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Forum

Can Fear Arousal in Public Health Campaigns Contribute to the Decline of HIV Prevalence?

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Most American health professionals who work in HIV/AIDS do not support the use of fear arousal in AIDS preventive education, believing it to be counterproductive. Meanwhile, many Africans, whether laypersons, health professionals, or politicians, seem to believe there is a legitimate role for fear arousal in changing sexual behavior. This African view is the one more supported by the empirical evidence, which suggests that the use of fear arousal in public health campaigns often works in promoting behavior change, when combined with self-efficacy. The authors provide overviews of the prevailing American expert view, African national views, and the most recent findings on the use of fear arousal in behavior change campaigns. Their analysis suggests that American, post-sexual-revolution values and beliefs may underlie rejection of fear arousal strategies, whereas a pragmatic realism based on personal experience underlies Africans' acceptance of and use of the same strategies in AIDS prevention campaigns.

We begin with an observation that is difficult to quantify, but nevertheless is of crucial importance in HIV/AIDS education and prevention. Through a combined three decades of international public health work, we have noticed that most American HIV/AIDS experts and reproductive health professionals believe that “resorting to scare tactics” fails to motivate sustained behavioral change. “Fear appeal” campaigns, as they typically are called by academics, have been derided by American AIDS professionals as “amateurish,” “misguided,” and even unethical because they are seen as limiting one’s ability to consider dispassionately a range of responses to a perceived health threat. Yet, many African professionals have embraced fear-based campaigns and claim they are at least one of the reasons HIV infection rates dropped significantly in certain areas.

This opinion paper bases its analysis and claims on available survey and related evidence, interviews with international public health practitioners, years of

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observations and interactions with country-level programs (especially Uganda, where both authors have worked), and pertinent literature. Both authors' field experiences and observations, as well as published research, point to the same conclusion—that fear-based campaigns can work and have worked in promoting significant and sustainable behavior changes. Yet this conclusion contradicts what we view is the prevailing belief of most American AIDS experts.

The American AIDS Expert Viewpoint

The view that has held dominance among American AIDS experts can be seen in the early history of the U.S. response to the AIDS pandemic. "Expert" refers to those who work for major donor and nongovernmental organizations, or for contractors funded by such organizations, that design and implement AIDS prevention programs. As a first example, a volume that documents the approach and accomplishments of AIDSCOM, one of the United States Agency for International Development's (USAID) first two global HIV/AIDS prevention projects (1986–1993), criticizes fear-based HIV/AIDS education campaigns as amateur attempts to "scare people into abstaining" from sex. Moreover, fear campaigns were assumed to fail: "Early scare campaigns seem to have little impact on peoples' actions" (Debus & Jimmerson, 1993, p. 157). The authors appear to be expressing an orthodox view among American AIDS experts. For example, in the Institute of Medicine report *Healthy People 2000: Citizens Chart the Course* (1990), Gilchrist observed that AIDS prevention was still a new endeavor in 1990, a "beginning technology." Yet, "we know for example, that public responses to fear messages is [*sic*] not optimal. It results in short-term behavior change but no behavior change over the long run" (p. 154). No evidence is provided to support this claim.

The first director of AIDSCOM, Glen Margo, clearly rejected fear-based campaigns, as noted in an interview he gave for a popular press article: "These [fear-based] campaigns may temporarily discourage sexual activity, but then there is a boomerang effect as people react against the scare tactics" (Talbot, 1990, p. 44). A subsequent director of AIDSCOM (1989–1992) recalled, "AIDSCOM's approach was definitely that fear did not work and that we should always provide people with behavior alternatives such as condoms or fewer partners, etc." (John Novak, personal communication, March 8, 2004). The prevailing American expert view seemed to hold that people in developing countries as well as gay Americans respond better to a "more lighthearted, upbeat approach" (Talbot, 1990, p. 44). Social marketing and humor appeared to be the preferred campaign strategies for AIDSCOM. For example, a poster from the Dominican Republic showed a baseball player about to bat a ball out of a stadium with the caption, "It doesn't matter what play I'm making: I protect my bat!" This was cited as an example of a good AIDS prevention poster (Smith, Helquist, Jimerson, Carovano, & Middlestadt, 1993, p. 9). We see here the theme that runs through American experts' belief/value system—a healthy, active sex life should be encouraged through positive, feel-good messages. Perhaps consistent with this, prevention strategies of AIDSCOM, AIDSTECH, and other early American-inspired programs focused primarily on promoting condom use rather than on strategies that might be seen as limiting or restricting sexual behavior, such as abstinence or reduction in number of sex partners (these latter strategies were formally added to American-funded global AIDS programs only in December 2003, with Uganda's 'ABC' (Abstain, Be faithful, use a Condom policy (see below) and after fierce battles that are far from resolved at this writing).

