The ABC Approach to HIV Prevention: A Policy Analysis

A Selection of Articles on A, B and C from



On Public Policy



Beyond Slogans: Lessons From Uganda's Experience With ABC and HIV/AIDS

By Susan A. Cohen

Between the late 1980s and mid-1990s, at a time when HIV/AIDS was well on its way toward ravaging Sub-Saharan Africa, Uganda achieved an extraordinary feat: It stopped the spread of HIV/AIDS in its tracks and saw the nation's rate of infection plummet. As word of the "Uganda miracle" spread, journalists, researchers, policymakers and advocates all descended to try to ascertain how it was accomplished.

By now, Uganda's success story has become virtually synonymous with the so-called ABC approach to HIV/AIDS prevention, for Abstain, Be faithful, use Condoms. And, indeed, it is clear that some combination of important changes in all three of these sexual behaviors contributed both to Uganda's extraordinary reduction in HIV/AIDS rates and to the country's ability to maintain its reduced rates through the second half of the 1990s. Beyond that, however, the picture becomes considerably less clear.

ABC refers to individual behaviors, but it also refers to the program approach and content designed to lead to those behaviors. Researchers and public health experts continue to study both and to delve into the many and varied complex relationships among them. This information is critical to determining to what extent the Uganda experience really is replicable and what from that experience productively might be exportable to other countries. At the same time, much more research is needed into the relevance of the ABC approach for the prevention of other sexually transmitted diseases

(STDs) as well as unintended pregnancy and the abortions or unplanned births that inevitably follow, both in Sub-Saharan Africa and in other parts of the world.

Meanwhile, U.S.-based social conservatives in and out of government— even as they pay homage to the ABC mantra—continue to confuse all of these issues. For them, ABC has become little more than an excuse and justification to promote their long-standing agenda regarding people's sexual behavior and the kind of sex education they should receive: A for unmarried people, bolstered by advocacy of B, but for most people, "anything but C."

Uganda and ABC

Measuring sexual behavior change. Among public health experts, it is by now generally agreed that during the critical time period between the late 1980s and mid-1990s, positive changes in A, B and C behaviors occurred and that all of these changes played a role in reducing HIV rates. Uganda's HIV prevalence steadily increased until about 1991, when it peaked at about 15% (30% among pregnant women in urban areas). It then turned sharply downward through the mid-1990s and reached 5% (14% for pregnant urban women) by 2001.

The findings of an analysis released by The Alan Guttmacher Institute in November 2003, A, B and C in Uganda: The Roles of Abstinence, Monogamy and Condom Use in HIV Decline, are consistent with the current consensus. Between 1988 and 1995, the time period during which HIV prevalence was declining, key changes in behavior occurred.

- Fewer Ugandans were having sex at young ages. The proportion of young men who had ever had sex decreased substantially and the median age at which young women began having sex rose from 15.9 in 1988 to 16.3 in 1995. Importantly, however, among those people who were having sex, overall levels of sexual activity did not decline.
- Levels of monogamy increased. Sexually active men and women of all ages, particularly the unmarried, were less likely to have more than one sexual partner in a 12-month period in 1995 than in 1989. Other research has found that the proportion of men reporting three or more sexual partners also fell during the period.
- Condom use rose steeply among unmarried sexually active men and women. Among unmarried women who had had sex in the last four weeks, the proportion who used condoms at last intercourse rose from 1% in 1989 to 14% in 1995; among unmarried men, condom use rose from 2% to 22%.

Additional risk factors and epidemiological impact. The relationship between individual sexual behavior and HIV risk is further complicated, however, by many other factors that overlay a simple A, B and C analysis. The risk of exposure is greater, for example, in the presence of other STDs and it appears to be lower for circumcised men. The number of a man or woman's sexual partners matters, but so does the duration of relationships, the extent to which relationships might overlap, frequency of sex, specific sexual practices, how consistently and correctly condoms are used with different partners, and the stage of infection of an HIV-positive partner.

In high-prevalence settings, ascertaining exactly which behavior change or combinations of changes can have the most impact in reducing HIV infection among the population as a whole is the focus of more recent studies. Indeed, based on the Uganda experience and drawing on an understanding of the epidemiology of STDs more generally, scientists are now concluding that other things being equal, even if absolute monogamy is not attained, having fewer sexual partners, especially concurrently, may be the most significant behavior change for a population overall. (Whether this is always the most significant protective factor at the individual level may be another matter.)

Creating behavior change. It is not possible to make a direct and simple link between the changes that took place in Uganda and the policies or programs that may have caused them to happen. The widely held view among Ugandans and outside analysts, though, is that increases in all three of the ABC behaviors led to reduced HIV rates following a comprehensive national message that HIV prevention was of the utmost importance to the country and the responsibility of all of its citizens. The message was delivered in different ways through a multiplicity of approaches, programs and types of organizations and was buttressed by a level of political commitment to forthrightly addressing the AIDS crisis that was unique among African governments. President Yoweri Museveni himself exhorted Ugandans, and still does, to practice A, B and C. Further, as Harvard medical anthropologist Edward Green observed recently, "ABC is far from all that Uganda has done." Uganda, he noted, "pioneered approaches towards reducing stigma, bringing discussion of sexual behavior out into the open, involving HIVinfected people in public education, persuading individuals and couples

to be tested and counseled, improving the status of women, involving religious organizations, enlisting traditional healers, and much more."

