

## **Does MTV Reach an Appropriate Audience for HIV Prevention Messages? Evidence from MTV Viewership Data in Nepal and Brazil**

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*In response to the growing numbers of young people affected by HIV around the world, MTV (Music TV), the world's largest television network, has aired a global HIV prevention campaign since 1999, expanding it into a multicomponent campaign in 2002. Questions have been raised, however, about whether MTV is an appropriate channel for these messages, given its provocative content and its reach to those at the upper end of the socioeconomic scale. To address questions about who MTV reaches, viewership data were analyzed from baseline surveys conducted as part of an evaluation of the 2002 HIV prevention campaign. The two sites included in this analysis were Kathmandu, Nepal, and São Paulo, Brazil—each with very different cultures and media environments. We found that, in general, heavier viewers of MTV are younger, better educated, and more dependent on their parents, and they have more access to satellite television and the Internet. MTV viewing was associated with positive attitudes toward HIV prevention behaviors (except for abstinence until marriage) but not with premarital sexual activity.*

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Ten million young people between the ages of 15 and 24 live with HIV/AIDS and represent more than a quarter of the adults living with HIV/AIDS worldwide. Six thousand new infections occur daily in this age group (UNAIDS, 2004). Many public health advocates have argued that young people around the world need to know more about the threat and what they can do to protect themselves. In response, MTV, the world's largest television network, has taken the lead among global media networks in its commitment to reach young people with HIV prevention messages. MTV's annual "Staying Alive" documentary has aired every World AIDS Day since 1999. In 2002, MTV expanded the campaign to include the documentary as well as other programming and public service announcements that ran for several months in the last half of the year. The multicomponent campaign was aired on all 37 MTV channels around the world, and all content was available to other broadcasters rights-free in an effort to make it accessible to young people living in parts of the world where MTV was not available, notably, Africa. The Staying Alive campaign is now a fixture in MTV's public affairs programming, and at the XVth International Conference on AIDS in Bangkok, Bill Roedy (2004), president of MTV International, said, "We can and we will do more."

MTV, begun in 1981 in the United States, is now the leading youth-brand network in the world, with 42 channels reaching more than 412 million households in 166 territories in 19 languages (G. Franklin, personal communication, November 21, 2003). Today, 80% of MTV's viewers live outside the United States. Music and music videos were the driving force behind MTV at its inception and still are, but the programming has widened to include reality shows, game shows, and public service programming.

Wherever they are in the world, MTV provides viewers with the essence of hipness, of being on the cutting edge of the music world, of what is cool. It is modern, but, more importantly, they are the *youth* definition of modern. Much of MTV's appeal comes from its focus on youth as different from adults, as it has always pushed the envelope of what is acceptable television content. And sex always has been at the edge of the MTV envelope. One U.S. critic described MTV as a young adolescent male's sexual fantasy—many scantily clad women fawning over one man (Jhally, 1995). We may well ask if this is the appropriate venue for a sexual health campaign.

Critics of the use of MTV for sexual health campaigns also have been concerned that MTV tends to reach primarily young people who have more resources because access to cable or satellite television is required to view MTV in most countries. MTV's own market research confirms that their channels tend to reach more economically advantaged youth (MTV European Marketing Partnerships, 2004). Since the production (but not the airtime) of the Staying Alive campaign is financed by donors, critics have questioned the use of limited resources to provide HIV prevention messages to an "elite" audience, believing that resources should be spent only on those most at risk.

The relationship between MTV's viewers—elite or otherwise—and HIV risk is not really known, however. Is MTV's relatively elite audience at less risk than other less advantaged youth in the same countries? Might there not be something about MTV's "cutting edge" audience that puts them at risk? Furthermore, given the sheer number of MTV viewers, whether economically advantaged or not, the economies of scale inherent in the use of this global network make the per viewer cost of an MTV-based global public health campaign relatively inexpensive, and potentially worthwhile.

A recent national survey in the United States estimated that three fourths of 16- to-25 year olds watch MTV (Rideout, 2003), or about 37.5 million young people

(based on population estimates published in Myer [2001]). According to MTV's own market research, about 40 million Asians, 20 million Europeans, 1.1 million Brazilians, more than 600,000 Canadians, and more than 400,000 Australians watch an MTV channel at least weekly. In marketing "lifestyles" terms MTV viewers are "fashion leaders," "early adopters," and "trendsetters with active social lives" (MTV European Marketing Partnerships, 2004). So, this might be an audience worth addressing with sexual health messages.

Mass communication research suggests that it is also important to know *why* audiences use certain media. Uses-and-gratifications theory posits that viewers come to media with different needs and motives and that what users get from their media use depends on what they are looking for (Rubin, 1994). For adolescents, two types of motivation are of most interest. Adolescents typically are interested in social comparison, or what Arnett (1995) called "youth culture identification." MTV's viewers may indeed be looking for the latest trends, the cool ways to be, as they develop their own sense of themselves in the larger world. Because MTV is known as helping to define youth culture, it is reasonable to assume that MTV viewers are motivated to watch MTV at least in part for social comparison.

