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## SOCIAL AND CULTURAL FACTORS AFFECTING THE HIV EPIDEMIC

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The complexity of the HIV/AIDS epidemic stems from its links with all aspects of society and culture. Social and cultural factors affect not only viral transmission, but also the success of prevention strategies and the compassion with which people living with the virus are treated. A clear understanding of those factors therefore becomes a point of departure for planning the control of the epidemic.

### KEY ASPECTS OF THE EPIDEMIC

Three aspects of the HIV epidemic shape the role of social and cultural factors in its propagation and, in turn, modify the culture of the people as they respond to the epidemic: the known modes of transmission; the ways in which the biomedical imperatives of AIDS shape the popular imagery of the epidemic; and the immediate social and cultural responses to the epidemic.

#### **Known Modes of Transmission**

Heterosexual transmission accounts for as many as 95% of HIV infections in Nigeria, where having multiple sexual partners has been a major behavioral factor fueling the epidemic. Consequently,

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customs and social practices that produce sexual networks have been the major focus of behavioral surveillance. Details of sexual practices such as dry sex also have received attention, with the assumption that men prefer dry sex (1), leading to trauma that can facilitate HIV transmission (2–4).

Other transmission modes are nonetheless intimately linked to culture as well. High fertility preferences, elevated female infection rates, and low levels of voluntary counseling and testing (VCT) make mother-to-child transmission of HIV an inevitable element of the unfolding epidemic. Inadequate levels of prenatal care and poor delivery services render blood transfusions to pregnant women common. The patchy distribution of HIV screening services expose significant segments of the urban poor and rural populations to unscreened blood. Homosexual transmission may also play a role, as there are anecdotal reports of men having sex with men within traditional and religious frameworks or in response to demands created by sex tourism in the metropolitan centers. Homosexual practices have also been reported for incarcerated populations (5). Finally, nonsexual traditional practices—particularly male and female circumcision and the custom of creating facial and body markings with shared, non-sterile skin-piercing implements—expose significant numbers of people to infection as well.

### **Imagery of the Epidemic Based on Biomedical Features**

The initial characterization of HIV infection as fatal helped both to define the epidemic and to shape people's responses to those infected and affected by it. This characterization aided the scare tactics employed for creating mass awareness of the epidemic. Although it is now known that antiretrovirals can help people with HIV achieve long-term survival, the subtle distinction between managing and curing a condition eludes the understanding of most people, including policy makers.

The dominance of sexual transmission of HIV and the corollary that frequent episodes of sexually transmitted infections (STIs) facilitate HIV transmission are largely responsible for the stigma of promiscuity attached to HIV infection even when people are not sexually infected. The continent as a whole faced the stigmatization of AIDS, increasing the reluctance of many African governments to acknowledge the severity of the epidemic openly (6,7) and, until recently, to make HIV prevention and management major priorities (8).

In addition, the long latency between HIV infection and the development of AIDS-related conditions reduces the likelihood that people will associate a particular sexual contact with the time of transmission (9). It also compromises the role of VCT in helping to prevent transmission.

### **Social and Cultural Responses to the Epidemic**

People's beliefs about disease causation ultimately influence their health-care-seeking behavior and efforts to protect themselves from infection. Many Nigerians believe that the origins of ailments are not as simple as modern medicine posits. According to Caldwell, Orubuloye, and Caldwell, the syncretic nature of African religion—the beliefs that events are multicausal and that the timing of death is predestined—resulted in an initial underreaction to AIDS (6). A fatalistic attitude allowed some people to remain in denial about the epidemic. Orubuloye and Oguntimehin demonstrated that this indifference

to the prospect of death produces a high risk-taking sexual culture among men and little behavior change in response to HIV prevention interventions (10).

The reluctance to talk about sex within marriages and between generations also has delayed the public health response to a sexually transmitted epidemic. Many Nigerians believe that fertility-associated diseases are in a special category, treatable by indigenous practitioners. Wasting, a dominant feature of AIDS, also is perceived as linked to witchcraft. The alien image of AIDS adds to its stigma and encourages the perception of AIDS as retribution for those who engage in immoral activities.

In addition, the country's high levels of infant and childhood mortality draw attention away from complications arising from the secondary epidemic of pediatric AIDS and the need to make prevention of mother-to-child transmission (PMTCT) a robust element of HIV/AIDS control programs.

## **FEATURES OF THE NIGERIAN EPIDEMIC**

### **Sentinel Data Quality and the Role of Migration**

Information about the patterns of the Nigerian epidemic comes from sentinel surveys conducted between 1991 and 2001 (11,12). The difficulty of applying the sentinel data to the general population arises from the nature of the sentinel groups and the large size and population of Nigeria. Nevertheless, the broad pattern of HIV infection that emerges in these surveys gives a clear idea of the similarities between the Nigerian epidemic and those of more mature epidemics in eastern and southern Africa (13). Apart from the usual sentinel groups—women receiving antenatal care, sex workers, people with tuberculosis, and STI patients—voluntary and involuntary migration connected with local and international travel, refugee movements, and army movements have emerged as major factors in the spread of the virus across countries, borders, and regions. The culture of mobility is basic to human existence and development.

It took a decade after that first reported case in 1986 for Nigeria's HIV prevalence rate to reach 4.5%. The relative delay of the emergence of a Nigerian epidemic—compared to the eastern and southern African regions (14)—has been attributed to a number of reasons, including differences in levels of male circumcision and in the practice of polygamy.

It is tempting to speculate that sexual networks differ significantly from region to region. But according to Orubuloye et al., people in Yorubaland are thought to have as many sex partners as those in eastern and southern African countries with severe HIV epidemics (15). According to Caldwell et al., a declining degree of polygamy in southern and eastern Africa allows males to marry earlier, and the length of postpartum sexual abstinence is notably shorter in those regions than in Nigeria (16). These changes, however, have not produced the postulated declines in male non-marital sex and sexual networking.