The other early USAID-funded, global AIDS project, AIDSTECH (1986–1993), focused more on operational research, blood safety, and testing methodologies. But it appears to have taken the same position on fear-based campaigns as AIDSCOM did. Tony Bennett (personal communication, March 1, 2004), a former senior staff member of AIDSTECH, remembers:

Here is what I recall from debates on the issue during AIDSTECH days (late eighties–early nineties) with respect to our programs in Asia: fear arousal was discouraged. The argument was that it turned people away and fed denial. Instead, our chief of BCC [behavior change communication] at the time (late eighties) wanted sex positive messages (i.e., non-stigmatizing) and wanted to get away from information-based campaigns . . . do more like a “Pepsi generation” approach.

Another professional from the same organization that implemented AIDSTECH, Mary O’Grady (personal communication, February 29, 2004), remembers the discouragement of fear messages in the same way. Indeed, no one from these pioneer USAID projects interviewed for this paper held a different opinion. Further, there was an almost exclusive focus on using condoms as a preventive strategy as evidence by the large social marketing campaigns.

Evidence used by AIDSCOM to justify the lack of effects from fear-based campaigns (as described in their book documenting the AIDSCOM approach) was based on several Eastern Caribbean health surveys that focused on condom use only; there was no analysis of abstinence or partner faithfulness. An examination of the items used in these surveys suggest a lack of clear operationalization of constructs based on the scientific literature. For example, the AIDSCOM book reported no relationship between items taken as fear arousal measures (i.e., believing there was no cure for AIDS, believing AIDS causes great suffering, believing AIDS was the most serious problem in the country) and reported condom use (Debus & Jimmerson, 1993, p. 157). Yet, if one examines the fear appeal scientific literature, it is clear that the items cited by Debus and Jimmerson (1993) as representing fear are in fact items representing “perceived severity” (i.e., perceived magnitude of harm) according to the fear appeal literature. These items measure whether one thinks AIDS has negative consequences, and the vast majority of the fear appeal literature on HIV/AIDS has reported ceiling effects on perceived severity items, resulting in restriction in range, which makes adequate statistical analysis difficult (e.g., Witte, 1991). Better measures would have been “perceived susceptibility” or “personal risk,” or, even better, how much a specific campaign or message made one feel “frightened,” “scared,” or “anxious” (typical fear arousal measures; Witte & Allen, 2000). There appears to have been no attempt to validate constructs and test them in a manner consistent with the large body of fear appeal research.

Even outside of USAID and the international arena, fear-based campaigns tended to be associated with the religious right or authoritarian governments or both, and were viewed as inherently wrong. For example, a 1990 *Mother Jones* article heaped scorn upon “chastity crusaders” and berated with impassioned language African programs’ use of fear approaches:

In most parts of the world, AIDS propaganda is controlled by the state and the educational model is highly authoritarian. Official AIDS

information campaigns tend to address the citizenry as misbehaving children and employ either fear or moral exhortation—what the British writer and gay activist Simon Watney refers to as the “terrorist” or “missionary” strategies. (Talbot, 1990, p. 41)

One example cited in this article as a “terrorist, missionary” message was the “One Man, One Woman, for Life” poster produced by the Zambian health ministry. This type of message was deemed to be “a typical skull-and-crossbones poster” (Talbot, 1990, p. 44), although all it really did was promote cautious sexual practices by making people feel at risk for infection if they “strayed.” Incidentally, a “One Man, One Woman, for Life” campaign was revived in Kenya in 2003, under President Kibaki’s administration (*Sunday Nation*, Nairobi, 21 September 2003).¹

Most of the foregoing citations and quotes are from an earlier stage of the AIDS pandemic. But in our experience, the American expert viewpoint seems to prevail today. Enough time has now elapsed that we can reasonably ask how well the softer, gentler approach to AIDS education worked in the United States. HIV infection rates among gay men as well as Black and Hispanic minorities seem to be on the rise at this writing. A gay actor recently admitted in a *New York Times* op-ed that something is not working with the messages to which the gay community is exposed, in fact, they might even be contributing to higher infection rates:

In our effort to remove the stigma of having AIDS, have we created a culture of disease? We all see the ads for H.I.V. drugs. They illustrate hot muscular men living life to the fullest thanks to modern science. Other ads show couples holding hands, sending the message that the road to true love and happiness is being H.I.V. positive. Is that message: You’re going to be O.K.? (Which is terrific.) Or is it: You want to be special? Get AIDS. H.I.V. equals popularity and acceptance. (Which would be tragic.) (Fierstein, 2003)