Second, given that MTV is known, and frequently criticized for providing "sexy" content, we might expect that adolescents are drawn to watch the channel to learn more about sex (Baxter, DeRiemer, Landini, Leslie, & Singletary, 1985; Greeson & Williams, 1986). A growing body of literature promotes the idea of adolescents as active media users who search from a wide array of choices for media that will address their information and identity needs. The media practice model (MPM) conceptualized by Steele and Brown (1995) and further developed by Steele (1999) proposes that adolescents select, attend to, interpret, and react to media that assists them in their identity development. The development of one's identity as a sexual human being is an important developmental task of adolescence. According to the MPM, then, interest in sex and romance, based on actual or anticipated sexual activity, might draw young people to MTV's traditional sexual content as well as HIV prevention messages.

The context of viewing MTV, where one watches it and with whom, is also of interest in that viewing context might influence the attention a viewer pays to an HIV prevention message and with whom it may be discussed. Larson (1995) noted that as U.S. teenagers get older, they are more likely to watch television and to listen to music by themselves rather than with family or friends. Larson speculated that such private media use is in part a need to sort out negative emotional states and helps facilitate adolescents' identity development. Private viewing might result in greater attention to prevention messages or self-identification with the message or both. Viewing with others might be distracting, but it might also facilitate discussion of the messages.

### ***Research Questions***

The purpose of this article is to explore the characteristics of young people who watch MTV in two (of the many) countries that received the 2002 Staying Alive campaign via MTV to assess the extent to which MTV actually reaches an appropriate audience for HIV prevention messages. Four research questions are addressed:

1. Who is in the MTV audience? What are the demographic, social, and economic characteristics of MTV viewers?

2. To what extent do MTV viewers watch television, listen to music, and use the Internet to get information related to sex?
3. In what contexts is MTV viewed, and to what extent is MTV viewing related to discussion with others?
4. What did MTV viewers know and believe about HIV and HIV prevention before the campaign?

## Methods

### *Study Design*

The study for which these data were collected was designed to evaluate an MTV-produced HIV prevention campaign aired in 2002 on all MTV channels as well as through other non-MTV channels. The evaluation was quasiexperimental in design: two to three waves of cross-sectional surveys were conducted, before and after the MTV HIV prevention campaign in urban areas in three countries. Study sites were chosen because they represented geographic and cultural diversity, had different media environments, and were exemplars of different kinds of access to MTV. These sites included Kathmandu, Nepal, São Paulo, Brazil, and Dakar, Senegal. The data used in this analysis were from the baseline surveys only because we were interested in the MTV audience prior to any potential effects of exposure to the Staying Alive campaign. Baseline data were collected in the early fall of 2002; the bulk of the campaign was aired on and around World AIDS Day (December 1, 2002). Dakar was not included in these analyses because MTV is not directly accessible in that country. It was included in the evaluation, however, because the MTV campaign was to be aired via third-party broadcasters there.

### *Study Sites*

Brazil has its own MTV channel that broadcasts out of São Paulo. It is both a terrestrial and a satellite station, meaning that it can be accessed in a number of cities (including São Paulo) as a nonsatellite channel and throughout all of Brazil as a satellite channel. This allows for greater access among the residents of São Paulo because they do not have to pay the relatively high local costs of cable or satellite television. In a previous analysis we found that while only 24% of young people in São Paulo have access to satellite television, 89% have watched MTV (Geary & Burke, 2004). Young people in São Paulo also have access to another MTV station, MTV Latin America, through satellite.

In Kathmandu, Nepal, MTV is accessible from India (in Hindi) or from Europe (in English) via local satellite carriers. Although there is a charge for access to these carriers, it is relatively inexpensive (about the equivalent of \$5 per month) and affordable for the growing Nepalese middle class. Almost half of the 16-to-25 year olds in Kathmandu have access to satellite television and 42% have ever watched MTV (Geary & Burke, 2004). Both cities also have access to other satellite and non-satellite channels that air music videos.

There are strong social, cultural, and environmental contrasts between these two sites. Of the two, São Paulo is the more affluent (World Bank, 2004). São Paulo is located in the industrialized southeast region of Brazil and has more than 10 million residents. It is the main economic center and the largest urban concentration in Brazil (World Gazetteer, 2004). Kathmandu is located in the Kathmandu Valley

near the center of Nepal, with a population of about one million (World Gazetteer, 2004). Forty-two percent of the population in Nepal live in poverty, though fewer live in poverty in the Kathmandu Valley (World Bank, 2004). Nepal is more socially conservative than Brazil. While Brazilians are known to be fairly free and easygoing with regard to sexual behavior (Parker, 1991), people in Nepal are more bound by traditional gender norms and youth are more bound by the authority of their parents (Waszak, Thapa, & Davey, 2003).