In 1992 the researchers speculated that Nigeria's lower HIV prevalence might be due to its near-universal practice of male circumcision at infancy. The rareness of male circumcision in other parts of Africa also has been suggested as a reason for the spread of HIV in those areas (17). Whatever the validity of the

circumcision hypothesis, it has since become clear that the pace of the epidemic is now no less relentless in Nigeria than in other regions of sub-Saharan Africa.

### Variations in Nigeria's HIV/AIDS Prevalence Rates

The geographic variations in Nigeria's HIV prevalence rates suggest two likely explanations (11,12). First, previous hubs of STIs—such as in the tin-mining area of Plateau and in the petroleum industry of the Delta region—are primed for the rapid spread of HIV. According to Carael and Makinwa, the large-scale presence of other STIs may account for the rapid spread of HIV in some regions (16). Second, urban areas and the network of roads that link them throughout the country have produced arteries of infection that stand out from the more remote rural areas of the country. Both explanations are firmly rooted in the phenomenon of migratory movements between areas with depressed economies and areas of economic prosperity. It is related to the preponderance of male migration, which produces a low sex ratio in places of origin and a high sex ratio at the destinations.

### Immediate Research and Programmatic Responses

#### *Social Surveillance*

Against the background of the stigma attached to AIDS, the limitations of sentinel survey data, and the overall pessimism about the quick development of a cure, the initial research response focused on the social surveillance of the epidemic. In this context, the role of social and cultural factors was viewed as largely negative. Investigators assumed that an understanding of the negative cultural factors would help correct or eradicate those factors. While this approach has helped raise AIDS awareness, based largely on scare tactics, it has not contributed significantly to the attitude and behavior changes needed to halt the spread of infection or to help individuals and communities cope with the consequences of the epidemic.

It is becoming clear that the culture has positive factors that can be harnessed to make behavior change communication (BCC) interventions plausible and effective. The exploitation of these factors in a number of ongoing projects has formed the basis of a tentative, yet evidence-based conclusion that the positive aspects of culture will increasingly become better researched as people move away from the image of HIV as incurable to a more balanced view—that with a combined strategy of well-considered BCC, VCT, and antiretroviral programs, HIV can be survived for long periods and the epidemic can be brought under control.

#### *Condom Use*

Advocating condom use appears logical, but prejudices relating to the role of the condom in family planning appear to be plaguing its promotion as a tool for HIV prevention. Integrating dual protection into family planning services and involving men in dual protection appear to address some of the concerns about condom use (18). The next logical step has been to combine information, education, and communication (IEC) interventions with carefully planned BCC programs targeted at specific groups that offer

the right social, economic, and cultural setting for such interventions. The groups that have been most responsive—and that have the greatest potential impact on the epidemic—are market populations, students, out-of-school youths, and health providers in the private sector. These may not be the conventional “risk groups” of the early stages of the epidemic, but they do provide access to significant proportions of the general population who are at risk and urgently in need of behavior change at the disseminated phase of the epidemic.

In short, all biosocial and biomedical aspects of the epidemic are linked to the culture within which people live and die. While social research has thus far focused on negative factors, only a balanced view of the role of social and cultural factors can form the basis of an evenhanded strategy for HIV prevention and management. The next section briefly sketches out a framework for integrating both the positive and the negative social and cultural features.

## THE SOCIOCULTURAL FRAMEWORK

### Features of the Culture

The features of a culture derive from the components of the demographic and socioeconomic composition of the population. The most important demographic and socioeconomic features are age, sex, residence, education, marital status, and religion, family/social units, and ethnic identity. These features influence the spatial and sexual mobility of people, their exposure to infection, and their health-care-seeking and managing responses.

Age is a changing characteristic with direct impact on sexuality through biological processes as well as social devices. The onset of sexual feelings, the timing of marriage, the sexual debut, and the ability to cope with the demands of sexuality all relate to the age of the individual. Equally powerful is the effect of the link between age and cultural patterns on the level of culture change and cultural shifts (19). The young are, in the right atmosphere, receptive to new lifestyles and ideas.

Sex forms the basis of allocating roles, privileges, and positions open to members of a community. This typecasting of individuals by gender starts from birth. Most societies share these roles and rights in such a way as to subjugate females to males. The sexual domain is marked by some of the most adverse inequities between the sexes, including unequal sexual negotiating powers. The different timing of marriage by sex, the practice of polygamy, and the age gap between spouses within polygamous unions all sustain these inequities (20). So total is the dominance of men that women may be considered to have only duties and responsibilities and no rights (21). Yet the roles of women in the domestic domain make them major assets for caregiving in times of health emergencies (22,23).

In the context of both the age and sex of individuals, Carael and Makinwa have suggested that the tendency for females' first intercourse to occur at a relatively young age in part explains the spread of HIV among female youths (16).

Residence in urban or rural areas helps determine people's economic and social options, opportunities, and limitations. It also creates the context for developing the coping mechanisms for sexual needs,

satisfaction, and consequences. Expansion in the entertainment industry resulted in the creation of the drinking bars, brothels, and rooming houses in large towns where rural-urban migrants, single men, and married men all have access to sex for cash. In effect, both urban and rural areas offer challenges and opportunities for HIV prevention and management.

Education, one of the most potent acquired socioeconomic characteristics, is by itself not always the predictor of risk exposure (24). In combination with other lifestyle issues—such as opportunity for travel, type of employment, and access to cash income—though, it is closely related to the dynamics of HIV infection, prevention, and management in a population. In effect, both a negative and a positive feedback loop operate between education and the epidemic.

The type of marriage may influence the sexual practices within each type and thus affect the potential exposure to the risk of HIV infection within marriage. The link operates through differential age at marriage between monogamous and polygamous women, the length of postpartum sexual abstinence, and lactational amenorrhea. Although a strong negative relationship exists between polygamy and community fertility (25), it has been difficult to establish any significant differences in HIV prevalence with the type of marriage. This is hardly surprising since serial monogamy is an alternative to having multiple sexual partners (26).

