Testimony of

Edward C. Green, PhD
Senior Research Scientist
Harvard Center for Population and Development Studies
9 Bow Street
Cambridge, MA 02138

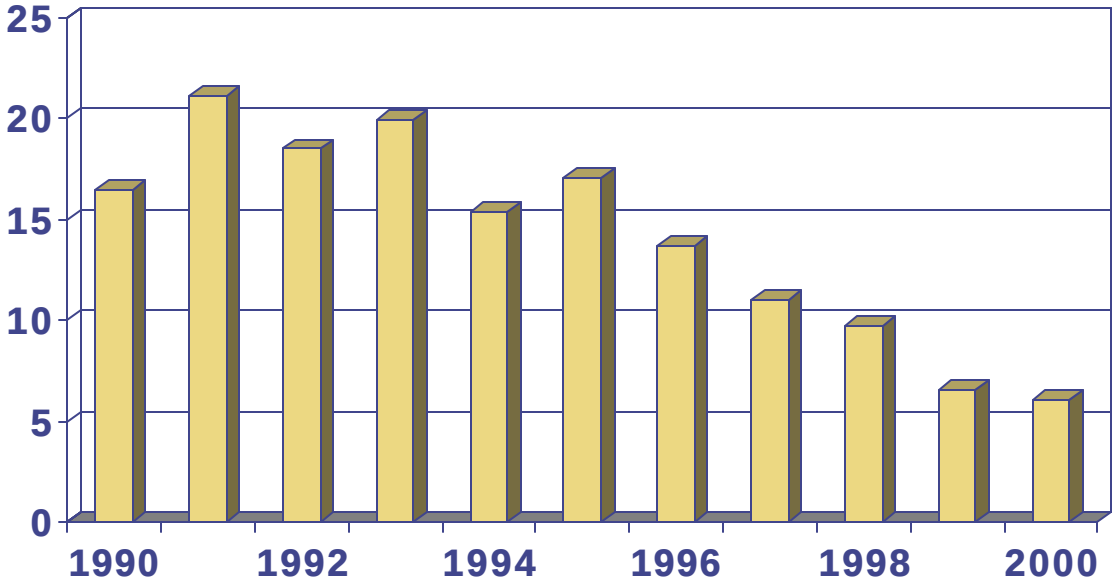
Before the
African subcommittee
U.S. Senate

May 19, 2003

Thank you, Senator Alexander and distinguished members of the Africa subcommittee. I am an anthropologist working at the Harvard School of Public Health. For most of my professional career, I have worked in less developed countries as a behavioral science researcher and as a designer and evaluator of public health programs. I have worked extensively in Africa and other resource-poor parts of the world. A good deal of my work has focused on reproductive health, some of this including the social marketing of contraceptives.

I applaud the President's Initiative to commit major US funding to address HIV/AIDS in the parts of the world with the highest infection rates. I am also glad that notice has been taken of Uganda's success in AIDS prevention, since there is much to be learned from the country that has had the greatest amount of HIV prevalence decline.

Infection rates have declined from 21% to 6% since 1991 [Fig. 1]. The Government of Uganda, led by President Museveni, developed a distinctive approach to AIDS prevention known as the ABC approach: Abstain, Be faithful, or use Condoms if A and B are not practiced. The abstinence message for the most part took the form of urging youth to ***delay*** having sex until they were older, and preferably married. Many of us in the AIDS and public health communities didn't believe that abstinence and faithfulness were realistic goals. It now seems we were wrong.



Decline in National HIV Seroprevalence in Uganda, based on 15 sentinel surveillance sites

Uganda's ABC AIDS program began in 1986, the year Museveni became head of state. Since the rate of new infections began to decline in the late 1980s, it becomes important to know what programs were in place at that time and what behaviors changed in order to account for the decline of infection rates. None of the standard programs we associate with AIDS prevention:

Condom social marketing;
Voluntary counseling and testing (VCT)
Treatment of STDs
And most recently, prevention of mother-to-child transmission (P**MTCT,** based on the drug nevirapine)

…were in place in the 1980s.

I am certainly not saying that these standard, biomedical interventions are not useful, only that we need to look at what interventions were actually in place when infection rates began to decline. It is also important to work backwards from the epidemiological and behavioral data. We know that prevalence decline and changes in sexual behavior were most pronounced in youth age 15-19. These findings took many of us by surprise, since we believed that teenagers are driven by "raging hormones," therefore abstinence is an unrealistic or impossible objective. In fact, many of us also believed that women had no power to negotiate sex, or to refuse unwanted sex, or to insist upon condom use, because African societies are male-dominated. In spite of these legitimate concerns based on real cultural patterns, Uganda designed interventions aimed at fundamentally changing sexual behavior, something the standard interventions just listed do not attempt. The primary target audience was youth.

Let me provide two examples of interventions that were among the first developed by Uganda. One is a youth program which was and is national in scope. The second example involves faith-based organizations.

The SHEP Program

A program to introduce AIDS education in Ugandan primary schools began in 1987, starting with the School Health Education Program (SHEP) of the Ministry of Education. The aim of this program was to reach youth with AIDS prevention information before they become sexually active. It was also known that dropout rates after primary school were high. AIDS was not the only component of SHEP, but it was an important one. The behavior change emphasis was on delay of age of first sex, but education about condoms was also part of the program.

