *Guidelines on Co-trimoxazole Prophylaxis for HIV-related Infections Among Children, Adolescents and Adults*. Accessible online: www.who.int/hiv/pub/guidelines/ctx/en/index.html
- World Bank. 2004. *Turning Bureaucrats into Warriors*. Accessible online: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/EXTAFRHEANUTPOP/EXTAFRREGTOPHIVAIDS/0,,contentMDK:20488911~pagePK:34004173~piPK:34003707~theSitePK:717148,00.html>
- Zachariah, R. 2006. Task-shifting in Thyolo: a treatment case study from Malawi. A dialogue on the delivery of antiretroviral treatment in resource-limited settings. In Nelson Mandela Foundation. *A Dialogue on Art Delivery*. South Africa: Nelson Mandela Foundation, 23–26.