According to Caldwell, Orubuloye, and Caldwell, polygamy for the Ekiti Yoruba means a reduction of the access of some males to mates and an occasion for engaging in premarital and extramarital sexual activities (27). Those male sexual needs are met by sex workers in urban areas and by a significant number of divorced, separated, or widowed women. In addition, certain living and cultural arrangements facilitate the sexual access of young family members to the wives of older relatives (15) or the access of visitors to wives of hosts (28). All these devices are likely predictors of exposure to sexual networks and to HIV infection.

Within polygamy or outside of marriage, young girls are often the preferred and possibly the easier targets of older men. The public health implication shows up in the differential levels of infection between young males and young females in some populations (29).

Religion plays a major role in both social behavior and health belief systems. Religion and modernization are modifying some of the sexual excesses of males within traditional sexual codes, yet this modification may be contributing to an increase in the use of sex workers.

Other features of family formation have a potential impact on the epidemic. In the past, the universality of marriage and the early timing of marriage served as safety nets for reducing the incidence of premarital sex and promiscuity (30). Mate selection processes are now less autocratic and allow greater sexual experimentation between consenting adults than in the past. Even religious dogma and values have failed to reverse the trend (6,24). The ease with which children born out of wedlock can receive legal status is a major factor driving this liberal mate selection process. In effect, having multiple sexual partners may not be seen in terms of loose morals but as an integral part of mate selection. Adapting the process to HIV prevention may be more feasible than its drastic modification or condemnation.

The formation of social units—such as the family, trade groups, and ad hoc self-help groups—is based on combinations and permutations of these demographic and social parameters. Some units, such as the family, are formed after elaborate rituals and processes, while others are temporal and easy to form and dissolve as occasion demands. These social units provide the setting within which the interaction of culture, sexuality, and risk of HIV infection takes place. So complex are these interactions that an assumption of a static and predictable role of social and cultural factors in the epidemic is likely to be invalid. As with other social and demographic variables, the epidemic can alter the structure and functionality of a family, yet the family is also the frontline unit for caring for people infected with or affected by HIV.

Ethnic identity is the medium through which all the social and economic variables are filtered, and individuals make decisions that they believe confirm that identity. In Nigeria, with a population of more than 130 million and 247 ethnic groups (31), it is unhelpful to assume that cultural practices affecting sexual and reproductive health are monolithic and universal to all ethnic groups. Such practices as bride wealth (32) and postpartum abstinence can vary significantly between, and in some cases, within the major Nigerian ethnic groups (33). What is needed therefore is a brief exploration of the ways in which cultural changes from within and without can be used to design constructive roles in HIV prevention.

### **Changing Culture from Without and from Within**

In the course of modifying culture and the relationship between the sexes, the actors often justify the new norms in terms of the benefits they confer on society in general. That way, the new patterns of behavior associated with the new norms are not classified as deviant (34). Moderating influences can have a range of sources; in general, influences from without are more potent than those from within the society.

#### *The Place of Global Acculturation*

Ramel has suggested that the spectacular human development over the past 10,000 years can be ascribed entirely to a cultural rather than genetic evolution (35). Apart from the localized changes in culture, the post-World War II period has witnessed dramatic changes in the economy, civil rights, women's rights, and the associated sexual freedom. These changes include new emerging norms about the desirability of marriage, the optimal timing of children, and the involvement of fathers in child-bearing and of mothers in breadwinning (36). The sexual freedom came with new codes and mores regarding sexual negotiation between the sexes, with the most remarkable being the visibility of commercial sex work in different cultures and at different strata of society. The oldest profession became an open profession. The role of education has been pivotal to these changes, and the horizontal spread of information through mass media may be accelerating the cultural evolution and a concomitant loss of cultural diversity.

### *Cultural Classification, Hybridization, and Parental Control*

Some degree of cultural change and hybridization is taking place in Nigeria, especially in the sexual behavior of youths as they attempt to combine elements of Western sexual norms with traditional sexual norms. This development can produce significant variation in sexual identities different from those that are based on traditional values or easily explained in terms of modernization and religious values (37).

The hybridization of sexual culture can be traced to the loss of parental control as society has moved from a subsistence economy to a patchy market economy. To explain the causes of adolescent pregnancy in Cameroon, Ilinigumugabo et al. have postulated that the social pressures once placed on adolescents to control their sexual behavior have been greatly reduced due to youth attending schools far from home and to new behavior modes promoted by school peers and the mass media (38). Under the new autonomy of the young, poverty has led some girls to exchange sexual relations for gifts.

### *Globalization and Poverty*

Not all culture changes and influences are beneficial. Globalization can be cited as the primary cause of disease distribution and incidence of modern epidemics (39). An associated phenomenon is that the drugs needed to treat emerging and re-emerging diseases are priced beyond the reach of people in poor countries, often the most in need of affordable treatments. Globalization presents both challenges and opportunities, however, that can be harnessed to balance some of the inequities in periods of health emergencies such as the HIV epidemic (40).

### *Family Planning, Economic Downturns, and the Collapse of Health Systems*

The decline in fertility in sub-Saharan Africa is a product of significant changes in cultural values relating to family formation and aspirations. A rising age at marriage, an increase in contraceptive use, improved school attendance among girls, and changes in cultural norms and family relationships have contributed greatly to the fertility decline (41). Some of these reproductive behavior gains have produced a side effect: the delay in marriage has created a period of heightened risk of premarital sexuality. The line of protection that family planning and dual protection can offer in an epidemic is compromised by the decay of health systems in response to the global economic downturn of the past decades and the persistent effect in the rising level of poverty in sub-Saharan Africa.

Family planning services have been targeted mainly at married women who have had their husband's consent. The needs of youth, men, and women not in a union have been neglected. Consequently the institutional and resource framework with which to respond to the HIV/AIDS emergency has been lacking. This vacuum has aggravated the negative links between culture and the epidemic.