As one indicator of these differences, premarital sex is much more common among young people in Brazil than in Nepal. In Brazil, the median age at first intercourse was 16 years for males and 17 years for females in 1999, according to the UNAIDS (2002a). The median age of marriage in 1996 for Brazilian women was 21.1 (Bemfam, IBGE, Ministry of Health and Macro International, 1997). In comparison, the social norm against premarital sex in Nepal is so strong that in 2001 unmarried women were not included in the Demographic and Health Survey on reproductive health because it was not considered relevant. The reported median age at first marriage and median age at first intercourse (among currently married women) were 16.6 and 16.7, respectively. The authors concluded that premarital sex is, therefore, virtually nonexistent (Ministry of Health [Nepal], New ERA & Macro ORC, 2002). A 2000 survey focusing on youth in Nepal, the Nepal Adolescent and Young Adult (NAYA) survey, encountered so much resistance among single female respondents when questions about sexual activity were asked that their data were not considered valid (Thapa, Dhital, & Neupane, 2001). Results from qualitative data conducted prior to the NAYA survey, however, indicated that changes in social and sexual norms are beginning, especially in urban areas (Waszak et al., 2003).

Brazil and Nepal also differ with regard to the AIDS epidemic. There have been more cases of AIDS in Brazil over a longer period of time and it has been more widespread within the general population than in Nepal. The first cases in Brazil were reported in 1983 and at present the epidemic is almost equally represented by heterosexual transmission, sex between men, and injecting drug users. The 2003 estimate of deaths due to AIDS was 15,000, with an estimated 660,000 adults and children living with HIV/AIDS. The estimated adult prevalence rate was 0.7% (UNAIDS/WHO, 2004a). The first case of AIDS was reported in Nepal in 1988. Nepal is currently classified as experiencing a concentrated epidemic, with injecting drug users being the most affected group. The 2003 estimate of deaths due to AIDS was 3,100, with an estimated 61,000 adults and children living with HIV/AIDS. The adult rate of people living with HIV/AIDS was 0.5% in 2003 (UNAIDS/WHO, 2004b). The number of deaths due to AIDS is expected to double by 2005 when AIDS will be responsible for nearly one fifth of the deaths within the 15-to-49-year-old population (UNAIDS/WHO, 2002b).

### ***Study Population and Sampling Design***

In both Kathmandu and São Paulo, 1,000 females and males (16 to 25 years old) participated in the baseline survey. A multistage cluster sampling design was used in each city. In São Paulo enumeration areas were defined by geographic clusters with an average of 300 households. A sample of 50 sectors was randomly selected without replacement, with the intention of interviewing an average of 20 respondents from each sector. There were approximately 8,000 sectors within the city limits of São Paulo. Excluded from the sampling frame were areas that were predominately

military or commercial. To find 21 households with eligible respondents (assuming a 95% response rate), the sampling interval was calculated by enumerating the number of households and dividing by 42 (expecting to find 21, based on the estimate that half of all households included young people in São Paulo). Every  $N$ th house was selected in each sector, beginning with a random start.

There are five districts in the Kathmandu Valley, made up of a total of 110 wards. Forty wards were randomly selected, choosing proportionately more wards from larger districts. Each ward was divided into segments of approximately 100 households. One segment was randomly selected and a household census was conducted in this segment, listing all households and eligible respondents as the sampling frame for the survey. A random numbers table was used to identify the first household, and then every  $N$ th household was selected, with  $N$  being determined by the number needed to obtain a sample of 28 households per segment (assuming a 90% response rate).

In both sites, within each household, only one eligible respondent was chosen. When there was more than one eligible respondent in each household, the respondent with the next birthday was selected. The exception to this was that in every tenth household where there was both a boy and girl at home, the boy was chosen to correct for the tendency for more girls than boys to be at home. The response rates for the baseline survey were 97.6% in São Paulo and 99.7% in Kathmandu. Respondents were not paid for their participation in this survey.

Data from each sample were weighted to reflect the sampling design in each country and, therefore, only percentages are shown in the tables.

### ***Data Collection***

The interviewer-administered questionnaire included questions about television viewing; radio listening; music; MTV viewing; Internet use; motivations for using television, music, and the Internet; knowledge and beliefs about HIV/AIDS; risk-taking behavior; use of reproductive health services; and sociodemographic characteristics. The questionnaire was translated at each study site and then was back-translated by research staff. Discrepancies in meaning were resolved and revisions made prior to study initiation. Each site pretested the questionnaire with a minimum of 5 respondents. Interviews lasted an average of 30–40 minutes. Data were entered into computer files at each research organization. Data files were e-mailed to the United States from each site for further analysis, where additional data cleaning and standardization of data entry took place.