Or we could ask how well the softer approach worked in South Africa. LoveLife, launched in 1999, combined a high-visibility sustained national multimedia educational campaign with adolescent-friendly programs and services. LoveLife is an unusually expensive (> \$300 million) program whose stated goal is to reduce HIV infections among its target group (12–17-year-olds) by 50% by 2004. LoveLife emphasizes condom use and “positive sexuality,” taken by many South Africans to mean guilt-free “protected” sex (Green, 2004). Uganda’s message to youth, by contrast, emphasized *not* having sex or returning to “secondary abstinence,” or face disease and death. By early 2006, the Global Fund for AIDS, TB, and Malaria decided to defund LoveLife by \$56 million already allocated because infection rates rose instead of declined after 1999, although LoveLife’s chief executive officer found fault elsewhere: “LoveLife is a victim of international politics. . .squeezed between the ideological right and progressives” (posted on <http://www.cadre.org.za>). Of course, it is impossible to isolate the effects of a fear-appeals-free approach from

¹Coincidence or not, there was a roughly 50% decline in the proportion reporting 2+ partners in the past year, among men and women, according to Kenya Demographic and Health Surveys in 1998 and 2003. See http://www.measuredhs.com/statcompiler/start.cfm?action=new_table&userid=149920&usertabid=164740&CFID=209082&CFTOKEN=13002560

other possible causal factors; moreover, we are not aware that anyone is even researching fear appeals or their absence.

A Brief History of Fear-Based Messages

The very first “fear appeal” study, by Janis and Feshbach in 1953, has had an inordinate influence on scholarly perceptions because of its novelty as the “first” study of its kind. It is frequently highlighted in college texts as *the* exemplar study on fear-based messages, though nearly all of the studies following it have failed to replicate its findings. In Janis and Feshbach’s (1953) study on dental hygiene, a negative relationship was found between fear appeals and teeth brushing, such that the stronger the fear appeal, the less teeth brushing. Though this study has been criticized (because many subjects were dropped from the final analysis, thus potentially skewing the results), two generations of health educators were taught that fear arousing messages backfire, and are to be avoided at all times.

This view, that fear appeals backfire, has been perpetuated by health educators who tend to cite *reviews* of the literature instead of examining original empirical evidence itself. For example, DeJong and Winsten (1990) state, “Most experts have concluded that such [fear] appeals are difficult to execute properly and rarely succeed . . . There is substantial risk that a fear appeal will backfire, making the problem behavior even more resistant to change” (p. 38). Yet, the sources they cite to support their position are two *reviews*, not data-based studies of any sort, and they simply repeat the popular belief that has been passed down from people reading Janis and Feshbach (1953).

The fear appeal literature in totality suggests that fear-arousing messages reliably and consistently produce behavior change. Four meta-analyses by three different investigators utilizing different statistical summary strategies each reached the same conclusion: the stronger the fear appeal, the greater the attitude, intention, and behavior change (see Boster & Mongeau, 1984; Mongeau, 1998; Sutton, 1982; Witte & Allen, 2000). None of the meta-analyses found any support for a curvilinear or negative association between fear appeal and message acceptance. The most recent meta-analysis of about 100 experimental studies also revealed that when perceptions of efficacy (i.e., beliefs about whether one is able to do an effective recommended response to avert a threat) are taken into account, fear appeals have an even stronger effect, such that the greater the fear aroused/threat perceived, the greater the behavioral change as long as perceived efficacy is high (e.g., Clarke, 1998; Morman, 2000; Smalec & Klingle, 2000; Stephenson & Witte, 1998; Witte, Berkowitz, Cameron, & Lillie, 1998).

Recent fear appeal models, like the Extended Parallel Process Model (Witte, 1992, 1998; Witte, Meyer, & Martell, 2001), have reconciled former inconsistencies in the literature and explained when and why fear appeals work, and when and why they fail. The essence of this model is that *perceived threat*² (*causing fear arousal*) *motivates action, and perceived efficacy*³ (*causing hope*) *determines the nature of that*

²Composed of two distinct dimensions—perceived susceptibility (likelihood of personally experiencing the threat) and perceived severity (magnitude of harm from the threat).