### **The Idealized View of Sex Culture**

Some contradictions arise in the conceptualization of sexual culture in societies experiencing rapid modernization. On the one hand, traditional sexual codes are supposed to be strong and strict for the

young female. Orubuloye et al. argue, however, that extensive premarital and extramarital sexual activity is deeply rooted in traditional culture, and is supported largely by women's long period of postpartum abstinence, which men use as an occasion to engage in extramarital sexual affairs (42). Traditional society allows young, unmarried men to enjoy premarital sex, and about three-quarters of postpubertal males, married or unmarried, can be without current access to a wife or sexual activity because of prolonged postpartum female sexual abstinence (27). The fact that males are not correspondingly more affected by the HIV epidemic makes an examination of the basis of male sexual codes necessary.

### *Male Sexual Codes*

The differential male sexual code is premised on the prevailing notion that male sexuality cannot be contained or confined to a single woman. In a 1994–95 survey, Orubuloye et al. found that 41% of urban men, 59% of rural men, 27% of urban women, and 36% of rural women hold this view of male sexual needs (20). Half of the urban wives and three-quarters of the rural wives surveyed believed that greater love within marriage could curb the extramarital escapes of men. One-third believed that the fear of AIDS could effect behavioral changes in the men. This male sexual code is consistent with the earlier view of Yoruba marriage by Caldwell and Caldwell as deemphasizing husband-wife emotional relationships and marital female sexuality (43). Modern education and Christian values may play a part in the development of emotional ties within marriage and the reduction in promiscuity. Promoting such emotional content within marriage is certainly consistent with HIV prevention. It is also a potential behavior change outcome that IEC/BCC interventions should take into account.

### *Clarification of Sexual Networks*

Another strand of the social surveillance of HIV/AIDS has been the clarification of the sexual networks of high-risk groups. The initial assumption was that the impact of sexual networking on the epidemic would significantly differ between those that involved sex workers and those that involved other members of the general population (44). It was conceded, however, that the economic returns to young women from commercial sex were so high and the social sanctions so weak that it was unlikely that the tide of inflow into commercial sex work could be stemmed, AIDS or no AIDS. In effect, the lucrative nature of commercial sex work broke down some of the gender codes of sexual behavior by granting young women the option of exploiting their bodies to greater economic effect and survival.

## **MIGRATION AND HIV/AIDS IN NIGERIA**

The mobility of people is an integral part of human development, transforming the demographic, social, and economic circumstances of populations. This same mobility, however, becomes an agent for the spread of epidemics. Given that the etiology of HIV/AIDS is well known and that the disease is associated with particular, known transmission sites and routes, the study of the mobility of the populations that come into contact with such sites can help determine the actual patterns of transmission and can

contribute to the formation of HIV prevention and control strategies (45). This principle informed the study of the transfer of first outbreak of malaria in the 1960s and 1970s and later HIV from high-incidence areas to low-incidence areas via the human vector (46–48). This principle has also affected the attention focused on the links between migration and the spread of HIV from the early hot spots of infection to other areas.

In a review of scientific and other literature during the 1990s that links migration and mobility with the spread of STIs, including HIV, in West and Central Africa, Lydie and Robinson (49) came to several conclusions that have relevance for the Nigerian epidemic:

- With the exception of Senegal, countries with high emigration and immigration rates tend to have high levels of HIV infection;
- The main destinations of West African immigrants are Senegal, Nigeria, and Côte d'Ivoire;
- Both the risk of infection and the rate of HIV transmission vary among migrants; and
- Little exists in the literature that substantiates hypotheses about a strong association between migration and HIV-positive status.

These conclusions can enhance our understanding of the dynamics of the Nigerian epidemic and the development of appropriate prevention strategies. First, before the emergence of the HIV epidemic, parts of Nigeria — especially in the southwest (now northern Oyo State) — had more than half a century of migrant labor (50), trading, and commercial sex contacts with Ghana and Côte d'Ivoire, two West African countries that turned out to be the region's earliest hot spots for HIV.

Second, these migratory contacts persist to the extent that major northern Yoruba towns such as Ejigbo, Ogbomoso, and Iwo have transport depots where “commuting migrants” can take international road transport at affordable prices whenever they want. These transport nodes in southwest Nigeria certainly provide points of potential contact for the type of research that Lydie and Robinson suggest (49).

Third, migrants tend to be in their most economically productive years and in the most sexually active and mobile age groups.

And fourth, it can be deduced from the patchy literature on these migratory waves that, with the exception of refugees, most of the classic risk groups linked with HIV spread are represented in the migrant population — migrant laborers, long-distant truck drivers, itinerant traders, and sex workers.

### The West African HIV/AIDS Corridor

Decosas suggests that international migration has shaped the profile of the HIV epidemic in West Africa (14). Côte d'Ivoire, the main country of immigration, has by far the highest HIV prevalence along the West Coast. That country has distinct foci of infection in Abidjan and in the agro-industrial centers of Daloa and Bouaké. According to Kouamé, migrants made up 40% of the population of Abidjan (51). More than half of the sex workers in Abidjan are from Ghana. This dominance of commercial sex activities by Ghanaians may in part explain why Ghana became a focus of HIV-2 in the early stages of the

West African epidemic. By 1993, HIV seroprevalence in the Abidjan region was estimated at more than 10% for the general population and at least 80% for sex workers.

Decosas and others observed that 25% of Côte d'Ivoire's total population comprised migrants from other countries (52). Sex workers were brought in to meet the sexual needs of plantation workers, with each woman serving about 25 men. This pattern of sexual networking must have contributed to that country's elevated HIV prevalence rates, which are higher than estimated for sex workers in less adverse situations (53).

Another potentially significant channel of transmission is through migrants returning to Nigeria after long periods of residence on cocoa farms in both Ghana and Côte d'Ivoire and gold-mining activities in Ghana. The economic and political crises in these countries in the past two decades probably aided the transfer of large number of returnees and an appreciable number of HIV-infected people from those countries. Nigeria has other cross-border contacts with Cameroon and Niger, but none carries the same potential epidemiologic significance as those along the West Coast.