### ***Measures***

#### ***MTV Viewing***

Three levels of MTV viewing were measured for bivariate analyses: heavy (daily), light (less than daily), and never. In Kathmandu, 12% of respondents were heavy viewers, 30% were light viewers, and 58% never watched MTV. In São Paulo, 17% were heavy viewers, 72% were light viewers, and 11% were nonviewers.

#### ***Personal Characteristics***

MTV viewing was described by several sets of variables relevant to the research questions. Basic demographic variables included sex and age. Several questions relating to dependence on parents included marital status, residence (with parents or not),

student status, and work status (job with pay or not). A dichotomous measure of education (primary education or less vs. more than primary education) also served as a socioeconomic status (SES) indicator. Two measures of media use—access to cable/satellite television and use of the Internet—also could be considered measures of SES, although they also are indicators of comfort with or interest in technology—especially Internet use.

#### *Media Use*

We also examined several motivations for using different media. For television, music, and the Internet, we asked whether they watched to see what other people their own age were doing (i.e., social comparison). They also were asked how interested they were in watching television and listening to music because of an “interest in” sex and relationships, using a 4-point response scale, with the lower end representing less interest and the higher end representing more. Specifically for the Internet, we asked whether they used the Internet to learn more about “sensitive topics.”

Two parameters of the context of MTV viewing were measured: with whom MTV was watched and where MTV was watched. Respondents also were asked how often they talked to someone else about what they had seen on MTV, where they watched, whether they had bought a product advertised on MTV, or whether they had seen an HIV prevention message on MTV.

#### *HIV Knowledge and Prevention Attitudes and Behaviors*

HIV knowledge was assessed with a 7-item index, which included a set of general questions about protection against HIV transmission (e.g., “Can women protect themselves from HIV by using birth control pills?”) The range for this index was 0 to 7, with an overall mean of 5.7 ( $SD = 4.4$ ) in Kathmandu and 5.5 ( $SD = 0.9$ ) in São Paulo. Acceptance of people living with HIV/AIDS (PLWHAs) was measured by a 3-item index that included questions drawn from other studies on stigma about willingness to buy food from, eat with, and go to school with PLWHA. The range for this scale was 3 to 6, with a high mean of 5.9 ( $SD = 2.0$ ) in Kathmandu and 5.4 ( $SD = 0.8$ ) in São Paulo.

Prevention attitudes and beliefs were measured as single items. In one group of five questions focusing on HIV prevention behaviors (condom use, discussion of HIV with partners, getting tested for HIV, abstinence until marriage, and staying faithful) there was a 4-point response scale ranging from 1 to 4. Mean scores were calculated for these items. Another set of items focused more on sexual gender norms also related to HIV prevention. These were scored as “yes” or “no,” and results are shown in percentages of “yes” responses. Respondents were also asked if they ever had discussed HIV with anyone. Questions about being single and having ever had sex were combined to measure premarital sexual activity. Responses to these questions also were “yes” or “no,” and results are shown as percentages who engaged in these behaviors.

#### *Analysis*

Data were analyzed using SAS (SAS Institute, 1999). We crosstabulated three levels of MTV viewing by various characteristics of interest. Final weights for both sites were computed based on the actual percentages of respondents in each age/sex category compared with expected probabilities. Adjustments were made in weights due to oversampling of higher social classes, differential response by sector, sex, age, and

clustering effects. Statistical tests (chi-square and *t* tests) were performed using Sudaan software to compare results within sites as they related to MTV viewing categories (Shah, Barnwell, Hunt & LaVange, 1992). Because of the variation in the sampling designs in sites, no statistical tests were performed to compare results between sites.

## Results

### *Personal Characteristics of the MTV Audience*

The results presented in Table 1 describe MTV viewers in terms of demographic, social, and economic characteristics. Only in São Paulo do we see a gender difference in viewership; a larger proportion of never and light viewers than heavy viewers are female. A number of factors related to dependency on parents are related to MTV viewing in both cities. In both sites, heavy MTV viewers were more likely to still be in school than light or nonviewers. In São Paulo, MTV viewers were more likely to be younger than never viewers. In both cities, heavy MTV viewers were the least likely to be married. In São Paulo, MTV viewers were more likely to be living with parents compared with never viewers.

