

Improving Mass Delivery of Antiretroviral Therapy in Sub-Saharan Africa

RAND RESEARCH AREAS
THE ARTS
CHILD POLICY
CIVIL JUSTICE
EDUCATION
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INTERNATIONAL AFFAIRS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
SUBSTANCE ABUSE
TERRORISM AND HOMELAND SECURITY
TRANSPORTATION AND INFRASTRUCTURE
WORKFORCE AND WORKPLACE

Antiretroviral therapy (ART) is the only known effective medical treatment for HIV/AIDS. In recent years, governments and humanitarian organizations in sub-Saharan Africa have moved rapidly to scale up the distribution and delivery of ART to large populations. As of 2006, more than 1.5 million people had received ART; however, millions more still need treatment. Given scarce human and fiscal resources to provide care, it is critical that policymakers and program administrators understand how to scale up ART as efficiently and cost-effectively as possible. Unfortunately there is little information on lessons learned about the scale-up process. Identifying what works (and what does not work) across a range of settings and conditions can provide essential lessons for delivering ART effectively on a mass scale.

To begin addressing this need for lessons learned, a RAND team examined ART scale-up in sub-Saharan Africa. In collaboration with AIDS Healthcare Foundation (AHF), a team of RAND Health researchers conducted a process evaluation of ART scale-up operations at six AHF-affiliated clinics in Uganda, Zambia, and South Africa. The team interviewed administrators, health care providers, staff, patients, and partnering agencies; observed patient flow and clinic operations; and developed simulation models to estimate daily clinic burden under a variety of circumstances. The evaluation identified six key challenges (in *italics* below) to scaling up ART programs efficiently and potential strategies for addressing them:

- *New clinics can face difficulty attracting and maintaining a steady rate of clients.* Programs should involve communities and community leaders in ART outreach, which can help reduce stigma and bolster public support for seeking treatment.
- *Large-scale patient flow at clinics may create bottlenecks.* Clinics need to allocate staff resources efficiently, streamline clinic visit schedule protocols, and tap clients and the HIV community as a source of labor.
- *Client dropout can reduce ART's effectiveness.* Programs should develop structures that enable clients to support each other and help others remain in care.
- *Tracking and monitoring large populations of patients via manual recordkeeping is not feasible.* Large programs will eventually need to adopt computerized record management systems.
- *Constrained resources, limited personnel, and growing numbers of clients can erode performance and contribute to burnout among clinic staff.* Clinic and program managers need to implement effective organizational management and human resource policies, including clear job descriptions and opportunities for professional growth and development.
- *Clients in treatment may need help reintegrating into social and economic circles.* Program designers need to develop effective mechanisms for coordinating and referring clients to nonmedical support organizations.

This fact sheet is part of the RAND Corporation research brief series. RAND fact sheets summarize published, peer-reviewed documents.

Headquarters Campus
1776 Main Street
P.O. Box 2138
Santa Monica, California
90407-2138
TEL 310.393.0411
FAX 310.393.4818

© RAND 2009

The objective of ART scale-up programs is to make treatment easily available to all those who need it. Most scale-up efforts have concentrated on increasing the number of clinics and staff. Surprisingly little attention has been paid to how clinics operate and how clinic efficiency can be maximized. A more thorough understanding of how to make ART scale-up more cost-effective and efficient, while still providing quality care, is critical to program administrators, government officials, and funding agencies that are aiming to make ART access widespread and sustainable in sub-Saharan Africa.

Office of Congressional Relations | 703-413-1100 x5320 | ocr@rand.org | www.rand.org/congress

The research was supported by the National Institutes of Health.

This fact sheet was written by David M. Adamson. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.

RAND Offices

Santa Monica, CA • Washington, DC • Pittsburgh, PA • New Orleans, LA/Jackson, MS • Boston, MA • Doha, QA • Cambridge, UK • Brussels, BE



HEALTH

THE ARTS

CHILD POLICY

CIVIL JUSTICE

EDUCATION

ENERGY AND ENVIRONMENT

HEALTH AND HEALTH CARE

INTERNATIONAL AFFAIRS

NATIONAL SECURITY

POPULATION AND AGING

PUBLIC SAFETY

SCIENCE AND TECHNOLOGY

SUBSTANCE ABUSE

TERRORISM AND
HOMELAND SECURITY

TRANSPORTATION AND
INFRASTRUCTURE

WORKFORCE AND WORKPLACE

This PDF document was made available from www.rand.org as a public service of the RAND Corporation.

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.

Support RAND

[Browse Books & Publications](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore [RAND Health](#)

[View document details](#)

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND PDFs to a non-RAND Web site is prohibited. RAND PDFs are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see [RAND Permissions](#).