The evidence, therefore, points to the existence of a range of complementary messages and services delivered by the government and a wide diversity of nongovernmental organizations. To be sure, those messages included the importance of both young people delaying sexual initiation and "zero grazing" (monogamy). But contrary to the assertions of social conservatives that the case of Uganda proves that an undiluted "abstinence-only" message is what makes the difference, there is no evidence that abstinenceonly educational programs were even a significant factor in Uganda between 1988 and 1995.

Beyond Uganda

Encouraging signs also are beginning to emerge from other countries where HIV/AIDS had become a generalized epidemic. In Zambia, for example, HIV rates appear to be declining, at least among urban youth. The U.S. Agency for International Development (USAID) notes that "clear, positive changes in all three ABC behaviors" have taken place. Indeed, it would seem that the HEART (Helping Each Other Act Responsibly) program, a major USAID-funded media campaign there, may deserve much of the credit. This program, which was designed for and by youth, promotes both abstinence and condom use. One year after the campaign's initiation, indications are that young people exposed to its comprehensive messages are 46% more likely to be delaying or stopping having sex and 67% more likely to have used a condom the last time they had sex, compared with those who were not exposed.

In Jamaica, where HIV rates are still relatively low but sexual activity at

early ages is prevalent, a similar media campaign is beginning to show results. According to a recent summary from the USAID-sponsored YouthNet project, "More than half of the youth who recalled the ads said the ads had influenced how they handle boy/girl relationships through abstaining from sex, not giving into sexual pressure, and always using a condom/contraceptive when having sex."

HIV/AIDS rates also are declining in Cambodia, Thailand and the Dominican Republic, three other countries where various combinations of ABC behavioral changes appear to have played an important role. In Cambodia and Thailand, the epidemic spread mainly through prostitution. Both countries are adopting a "100% condom use" policy in brothels, and it is yielding positive results. In the Dominican Republic, meanwhile, the infection rate has slowed mainly due to men having fewer sexual partners as well as to increased condom use.

Finally, Brazil has so successfully stemmed the tide of HIV/AIDS that only half the number of Brazilians are infected today as the World Bank had predicted only a few years ago. Brazil's case may be atypical in one sense because of the government's decision to make free antiretroviral drugs available to anyone who qualifies for AIDS therapy. But it is equally atypical within Latin America because of the government's decision to promote frank talk about sex as well as condom distribution programs. Indeed, the Brazilian Health Ministry announced plans in August 2003 to distribute condoms to sexually active high school students in five Brazilian cities to prevent not only HIV/AIDS but also teenage pregnancy. Officials are particularly concerned about preventing HIV-positive teenage girls from becoming pregnant and then transmitting HIV/AIDS to their newborn infants.

Beyond HIV and ABC

Despite the evidence from Uganda and these other countries, U.S. HIV prevention policy is focused on promoting abstinence. Indeed, Global AIDS Coordinator Randall Tobias personally endorsed a provision in recently enacted U.S. law requiring that at least one-third of all U.S. assistance to prevent HIV/AIDS globally be reserved for "abstinenceuntil-marriage" programs ("U.S. AIDS Policy: Priority on Treatment, Conservatives' Approach to Prevention," TGR, August 2003, page 1). In effect, this makes "abstinenceuntil-marriage" advocacy the single most important HIV/AIDS prevention intervention of the U.S. government.

Social conservatives pressed for this result because, at least with regard to the general population, they dismiss the effectiveness of risk-reduction strategies such as those that promote correct and consistent condom use. Some, like Joseph Loconte of the Heritage Foundation, go further, denouncing even those programs that target particular high-risk groups with risk-reduction messages on the grounds that they "legitimize promiscuity, prostitution and illegal drug use." Instead, he and others advocate a strict "risk elimination" approach—which itself must be regarded as a risky strategy, given that risk elimination depends on 100% compliance 100% of the time (see related story, page 4).

Conservatives further assert that the availability of condoms has a "disinhibiting" effect on people's sexual behavior. By that logic, what could be more disinhibiting than the promise, and increasing reality, of HIV treatment? Certainly, correct and consistent contraceptive and condom use is difficult for ordinary people to maintain over long periods of time. But if reports on the recent rise in HIV incidence in the United States pointing to "prevention fatigue" as one of the contributors

have merit, should not strict "abstinence fatigue" be considered a clear and present danger?

To be sure, living in the midst of high HIV/AIDS prevalence can be a strong motivator for behavior change. As Harvard's Green wrote recently, in countries "where infection rates exceed 30% and funerals for family and friends are held several times a week, abstinence and faithfulness are attractive alternatives to death." Presumably, more and more-careful condom use would be an attractive alternative in the face of these circumstances as well—and the experience of high-prevalence communities in the United States from roughly the same time period during which Uganda turned its rates around indicates that, indeed, this was so. The critical questions, therefore, become: What behaviors may be more or less realistic for individuals to both achieve and sustain—especially as the imminent crisis begins to ebb? And how best can they be encouraged to do so?

Finally, that Brazil and Jamaica, to name just two countries, have linked HIV/AIDS prevention strategies with the prevention of unintended pregnancy is a reflection of the complex realities of life and sexual relationships. Women, especially, often are trying to prevent both simultaneously. How useful or relevant is the ABC approach for the broader range of reproductive health-related conditions individuals face in everyday life—especially a segmented approach that targets different messages to different groups of people rather than recognizing that the same people may need different messages at different stages of life? Even if a woman abstains until marriage, for example, she is likely to still want and need "C"—be it Condoms or other Contraception in order to be able to plan her childbearing. Alternatively, how can a married woman who wants to become pregnant protect herself

from the risk of HIV/AIDS from her husband who may have other sexual partners? And for a young woman who has so far abstained from sex altogether, must she wait until she is already sexually active until she is entitled to the full and accurate information necessary to protect herself from unplanned pregnancy and disease? These are just some of the questions raised by the ABC approach to sexual risk reduction.