MTV viewing was positively related to all indicators of economic status (education and access to satellite television and Internet use). Greater viewing is associated with greater likelihood of having access to satellite television. Although we might expect this economic divide in Kathmandu, where MTV requires access to satellite television, it is interesting that we found these differences also in São Paulo, where satellite access is not necessary for MTV viewing. Brazilians who watch MTV may not be elites to the

**Table 1.** Demographic, social, and economic characteristics of never, light, and heavy MTV viewers by site

	MTV viewing					
	Kathmandu			São Paulo		
	Never	Light	Heavy	Never	Light	Heavy
% Female <sup>a</sup>	53.8	43.2	47.4	58.7*	52.5	38.2
% Currently studying <sup>a</sup>	45.9*	73.4	85.0	40.4*	48.1	61.3
% Work for pay <sup>a</sup>	42.0	36.4	32.8	39.4*	43.6	31.2
% Live with parents <sup>a</sup>	64.9	81.2	81.2	49.5*	69.2	83.8
% Married <sup>a</sup>	30.9*	13.7	5.8	34.9*	21.3	8.7
% Completed primary school or less <sup>a</sup>	35.7*	6.3	4.0	49.5*	24.5	16.2
Mean age in years <sup>b</sup> (SD)	20.2 (13.1)	20.3 (10.4)	19.8 (8.4)	20.8* (2.9)	20.5 (2.9)	19.3 (2.6)
% With access to satellite <sup>a</sup>	25.7*	70.6	90.9	4.6*	24.0	37.6
% Ever used Internet <sup>a</sup>	7.4*	35.8	66.1	8.3*	39.3	51.4

<sup>a</sup>Chi-square test.

<sup>b</sup>*T* test.

\**p* < .05.



same degree that viewers in Kathmandu are, but the overall level of access to resources may be higher in Brazil because of the overall higher standard of living. In both sites, MTV users were more likely to have ever used the Internet than never users.

### *Media Motivations and MTV Viewing*

In Kathmandu, heavy MTV viewers were more likely to report that they looked to television to see what others their age are doing than were light or never viewers (Table 2). MTV viewing was associated with interest in sex and romance on television and in music in São Paulo but not in Kathmandu. About one third of MTV viewers in Kathmandu use the Internet to learn about sensitive topics compared with less than 10% of “never” users. This was true for about a quarter of viewers in São Paulo, compared with almost none of the “never” viewers.

### *Viewing Context*

Table 3 summarizes results about the association between the intensity of MTV viewing and the viewing context and is thus limited to MTV viewers only. In both

**Table 2.** Motivations for media use by MTV viewing by site

	MTV viewing					
	Kathmandu			São Paulo		
	Never	Light	Heavy	Never	Light	Heavy
<b>TV</b>						
% who watch tv to see what other people my age are doing <sup>a</sup>	61.3*	76.5	81.9	56.6	49.7	52.0
Mean interest in sex and romance on TV <sup>b</sup> (SD)	2.8 (3.4)	2.9 (2.5)	3.0 (2.3)	2.3* (1.0)	2.6 (0.9)	2.7 (0.9)
<b>Music</b>						
% who listen to music to see what other people my age are doing <sup>a</sup>	46.0	50.3	49.4	25.7	27.4	33.5
Mean interest in sex and romance in music <sup>b</sup> (SD)	2.9 (3.4)	2.9 (2.5)	2.9 (2.1)	1.7* (0.8)	2.0 (0.9)	2.1 (1.0)
<b>Internet</b>						
% who use the Internet to see what other people my age are doing <sup>a</sup>	28.3	39.1	46.5	11.1	27.3	30.3
% who use the Internet to learn about sensitive topics such as sex and depression <sup>a</sup>	7.8*	30.3	34.7	0.0*	25.2	28.1

<sup>a</sup>Chi-square test.

<sup>b</sup>*T* test.

\**p* < .05.

**Table 3.** MTV viewing characteristics by level of MTV viewing and site

	MTV viewing			
	Kathmandu		São Paulo	
	Light	Heavy	Light	Heavy
% who watch most at home	63.9*	97.9	91.5*	98.3
% who watch most often by themselves	46.8	62.2	63.8*	80.9
% who watch most often with parents	4.1	2.3	2.2*	0.6
% who watch most often with brothers or sisters	19.2	30.3	14.5*	8.1
% who watch most often with friends	25.1*	3.2	5.4*	1.7
% who discuss what they see on MTV "often"	6.0 <sup>§</sup>	28.1	2.8 <sup>§</sup>	19.7
Ever purchased a product advertised on MTV?	7.2*	34.3	6.3*	16.8
Ever saw a spot on HIV on MTV?	21.0*	38.9	50.7*	75.1

\* $p < .05$  (chi square).

<sup>§</sup> $p < .05$  (chi square for trend).

sites, heavy viewers were more likely to be watching at home than light viewers. Heavy viewers were also the mostly likely to be those watching by themselves (though the percentages are small). Light viewers were more likely than heavy viewers to watch with parents in São Paulo, siblings in São Paulo, or friends in either site, though these percentages were smaller in comparison with those who watch by themselves and very small for watching with parents. Although light viewers watched more often with others than heavy viewers, heavy viewers more often discussed what they watch with friends.

In both sites, heavy viewers were more likely than light viewers to have ever bought a product advertised on MTV or have ever seen an HIV prevention spot (prior to the campaign). Three fourths of the heavy MTV viewers in São Paulo reported having seen an HIV message on MTV, and about 40% had in Kathmandu.