### In-Country Population Movement and HIV/AIDS in Nigeria

Nigeria's significant in-country flows between regions and between rural and urban areas have implications for the spread of HIV. Such movements can be effective in reducing urban-rural differentials in HIV prevalence. In connection with the geographic spread of Guinea worm, Watts observed that Yoruba women are highly mobile and travel widely (45). Travel during festivals and celebrations and the seasonal circulation of migrant farm laborers and their families may result in the long-distance transmission of Guinea worm infection. In the same way, the movement of traders and workers within Nigeria — between cities and the rural areas and between poor regions and areas of commercial activities, such as in the petroleum mining sector — contribute to the significance of the link between migration and HIV transmission and its prevention and management.

Ososanya and Brieger's study of migratory movements between Igbo-Ora and Lagos among 377 residents aged 15 to 49 years found that 62.3 percent were female and 81.7% had traveled an average of 3.6 times to Lagos in the preceding six months (54). One in fifty traveled with their spouses. Almost half of the respondents had sexual partners in Lagos, and just over one-third of those had more than one. One in twelve respondents reported a history of STIs. Of these, nearly three-quarters attributed the infections to non-spouses. Just over one-quarter of the respondents or their partners used condoms. Condom use increased with education, and single migrants were more likely than married ones to use condoms. In focus groups, greed for economic gain, the existence of sexual networks, peer approval, and crowded housing conditions in Lagos were suggested as factors encouraging risky sexual behavior. Women traders were described as being especially able to conduct numerous clandestine affairs. The same surely can be true of men, except they may be more blatant as they are away from home and are subject to less rigorous sanction if their behavior is discovered.

In a study of another Yoruba village, Ago Are, Ajuwon and others were able to show that even small villages along main trade routes have female sex workers in residence (55). Most of their clients are

commercial drivers and migrant farm laborers. The authors observed that both premarital and extramarital sex, although against local custom, were common in their study site. Like Orubuloye et al. (15), they attributed the practice of extramarital sex to other customs such as postpartum abstinence, wife inheritance, frequent informal divorces, and polygamy. In effect, the breach of one set of cultural values is made possible by another set that facilitates the breach. Holidays, festivals, and the presence of return migrants from the city also encourage casual sexual encounters that can be critical in the introduction of HIV into rural areas.

Much larger settlements along Nigerian transport arteries such as Ilorin (56) have elaborate infrastructures that sustain the sex trade (15). The low education and high mobility of most of the drivers and transport workers who patronize the sex workers place these men at a disadvantage for accessing information. In addition, many long-haul drivers have unprotected casual and commercial sex. These men include both homosexuals and heterosexuals, and they often take drugs and suffer high STI rates (57).

### **Peacekeeping and HIV Infection**

Peacekeeping operations by Nigerian soldiers in Liberia, Sierra Leone, Côte d'Ivoire, the former Yugoslavia, and Somalia at various times have produced other distinct strands of net transfer of infection from these countries to Nigeria. The lifestyle of peacekeeping officers is characterized by high levels of multiple sexual partners, low condom use, and exposure to blood transfusions in the line of duty. After an initial period of secrecy surrounding the extent of the HIV/AIDS problem in the military and among returning peacekeeping forces, the Nigerian military is addressing the spread of HIV among soldiers (58). The coming out of soldiers living with HIV/AIDS has raised awareness of the impact of peacekeeping expeditions on the spread of HIV. It has also helped shape the public policy on HIV in Nigeria. The privileged position of the military means that policies made for it set standards to which the public HIV/AIDS policy can aspire, such as the introduction of a free antiretroviral program for infected soldiers (59).

Nigerian police officers also have been involved in peacekeeping operations, mostly within Nigeria but occasionally abroad. Their sexual lifestyles are no less risky than those of soldiers (60). They maintain modest levels of condom use and high rates of STIs, take advantage of modern medical treatment, and report good rates of partner notification when infected but low rates of notifying their spouses about infection episodes.

### **Sex Tourism by Nigerian Females Traveling To Europe**

A combination of the popularity of air travel and the downturn of the Nigerian economy has produced an increase in sex tourism to some European countries by young Nigerian females, including well-educated yet unemployed females easily drawn into foreign sex work. Oladepo and Brieger found that 29.2% of university students in their study had sexual relations during travel outside of Nigeria (61). Sex tourism has potential implications for the spread of HIV, the development of coinfections with HIV-1 and HIV-2, and an increase in the range of HIV subtypes found in Nigeria. Given the better education of those involved, however, they may be able to monitor their health, maintain a higher level of

condom use, and experience less frequent episodes of STIs. These circumstances will likely limit the public health significance of sex tourism for the Nigerian epidemic. Yet a large cluster of HIV-infected returning female sex tourists into an area of origin could have a devastating effect on the course of the epidemic in the area.

### **International Travel and Tuberculosis**

HIV-positive people coinfecting with tuberculosis are more likely to die from tuberculosis than from any other condition. The popularity of air travel and exposure to tuberculosis on long international flights is also a potential link between migration and HIV infection, morbidity, and mortality from AIDS (62).

### **Male Migration and Sexuality**

The impact of male labor migration affects both the sexuality of mobile males and the females with whom they have sex. While conditions in Nigeria are not as dramatic as in parts of eastern and southern Africa (63), the relatively high incidence of female-headed households and low sex ratios create similar conditions in the fishing and mining communities of the country's Delta and Middle Belt regions. The migrant men include fishermen, traders, farmers, and refugees. Decosas estimates that 3% of West African men live in camps and temporary accommodations while away from their families and communities (14). These migrants have sex with sex workers while traveling and living in temporary places of residence. Those who contract HIV then transmit the virus to other short- and long-term sex partners at their temporary places of residence and in their places of origin.