"What happened" in Uganda between the late 1980s and mid-1990s happened in a specific place and time and under very specific circumstances. There is much to be learned from it. But advocates and policymakers seeking the simplicity of a single program model to replicate should be cautioned that Uganda's experience may have limited implications—even for making further gains in that country, let alone for other countries, other time periods and the range of reproductive health concerns beyond HIV that women and men face. Public health experts and researchers, meanwhile, have a special responsibility to recognize and explicate the complexities of these questions, even as they redouble their efforts to answer them. #

This is the third in a series of articles examining emerging issues in sex education and related efforts to prevent unintended pregnancy and sexually transmitted diseases. The series is supported in part by a grant from the Program on Reproductive Health and Rights of the Open Society Institute. The conclusions and opinions expressed in these articles, however, are those of the author and The Alan Guttmacher Institute.

Understanding 'Abstinence': Implications for Individuals, Programs and Policies

By Cynthia Dailard

The word "sex" is commonly acknowledged to mean different things to different people. The same can be said for "abstinence." The varied and potentially conflicting meanings of "abstinence" have significant public health implications now that its promotion has emerged as the Bush administration's primary answer to pregnancy and sexually transmitted disease (STD) prevention for all people who are not married.

For those willing to probe beneath the surface, critical questions abound. What is abstinence in the first place, and what does it mean to use abstinence as a method of pregnancy or disease prevention? What constitutes abstinence "failure," and can abstinence failure rates be measured comparably to failure rates for other contraceptive methods? What specific behaviors are to be abstained from? And what is known about the effectiveness and potential "side effects" of programs that promote abstinence? Answering questions about what abstinence means

CONTRACEPTIVE EFFECTIVENESS RATES FOR PREGNANCY PREVENTION*

CONTRACEPTIVE METHOD	Perfect Use	TYPICAL USE
ABSTINENCE	100	555
FEMALE STERILIZATION	99.5	99.5
ORAL CONTRACEPTIVES	99.5-99.9**	92.5
MALE CONDOM	97	86.3
WITHDRAWAL	96	75.5

*Percentage of women who successfully avoid an unintended pregnancy during their first year of use. **Depending on formulation. Sources: Perfect use—Hatcher, RA, et al., Contraceptive Technology, 17th ed., 1998, page 216. Typical use—AGI, Fulfilling the Promise: Public Policy and U.S. Family Planning Clinics, 2000, page 44.

at the individual and programmatic levels, and clarifying all of this for policymakers, remains a key challenge. Meeting that challenge should be regarded as a prerequisite for the development of sound and effective programs designed to protect Americans from unintended pregnancy and STDs, including HIV.

Abstinence and Individuals

What does it mean to use abstinence? When used conversationally, most people probably understand abstinence to mean refraining from sexual activity-or, more specifically, vaginal intercourse—for moral or religious reasons. But when it is promoted as a public health strategy to avoid unintended pregnancy or STDs, it takes on a different connotation. Indeed, President Bush has described abstinence as "the surest way, and the only completely effective way, to prevent unwanted pregnancies and sexually transmitted disease." So from a scientific perspective, what does it mean to abstain from sex, and how should the "use" of abstinence as a method of pregnancy or disease prevention be measured?

Population and public health researchers commonly classify people as contraceptive users if they or their partner are consciously using at least one method to avoid unintended pregnancy or STDs. From a scientific standpoint, a person would be an "abstinence user" if he or she intentionally refrained from sexual activity. Thus, the subgroup of people consciously using abstinence as a method of pregnancy or disease pre-

vention is obviously much smaller than the group of people who are not having sex. The size of the population of abstinence users, however, has never been measured, as it has for other methods of contraception.

When does abstinence fail? The definition of an abstinence user also has implications for determining the effectiveness of abstinence as a method of contraception. The president, in his July 2002 remarks to South Carolina high school students, said "Let me just be perfectly plain. If you're worried about teenage pregnancy, or if you're worried about sexually transmitted disease, abstinence works every single time." In doing so, he suggested that abstinence is 100% effective. But scientifically, is this in fact correct?

Researchers have two different ways of measuring the effectiveness of contraceptive methods. "Perfect use" measures the effectiveness when a contraceptive is used exactly according to clinical guidelines. In contrast, "typical use" measures how effective a method is for the average person who does not always use the method correctly or consistently. For example, women who use oral contraceptives perfectly will experience almost complete protection against pregnancy. However, in the real world, many women find it difficult to take a pill every single day. and pregnancies can and do occur to women who miss one or more pills during a cycle. Thus, while oral contraceptives have a perfect-use effectiveness rate of over 99%, their typical-use effectiveness is closer to 92% (see chart). As a result, eight in 100 women who use oral contraceptives will become pregnant in the first vear of use.

Thus, when the president suggests that abstinence is 100% effective, he is implicitly citing its perfect-use rate—and indeed, abstinence is 100% effective if "used" with perfect

consistency. But common sense suggests that in the real world, abstinence as a contraceptive method can and does fail. People who intend to remain abstinent may "slip" and have sex unexpectedly. Research is beginning to suggest how difficult abstinence can be to use consistently over time. For example, a recent study presented at the 2003 annual meeting of the American Psychological Society (APS) found that over 60% of college students who had pledged virginity during their middle or high school years had broken their vow to remain abstinent until marriage. What is not known is how many of these broken vows represent people consciously choosing to abandon abstinence and initiate sexual activity, and how many are simply typical-use abstinence failures.