Heavy viewers who had ever used the Internet were more likely than light viewers ever to have visited the MTV.com website (data not shown). Not surprisingly, among those who had never watched MTV, none had visited MTV.com (data not shown).

### ***HIV-Related Knowledge, Beliefs, and Behaviors***

MTV often is blamed for its negative influence on young people's sexual attitudes and behaviors. Because of differences in sexual gender norms among females and males, HIV-related knowledge, beliefs, and behaviors were examined separately by gender as they related to MTV viewing. In Table 4, the results for females are presented. In Kathmandu, heavy viewers had the highest knowledge scores. In both sites, greater acceptance of PLWHA was found among MTV viewers compared with nonviewers.

Female viewers demonstrated stronger belief in the importance of using condoms compared with nonviewers in both sites. In São Paulo, heavy viewers were more likely than light or never viewers to believe that it is important to discuss HIV with a partner. In both sites, MTV viewing was associated with less conservative

**Table 4.** HIV-related knowledge, attitudes, and behaviors for *females* by MTV viewing and site

	MTV viewing					
	Kathmandu			São Paulo		
	Never	Light	Heavy	Never	Light	Heavy
Mean knowledge score <sup>a</sup> (SD)	5.4* (5.0)	5.6 (3.9)	5.8 (3.2)	5.5 (1.0)	5.4 (0.9)	5.5 (0.8)
Mean acceptance score <sup>a</sup> (SD)	5.8* ± (3.3)	6.0 (0.6)	5.9 (1.0)	4.9* ± (1.1)	5.5 (0.7)	5.5 (0.8)
Mean scores for:						
<i>It is important for people your age<sup>b</sup>: (SD)</i>						
● To use condoms every time they have sex	3.6* ± (2.5)	3.8 (1.7)	3.8 (1.2)	3.6* ± (0.6)	3.8 (0.4)	3.8 (0.4)
● To discuss HIV with their sexual partners	3.8 (2.0)	3.9 (1.3)	3.8 (1.3)	3.6 ± (0.5)	3.7 (0.4)	3.7 (0.4)
● To wait to have sex until they are married	3.8* (2.3)	3.7 (2.2)	3.5 (2.5)	2.5* ± (0.9)	2.1 (0.9)	2.1 (1.0)
% who think that <sup>c</sup> :						
● It is a man who should decide whether or not to use a condom during sex	16.3*	20.9	4.6	4.7	1.3	1.5
● There is something he/she can do in the fight against AIDS	81.3	88.2	87.9	6.3* ±	26.0	18.2
% who talked to about HIV in the past month <sup>c</sup> :						
Doctor	3.3	9.1	0.2	3.1* ±	9.8	9.1
Friend	52.8	53.4	54.1	15.6* ±	27.3	33.3
Anyone	69.2	67.2	63.7	26.6 ±	40.9	39.4
% single and ever had sex <sup>c</sup>	0.3	0.0	0.0	54.6	58.7	52.7

<sup>a</sup>T test.

<sup>b</sup>T test, scores based on 4-point response scale, with the highest representing the most agreement.

<sup>c</sup>Chi-square test.

\**p* < .05 never viewers vs. light viewers vs. heavy viewers.

±*p* < .05 never viewers vs. ever viewers.

beliefs about waiting until marriage to have sex. No associations were found between MTV viewership and beliefs in the importance of getting tested or staying faithful to one partner, however (data not shown).

Equally high proportions (81%–88%) of young women in Kathmandu, regardless of MTV viewing levels, thought there was something they could do to fight against AIDS. In São Paulo, viewers were more likely than never viewers to believe there was something they could do, but at much lower proportions than in Kathmandu. Respondents in São Paulo who were MTV viewers were more likely than never viewers to have talked to a doctor, a friend, or anyone about HIV/AIDS. Almost no young women in Kathmandu reported having had premarital sex, while in São Paulo, more than half had, but with no association with MTV viewing. No association was found between MTV viewing and premarital sex among females in either site, though the difference between the level of premarital sexual activity in the two sites is noteworthy.

Table 5 summarizes HIV knowledge, beliefs, and risk behavior associated with MTV viewership for the young men in the samples. No association between MTV viewership and HIV knowledge was found in either site. In São Paulo, male viewers had higher scores than never viewers on acceptance of PLWHA. In Kathmandu, viewers were more likely to believe that it is important to use condoms and to discuss HIV with sexual partners than were nonviewers. Similar to the results for female respondents, no associations were found between MTV viewership and beliefs in the importance of getting tested or staying faithful to one partner (data not shown).