### **Forced Migration and Refugees**

The timing of the forced migration of Ghanaians from Nigeria because of the shrinking oil economy and growing political pressure (64,65) was such that it had little impact on the HIV epidemic. Today such a massive transfer of population from one of the foci of HIV infection to another country could precipitate an increase in rates of transmission. This is precisely why the refugee movements from war-affected areas of Liberia and Sierra Leone in the late 1980s and mid-1990s may have introduced new infections as well as new subtypes into the Nigerian population.

### **Research Implications**

For some of the puzzles surrounding the migration-and-HIV-infection hypothesis to be solved Lydie and Robinson have called for research on the migrants' duration of trips, frequency of return visits, living conditions, sexual activities, and behavior before their departure, along the routes, at their final destination, and at the time of their return (49). Behavioral surveillance that could link biomedical HIV surveillance with individual-level data on the migration and medical history would be the best source for this type of information. At the conceptual level, though, the gatekeepers on the migratory routes should receive as much attention as the migrants themselves. The police, military personnel, and custom officers—most of whom are male—are co-actors with women eager to maximize their profit and

avoid payment of high official and unofficial tariffs along the borders. These are the sex-for-cash transactions frequently mentioned in anecdotes of traders along the West Africa corridor.

Ironically, the women involved in these transactions may not view themselves as sex workers and may not attach the same significance to their behavior that epidemiologists do. But they are more likely to become involved with multiple sexual partners and less likely either to be in a superior negotiating position with their “mentors” or to be able to negotiate condom use. In effect, the absence of strong evidence-based association between migration and HIV status is no reason to ignore the potential role of cross-border movement and the dynamics of the Nigerian epidemic, especially in the southwest, where the West Coast trade corridor connects with Nigeria.

## DISTINGUISHING BETWEEN POSITIVE AND NEGATIVE FACTORS

In making the distinction between positive and negative cultural influences, it is worth re-emphasizing that heterosexual transmission of HIV predominates in Nigeria. The bases of prejudicial sexual customs include liberal sexual codes for males, subordination of females in sexual relations, early marriages, and the reluctance to discuss sex. This reluctance further reinforces the norms and their persistence.

Two points about the exploitation of culture for HIV prevention should be made, however. The first is that there are non-prejudicial customs that can facilitate HIV/AIDS prevention and management. The challenge is to find ways of maximizing their contribution to programs. The second observation is that some cultural factors are often the wrong target of HIV prevention programs because they may be compatible with safer sex behavior (28). Attacks on culture are also not the best entry points into HIV prevention.

### Positive Cultural Choices

There are five related requirements for successfully exploring positive cultural values in HIV prevention through effective BCC programs:

- Choosing the most culturally relevant mode of communication;
- Identifying the most suitable platforms for interacting with the target population;
- Diagnosing the hierarchical structure within social groups;
- Using the appropriate protocol that will facilitate but not unduly force cooperation with HIV prevention programs; and
- Devising and testing the health belief model that most closely approximates those of the local population.

### *Relevant Modes of Communication*

With the exception of the Yoruba, who have experience with large pre-industrial agglomerations (66), most traditional communities in Nigeria are small. Political and social organizations in such communities tend to value face-to-face communication, and interactions are highly verbal. In the context of culture and AIDS, community dialogue is one of those non-prejudicial customs that can be employed in

HIV prevention initiatives. Talking in formal groups is a common feature of community decision-making processes that has been moved into the political, religious, and social realms.

Evaluation studies of IEC/BCC programs often identify the utility of health talks to audiences. This principle suggests that verbal interactions in focus groups discussions are particularly useful in consensus building and in generating inter-community dialogue about new ideas, controversies, or innovations. Plays and skits—live or on radio or television—extend the role of verbal communication further. Implicit in the choice of verbal communication is the preference for particular platforms for interacting with target populations.

### *Suitable Platforms for Interacting with Target Populations*

The basis of ethnic and cultural identity in most Nigerian ethnic groups relates to the place of birth. In effect, the settlement is the first platform for interacting with a target population. Lower levels are the compounds into which agnates—or relatives on the father’s side—aggregate, and within them are the families and finally the individuals who can exercise varying degrees of autonomy in their dealings, depending on their demographic and socioeconomic characteristics.

The social platforms form a second layer to the settlement platform. The major avenues of interaction are linked to traditional rituals that take place in connection with births, deaths, marriages, and social mobility. Others are linked to commerce, largely conducted in traditional markets.

Different occupations have formal and informal avenues for bringing people into groups, so the traditional role of group identity can be further reinforced by the common aims of the trade group. In this connection, modern health facilities become new platforms for health behavior modifications and the care-seeking needs of the population.

Religious bodies and associations are also gaining in relevance as platforms for molding moral values and character. Religious leaders have regular and intense contacts with millions of Nigerians on a weekly and even daily basis. In some sense, the teachings of these leaders have irrevocably changed the culture of the people. Are these leaders suitable candidates for catalyzing behavior change? Do they have any influence on the sexual life of their followers and are they willing to take on the responsibility?

Early in the epidemic, the prevailing view among religious leaders was that God had sent AIDS as a punishment for sexual sins and other moral failings. One in three religious leaders condemned premarital and extramarital sex and suggested that a reduction in postpartum abstinence and the promotion of monogamy were the answers to stemming the spread of HIV. The different positions religious groups hold about polygamy and contraceptive use show up in their attitudes toward the management of the epidemic. In a 1993 study by Orubuloye et al., about three-quarters of the members of the Protestant Communion reported that the HIV epidemic had prompted them to address sexual behavior more often and with greater intensity in their religious discourse than in the past (67). They were also more predisposed to promote family planning and contraceptive use. In contrast, 80% of Muslim leaders objected to contraceptive use. Others, though, could understand that barrier contraceptives had a place within the HIV prevention strategy if AIDS became a problem. More than a decade later, with AIDS emerging

as a major health problem, the position of some religious leaders has changed significantly. Some elements persist, however. The Catholic Church maintains a strong opposition to condom promotion, preferring instead to promote abstinence and fidelity.