To promote abstinence, its proponents frequently cite the allegedly high failure rates of other contraceptive methods, particularly condoms. By contrasting the perfect use of abstinence with the typical use of other contraceptive methods, however, they are comparing apples to oranges. From a public health perspective, it is important both to subject abstinence to the same scientific standards that apply to other contraceptive methods and to make consistent comparisons across methods. However, researchers have never measured the typical-use effectiveness of abstinence. Therefore, it is not known how frequently abstinence fails in the real world or how effective it is compared with other contraceptive methods. This represents a serious knowledge gap. People deserve to have consistent and accurate information about the effectiveness of all contraceptive methods. For example, if they are told that abstinence is 100% effective, they should also be told that, if used correctly and consistently, condoms are 97% effective in preventing pregnancy. If they are told that condoms fail as much as 14% of the time, they should be given a comparable typical-use failure rate for abstinence.

What behaviors should be abstained from? A recent nationally representative survey conducted by the Kaiser Family Foundation and seventeen magazine found that half of all 15–17-year-olds believed that a person who has oral sex is still a virgin. Even more striking, the APS study found that the majority (55%) of college students pledging virginity who said they had kept their vow reported having had oral sex. While the pledgers generally were somewhat less likely to have had vaginal sex than non-

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pledgers, they were equally likely to have had oral or anal sex. Because oral sex does not eliminate people's risk of HIV and other STDs, and because anal sex can heighten that risk, being technically abstinent may therefore still leave people vulnerable to disease. While the press is increasingly reporting that noncoital behaviors are on the rise among young people, no research data exists to confirm this.

Abstinence Education Programs

Defining and communicating what is meant by abstinence are not just academic exercises, but are crucial to public health efforts to reduce people's risk of pregnancy and STDs. For example, existing federal and state abstinence-promotion policies typically neglect to define those behaviors to be abstained from. The federal government will provide approximately \$140 million in FY 2004 to fund education programs

that exclusively promote "abstinence from sexual activity outside of marriage" ("Abstinence Promotion and Teen Family Planning: The Misguided Drive for Equal Funding," TGR, February 2002, page 1). The law, however, does not define "sexual activity." As a result, it may have the unintended effect of promoting noncoital behaviors that leave young people at risk. Currently, very little is known about the relationship between abstinence-promotion activities and the prevalence of noncoital activities. This hampers the ability of health professionals and policymakers to shape effective public health interventions designed to reduce people's risk.

There is no question, however, that increased abstinence—meaning delayed vaginal intercourse among young people—has played a role in reducing both teen pregnancy rates in the United States and HIV rates in at least one developing country. Research by The Alan Guttmacher Institute (AGI) indicates that 25% of the decrease in the U.S. teen pregnancy rate between 1988 and 1995 was due to a decline in the proportion of teenagers who had ever had sex (while 75% was due to improved contraceptive use among sexually active teens). A new AGI report also shows that declines in HIV-infection rates in Uganda were due to a combination of fewer Ugandans initiating sex at young ages, people having fewer sexual partners and increased condom use (see related story, page 1).

But abstinence proponents frequently cite both U.S. teen pregnancy declines and the Uganda example as "proof" that abstinence-only education programs, which exclude accurate and complete information about contraception, are effective; they argue that these programs should be expanded at home and exported overseas. Yet neither experience, in and of itself, says anything about the effectiveness of pro-

grammatic interventions. In fact, significant declines in U.S. teen pregnancy rates occurred prior to the implementation of government-funded programs supporting this particularly restrictive brand of abstinence-only education. Similarly, informed observers of the Ugandan experience indicate that abstinence-only education was not a significant

To date, no education program focusing exclusively on abstinence has shown success in delaying sexual activity.

program intervention during the years when Uganda's HIV prevalence rate was dropping. Thus, any assumptions about program effectiveness, and the effectiveness of abstinence-only education programs in particular, are misleading and potentially dangerous, but they are nonetheless shaping U.S. policy both here and abroad (see related story, page 13).

Accordingly, key questions arise about how to measure the success of abstinence-promotion programs. For example, the administration is defining program success for its abstinence-only education grants to community and faith-based organizations in terms of shaping young people's intentions and attitudes with regard to future sexual activity. In contrast,

most public health experts stress the importance of achieving desired behavioral outcomes such as delayed sexual activity.

To date, however, no education program in this country focusing exclusively on abstinence has shown success in delaying sexual activity. Perhaps some will in the future. In the meantime, considerable scientific evidence already demonstrates that certain types of programs that include information about both abstinence and contraception help teens delay sexual activity, have fewer sexual partners and increase contraceptive use when they begin having sex. It is not clear what it is about these programs that leads teens to delay—a question that researchers need to explore. What is clear, however, is that no program of any kind has ever shown success in convincing young people to postpone sex from age 17, when they typically first have intercourse, until marriage, which typically occurs at age 25 for women and 27 for men. Nor is there any evidence that the "wait until marriage" message has any impact on young people's decisions regarding sexual activity. This suggests that scarce public dollars could be better spent on programs that already have been proven to achieve delays in sexual activity of any duration, rather than on programs that stress abstinence until marriage.

Finally, there is the question of whether delays in sexual activity might come at an unacceptable price. This is raised by research indicating that while some teens promising to abstain from sex until marriage delayed sexual activity by an average of 18 months, they were more likely to have unprotected sex when they broke their pledge than those who never pledged virginity in the first place. Thus, might strategies to promote abstinence inadvertently heighten the risks for people when they eventually become sexually active?