In São Paulo, male viewers were more likely than nonviewers to have talked to a doctor about HIV during the previous month, while in Kathmandu, male viewers were more likely than nonviewers to have talked to a friend or someone else. Interestingly, the overall percentages of young men who reported talking to anyone about HIV were higher in Kathmandu than in São Paulo, where the HIV rates are lower. This pattern was true for females as well.

More than three fourths of the young men in the São Paulo sample reported having had premarital sex, while only 10% to 13% of their counterparts in Kathmandu had. MTV viewing was not related to premarital sex among males in either site.

### **The MTV Audience and HIV Prevention Message**

This pattern of results suggests that MTV's audiences in these two cities are indeed appropriate target audiences for HIV-prevention messages. A large proportion of the MTV viewing audience is watching for social norms—to find out what other young people are doing and to learn about sex and romance through television and music. Consumption is related to MTV viewership so that those who buy products advertised on MTV are more likely to be heavy viewers and those who have seen any HIV prevention message on television are more likely to be heavy MTV viewers. MTV is reaching an audience that is looking for guidance, and they are responsive to what they see and hear.

MTV also is reaching an audience who talk to other people about what they see and hear about HIV prevention. More discussion of MTV content is associated with heavy viewing as is having discussed HIV with at least one person in the month prior to the survey. According to a number of communication theories, interpersonal communication is an important step in social norm change that media campaigns should facilitate (Hornik, 2002).

**Table 5.** HIV-related knowledge, attitudes, and behaviors for *males* by MTV viewing and site

	MTV viewing					
	Kathmandu			São Paulo		
	Never	Light	Heavy	Never	Light	Heavy
Mean knowledge score <sup>a</sup> (SD)	5.8 (5.2)	6.1 (3.6)	5.8 (3.7)	5.5 (1.3)	5.7 (0.9)	5.4 (0.9)
Mean acceptance score <sup>a</sup> range 3–6 (SD)	5.8 (2.2)	6.0 (0.7)	5.9 (1.3)	4.9* ± (1.0)	5.4 (0.8)	5.5 (0.7)
Mean scores for: <i>It is important for people your age<sup>b</sup>: (SD)</i>						
● To use condoms every time they have sex	3.6* ± (3.6)	3.8 (1.5)	3.9 (1.1)	3.6 (0.5)	3.7 (0.5)	3.8 (0.5)
● To discuss HIV with their sexual partners	3.8* (2.0)	3.9 (1.3)	3.9 (1.1)	3.5 (0.6)	3.6 (0.5)	3.6 (0.5)
● To wait to have sex until they are married	3.0 (5.6)	3.2 (3.6)	3.0 (3.2)	1.9 (0.8)	1.8 (0.9)	1.7 (0.8)
% <i>who think that</i> : ● It is a man who should decide whether or not to use a condom during sex	25.8	34.5	23.5	22.2	10.3	9.4
● There is something he/she can do in the fight against AIDS	60.7	85.0	80.4	28.9	29.3	33.6
% <i>who talked to the following about HIV in the past month</i> <sup>c</sup> :						
Doctor	2.1	11.3	3.2	0.0* ±	2.6	6.5
Friends	53.5* ±	85.0	81.5	17.8	20.5	31.8
Anyone	54.9* ±	86.7	81.9	26.7	31.1	43.0
% <i>single and ever had sex</i> <sup>c</sup>	12.6	9.3	10.3	76.3	86.0	82.5

<sup>a</sup>T test.

<sup>b</sup>T test, scores based on 4-point response scale, with the highest representing the most agreement.

<sup>c</sup>Chi-square test.

\**p* < .05 never viewers vs. light viewers vs. heavy viewers.

±*p* < .05 never viewers vs. ever viewers.

MTV does not seem to be reaching girls in either site with messages about the need for abstinence until marriage—not surprising given MTV’s expectation of a sexually active audience and acknowledged sexier content. Consistent with the media practice model, girls with traditional beliefs are not choosing media in opposition to their values. On the other hand, we found that a belief in the importance of condom use among females in both sites and males in Kathmandu was associated with heavier viewing, perhaps an indication that protective beliefs are compatible with viewing sexy content.

Although it is tempting to conclude that MTV “causes” associated beliefs, we cannot do this. These data are cross-sectional only, and no inferences about causality can be made. The association might be spurious without some adjustment for other factors that also are critical to beliefs about HIV prevention behaviors like age, education, and socioeconomic status. The purpose of this analysis was not to pinpoint the most relevant factors related to MTV viewing but rather to examine actual characteristics of the MTV audience.

Two general characteristics of MTV viewers identified through these analyses may be helpful in creating, targeting, and placing messages. First, a large proportion of MTV viewers are younger and more dependent on their parents than nonviewers. Parents still may have a strong influence on both media use and romantic/sexual relationships and might be addressed by subsequent campaigns.