³Composed of two distinct dimensions—perceived self-efficacy (perceived ability to achieve a recommended response) and perceived response efficacy (beliefs about whether the recommended response works in averting the threat).

action. Therefore, as long as individuals believe they are able to achieve a recommended response that works to avert a threat, then the greater the fear promoted the greater the behavioral change (Witte, 1992, 1998; Witte, Meyer, & Martell, 2001). Overall, the preponderance of experimental and meta-analytic evidence reveals that fear appeals work in promoting behavior change—especially when perceptions of efficacy are taken into account (see the Appendix in Witte, Meyer, & Martell, 2001). And there have been occasions when American AIDS experts agree with this perspective. For example, early in the U.S. AIDS epidemic, Judson (1983) observed, “After a long period of increasingly unrestricted sexual activity and the resultant higher rates of sexually transmitted diseases, including AIDS, it appears that many homosexual men may be opting for more conservative sexual lifestyles” (p. 160). Why? “It was to be expected that fear of acquiring an untreatable, ultimately fatal disease of unknown aetiology would influence sexual behavior” (p. 160). Stoneburner and Low-Beer (2004) reached a similar conclusion about gay American men. But these concurrent perspectives are exceptions.

Uganda

The story of Uganda’s success is quite well known, so we will just outline the basic facts surrounding HIV prevalence decline. Uganda’s national response to AIDS began in 1986. It is estimated that HIV seroincidence began to decline quickly, by the latter 1980s (Low-Beer, 2002). National prevalence peaked in 1991 and has declined since then, with a leveling off since 2002 and a possible increase by 2004 (Muhwezi, 2005). Recent analysts recognize that there was an early period of national response that differed from other AIDS prevention programs and even Uganda’s later response, during which an “alarm” was sent out by all sectors of the country to change sexual behavior fundamentally (Allen & Heald, 2004; Green, 2003; Shelton, 2005; Shelton et al., 2004; Stoneburner & Low-Beer, 2004). There is still debate over what caused prevalence decline of about 66% between 1992 and 2002, but leading candidates include Uganda’s ABC program, high-level political support, natural die-off (high mortality rates; stage of epidemic); degree of social and political mobilization; and fear of AIDS apart from interventions. We hypothesize that fear of AIDS *resulting* in good measure from deliberate interventions that included fear appeals motivated sexual behavior in ways that reduced HIV infection rates. What is the evidence that Uganda used fear appeals in its early years of national response?

Ugandan officials involved in the early days of the national AIDS Control Programme recounted, “At first, we focused on instilling fear in the population,” after which options for avoidance of risk were promoted, starting with “avoidance of sexual contacts” (Okware, Opio, Musinguzi, & Waibale, 2001, p. 1114). In a recent interview, the former director of the national AIDS Control Programme, S. Okware (personal communication, July 24, 2003), reiterated his published comments: “The first approach was that we drove fear into people.” He commented further the now well-known ABC message was often phrased “Practice ABC or D”; in other words practice A, B, C, or choose D for death. The first director of TASO (a support group for people living with HIV) and her colleagues likewise characterized the early years of national response, “Most of these initial campaigns adopted a ‘fear approach’ to HIV prevention, based on the theme: ‘Beware of AIDS. AIDS kills’ (Kaleeba, Namulondo, Kalinki, & Williams, 2000, p. 12). A recent paper by an educator in the Uganda Ministry of Health depicts the awareness raising approach

during Uganda's early stage of national response (making allowances in the use of English): "General awareness was comprised of alert messages, ghostly pictures, drums that culturally symbolize danger. The immediate output was instillation of fear and negative reaction as the messages were related to death" (Byangire, 2002, p. 1).

Uganda's earliest AIDS posters used imagery of human skulls, coffins, and grim reapers harvesting humans (see Figure 1). There were somber radio messages accompanied by the slow beating of a drum and a stern, raspy voice of an old man talking about AIDS in the manner of announcing funerals. TASO sent people living with HIV/AIDS (PLWHA) to conduct AIDS education in local communities including schools, and Ugandan informants agree that this strategy increased personal threat perceptions and aroused fear (e.g., "I too can get this new disease," "There but for the grace of God go I"), which motivated behavioral change. This represents the Ugandan government's commonsense response to AIDS, with little influence from American experts. In the words of Dantes Kashangirwe (personal communication, July 22, 2003), a Ugandan AIDS educator in the 1980s,

When you see PLWHAs looking sick and emaciated, this seems to scare people into behavior change. But when healthy, normal looking PLWHAs visit schools and communities, there is another kind of powerful impact. It puts a human face on the disease, it shows that people can live positively even if they test positively, it reduces stigma and marginalization of PLWHAs, and it motivates people for VCT (HIV testing).