Difficult as it may be, answering these key questions regarding abstinence eventually will be necessary for the development of sound and effective programs and policies. At a minimum, the existing lack of common understanding hampers the ability of the public and policymakers to fully assess whether abstinence and abstinence education are viable and realistic public health and public policy approaches to reducing unintended pregnancies and HIV/STDs. \oplus

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Promoting the 'B' in ABC: Its Value and Limitations in Fostering Reproductive Health

By Susan A. Cohen

It is probably fair to say that at the beginning of the pandemic, preventing HIV/AIDS was all about "C"—for Condom use. Several years ago, however, social conservatives began promoting "A"—for Abstinence—as the central component of a global HIV/AIDS prevention strategy. And more recently, public health experts have begun extolling the value of "B"—for Be faithful, or "partner reduction"—as the indispensable but forgotten middle child of the "ABC" approach.

As the political popularity of individual interventions has lurched from C to A to B, it is now obvious that no one-size-fits-all approach to HIV/AIDS prevention can ever succeed for all people at all times in all countries. Nevertheless, it is clear that attaining higher levels of B—which can range from absolute mutual monogamy inside or outside of marriage to simply having fewer sexual partners, especially fewer concurrent sexual partners—has the greatest potential to reduce the HIV/AIDS infection rate in a population overall.

Notwithstanding its epidemiological impact, however, B alone—in whatever form it may take—has its limitations when it comes to reducing an *individual*'s risk of HIV or other sexually transmitted infections (STIs). Moreover, even in its purest form, B offers no protection at all against unintended pregnancy.

Lowering STI and HIV Rates

"It seems obvious, but there would be no global AIDS pandemic were it not for multiple sexual partnerships," wrote U.S. Agency for International Development (USAID) scientist James Shelton and his colleagues in the April 10, 2004, issue of the *British Medical Journal*. Indeed, it is a simple truth that the greater the number of sexual relationships individuals have, the more likely it is that STIs, including HIV, will spread. Having concurrent partnerships, as opposed to consecutive ones, or "serial monogamy," can increase these rates exponentially.

Relationships that overlap over long periods of time link "sexually active people up in a giant network, not only to one another but also to the partners of their partner's partners...via a web of sexual relationships that can extend across huge regions." So wrote Princeton

B can mean lifelong monogamy, serial monogamy, faithfulness within a polygamous marriage or an overall reduction in the number of one's casual sexual partners.

University's Helen Epstein in a July 2004 New York Times Magazine article, "The Fidelity Fix." In contrast to serial monogamy, Epstein suggests, concurrency carries much greater risk "because it permits the virus to spread to others quickly, rather than trapping it in a single relationship for months or even years." The prevalence of HIV infection in Sub-Saharan Africa, she concludes, is not due to the fact that people in that region have more sex-

ual partners than people in Asia or in western countries; rather, they are more likely to have ongoing simultaneous sexual relationships within a small circle of partners.

From Uganda, where HIV prevalence plummeted between the late 1980s and the mid-1990s, there is now strong evidence that positive changes occurred in all three of the A, B and C behaviors. Experts are coalescing around the conclusion, however, that most of the decline in the overall national HIV infection rate was attributable to partner reduction—both men and women having fewer casual sexual relationships. The same pattern can be seen in Thailand, which also experienced a dramatic turnaround in HIV prevalence and where the proportion of men reporting that they had engaged in casual and, especially, commercial sex dropped dramatically in the early 1990s. A similar partner-reduction dynamic seems to have occurred among gay men during roughly the same period in Europe and the United States.

Despite the moralistic overtones of terms such as "be faithful" and "practice fidelity," the epidemiological fact of the matter is that changes in any of a wide range of B behaviors can significantly affect the rate of STIs and HIV/AIDS in a given population. Indeed. B can mean lifelong monogamy, serial monogamy, faithfulness within a polygamous marriage or an overall reduction in the number of one's casual sexual partners, especially sexual partners who are themselves at high risk. Increases in any of these behaviors can make a large contribution to lowering the rates of STIs and HIV/AIDS at the population level.

Lowering STI and HIV Risk

Of course, a single individual may practice any number of variations on the B theme over the course of his or

her sexual life. But while even modest increases in the practice of any of them among a given population group will reduce that group's rate of disease infection, even perfect practice of the most restrictive B behavior is insufficient, by itself, to absolutely eliminate an individual's risk of exposure. True, practicing abstinence until marriage and mutual fidelity within that marriage presents the theoretical possibility of eliminating the risk of STIs and HIV. (The possibility is only theoretical, since one can only be certain of one's own behavior, not the behavior of one's partner.) For everyone else, however, the practice of B alone is insufficient to eliminate, or even necessarily substantially reduce, risk of infection.

A woman who has remained abstinent until marriage and is faithful to her husband, for example, but whose husband is either HIV-infected or is

Unless sexually active individuals use condoms correctly and consistently, even reducing the number of their sexual partners all the way to one cannot protect them from the risk of infection.

sexually active outside the marriage, is in fact at high personal risk of HIV infection herself, notwithstanding her own monogamy. Likewise, individual sexually active men and women can significantly slow the spread of HIV/AIDS in their community by reducing the number of sexual partners they have. Unless these individuals use condoms correctly and consistently, however, even reducing all the way to one cannot protect them from the risk of infection. These facts lead Shelton and his colleagues to conclude that "it seems important and feasible to promote monogamy and partner reduction alongside abstinence and use of

condoms." Put another way, when one no longer practices A, one must practice B and C together in order to reduce the risk and the rate at the same time.