That same 1993 study revealed an overall reluctance on the part of religious leaders to take responsibility for conducting a campaign against immoral sexual behavior. Their view was that the government was better equipped to handle that task (67).

The educational institution is a major platform for modernization and, by its demographic composition, a crucial platform for HIV prevention efforts. The variety of institutions also reflects the age-sex compositional differences, which must inform how IEC/BCC programs can be tailored to meet the sexual and reproductive health needs of the cohort represented in each type of institution.

#### *Hierarchical Structure within Social Groups*

Traditional societies have a love of ritual in the conduct of business. Project staff members should be aware of the hierarchical structure within different social groups to help them gain entry. The acknowledgment of this hierarchy may be merely symbolic, as in most Yoruba towns where the right of informed consent lies with individual households and families. Or it may be more substantive and a precondition for entry into the population in the more feudal societies in northern Nigeria. When there is an overlay of religious leadership on the traditional hierarchy, getting protocols right is helpful to project implementation.

The framework put in place for social control within the markets remains traditional even though the trade articles have extended beyond the sale of agricultural produce. The king holds the land in trust for the community. The market leaders get elected in an open and transparent way. Subgroups based on age, sex, and articles of trade also form with their own leadership structures. Although interactions appear informal, all members know well the rights and obligations of the leaders.

Other domains—such as the family, the neighborhood, and the village—have similar hierarchical structures. Just as religious leaders set the tone for behavior and give guidance to the formation of attitudes to innovation, these other secular leaders play a vital role in the adoption of change. Fundamental changes involving sexual behavior, alteration of disease beliefs, and the adoption of new health-care-seeking behavior are likely to be effective if they are aligned with—but not necessarily dominated or hijacked by—the leadership for their own ends.

#### *Family Structure and Resilience as Factors in HIV/AIDS Management*

The family is probably the most remarkable of the social platforms. Its structure is a product of the sexual and reproductive health outcomes of the people. It is also a product of the impact of migration, type of marriage, and demographic composition of its members. The idealized extended family reported in anthropological and ethnographic studies relied on a variety of sources of resources with which to cope with emergencies. In the view of Caldwell et al., the family typically absorbs the burden of an AIDS-affected member (9). But with the erosion of the cohesion of that extended family structure and

the costly nature of caring for a person living with HIV/AIDS (PLWHA); it is doubtful whether this cultural feature of Nigerian life can play a major role in caring for PLWHAs.

Ironically, the age selectivity of HIV/AIDS morbidity and mortality creates gaps in family structures and in the quality of life and coping capacity of surviving members, especially AIDS orphans. An understanding of the strength and weaknesses of the family structure can help program designers shape care support programs to the strengths of that structure.

#### *Trans-Theoretical Health Belief Models as the Bases of BCC Strategies*

The quality of an HIV prevention intervention ultimately depends on its compatibility with the target population's health belief systems. Negative links exist between beliefs and the HIV epidemic, such as fatalism about death. Planning for survival, however, is equally culturally acceptable. To work, a health belief model must be built on the attitudes and practices of the target population. One such trans-theoretical health belief model in Oyo State successfully moved participants through four stages, from awareness of the danger posed by HIV/AIDS to actual changes in risky behavior.

#### **The Resources Needed for Exploiting Positive Cultural Values**

The obstacles to the full exploitation of positive cultural values can be classified as follows: those relating to the familiarity of project staff to the negative cultural links, those relating to the stigma created in the minds of the target population that make them resist program objectives and require a reorientation and exposure to new information with which to fight stigma, and those relating to the cost-benefit analysis of using the positive approach to linking culture and HIV prevention and management.

#### *Staff Training for Change*

Project staff members are often selected because of their familiarity with the culture in which the implementation is taking place. That familiarity often forms the basis of their ready acceptance of the negative connotation given to cultural practices linked to HIV infection. Retraining such staff, however, can make them aware of the potential contributions of a positive approach to cultural practices that can assist in HIV prevention.

#### *Removing Stigma and Resistance to Change*

Fear, ignorance, and confusion about the finer details of HIV/AIDS are the major causes of the stigma surrounding HIV infection. Awareness creation is often not enough to erase those emotions. At times the eagerness to create awareness can result in a message distortion, as is the case when the image most people associate with AIDS is death (68). In this atmosphere, the efficacy of the proposed behavior change, the motivation of project staff, and the futility of behavior change in the light of the absence of a cure for AIDS make people resist the superficial prescriptions for behavior change, such as “ABC,” which promotes Abstinence, Being faithful, and Condom use. What is becoming clear is that the objectives and methods of intervention must be credible for people to ascribe to them. To achieve that level of commu-

nication calls for a sustained period of training of the target population to allow them to understand the logic and feasibility of the modified practices being suggested to them.

HIV surveillance provides a good example of an intervention in which this approach works. If the limited purpose is to obtain epidemiologic or scientific parameters, then a rapid approach that meets the minimum ethical standards can be used to obtain participation. The person is bled, the laboratory tests are undertaken, and the necessary information is obtained. But if the ultimate aim of such surveillance is to prolong the period of non-infection and survival of infection for participants, then the rapid approach must give way to a period of training, followed by adequate monitoring of behavior over the life of the project so the target population can understand the link between the non-infected status or infection survival and adherence to behavior change guidelines. This approach generates frequent contacts between project staff and the target population and provides occasions for clarification of issues linked to science, policy, and personal problems relating to the project.

The body of knowledge needed, even by a layperson, to cope with the prevention or management of HIV infection is substantial. When project staff members have frequent contacts with the target population, they can present information in a gradual and persuasive manner, helping to lessen the perceived barriers to change and to build the self-efficacy that forms the basis of behavior change. Similarly, with more education, people are less likely to endorse stigmatizing beliefs toward HIV/AIDS (68).