Another representative Ugandan informant who works for an international donor organization credited his own behavior change to this fear-based strategy: "Look

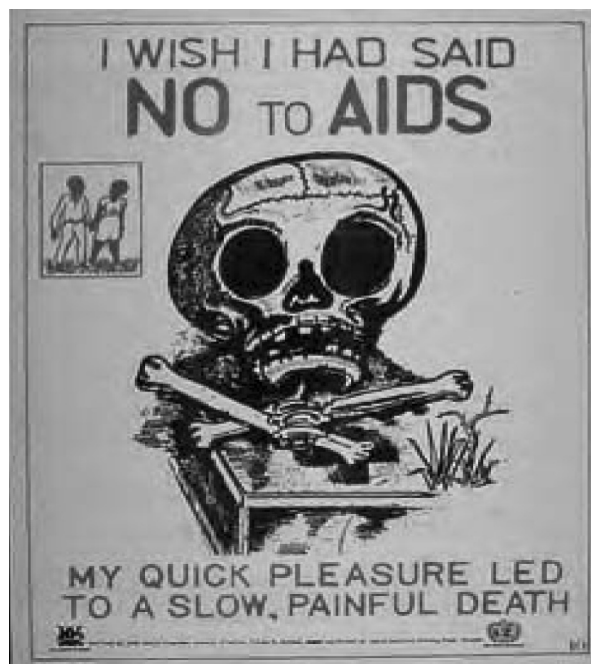


Figure 1. Example of a typical fear arousal AIDS poster from Uganda from the 1980s.

at me. I'm a living example. I went to visit TASO as a young man and I saw all those sick and emaciated and dying people. I decided to abstain, and I did this until I was married."

A member of the Uganda AIDS Commission, Professor John W. Rwomushana, said in a November 26, 2001, interview that messages that employed fear may not be pleasant to receive, but he believed they helped change behavior when Uganda used this approach prior to the early 1990s. Indeed, there was enough behavior change in the latter 1980s that the course of the explosive HIV epidemic was reversed. This official commented that American experts might have been misguided when they disagreed with the way Uganda educated its people about the dangers of AIDS. A recent editorial in the *British Medical Journal* on Uganda's remarkable success in reducing HIV prevalence calls attention to the fear factor: "Remarkably (Uganda) combined high fear approaches with openness and the capacity to rise above discrimination and to integrate prevention and care effectively" (Wilson, 2004, p. 848). Note the use of past tense and "remarkably," implying something contrary to expectation.

In surveys of Ugandans that ask why people have changed their sexual behavior, the most common response, even quite recently, is simply "fear of AIDS," followed by the perception that "so many people are dying from AIDS" (Musinguzi, Okiror, & Opio, 1996; Opio, Mulumba, & Musinguzi, 1997; Uganda HIV/AIDS Partnership, Uganda Ministry of Health, Uganda AIDS Commission, and MEASURE Evaluation Project, 2004). Stoneburner and Low-Beer (2004), who have carefully analyzed Uganda's AIDS prevention program, likewise conclude, "The Uganda approach clearly communicated the reality of the AIDS epidemic in terms of a rational fear of the risks of casual sex" (p. 717). These messages appeared to have worked in changing three key behaviors, measured as partner monogamy/fidelity, abstinence, and condom use (Green, 2003; Stoneburner & Low-Beer, 2004).

President Museveni was interviewed about Uganda's success in HIV/AIDS prevention by the British Broadcasting Company (BBC) in August 2002. According to the BBC summary, President Museveni said he has tried to boost public awareness of the disease since first coming to power in 1986: "I could not take chances with a disease which we had no knowledge of. . . (AIDS) had no vaccine but . . . was easily prevented. That is why we went for the prevention and awareness solution." Museveni used political rallies and public broadcasts to educate people about AIDS:

"When I had a chance, I would shout at them," he said. "[I used to say,] 'You are going to die if you don't stop this. You are going to die.'" (Zeelie, 2002)

He was referring to casual sex and clearly he was not soft-peddling the message that AIDS kills. Addressing the 11th International Conference of People Living with HIV more recently, President Museveni commented, "As a poor country with no resources readily available to procure condoms, we began with laying emphasis on *behavioural change* by *raising alarms* of awareness that we are endangered" (Panafrican News Agency [PANA] Daily Newswire, October 29, 2003). "Raising the alarm" (*Ndulu*, in LuGanda) captures Uganda's fear arousal approach in a single, apt phrase.

American and European advisors for the most part disapproved of these fear-based strategies, however, and those working in Uganda were no exception.