Getting to B

If B is an important outcome, then as with A and C, the real challenge is to identify effective strategies and interventions for achieving it. And while it may seem counterintuitive, those relationships are not necessarilv always direct. In the United States, for example, a growing body of research indicates that encouraging teens to abstain and teaching them about contraception and prevention of STIs can effectively lead them both to postpone sexual intercourse and to reduce their risk of pregnancy and disease when they do initiate sex. By contrast, most abstinence-only programs and strategies have yet to demonstrate effectiveness in delaving teens' sexual initiation or in reducing the frequency of intercourse and number of sex partners ("Legislators Craft Alternative Vision of Sex Education to Counter Abstinence-Only Drive," TGR, May 2002, page 1).

In Uganda, the trend toward people having fewer sexual partners that took hold in the early 1990s appears to be attributable to multiple factors and messages. President Museveni took a direct approach, urging Ugandans—mainly men—to practice "zero grazing." At the same time, Uganda billboards exhorted people to "love carefully," which carries multiple messages. Further, Uganda reinforced its ABC approach with numerous other societal initiatives, including promoting the status of women and discouraging gender violence and sexual coercion. Ultimately, according to an analysis by USAID's HIV Behavior Change Advisor Daniel Halperin, it was a combination of interventions that contributed toward breaking down some of the sexual networks that

had been fueling the epidemic, and thus increasing B behaviors.

Thailand, facing a more concentrated epidemic, achieved the same end by following a different path. That country's "100% Condom Program" requires condom use in every act of commercial sex. In fact, condom use increased rapidly starting in 1988 to become almost universal at brothels by 1993. Interestingly, as Norman Hearst and Sanny Chen explain in a March 2004 article in Studies in Family Planning, although "the government did not directly discourage commercial sex. ...mandatory condom use and the awareness of risk caused many men to give up paying for sex. Thai men also reduced the numbers of their unpaid casual partners." The result of encouraging condom use in Thailand, therefore, was to increase both C and B, which ultimately led to a sharp decline in the HIV infection rate.

Fidelity and Fertility

Controlling fertility is a process that can span over 30 years of a woman's life. This is a reality that is ongoing and universal, whether that woman lives in a high HIV prevalence country or a low-prevalence one. B behaviors may be epidemiologically significant in reducing STI and HIV rates within her community or country, and may be critical to reducing her own risk of disease, but they do nothing to help her time and space pregnancy. She needs C-not just condoms for HIV prevention, but condoms or other methods of contraception for family planning.

Indeed, some 700 million women—more than half of all women in developing countries—are at risk of unintended pregnancy. About 200 million of these women want to postpone, space or avoid future births but do not have access to effective contraceptive services. They account for the vast majority of the

76 million unintended pregnancies that occur in the developing world each year. Many of these pregnancies are high risk: More than a halfmillion women die each year of pregnancy-related causes, 13% of the deaths being attributable to unsafe abortion. Many hundreds of thousands more survive pregnancy but suffer lifelong debilitating illnesses or conditions as a result. Possessing the ability to determine the timing and spacing of one's children increases the likelihood that pregnancy can occur when it is safest and healthiest for the woman and her child.

Against the backdrop of the scourge of HIV/AIDS, however, even sustaining, let alone increasing, support for family planning services has been receding as a global health priority. This is unsupportable on its own terms. As reported in Adding It Up, a joint report by The Alan Guttmacher Institute and the United Nations Population Fund (UNFPA), closing the gap so that every woman at risk of unintended pregnancy has access to modern contraceptives would save the lives of an additional 1.5 million women and children annually, reduce induced abortions by 64%, reduce illness related to pregnancy and preserve 27 million years of healthy life—at a cost of just \$144 per year of healthy life.

Further, as the report notes, starving reproductive health programs of resources is also self-defeating in the fight against HIV/AIDS. As more and more HIV-positive women and men receive treatment and live longer lives, they will need access to family planning services to help them live healthier ones. Without access to condoms, for example, they risk spreading the disease to their partner. Without access to other contra-

B behaviors may reduce STI and HIV risk, but they do nothing to help time and space pregnancy.

ceptives, women risk an unintended pregnancy that may compound the threat to their own health and life and may result in an HIV-infected infant.

Given that, at least in Sub-Saharan Africa, approximately 90% of all new HIV infection is sexually transmitted, the need for more and better linkages between STI/HIV prevention interventions and unintended pregnancy interventions is clear (see related story, page 7). Family planning providers have decades of experience in responding to the needs of women, and increasingly men, across a world of cultures. These

providers may have unique capacities, such as an expertise in dealing with the sensitivities around sexuality and confidentiality, that can benefit and inform confidential HIV testing and counseling. Likewise, developments in HIV prevention strategies involving behavior change techniques may generate new and improved ideas for helping people to use condoms and other contraceptives correctly and consistently and over a sustained period of time—an age-old challenge intrinsic to human nature that now faces new urgency.

Yet, social conservatives, including those within the Bush administration, continue to view HIV prevention and pregnancy prevention narrowly, simplistically and in a segmented way. The facts show, and reality dictates, that no single HIV prevention approach in isolation—A, B or C—is likely to work for most individuals over a lifetime. And the battle against HIV/AIDS is unlikely to be won so long as it is viewed in a vacuum, without recognizing and taking into account the everyday challenges of everyday people—millions of whom are trying to avoid HIV and other STIs and, at the same time, to control when and whether to have children.

