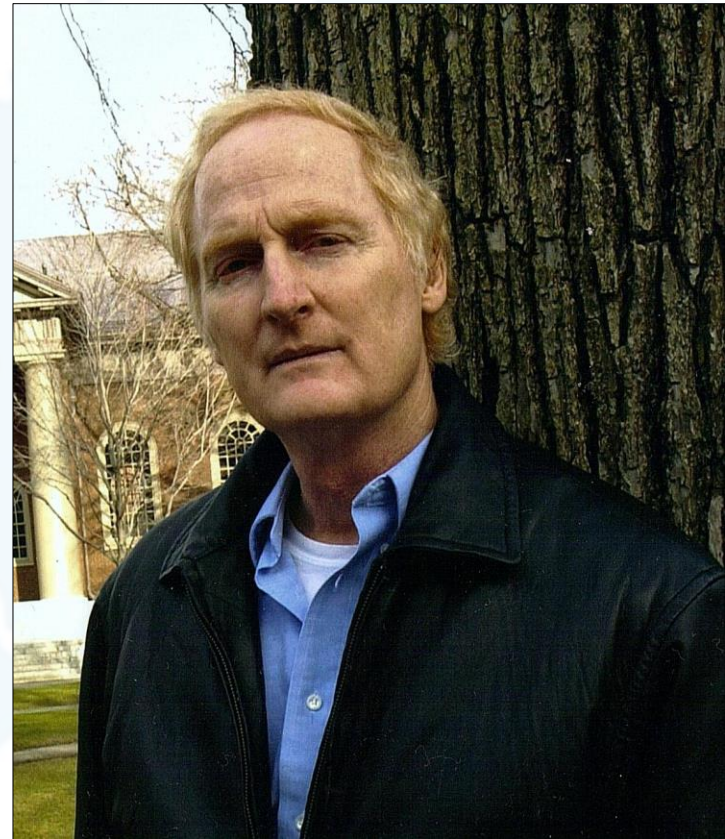


What Works in Prevention of HIV Transmission

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**Edward C. Green, PhD
Former Director of the AIDS Prevention Research Project
Harvard Center for Population and Development Studies
9 Bow Street
Cambridge, MA 02138 USA**



What Have We Learned Over 35 Years Into the Global AIDS Pandemic?

- Most epidemics outside Sub-Saharan Africa have not expanded from “key populations” into the general heterosexual population.
- East and especially southern African epidemics are fundamentally different from those of the rest of the world because HIV exists largely in the general, heterosexual population.

Main Point of This Presentation

The “generalized” epidemics of Africa are very different from the epidemics found in the rest of the world.

How?

1. In transmission dynamics
2. In where we find the HIV infections
3. In prevention requirements

Most HIV Epidemics Are Sexually Driven

- Most **HIV infections in the world are sexually transmitted**. Few countries have epidemics driven by PWID (people who inject drugs).
- Having **multiple sex partners is what drives HIV epidemics**, whether they are primarily heterosexual or homosexual.
- More recently, **concurrent sexual partnerships have been found to be especially dangerous** (or efficient in causing HIV transmission).

Sexual Behavior Was Not and Is Not Being Addressed

- Surprisingly, prevention programs funded by UN agencies and major donors have not and do not focus on promoting mutual monogamy, partner reduction or even delay of sexual debut (i.e., delay of age of first sexual intercourse). **Why is this so?**
- Imagine if billions of dollars were made available to address lung cancer on a global scale. Surely, we would have to address smoking behavior: for example, not smoking in the first place, stopping smoking, or at least having fewer cigarettes per day.

Two Basic Types of AIDS Epidemics

1. Epidemics are “concentrated” if transmission is mostly among “**key populations,**” especially:

- **People Who Inject Drugs (PWID)**
- **Sex Workers (SW)**
- **Men Having Sex with Men (MSM)**

2. Epidemics are “generalized” if transmission is mainly outside “key populations,” therefore, in the **general population** as in Sub-Saharan Africa.

Note: 70% of deaths from HIV occur in the generalized epidemics of Southern and Eastern Africa.

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Key Point

**Focusing prevention efforts on
“key populations” (MSM, SW, PWID)
will not significantly impact
the generalized HIV epidemics
of Sub-Saharan Africa.**

What Works in Generalized HIV Epidemics

- Partner fidelity or reduction in multiple, concurrent partners emerges as the key factor in the decline of HIV in generalized epidemics.
- In every African country where there was HIV prevalence decline in the 1990s, it was preceded by decline in reporting of multiple and concurrent sex partners.

In Other African Countries Showing HIV Prevalence Decline...

- All showed changes in behavior. **Fewer men and women reported multiple and concurrent partners** in Kenya, Ethiopia, Zambia, Zimbabwe, and Malawi.
- **Note that Condom use was too low to explain declining prevalence (in the 1990s).**

American Solution to an African Problem

- Historically, the American MSM-focused response to the U.S. epidemic became the *global* response to HIV prevention, including in Africa.
- Position of gay men in the U.S.: Do not interfere or judge our sexual behavior. Instead help us reduce our risk.
- This was the origin of the “risk reduction” (only) approach.
- Interfering with sexual behavior beyond promoting condom use has always been nearly taboo in American and European AIDS prevention.