According to a historical account coauthored by Ugandans, an Irish nun, Sr. Mary Duggan, who advised Catholic organizations in Uganda about AIDS prevention in the early period, “was one of the first to suggest that HIV prevention campaigns should move away from the fear approach” (Kaleeba et al., 2000, p. 12). Sr. Duggan believed that the fear approach might contribute to stigmatizing AIDS. The HIV/AIDS Advisor to President Museveni of Uganda, Jesse Kagimba (personal communication, December 15, 2001), said in a recent personal interview, “We were told that we shouldn’t use fear in our messages. But I am not sure that is right. I still believe fear helped us achieve our goals.” A sociologist and member of the Uganda AIDS Commission, Namulondo Joyce Kadowe (personal communication, 2003) commented, “The old fear messages have been replaced . . . We sometimes see faded billboards that used to have AIDS messages. Now they just have messages about condoms or coke.”

In sum, Ugandans were made to fear AIDS, to feel personally at risk of infection, and to believe that their very lives depended on their actions. This is especially true of the period 1986–1991. At the same time, Ugandans were taught very clearly, from their president and from leaders and peers in their local communities, exactly what to do to avoid AIDS. The high level of fear, paired with strong efficacy perceptions and the knowledge that they *could* do something to avert infection, created optimal conditions for behavioral change, in line with what current fear appeal theory suggests (e.g., Witte, 1992, 1998). Uganda was not alone in its use of fear appeals. In the early years of their national response to the AIDS crisis, several other African AIDS programs developed posters intended to arouse fear. In response to the authors’ request, a search of African AIDS prevention posters was made by the Media/Materials Clearinghouse at the Center for Communication Programs, Johns Hopkins University. The authors were sent 21 African posters that can be classified as fear based from six countries, only one of which is reproduced here. The posters feature funerals, lowering a coffin into the ground, oversized vultures seizing victims and flying away, successive stages of wasting showing a normal man and woman becoming skeletons, a village filled with graves, and miscellaneous death imagery. Unfortunately the posters lack dates, but we suspect that they are not recent and that they did not meet with favor from foreign AIDS advisors. We ourselves are not necessarily endorsing this type of poster, only presenting evidence that is rarely discussed.

Analysis: Why the Objection to Fear Messages by American Experts?

The objection to fear-based messages does not appear to vary much from one Western donor to the next (e.g., USAID, the Centers for Disease Control [CDC], the Global Fund, UNAIDS, UNICEF, World Bank, the European Union [EU], GTZ (German Agency for Technical Cooperation), DFID (Department for International Development), Swiss Cooperation), although most evidence cited here is from USAID-linked organizations. We have tried to show that this objection was not based on empirical evidence. Might there be an *ideological* objection to fear-based campaigns? And if so, what ideology and why was this apparently able to trump evidence from behavioral science and health education?

Upon objective analysis, it appears that American values and ideology, especially those formed during the sexual revolution of the 1960s and 1970s, have influenced experts’ views on what campaign strategies and educational messages

ought to be used. Consider a social historian's description of the time immediately preceding discovery of HIV and AIDS:

Old scourges like syphilis and gonorrhea were now seen as minor nuisances that could be cured with a couple of shots; . . . prophylactics, contraceptives, and abortion were increasingly socially accepted and easy to obtain. Coupled with these factors was a series of social movements that drastically changed people's concepts of the meaning and place of sex in their lives: the sexual revolution, feminism, and the beginnings of the modern gay and lesbian movement. Suddenly, much of the population felt much freer to be sexually active than it had in decades, and the accidental consequences of sex—pregnancy and infection—seemed more remote than they had ever been. Sex outside of wedlock was safe; it was readily available; it was viewed as liberating; and—perhaps most important of all, in the consumer culture of the United States—sex was fun. (Allen 2000, p. 120)

Popular author Erika Jong was quoted in a recent *Washington Post* article: "We thought sexual freedom would bring world peace. We really thought that if people gave up their inhibitions, the world would change" (<http://www.washingtonpost.com/wp-dyn/articles/A12637-2005Feb9.html>). Americans working in global AIDS began talking about attitudes and behaviors classified as "sex positive" and "sex negative." It was assumed that the former was healthy and liberating and the latter was repressive, unhealthy, and archaic (i.e., pre-sexual revolution). In a listserv debate about AIDS prevention in Africa, a posting by a prominent anthropologist working in global AIDS illustrates this "sex-positive liberation" belief: "We need to be more sex positive, and encourage people to feel they can become open to sexual experiences with different people. There is nothing wrong with sex with different partners. The problem is not the sex, but the failure to prevent unwanted pregnancies and sexually transmissible diseases. Responsible polypartnering requires condoms and birth control as a given at all times. We need to teach those who engage in the joys of polypartnering how to effectively protect themselves from potential dangers" (AARG, 2003). In another posting, Feldman expresses his views about Uganda's involvement of religious groups in AIDS prevention:

