RethinkHIV

Thirty years after the identification of the disease that became known as AIDS, humanitarian organizations warn that the fight against HIV/AIDS has slowed, amid a funding shortfall and donor fatigue. In this book, Bjørn Lomborg brings together research by world-class specialist authors, a foreword by UNAIDS founding director Peter Piot, and perspectives from Nobel Laureates and African civil society leaders to identify the most effective ways to tackle the pandemic across sub-Saharan Africa. There remains an alarming lack of high-quality data evaluating responses to HIV. We still know too little about what works, where, and how to replicate our successes. This book offers the first comprehensive attempt by teams of authors to analyze HIV/AIDS policy choices using cost-benefit analysis, across six major topics. This approach provides a provocative fresh look at the best ways to scale up the fight against this killer epidemic.

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RethinkHIV

Smarter Ways to Invest in Ending HIV in Sub-Saharan Africa

Edited by

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Abbreviations and acronyms

ABCE	Goals and Allocation by Cost-Effectiveness model
ACT	artemisin combination therapy for malaria prevention and treatment
AGF	Abuja Goals Fund
AMC	adult male circumcision
AMI	acute myocardial infarction
ANC	antenatal care
ART	anti-retroviral therapy (three-drug combination therapy)
ARV	any single or dual anti-retroviral drug regimen
BCA	benefit-cost analysis
BCC	behavioral change communication
B/C ratio	benefit-cost ratio
CAR	Central African Republic
CBA	cost-benefit analysis
CCC	Copenhagen Consensus Center
CCT	conditional cash transfer
CEA	cost-effectiveness analysis
CHW	community health worker
CM	cryptococcal meningitis
CMH	Commission on Macroeconomics and Health
COD	cash on delivery
CRAG	cryptococcal antigen
DALY	disability-adjusted life year
DCP2	Disease Control Priorities in Developing Countries, Second Edition
DHS	Demographic and Health Surveys
DMPPT	Decision Makers' Program Planning Tool
DOTS	directly-observed treatment, short course
FAO	Food and Agricultural Organization
FP	family planning
FSW	female sex worker
GAVI	Global Alliance for Vaccines and Immunization
GF	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GHI	Global Health Initiative
GNI	gross national income
HC	human capital
HIA	HIV infection averted
HICs	high-income countries
HIPC	Heavily Indebted Poor Countries Initiative of World Bank
HLT	High Level Taskforce on International Innovative Financing for Health Systems
HSS	health system strengthening = strengthening health systems
HSV-2	herpes
HTC	HIV testing and counseling
IAC	International AIDS Congress
IC	information campaigns
ICD	infectious and communicable diseases
ICER	incremental cost-effectiveness ratio
IDU	injecting drug user
IHP+	International Health Partnership
IMAGE	Intervention with Microfinance for AIDS and Gender Equity
IOM	Institute of Medicine (USA)
IPV	intimate partner violence
IRR	internal rate of return; also, economic rate of return

LMICs	low- and middle-income countries
MBB	marginal budgeting for bottlenecks
MC	male circumcision
MD	medical doctor
MDG	Millennium Development Goal
MDR-TB	multidrug resistant tuberculosis
MMC	medical male circumcision
MSF	Médecins Sans Frontières
MSM	men who have sex with men
MTCT	mother-to-child transmission
NASA	National AIDS Spending Assessment
NCD	non-communicable diseases
ODA	official development assistance
OI	opportunistic infection
OST	opioid substitution therapy
PBI	performance-based incentives
PDV	present discounted value
PEPFAR	President's Emergency Program for AIDS Relief (USA)
pMTCT/PMTCT	prevention of maternal to child transmission
POC	point-of-care
PPP	purchasing power parity
QALY	quality-adjusted life year
RBF	results-based financing
RCTs	randomized controlled trials
R4D	Results for Development Institute
SRH	sexual and reproductive health
SSA	sub-Saharan Africa
STI	sexually transmitted infection
TAC	Treatment Action Campaign
TB	tuberculosis
TnT	treat and test
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNGASS	United Nations General Assembly Special Session on HIV/AIDS (June 2001)
UNICEF	United Nations Children's Fund
VCT	voluntary counseling and testing
VSL	value of a statistical life
VSLY	value of statistical life year
WHO	World Health Organization
WTP	willingness to pay
XDR-TB	extensively drug-resistant tuberculosis
YLL	years of life lost

Foreword

PETER PIOT

The emergence of the AIDS epidemic three decades ago represented an historic and unexpected development, upsetting the belief that the era of widespread infectious disease was coming to an end.

Since the beginning of the epidemic, almost 60 million people have been infected with HIV and 25 million people have died of HIV-related causes (UNAIDS and World Health Organization 2009). Yet, in that time an immense amount has been accomplished: scientific breakthroughs, unprecedented increases in global funding, and a new model for human rights and public health policy. Millions of lives have been saved.

At the end of 2010, five million people in sub-Saharan Africa had access to anti-retroviral treatment, whereas at the beginning of the millennium fewer than 100,000 had access (World Health Organization 2011).

The expansion of treatment has been one of several events that have recently changed the AIDS landscape. There have been positive research breakthroughs in demonstrating the effectiveness of male circumcision to prevent acquisition of HIV in men, and of treatment as prevention in serodiscordant couples. On the political side, the June 2011 United Nations Security Council Resolution on HIV/AIDS and General Assembly Political Declaration on HIV/AIDS reflect a promising level of renewed political engagement, as well as a changed strategy to focus on the populations that are at highest risk of HIV.