To implement the new program, there was a "training of trainers" approach that went from the district level, down to sub-districts, and then to teachers, who were the ones to taught students. Students themselves were trained as peer educators, and they were expected to teach their parents and friends about AIDS. This was all done in a relatively short time. The basic facts about AIDS and how to prevent it were taught.

So-called Life Skills education has also been taught in Ugandan schools for a number of years, beginning in about 1987. Life Skills might be regarded as AIDS Education 102, which comes after the basic course in what AIDS is and how it is transmitted and prevented.

Life Skills refers to training youth in such skills as interpersonal relationships, self awareness and self esteem, problem solving, effective communication, decision-making, negotiating sex or NOT having sex, resisting peer pressure, critical thinking, formation of friendships, and empathy. These are referred to as cognitive skills and they seem to help youth make healthy and indeed life-saving decisions.

Did this and similar programs have impact? According to studies by the World Health Organization, the proportion of young males age 15-24 reporting premarital sex decreased from 60% in 1989 to 23% in 1995. For females, the decline was from 53% to 16%.

The take-home message for the US Senate is that while condoms were part of AIDS education for youth, the emphasis was on persuading children to postpone sexual activity until they were older, until they were married. In addition to the national statistics already cited, we have some findings concerning the impact of a school-based AIDS education program in Soroti District, a program that benefited from additional inputs from an East African NGO called AMREF. Baseline and follow-up studies of Primary 7 pupils (age 13-16) showed that as an apparent result of the school AIDS prevention program, self-reported sexual activity among boys dropped from 61% for the class of 1994 to 5% for the class of 2001, while in girls the change was of similar magnitude, from 24% in 1994

to 2% in 2001 [Fig. 2]. Some evidence other than self-reported findings corroborate these remarkable data. [Fig. 3] (AMREF/Uganda. (2001; Nantulya 2002).

Fig. 2. Delayed Sexual Debut Among Primary School Pupils (age 13-16 years) Following IEC (Self reported)

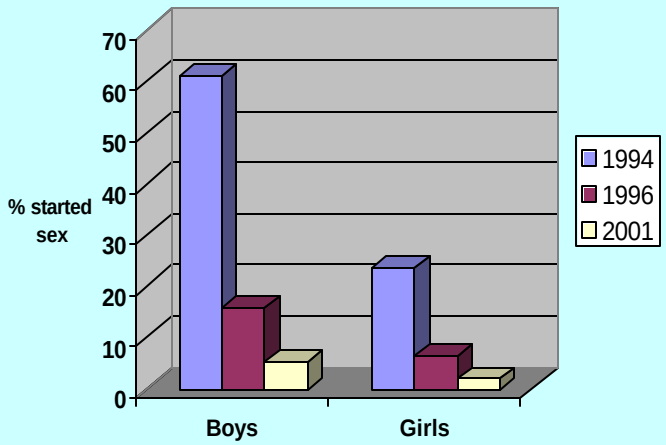
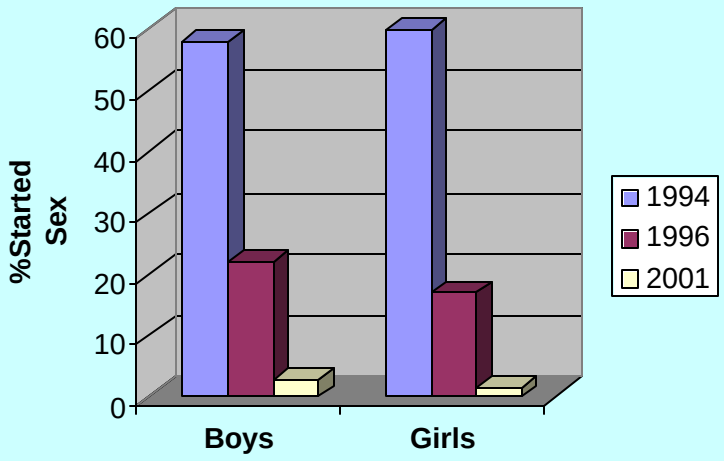


Fig. 3. Impact of IEC on Sexual Activity of rimary 7 Pupils (age 13-16 years) in Soroti District Uganda (as reported among friends)