Trying to impose a sex-negative morality across all African cultures will not only fail to reduce HIV seroprevalence, but it will only bolster the rapidly growing danger of fundamentalist religion on the continent, and take Africa on a downward spiral into sexual repression and hostility. (AARG, 2003)

A months-long on-line debate over whether sexual behavior ought to be constrained in any way culminated in publication of a special issue of *AIDS & Anthropology Bulletin* (AARG, 2003), called "AARG Anthropologists Debate Paradigm Shift in AIDS Prevention." Virtually all contributors argued against interfering with sexual behavior or "moralizing." Karen Kroeger (2003) wrote about "struggles between moralists and biomedical advice," implying that moral considerations are antithetical to science and linking the former with "struggles still being waged in the United States

around reproductive health issues, including abortion rights” (Kroeger, 2003, p. 9). It seems that fear arousal may be linked somehow in the minds of many American AIDS experts with broader “hot-button” political and social issues such as “moralizing,” interfering with sexual freedom, abortion, contraceptive rights, and women’s rights. If this is so, it is no wonder the issue of fear appeals provokes strong, negative emotional responses among most Americans who work in AIDS prevention.

Today one can go to American websites like [sexuality.org](http://www.sexuality.org) and read essays about “being sex-positive in a repressive society” and how to avoid “the pleasure phobia of the larger Christian culture” (<http://www.sexuality.org/1/sex/wsppoi.html>). With the outbreak of AIDS in an increasingly “sex-positive” culture in the United States and Europe, fear messages were not only uncomfortable, they also were seen as anti-pleasure and sex negative. They implied that the sexually liberated pleasures of the 1960s and 1970s were over. Surely something that felt good and was more comfortable to see and hear (erotic, humorous messages) must work better in influencing behavior? Furthermore, something labeled positive ought to indeed be positive, or at least preferable to something labeled negative.

In a post-1960s *laissez-faire* “Pepsi generation,” it seems that the focus was on feeling good. That is, people’s sexual practices and preferences should not be denied or discouraged in any manner because that might interfere with their freedom of choice and ability to do what feels good. Of course, what feels good and seems personally gratifying also can lead to harm to both oneself and others. This is especially true in the case of tobacco, drug, and alcohol use and sexual practices. In any case, most Ugandans did not share these *laissez-faire* values and sexual revolution ideology. Ugandan leaders did not know they were being sex negative when they developed endogenous responses to AIDS. These responses were likely influenced by Christian and Muslim values regarding sex and marriage, since religious leaders and organizations played a major role in AIDS prevention, at the specific request of the government (Green, 2003; Kaleeba et al., 2000; Pisani, 1999; Stoneburner & Low-Beer, 2004). Both secular and religious leaders delivered strong messages that people should delay onset of sexual activity and then remain faithful to one partner in marriage, and these admonitions were accompanied by blunt reminders of the consequences of ignoring this advice: death. True, there was moralizing as well, inasmuch as Christian and Muslim AIDS educators would cite moral and scriptural bases for sexual conduct. But this may have influenced many to change behavior and it did not appear to add to AIDS-related stigma. There seems to be less AIDS-associated stigma in Uganda, and more open discussion about AIDS, than in most other African countries.

In the spirit of full disclosure, we wish to state for the record that the values, beliefs, and attitudes of the present authors regarding sexual behavior are very much influenced by the American sexual revolution, and they therefore differ little from those of other educated, liberal reproductive health professionals and behavioral scientists—especially those who work in AIDS. Yet through our research we have come to see how the sexuality related values, beliefs, and attitudes of those who design and implement AIDS programs can and do influence these same programs. It is not surprising that Americans and Ugandans would differ in both values and AIDS programs. What may be surprising is that Uganda managed to develop a program so different from other, more donor-designed and funded AIDS programs in Africa, and that it worked so well, while America’s AIDS program, we are forced to admit, has not been nearly as successful. And while it may seem hypocritical

for us to raise questions about an ideology we ourselves largely adhere to, we cannot fail to notice an association between traditional African values, an AIDS program focused on discouraging casual sex, reduction in casual sex, and HIV prevalence decline, whatever our personal values about sexual freedom might happen to be. Of course many questions remain: How generalizable is Uganda's experience? Could another country promote abstinence and marital fidelity and would this result in HIV prevalence decline? Could this be accomplished without fear appeals and without increasing AIDS-associated stigma?