Target populations often construe attempts at promoting changes in sex-related social norms and normative beliefs as subversive. This response is prompted by a shift from idealizing culture to the promotion of change based on the adoption of new cultural values, beliefs, and norms (69). But traditional practices—both sexual and nonsexual—often have their origins in a combination of myths and norms. The disease theory underlying such practices may be nil. Consequently, when beliefs or norms have to be reformulated through the logic of modern science, developing an appropriate trans-theoretical model to guide IEC/BCC interventions is an important first step.

#### *The Concept of “Ewu” in Yoruba Health Belief Modeling*

As mentioned earlier, a four-phase trans-theoretical model of behavior change based on the Yoruba concept of “*ewu*” (loosely translated as “hazard” or “danger”) developed for HIV prevention projects in Oyo State has been shown to be effective in moving participants from the initial stage of awareness of the danger posed by HIV/AIDS to the expected outcome of changing risky behavior. The second stage of self-risk assessment has been crucial to the transition from that awareness to the third stage of being receptive to information and ideas relating to the prevention and management of HIV infection. People may fear AIDS in much the same way they fear electrocution, but it is only when they are helped to make a competent assessment of their chances of being affected that they take intervention seriously. The expected outcome of effecting behavior change largely depends, however, on the fourth stage, during which participants are trained to attain behavioral self-control (70).

It is worth emphasizing that this trans-theoretical model takes advantage of the gregarious attitude of the Yoruba, their preference for joint action to tackle what might be viewed as personal problems,

and their use of the open forum as a way of crossing the conventional protocol that culture sets up to separate the generations and the sexes in other domains of existence.

The marketplace provides a wonderful setting for further subversion of the divisive protocol that stands in the way of learning and of acceptance of innovation relating to safer sexual practices. The monthly meetings of various market groups and trade associations are used precisely for the adoption of innovation and new ideas in their profession. The ten two-hour contacts needed to implement the four-stage trans-theoretical model program have been virtually grafted onto these monthly gatherings. Similarly, the methods of communication have been varied to suit the needs of the stages of the model. As a result of the combined IEC/BCC strategies, an initial cynicism or resentment of plans seen as subversive can give way to recognition of the logic between the prejudicial and non-prejudicial customs upon which the behavior change strategies are based.

#### **Other Options for Culture Change**

##### *Prospects for Improved Gender Relations*

In attempting to make culture a vehicle of HIV prevention, other profound options have been suggested: The emancipation of women can be a powerful means for promoting and sustaining healthy families and societies. A quantum change in the position of women actively advocated in various global initiatives requires a longer timeframe, however, than is appropriate to tackling an emergency on the scale of the HIV epidemic (71). The positive cultural approach to HIV prevention may also help improve relations between the sexes.

Carael and Makinwa suggest that a reduction in the rate of infection among young females can be attained through “demand reduction,” which includes major alterations of norms such as making sex with teenage girls socially unacceptable and providing girls with skills and opportunities that reduce their economic and emotional dependence on men (17). This component of gender relations largely depends on the absorptive capacity of economies. There is little basis for optimism that rapid economic growth in Africa will provide the driving force for gender equity. Yet the participation of women in the market economy, particularly in southwest Nigeria, has produced generations of self-employed and assertive women. Their economic autonomy is a major factor in the design of effective BCC programs among market populations (50,72).

##### *Demographic Transition and Culture Change*

The transitions producing the decline in population growth as well as the improvement in health—demographic and health transitions—clearly indicate that cultural shifts can take place with dramatic implications for sexual behavior. Fertility decline depends on changes in sexual and reproductive behavior that are also relevant to the links between culture and HIV infection. As in other parts of Africa (73), delayed marriage, changes in the role of women, and contraceptive use for birth spacing have produced a fertility decline in Nigeria (74).

Although it is estimated that AIDS mortality will increase over the next five years to afflict 15.5 million people in the 45 worst-hit countries, only in exceptional cases such as in South Africa will the population decline until 2025 before experiencing population increases. The continued population growth will, according to the most recent UN population projections for 2050, be fueled by estimated higher fertility rates for 16 developing countries, which will alone add 374 million people. The higher estimates are particularly important in the cases of Bangladesh and Nigeria (34). This situation raises a vital question as to the role of family planning not just in the management of population growth but also in HIV prevention in Nigeria.

Thirty years after the introduction of family planning services in Nigeria, the impact on fertility reduction has been limited. About one in eight married women uses a modern method. Half of these women rely on hormonal contraceptives, which are highly effective but offer no protection against STIs, including HIV (74). Consequently, the promotion of barrier methods becomes both an issue of increasing method mix within family planning services and a crucial element in HIV prevention. Unlike the exclusive focus on married women, however, dual protection must be made to reach out to the wider constituency of men and women, single or married, who are not the usual clients of the traditional family planning services. A series of studies in Nigeria demonstrated the feasibility of promoting dual protection in and out of family planning clinics and with the involvement of male partners (18).

## CONCLUSION

Sentinel survey data reveal that Nigeria's HIV epidemic is moving from the high-risk-group stage to a disseminated phase in the general population. At the same time, knowledge about the virus has moved out of the AIDS-is-a-killer phase to a recognition that infection can be managed to maintain quality of life and survival of infection. In effect, the literature lags behind by being preoccupied with the formation of exclusive networks of so-called high-risk groups. Other networks in the general population can be as prolific as any, especially in the context of a permissive male sexual culture. In addition, the public health focus has shifted from avoiding transmission to making VCT the basis of access to antiretroviral programs.

Given these changes, a continued focus on the negative features of culture and exposure to risk can become counterproductive if it gives a false sense of safety to those who perceive themselves as being free of negative cultural events. On the other hand, attempts at propagating HIV surveillance and advocating VCT are in their relative infancies. For these efforts to be effective and for VCT to become normative, emphasis must shift from the negative features to the positive features of the culture. The fuller range of social and cultural factors should be exploited in a new phase of aggressive HIV prevention efforts and of coping with the secondary epidemic of pediatric AIDS.

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