Public Health Advocates Say Campaign to Disparage Condoms Threatens STD Prevention Efforts

By Heather Boonstra

In 1999, social conservatives in Congress initiated a new strategy to further their moral agenda of promoting abstinence outside of marriage as official government policyclaiming that condoms do not protect against sexually transmitted diseases (STDs). Led by then-Rep. Tom Coburn (R-OK), a physician and staunch proabstinence opponent of government-funded family planning programs, they were successful in attaching an amendment to the House version of the Breast and Cervical Cancer Treatment Act mandating that condom packages carry a cigarette-type warning that condoms offer "little or no protection" against an extremely common STD, human papillomavirus (HPV), some strains of which cause cervical cancer. Although this directive was removed before the bill was enacted, Coburn and his allies were able to secure a requirement that the Food and Drug Administration (FDA) reexamine condom labels to determine whether they are medically accurate with respect to condoms' "effectiveness or lack of effectiveness" in STD prevention. They also were instrumental in convincing the National Institutes of Health (NIH)—along with the U.S. Agency for International Development (USAID), the FDA and the Centers for Disease Control and Prevention (CDC)—to convene a workshop in June 2000 to evaluate published evidence on condom effectiveness.

At the time, Coburn's anticondom views were widely considered extreme. Certainly, they were, and continue to be, out of step with mainstream public health prevention efforts. But in the intervening few years, the political landscape has changed radically. Coburn and likeminded colleagues are now ensconced within the Bush administration, and with the imprimatur of government and the report of an NIH workshop on condom effectiveness to cite, a campaign to disparage the value of condom use is in full swing, itself the cornerstone of an effort to undermine the very notion of sexual risk-reduction, or "safer sex."

Critics in the HIV and STD prevention communities worry that the conservative crusade to promote abstinence outside of marriage comes at too high a cost. Undermining people's confidence in the effectiveness of condoms threatens people's health and even lives, they argue, since sex among unmarried people is common in the United States and around the world, and achieving correct and consistent condom use is difficult enough. Moreover, they insist, condom critics are selectively citing and intentionally misrepresenting findings from the NIH workshop report to buttress their case: the conclusion that correct condom use does not offer a high degree of protection against the vast majority of STDs, not to mention HIV and unintended pregnancy, is simply not warranted by the science, they say.

The Workshop Report

At the behest of Coburn and other condom critics, NIH in June 2000 convened a panel of experts for a two-day workshop to examine the body of evidence on the effectiveness of condoms in preventing the transmission of eight STDs: HIV, gonor-

rhea, chlamydia, syphilis, chancroid, trichomoniasis, genital herpes and HPV. The panel considered 138 peerreviewed articles in all. It determined that "condition-specific" studies were sufficiently methodologically strong to warrant a definitive conclusion only for HIV and gonorrhea. Accordingly, in its carefully worded summary report issued in July 2001, the panel concluded that consistent and correct condom use prevents (in addition, of course, to pregnancy) transmission of HIV between women and men and gonorrhea transmission from women to men. Beyond that, the panel concluded, the published epidemiologic literature is insufficient to warrant definitive statements specific to the other six STDs considered by the panel.

That there are insufficient studies specific to the six other STDs reviewed by the panel to warrant a definitive statement does not mean, however, that no assumptions can be made about the protective effect of condoms with regard to those diseases. Indeed, a critical conclusion in the workshop summary report that largely has been overlooked is that condoms are "essentially impermeable" to even the smallest of STD viruses. Based on that finding—that "studies...have demonstrated that condoms provide a highly effective barrier to the transmission of particles of similar size to those of the smallest STD virus"—two important assumptions can be made and, in fact, are made in the workshop report itself. The first is that there is a "strong probability of condom effectiveness" against so-called discharge diseases that, as with HIV, are transmitted by genital secretions, such as semen or vaginal fluids. Included here would be chlamydia and trichomoniasis in addition to gonorrhea. The second is, once again, that there is "a strong probability of condom effectiveness" against infections that are transmitted through "skin-to-skin" contact provided, however, that the source

of the infection is in an area that is covered or protected by the condom. Three "genital ulcer diseases"—genital herpes, syphilis and chancroid—as well as HPV fall in this category. All can occur in genital areas that are covered or protected by condoms, but they also can occur in areas that are not. Therefore, correct condom use would be expected to protect against transmission of genital ulcer diseases and HPV in some, but not all, instances.

The report goes on to raise a number of methodological challenges that make it difficult to study the effectiveness of condoms against specific STDs. The ideal study, a randomized controlled clinical trial, has not been used because it would require control-group participants to be counseled not to use condoms. Such counseling is not considered ethically acceptable—itself an implicit acknowledgement of condom effectiveness in STD prevention within the scientific community. As a result of these standards for study design, none of the studies reviewed by the workshop panel was considered optimal, and any future studies will face similar challenges.

The Anticondom Campaign

The NIH workshop report explicitly cautions that the "inadequacies of the evidence available...should not be interpreted as proof of the adequacy or inadequacy of the condom." Yet, condom opponents were quick to ignore the caution and jump to the conclusion they desired. In July 2001, Coburn, no longer a member of Congress, issued a press release headlined, "Condoms Do Not Prevent Most STDs" and praised the NIH report for finally exposing "the 'safe' sex myth for the lie that it is." In his new job as co-chair of the Presidential Advisory Council on HIV and AIDS (PACHA) and as one of President Bush's top advisors on HIV/AIDS, Coburn continues to use his influence to insist that "the

American people [should] know the truth of condom ineffectiveness" and to advocate an approach that focuses exclusively on promoting abstinence for all people outside of a heterosexual, monogamous marriage.

