

# Preface

*Anyone who has the least ability to look into the future can already see the potential for this disease being much worse than anything mankind has seen before.*

*W. Cates, Newsweek, August 1985*

Those who know me say I'm prone to hyperbole, but I wish these words had been my typical exaggeration rather than what has come to be a tragic reality. This quote occurred in the *Newsweek* issue with Rock Hudson on the cover. Fewer than 12,000 AIDS cases had been reported to public health authorities. Over the intervening two decades, the disease has become the public health issue of our lifetime – affecting tens of millions worldwide. In Africa, HIV/AIDS has already had a negative demographic impact by erasing the mortality gains of the entire 20<sup>th</sup> century and creating a distorted population pyramid devoid of persons in their most productive years. On average, an individual in Southern Africa has returned to the life expectancy they would have had at the turn of the 19th century. No other health condition of our time is having, or has already had, such a profound public health impact.

This comprehensive book addresses the interdisciplinary aspects of the global HIV/AIDS epidemic in its entirety. Citing epidemiologic evidence from the latest UNAIDS surveys, its geographic analysis of the global patterns is both timely and complete. The initial section of the book summarizes the always evolving, state-of-the-art of the prevention/care/treatment continuum. The chapters delve into the overlapping layers of knowledge affecting HIV/AIDS, including the behavioral components of sexual and drug sharing practices, the evolving biomedical interventions both alone and in combination, treatment of those infected with HIV as a means of prevention, political will as a foundation upon which other approaches can be built, and social activism as the continued force keeping HIV/AIDS at center stage. Part One's review offers a foundation for Part Two, where issues in prevention and care are reviewed within the unique contexts of individual countries and regions. This section provides a careful analysis of how all of the different layers of HIV/AIDS can play a coordinated role in national programs to advance the prevention and care agenda.

The authors are all definitive leaders in the HIV/AIDS field. The editors have done a remarkable job in pulling together pithy and synthetic contributions which are aggregated in one resource for the field. Most of the authors have been involved for decades with the evolving efforts in the global HIV/AIDS epidemic, and their experience with proven successful programs on the ground adds to the credibility of their analyses.

The well-known HIV/AIDS successes in the arena of prevention are amply documented. The declining HIV prevalence in many parts of the world reflects a combination of better data (surveillance as a public health intervention), decreasing HIV incidence due to targeted interventions, and the first wave of preventable deaths before antiretrovirals were available in low-income settings. The 100% condom campaign in Thailand showed that a population-level, structural intervention involving both behavioral (decreased brothel attendance) and biologic (increased condom use in high-risk settings) interventions can have a measurable impact on reversing escalating HIV trends. In Uganda, the emphasis on the “ABC” approach to HIV prevention (which more appropriately should be labeled “ABC...Z” to include the full alphabet of HIV prevention interventions) was successful because of the involvement of political leaders from the outset. In Senegal, condom social marketing helped establish a behavioral norm among those most likely to transmit HIV infection. In Brazil, universal access to antiretrovirals had a multiple impact by both providing incentives for individuals to learn their infection status and prevention programs aimed at HIV-infected individuals. Finally, the most crucial recent scientific success in the arena of prevention has been an indication from results of trials that male circumcision can markedly reduce the risk of acquiring HIV infection.

There have also been prevention disappointments. Hopes for topical microbicides and prophylactic vaccines have not been realized; in fact, the HIV prevention trials with these agents have shown that – as with all science – experiments with new products must be framed for their “two-tailed” possibilities – both helpful and harmful. But valuable lessons have been learned which have already advanced our scientific approaches to future HIV prevention studies. Some scientific successes remain unrealized due to structural and societal failures, such as access and stigma. For example, simple regimens for the prevention of mother to child transmission are still reaching frighteningly few children in low and middle income countries.

We have also experienced tremendous advances and challenges in caring for those suffering from AIDS. Scientific progress in treating AIDS has meant that AIDS need no longer be a death sentence. For many in low and middle income countries, however, difficulties in financing and reliably accessing care have severely undermined the promise of a generation of progress.

So how should we proceed into the future to have the greatest public health impact on HIV/AIDS globally? Two mutually reinforcing directions are apparent for prevention: first, HIV prevention programs must be immediately enhanced by incorporating the most effective approaches available; and second, HIV prevention research must be accelerated by focusing on new strategies that can substantially improve the effectiveness of our current prevention efforts. In the arena of care, the successes and failures of treatment roll out in low and middle income countries and communities must be carefully monitored and studied.

Our current generation of HIV/AIDS leaders must play a greater advocacy role among international HIV/AIDS funders to coordinate prevention investments, policies and strategies. In short, public health experts need to work along program management experts to develop a “global prevention plan.” This would be based on applying epidemiologic methods and emerging HIV testing algorithms to identify the highest risk transmission groups, and then directing prevention resources to these groups. Examples provided in this book show that this targeted public health approach is not only possible, but also able to be sustained and even scaled up. This focused strategy is relevant to both concentrated and generalized epidemics by directly addressing the situations that sustain HIV spread into new generations of transmission.

HIV prevention programs must rapidly scale up proven interventions to interrupt transmission among those most likely to transmit. The current evidence-base for HIV prevention approaches is strongest for male circumcision services for adult men. In addition, routine infant circumcision for requesting parents, reduction of sex/needle partners, needle exchange programs, promotion of male and female condoms, access to counseling testing for the general population, and antiretroviral therapy for HIV positive pregnant women and their infants are ready for public health primetime.

The best kept secret in HIV prevention is providing contraceptives to HIV-infected women who do not currently wish to become pregnant. Expanding family planning services to meet unmet need would reduce the number of unintended HIV-infected infants and orphans by decreasing the number of unintended pregnancies.

The “demand side” of prevention efforts also needs to be examined through greater investment in community mobilization for uptake of HIV/AIDS prevention and care services. Investments in HIV prevention and care create opportunities for strengthening health care systems within resource-poor settings. In the face of severely limited human resources in health care, evidence is emerging from Rwanda and other countries showing that HIV/AIDS investments have had a positive spin-off impact on the broader community, specifically through improvements in other preventive health services including immunizations, family planning and pre- and post-natal care. Developing better systems to measure the impact of HIV/AIDS investments not only on the overall health system, but also on broader economic development within countries, will be essential. For example, the building of long-term, sustainable capacities in the most heavily HIV-affected countries will allow services to be more broadly available, even as those infected with HIV live longer and have other health needs. Integrating specific program services (family planning/HIV, TB/HIV, malaria/HIV) is an important step both to provide comprehensive care as well as to address non-HIV/AIDS needs within communities.

In conclusion, this book is a wonderful resource for those wishing to understand the multiple aspects of the global HIV/AIDS epidemic. We still have a long way to go in addressing this public health priority. Despite the successes, more persons become infected with HIV everyday than we are able access with HIV/AIDS care and treatment programs. No scientific “magic bullet” is around the corner to provide a panacea for eliminating global HIV spread. The successes and failures documented in this book show we have evolved in positive directions, that we can learn from our disappointments, and that prevention and care together will be necessary to move ahead.

Willard Cates Jr., MD, MPH  
Family Health International

Public Health Aspects of HIV/AIDS in Low and Middle  
Income Countries

Epidemiology, Prevention and Care

Celentano, D.; Beyrer, C. (Eds.)

2009, XXII, 754 p., Hardcover

ISBN: 978-0-387-72710-3