UNAIDS Human Rights Approach to HIV Prevention

- Focuses on key populations, even in Africa where epidemics are generalized.
- It is a *risk reduction* approach rather than a *risk avoidance* approach.
- **Instead of encouraging key populations to avoid risky sexual behaviors, it seeks to establish their high-risk sexual behaviors as rights to be protected.**
- Focuses on interventions that are “sex-positive” and non-judgmental.
- **Calls for decriminalizing and destigmatizing high-risk sexual and drug using behaviors as a primary strategy.**

Risk Avoidance vs Risk Reduction

	Sexual Transmission of HIV	PWID Transmission of HIV
Risk (Harm) Avoidance	<ul style="list-style-type: none">- Abstinence (i.e., delay of sexual debut)- Fidelity (i.e., mutual monogamy with tested HIV-neg partners)	<ul style="list-style-type: none">- Stopping drug injecting- Refraining from drug use, with needles or otherwise)
Risk (Harm) Reduction	<ul style="list-style-type: none">- Condom use- Partner <i>reduction</i>- Drugs to lower viral loads (its hard to know where to put this)	<ul style="list-style-type: none">- Providing sterile syringes- Needle exchanges

Some Problems With Risk-Reduction Approach

- **Inconsistent Condom Use**: Despite condom education and wide distribution efforts, condom use is inconsistent everywhere, and studies show that inconsistent use does not protect at the population level.
- **Behavioral Disinhibition**: Condom use can also create a false sense of security leading to a lack of sexual restraint.

This is why in the 1990s, condom use and HIV infection rates rose together, suggesting a connection between the two. Condoms were probably a marker for sexual activity (outside marriage).

AIDS Prevention History

- Global AIDS prevention strategies were first developed in the United States with “key population” groups (MSM especially, also PWID & SWs) in mind, then this strategy was brought to Africa (& then Asia).
- Western-funded prevention resources therefore have typically gone to risk reduction and medical or technological solutions for key populations with the Euro-American-Asian epidemics in mind.

Yet these epidemics altogether actually comprise a minority of HIV infections globally.

Uganda's Successful Model

In the late 1980s, Uganda created a highly successful, home-grown sexual behavior-based program focused on monogamy, mutual fidelity and abstinence (typically as delay of age of first sex).

A = Abstinence

B = Be Faithful

C = Use condoms if you don't practice A or B.

Uganda's successful approach with their main message being "risk avoidance" cost only USD 23 cents per person, per year.

Uganda's Successful Model

- Addressed AIDS as a *behavioral* rather than *technical* or *medical* challenge
- **Did not start with premise that “we cannot (*should* not?) change sexual behavior”**
- Tried to influence sexual behavior at a deeper level
- Primarily aimed at risk *avoidance*
- ABC approach gained wide acceptance in Africa because A and B were consistent with existing African behavioral norms

Uganda's Approach Challenged Dominant Western AIDS Prevention Paradigm

Uganda demonstrated that AIDS prevention can:

- Help people develop a healthy fear of being personally infected with HIV and developing AIDS.
- Motivate people to take simple, common-sense steps to not become infected by:
 - not having more than one sex partner (i.e., reduction of concurrent partners)
 - delaying the age of first sex (condoms as a back-up).

Can Sexual Behavior Really Change?

These two survey questions were routinely asked in Africa:

1. Did your behavior change? Yes.
2. If so, how did it change? (The answer was always some version of sticking to one partner.)

Did this behavior really change?

YES!

Global AIDS Prevention Funding

Risk *avoidance* prevention (the A & B of Uganda's ABC model) is typically not funded by donors, **even though most HIV infections globally (70 %) are found in the generalized epidemics** of Sub-Saharan Africa.

The Western Approach for Africa

After more than 35 years into the pandemic, there is no solid evidence that *any* of these “risk-reduction” methods bring down HIV infection rates in African generalized epidemics at the population level **where most HIV infections and HIV deaths occur.**

Exception: Drugs as Prevention

- “Pre-exposure Prophylaxis” (PrEP) – **Drugs that build immunity against HIV**
- “Treatment as Prevention” (TasP) – **Drugs that lower HIV viral loads (to the point that HIV+ people are very unlikely to infect others)**
- “Post-exposure Prophylaxis” (PEP) – **Short-term, high-dose emergency treatment within 72 hours of potential HIV exposure**

Summary Points

- The African hyper-epidemics are fundamentally different in transmission dynamics and therefore require a different approach in prevention.
- Uganda developed a largely home-grown, behavior-based, risk-avoidance approach (roughly 1986-95) that worked better than the U.S. or global approach—*in generalized epidemics*.
- Other African countries that experienced prevalence reduction followed Uganda to some extent by avoiding risky sexual behavior even though Western donors focused almost entirely on *risk reduction*

Problems with “Treatment as Prevention”

- About 1 in 5 people who start treatment drop out within a year.
- Missed doses of drugs due to common human error or problems of accessibility lead to new HIV infections. They also lead to developing **drug resistance** to treat HIV.
- Increased chances of complications including kidney and brittle bones from using drugs due to toxicity levels.

Summary Points

- The risk avoidance approach to HIV prevention that encourages all individuals to avoid high-risk sexual behavior, to delay sexual debut, and to avoid sexual relations with multiple concurrent partners has proven to be a more effective strategy in the generalized epidemics in Sub-Saharan Africa.
- This is not to say that key populations don't exist in Africa or that resources should not be allotted to them.

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Conclusion

Western-developed, risk reduction approaches to HIV prevention focusing largely on key populations, which is not where most infections are found in Africa, have been largely ineffective in the generalized HIV epidemics in Africa.