Whether other countries want to adopt an ABC prevention program that includes fear appeals, we believe in the need for an accurate, objective, ideology-free understanding of what occurred to cause HIV prevalence decline in Uganda if we are to advance knowledge and develop more effective AIDS prevention tools. Perhaps paradoxically, for an ideology-free understanding of Uganda's prevalence decline it may be necessary to acknowledge the role that ideology has played in shaping AIDS prevention programs.

There is at present intense debate over the three ABC components, but the additional fear arousal factor is not yet part of this dialogue. Given the strong and, we believe, premature rejection of fear appeals by American AIDS experts, it is likely that inclusion of this topic will only make the ABC debate grow more acrimonious and polarized between liberals and conservatives. We suggest there was and still is a clash of values between governments like those of Uganda and most others in Africa, which tend to be authoritarian, conservative, and influenced by religious beliefs and values; and Americans who work in AIDS and reproductive health. The latter tend to be laissez-faire and tolerant of virtually all forms of sexual expression (assuming consenting adults and nonharm), generally sex positive, opposed to moral or religious approaches to AIDS prevention, and suspicious of certain religious groups (e.g., in reproductive health circles, Catholics and evangelical Christians have long been viewed as obstacles to acceptance of contraception).

Conclusion

Fear appeals seem to have been strongest during the early period of the national response (1986–1991), when the major decline in HIV incidence appears to have occurred (Low-Beer, 2002), which eventually led to an approximately 66% decline in HIV prevalence in Uganda (Shelton et al., 2004). Yet fear-associated approaches initially favored and indeed developed by African governments eventually were replaced by the softer, gentler approach favored by American AIDS experts, after roughly the mid-1990s. In the past year or two, there are indications of a possible increase in HIV infection rates in Uganda, according to most recent studies. A national Demographic and Health Survey (DHS) population-based sero-survey in 2004 established a HIV prevalence rate of 7%, compared with a sentinel surveillance-based rate of 4% in 2003 (Muhwezi, 2005; Roehr, 2005). The population-based methodology and inclusion of males in the 2004 survey should produce a lower rate, even if there was no change at all in actual prevalence, yet prevalence increased substantially. Moreover, the proportion of Ugandans reporting two or more partners also increased significantly between 2000 and 2004. Could abandonment of fear-based campaigns in favor of softer approaches, as well as less emphasis on partner reduction (Epstein, 2005; Green, 2003), be factors in this unfortunate trend?

Donor assistance, especially American, comes with American technical experts such as those who design information, education, and communication (IEC) programs and “behavior change” campaigns. It is difficult to mount serious challenges against foreign experts who arrive with millions of dollars and advanced degrees. Major donors simply have not supported “fear-based” AIDS prevention, genuinely believing that this approach would not work. (Nor have most donors supported active programs of partner reduction.) When pressed, they usually cannot cite an empirical basis for rejecting the use of fear appeals, but they express certainty that fear does not work.

To summarize, we propose the hypothesis that Americans working in global AIDS tend to possess an ideology regarding sexual behavior that is influenced by the sexual revolution of the 1960s, gay liberation, and secularism. This is speculative of course. The evidence that Western AIDS experts for the most part rejected fear appeals is stronger than any evidence explaining *why* this occurred. There is evidence that fear-motivated behavior changes actually occurred in American gay communities hard hit by AIDS, leading to sharp declines in HIV infections in the mid-1980s, even before most formal AIDS prevention programs were launched. That is, first-hand experience with sick and dying partners and friends led to fear of contracting AIDS, and it seems to have been this rather than formal public health interventions that led to reductions in behaviors that exposed men to HIV infections (Judson, 1983; Stoneburner & Low-Beer, 2004).

Yet these lessons from the 1980s seem to have been forgotten to the point that fear has become more or less taboo in the American prevention model, the model that dominates global AIDS prevention. An anonymous reviewer to this paper took us to task for “disregarding the importance of epidemic stage in this analysis The question really is not whether fear appeals work or don’t work, or should or should not be used, rather it is when, under what conditions, and how should fear appeals be used.” If that is so, it seems to us we are correct in pointing out that fear appeals have wrongly been rejected by American AIDS experts under *all conditions and contexts and stages of epidemic*, since the comments we quote lack qualifiers about stage of epidemic and do not provide for exceptions. We wish to bring fear appeals back into the AIDS discussion, and into research agendas, from which this topic has been excluded by premature consensus. All parts of AIDS prevention should be evidence based rather than consensus based.

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