However, in an environment where aggregate funding is either declining or flat-lining, continuing with a "business-as-usual" approach will not work. The response to HIV needs to draw from lessons gained over the past thirty years, to identify greater efficiencies and establish a longer-term strategy.

We already know a considerable amount about the future of the epidemic. AIDS will remain an enormous global challenge. The disease will undoubtedly remain a major cause of death worldwide for years to come. In the worst affected countries in sub-Saharan Africa, AIDS will continue to undermine national economies, agricultural production, and community cohesion.

But there is much that remains uncertain – and dependent on decisions that we make in the next few years. The aids2031 Modeling Working Group showed (The aids2031 Consortium 2010) that tens of millions of lives can be saved over the next generation if efforts to tackle AIDS become smarter, more focused, more tailor-made, and more community-centered. However, if actions remain static or weaken, there will be millions of preventable new infections and deaths.

Although we talk about the so-called "global AIDS epidemic," in reality today there is a multitude of local epidemics that often differ markedly from one another among and within countries. While certain principles may apply universally in the fight against HIV – such as the importance of combating stigma, or of engaging affected communities – the variation teaches us that AIDS choices must address the unique settings of differing epidemics.

We must also learn to better reach the marginalized groups who experience the harshest effects of the HIV epidemic. Both globally and in sub-Saharan Africa, adult prevalence is considerably higher among people who inject drugs, men who have sex with men, and sex workers. Stigma, discrimination, and laws that criminalize these behaviors make it difficult for marginalized individuals in too many countries to seek health care, and to access preventative options.

Most importantly, we must acknowledge that AIDS is a generations-long challenge. Facing this reality requires us to adopt a longer-term, proactive mindset. Scaling up is vital, but it must be matched by an equal commitment to ensuring quality, efficiency, and sustainability.

This has profound implications for how we approach HIV. It would see us put more emphasis on investment in local capacity, identify greater synergies with other health and development needs, focus on locally adapted approaches rather than generic approaches, and introduce new prevention interventions in function of local needs.

Much of the knowledge that is needed to create radical reductions in the number of new HIV infections and AIDS deaths over the next generation is already available. The world possesses the research capacity to generate the new preventive and therapeutic tools that will be required.

However, AIDS research needs to evolve and develop. Whereas research for new interventions such as a vaccine microbicide or pre-exposure prophylaxis must continue, research in the real world into population level effectiveness must intensify, taking into account the effects of social marginalization, gender inequality, and management challenges of large-scale programs over a considerable period of time.

In translating new evidence, we should ask ourselves five questions to help to ensure that national strategies are based on more than received wisdom (Piot 2010):

- Does this work in the real world?
- Will people use it?
- What is the best way to deliver it?
- Can we afford it?
- Do the benefits warrant the costs?

RethinkHIV seeks to provide answers to each of those questions, and especially the last one. Prioritization based on establishing value for money is a different approach than the field of AIDS is accustomed to. The findings and implications from this first-ever, comprehensive effort to examine costs and benefits of the major HIV interventions across sub-Saharan Africa can be challenging and even confrontational. But the lessons from this field should be incorporated into our policy discussions and decisions, along with evidence from other scientific fields.

The *RethinkHIV* research captures human ingenuity and enterprise in the face of HIV, by outlining the considerable number of effective (and cost-effective) ways that have been found to respond to the epidemic. It is striking that the project asked researchers to focus on initiatives with benefit-to-cost ratios greater than one: In other words, each of the responses to the epidemic is, in itself, cost-effective. There are no silver bullets in the fight against HIV. But, as this research shows, there are many effective weapons in our arsenal.

It is also noteworthy that a number of the initiatives explored – such as financial incentives to keep girls in school, and efforts to reduce gender-based violence (Chapter 5) – have positive benefits that flow beyond HIV prevention. HIV does not exist within a vacuum, and responses that have broader impacts are commendable. Identifying areas of potential convergence between investment options will not only save costs, but may help to address other societal problems and strengthen health systems.

These chapters also underscore the considerable need for further intervention evaluation. It is vital that we generate more rigorous effectiveness studies, and engage in more research into structural interventions to reduce vulnerability to HIV.

However, the responsibility for building a sustainable long-term response to HIV does not just rest with the research community. Political courage and commitment need to increase.

As the aids2031 Consortium demonstrates, the magnitude and severity of the HIV pandemic can be reduced dramatically over the next generation if the global community brings the seriousness of purpose to this problem that it deserves. So far, some political leaders have outlined a bold vision. However, they have left an unfinished agenda.

True leadership is required to develop strong, evidence-based national responses. Among other actions, political leaders must prioritize rights-based approaches with respect to marginalized populations.

Globally, AIDS needs to remain high on the global political agenda, even among a proliferating array of challenges and issues – and against the backdrop of the economic crisis and AIDS "fatigue."

The response to AIDS needs to adapt to the changing environment. Funding demands will grow, but we can lower the long-term cost trajectory if wise policy choices are made today with attention paid to costs and benefits.

In highlighting effective responses, and shining a spotlight on prioritization and evidence-based decision-making, *RethinkHIV* adds to the body of information that can help to ensure smarter, sustainable decisions are made in the ongoing fight against HIV.

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