Second, MTV viewers are more likely to have access to other “new” media and global media. MTV, as part of the larger Viacom network, may be one of several channels through which messages could and should be sent to this audience. In fact, Viacom, MTV’s parent company, has a corporate commitment to extend the reach of its various media outlets by putting the same message in partner channels (Viacom, 2002). Cross-platform messaging (using more than one medium at a time—television and the website MTV.com simultaneously, for example) not only makes sense, but as our data show, can be used to reinforce the primary messages because heavier viewers of MTV are more likely to use MTV.com. Different media can provide different kinds of information. The Internet allows for more control over how one views content and allows for more detailed information, such as linkages with local resources, for those whose interest was piqued from the television content.

The association between greater economic resources and MTV viewing in São Paulo where greater resources are not needed for MTV viewing was an unexpected finding. MTV viewing therefore does not seem to be only a function of access but also of attraction to a particular kind of youth culture. Even though greater resources are not needed, those with greater resources are watching most, perhaps because they consider themselves as the trendsetters in the culture.

Our data are from two very different social, cultural, and media environments. To what degree are these differences evident in our results? In many ways the trends are the same, though the levels are not. The site difference that has the most important implications for HIV prevention media campaigns is the level of sexual activity. The estimates of premarital sexual activity in these samples were consistent with the country level data available prior to the survey. Although, as expected, the rate of premarital sex was much higher in São Paulo than in Kathmandu, it is not clear what this means in terms of “need” for HIV prevention messages.

It is common for people to believe that greater levels of premarital sex constitute the highest need. Do we believe however, that current sexual risk is the only rationale for providing HIV prevention messages? Perhaps it would be important to think

about the young women in Kathmandu who are living in a changing culture, where strict norms against premarital sex may be eroding. Perhaps it would be important to address young men and women with messages that reinforce abstinence, or messages that encourage women to have more power in sexual relationships.

The diversity of sexual norms, behavior, and risk found in our data suggests that MTV audiences would benefit from more than one approach to providing sexual health messages. Given the different levels of risk and vulnerability among audiences in different parts of the world, MTV's campaigns could provide an array of messages that meet the needs of different audiences. Each local station should have the option to pick and choose from among diverse campaign components most appropriate for their audiences. Some audiences may be ready for a full-blown "here's how to use a condom" campaign, while others may need help in staying abstinent or clear messages about the risks involved in beginning sexual relationships. To date abstinence has not been part of MTV's HIV prevention messages, although consideration is being given to this for future campaigns (Shears, 2003).

### **Final Thoughts**

A common criticism of MTV's attempt to address HIV prevention is that the typical MTV fare is full of unsafe sexual portrayals and messages that may promote unsafe sexual behavior among young, impressionable viewers (Baxter et al., 1985; Sherman & Dominick, 1986). Viewing music videos has been linked with more permissive sexual attitudes among young people (Calvin, Carroll, & Schmidt, 1993; Greeson & Williams, 1986). A more recent study in the United States has provided strong evidence that sexual content on television in general encourages adolescents to initiate all types of sexual activity, including intercourse (Collins et al., 2004).

MTV producers note, however, that standards vary considerably among their 42 channels around the world, and the content aired by most channels outside the United States and Europe is much less explicit than Westerners might expect. Furthermore, MTV producers believe that the strength of MTV is its honesty with the young audience. MTV believes it communicates reality as it is for their viewers, and they do not preach to them or judge them. In return, they have their audience's trust, which means they are more likely to pay attention to the HIV prevention messages MTV airs because the messages will be believed as coming from a trusted source. MTV producers do not believe HIV prevention messages are contradictory with other sexy content (although this is still an empirical question). MTV assumes their audience is realistically interested and involved in sex and will be willing to listen to realistic messages about the HIV epidemic (Roedy, 2004).

Reducing stigma toward those living with HIV/AIDS, reducing the stigma related to condom use, and increasing personal responsibility in the fight against AIDS were the primary themes of the 2002 *Staying Alive* campaign. From the informal feedback they received from their audience through call-in shows and e-mail to their website, MTV producers believe that many young people reached by MTV are still in need of a credible source of information about HIV prevention (Franklin, 2004; Roedy, 2004), and that MTV can serve that role.

It is unlikely that everyone who watches around the world—even those with more access to resources—has adequate access to high-quality AIDS education or that there is no need for ongoing promotion of HIV prevention messages among MTV viewers. Urban areas, where MTV audiences are concentrated, often are areas

of social transition in which traditional norms that once protected young people from premarital sex have not been replaced by effective education and prevention services (Barker & Rich, 1992), and urban areas are usually where the epidemic is most concentrated (UNHABITAT, 2002). Once the content has been produced, MTV can reach mass audiences in these urban areas at relatively low marginal cost.

Finally, an important reason for addressing an MTV audience is that these are young people who are on the cutting edge of social diffusion, who are perceived as being cooler or hipper and serve as opinion leaders for their generation. Influencing these young people could have a beneficial ripple effect throughout their age cohort.

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