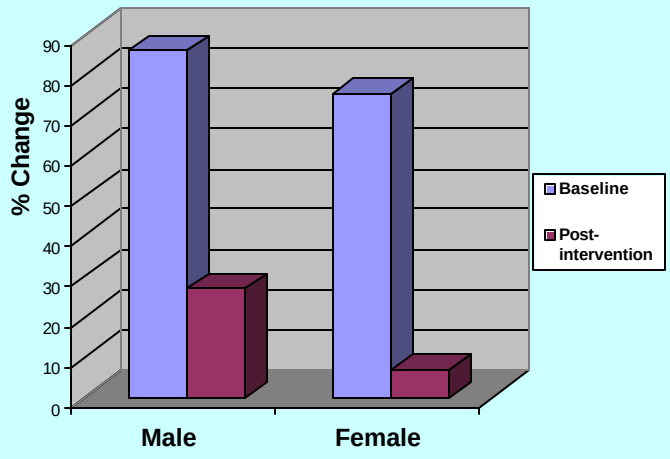
The Anglican Church project

Some other early efforts involved faith-based organizations (FBOs). In 1992, USAID allocated funds for three major religious groups in Uganda: Catholic, Anglican and Muslim. Each developed an AIDS prevention project and each received roughly $350,000 from USAID. The FBOs said at first that they wished to promote "fidelity" and "abstinence" rather than condoms. At the time, many working in AIDS prevention thought that fidelity and abstinence promotion would lead to few if any measurable results. Nevertheless, USAID made the grants and only asked the FBOs to not criticize condom promotion by other groups. This was agreed to and adhered to. In the months to follow there were few if any problems over condoms, in fact before long, there was some condom promotion by two of the projects.

All three projects were found to be successful. The experience of the Muslim project has been published as a UNAIDS so-called Best Practices paper. I will say a bit more about the Anglican project since it is less well known. This program was implemented in 10 out of 40 districts of Uganda, meaning the project had relatively large coverage. Clergy and laity were trained in AIDS prevention, using the peer education approach. AIDS education messages were delivered from the pulpit in sermons, as well as at funerals, weddings, and other occasions.

A USAID-funded evaluation of sexual behavior change among those reached by this project was conducted in 1995. It found that those reporting two or more sexual partners declined from 86% to 29% for men, and from 75% to 7% for women (Lyons 1996:8–9). Ever-use of condoms rose from 9% to 12% in the same period [Fig. 4].

Fig. 4: Change in Proportion of Respondents Reporting Multiple Sex Partners Following IEC Intervention in 10 Districts in Uganda by Religious Leaders



These findings underscore that fact that in Uganda, reduction in the number of sexual partners (mutual monogamy, also reduction in partners among the minority of core transmitters reporting 3 or more partners) was probably the single most important behavioral change that resulted in prevalence decline. Abstinence was probably the second most important change (see Green 2003 and Hogle et al 2002 for more supporting data).

Why do I say this? We measure both behavior and HIV prevalence through surveys of people age 15-49. Most people in these age groups are married (especially in Africa, where age of marriage is relatively young) and sexually active. This is why Uganda's main message, directed at the majority population, was "zero grazing," meaning being faithful to one partner. Fidelity to one partner also seems to have been the main response to the epidemic, if not to Uganda's prevention program. When Ugandans were (and are) asked in surveys what is the main thing they have done to avoid AIDS, faithfulness to one partner is the first and overwhelming response in all age groups except 15-19, among whom the first answer is abstaining or delaying, closely followed by fidelity to one partner.

Unfortunately, the American political debate over abstinence versus condoms has contributed to monogamy or partner reduction being overlooked. It is very good that the United States through USAID has adopted a new ABC policy for those countries with generalized epidemics, that is, epidemics where most HIV is found in the general population rather than in distinct, high-risk groups. This policy should guide the development of programs in Africa and the Caribbean funded under the President's Initiative. Indeed, there are other countries in these regions that that have implemented ABC approaches, and they have also achieved measures of success: Senegal, Zambia, Jamaica, and the Dominican Republic.

My concern is that the ABC model from Uganda be recognized for what it actually is: a comprehensive approach to AIDS prevention that recognizes that people are different and therefore a range of behavioral options for AIDS prevention needs to be presented, not just one or two. And it should be remembered that "zero grazing," or remaining faithful to one partner, was the main message for the majority of Uganda's population.

The reason I must say "was" is that Uganda's AIDS prevention program has gradually changed, perhaps due to the funding priorities of foreign donor organizations. Since the mid-1990's, there has been less emphasis on sexual behavior and more on medical solutions. In recent years, there has been a small but disturbing trend toward riskier sexual behavior, and for the first time in a decade there has been a slight uptick in national infection rates. The distinctive Uganda ABC model of the earlier period, the one developed primarily by Ugandans for Ugandans, is the one that seems to have worked best, and is the one that has most to teach the rest of the world.

References

AMREF/Uganda. (2001, August). *The effects of the Katakwi/ Soroti school health and Aids prevention project*. Kampala, Uganda: African Medical and Research Foundation (AMREF).

Green, E.C., **Rethinking AIDS Prevention.** Westport, Ct.: Praeger Press, Greenwood Publishers, (2003, in press).

Hogle, J. (editor), Green, E.C., V. Nantulya, R. Stoneburner, J. Stover, **What Hapened in Uganda? Declining HIV Prevalence, Behavior Change and the National Response.** USAID/Washington and The Synergy Project, TvT Associates, Washington, D.C. September 2002. Available online: http://www.usaid.gov/pop_health/aids/Countries/africa/uganda_report.pdf

Lyons, M. (1996, January 20). *Summative evaluation: AIDS prevention and control project*. Kampala: USAID/Uganda.

Nantulya, V. (2002, February). *HIV/AIDS prevention: Policy and program context of Uganda's success story*. Presentation to USAID, Washington, D. C.