Coburn's views have the support of other recent appointments to PACHA, including Joe S. McIlhaney, Jr., a physician and president of the Medical Institute for Sexual Health (MISH), a Texas-based medical institute he founded that promotes abstinence-only sex education messages. In a monograph on condoms and STDs, billed as "the most comprehensive scientific review of the science on condom effectiveness to date," MISH provides an analysis of the workshop report that, while factually correct, nonetheless asserts that condoms do not make sex "safe enough" to warrant their promotion for STD prevention. According to MISH, because condoms are "not foolproof" and marriage is "generally safe" from STD infection, the government should be only promoting marriage and abstinence outside of marriage for STD prevention.

Public health experts also point to the withdrawal of a fact sheet on condoms from the CDC's Web site and the fact sheet's subsequent revision as another indication that condoms are being attacked at the highest levels. Members of Congress, as well as experts with the scientific, AIDS and reproductive health communities, reacted angrily when the fact sheet was pulled. "Removal of this information...strongly suggests an ideological, rather than a scientific, agenda at work," said Rep. Henry Waxman (D-CA) in an October 21, 2002, letter signed by a dozen members of Congress to Department of Health and Human Services Secretary Tommy G. Thompson. The fact sheet was eventually revised and reposted; as with the MISH report, the new version is factually accurate but nonetheless portrays condoms in a negative light. Where the prior fact

sheet concluded from the evidence that "latex condoms, when used consistently and correctly, are highly effective in preventing transmission of HIV...and...can reduce the risk of other sexually transmitted diseases," the revised version emphasizes in bold letters that abstinence is the surest way to avoid STDs and warns that condom use "cannot guarantee absolute protection against any STD."

Linked to the crusade to promote abstinence outside of marriage, the campaign to disparage condoms is also going global. In an October 24, 2002, letter to USAID Administrator Andrew S. Natsios pushing for abstinence-only programming by the agency, Rep. Chris Smith (R-NJ) asserts that "[a]bstinence until marriage...is the Administration's stated priority in HIV/STD prevention." So far, USAID has not signed on to a campaign disparaging the condom. However, in December at a meeting of 30 Asian/Pacific nations in Bangkok whose purpose was to discuss implementation of the International Conference on Population and Development Program of Action, U.S. officials demanded the deletion of a reference to "consistent condom use" to fight HIV/AIDS and other STDs (see related story, page 3). The official U.S. statement delivered by Assistant Secretary of State Arthur E. Dewey states that, because "condoms are simply not 100% effective," the United States "promotes abstinence for the unmarried and fidelity for those who are married" as its primary STD prevention strategy.

A Dangerous Approach

HIV and STD prevention advocates acknowledge that condoms are not "perfect." They note that the current FDA labeling now under review does likewise, advising consumers that when used properly, latex condoms will help reduce the risk of HIV and other STDs, although no (Continued on page 14)

Condoms...

Continued from page 2

method can guarantee 100% protection. Still, they say, condoms must remain a key component of HIV and STD prevention efforts both in the United States and globally because, in the words of the workshop summary itself, "Beyond mutual lifelong monogamy among uninfected couples, condom use is the only method for reducing the risk of HIV infection and STDs available to sexually active individuals."

In that light, experts in the field say efforts to promote abstinence by disparaging condoms are misguided because they could increase the likelihood that people will fail to use condoms when they do have sex, thus putting themselves at unnecessary risk. "It is hard enough to convince people who choose to have sex—even those who are at high risk of HIV—to use condoms," says David Harvey, executive director of the AIDS Alliance for Children, Youth and Families. "The last thing we need is the government promoting the idea that condoms do no good. This approach will undermine the gains we have made and result in more people with HIV and other sexually transmitted infections."

STD expert Ward Cates, president of Family Health Institute, contends that intentionally undermining public confidence in the effectiveness of condoms is not justified as a matter of science. He says the fact that insufficient data exist to prove definitively that condoms protect against some STDs—while technically true-has created an opening allowing condom opponents to claim that condoms are inadequate. "While I'm impressed with the thoroughness and accuracy of the MISH report, its emphasis on condom failures can be distorted," Cates says. "By such dwelling on the failures, the successes of male condoms are obscured, and the method is unnecessarily tainted," he wrote. "From a public health perspective, the data clearly show that the glass is 90% full (that condoms are relatively effective) and only 10% empty (that data are inadequate)." In an interview Cates adds, "Thus, the question should not be whether condoms work if used (they do!), but rather what is the appropriate role of condoms in comprehensive HIV prevention programs."

All of this leads Jacqueline E. Darroch, The Alan Guttmacher Institute's vice president for science, to question the need for a great deal more biomedical research to clarify condom effectiveness against individual STDs. "We already know that latex condoms do successfully prevent transmission of most STDs, but that their effectiveness depends in large part on how consistently and correctly they are used," Darroch says. "What health educators and service providers really need from research is a better understanding of the difficulties people face using condoms effectively, so that they can better help sexually active couples wanting to avoid disease or unintended pregnancy to use condoms consistently and correctly at every act of intercourse. Our goal should be programs that reinforce this message and that get through to people who are having sex and are at risk for STDs in an unequivocal way the news that condoms are a necessary and effective way to prevent infection." \$\theta\$

This is the first in a series of articles examining emerging issues in sex education and related efforts to prevent unintended pregnancy and sexually transmitted diseases. The series is supported in part by a grant from the Program on Reproductive Health and Rights of the Open Society Institute. The conclusions and opinions expressed in these articles, however, are those of the author and The Alan Guttmacher Institute.



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