

Mass Media Exposure among Urban Youth in Nepal

*Mass media interventions need to reduce
the wide gaps in reproductive health knowledge that
exist between single and married and between
male and female Nepalese urban youth*

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The mass media can serve to disseminate information about sexuality, health and other aspects of well-being to a variety of audiences, including adolescents and young adults. They can improve knowledge and shape perceptions and attitudes about various subjects, and influence sexual and reproductive behaviour (Alan Guttmacher Institute, Henry J. Kaiser Family

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Foundation, and National Press Foundation, 1996; McCauley and Salter, 1995; Strasburger, 1989). The effectiveness of media campaigns as preventive strategies for major social and health problems among youth is also well documented (Hall, 1995; Sultz and others, 1989). The mass media, however, can also be a source of misinformation, misperception, and negative ideas and attitudes about reproductive health issues. They may even encourage risky behaviour, for example by promoting ineffective means of contraception. Ideally, the media should provide accurate guidance about sexuality, reproductive health and responsible sexual behaviour, especially to young people, who are generally thought to be more susceptible than older adults to their influence. For these reasons, it is important to examine adolescents' and young adults' exposure to the mass media and the factors associated with that exposure.

This article presents data on both lifetime and daily exposure to specific mass media sources among Nepal's urban youth. It also presents information on preferred radio stations and television channels; the role of the mass media in disseminating messages about social and health issues; the mass media as a source of information on contraceptive methods, HIV/AIDS and puberty; and their role as a source of sex education for boys and girls. Finally, it examines the factors that influence urban youths' exposure to the mass media in Nepal.

The analysis focuses on two characteristics of the young population of mass media users — their gender and marital status. Because of women's generally low status and lack of autonomy in Nepal (see, for example, Niraula and Lawoti, 1998), the paper examines whether gender influences young people's exposure to the mass media. A qualitative study of adolescents and young adults found gender to be a powerful and recurrent theme in reproductive health issues among Nepalese youth (Waszak and others, 2000). Early marriage is another social characteristic of the population of Nepal. As of 1996, about one half of females and just over one fifth of males were married by age 17 (Thapa and others, 1997), although these percentages can be expected to be somewhat lower for the urban population. Early marriage has been found to be strongly associated with a low level of schooling, early entry into the labour force and early motherhood (ibid.). The data from the new survey make it possible to examine the extent to which gender and marital status are associated with awareness and use of the mass media among adolescents and young adults.

Evolution of the mass media in Nepal

The history of the modern mass media in Nepal goes back about one century.¹ It began with the newspaper *Gorkha Patra* at the beginning of the twentieth century. Over the following 50 years, the State strictly controlled the

mass media, allowing only the rulers to have access to them. Other citizens were not permitted to own radios until 1945. Radio broadcasting and public screening of films began in the second half of the 1950s. Ten years later, the Government established the first English-language newspaper, *Rising Nepal*, and a State-owned radio station, *Radio Nepal*. Television was introduced in the mid-1980s with the establishment of State-owned *Nepal Television* in the capital.

The 1990s saw rapid developments in Nepal's mass media. The developments were associated with changes in the Nepalese Constitution and a shift towards political liberalization. The decade witnessed an increasing role for the private and commercial sectors in providing broad access to the mass media, including the Internet. Commercial FM radio stations were established, something that was unthinkable just a few years earlier. The private sector began to telecast several dozen (mostly foreign) television channels. Movie halls, which until 1990 were under strict State control, were deregulated as well. Before 1990, Nepal had just a handful of movie halls, confined mostly to the capital and a few large towns. During the 1990s, their number grew rapidly throughout the country and today even many small towns in Nepal's interior have them. Furthermore, households are now free to set up their own dish antennas to receive any domestic or foreign satellite channels on television.

Although the mass media in Nepal have been deregulated and privatized, especially since 1990, access remains highly concentrated in cities and large towns. In the early 1990s, *Radio Nepal* was estimated to cover about 70 per cent of the country's land area through its regional stations, and *Nepal Television* was estimated to reach 35 of Nepal's 75 districts. The number of newspapers published in Nepal almost doubled during the first half of the 1990s, from 528 in 1990-1991 to 1,006 in 1995-1996. But the availability of newspapers still varies greatly by region, the Central region accounting for the majority of all newspapers published. Internet access is a recent phenomenon in Nepal; and although Internet servers and shops are popping up in large numbers in many parts of the country, access to the Internet remains confined largely to the upper middle class in large urban centres. There are no regulations restricting access to web sites.

Data and methods

The data analysed here come from the Nepal Adolescents and Young Adults (NAYA) Survey. The survey was conducted in July and August 2000 in urban and rural areas. The urban population was oversampled to allow reliable estimates based on the urban adolescent and young adult population. The

analysis presented focuses on the urban sample. Approximately 15 per cent of Nepal's population lives in urban areas.

The survey's sampling universe included the five largest urban areas, Kathmandu, Lalitpur, Pokhara, Biratnagar, and Birgunj, which together account for approximately 50 per cent of the country's urban population. Prospective respondents aged 14 to 22 years were selected by means of a stratified, two-stage sampling design with probability proportional to the estimated number of dwellings in the enumeration area (Bastola, 2000).

Fifty nine persons (11 supervisors and 48 interviewers) were assigned to work in the field for the urban component of the survey. Of those, 31 were men and 28 were women. On average, each supervisor oversaw 4.4 interviewers. The supervisors were slightly older than the interviewers (31 years on average, compared with 25 years). The majority of the survey staff were students with an average of 14 years of schooling. More than two thirds had spent their childhood in rural areas. Forty-four per cent of the field staff were married.

To make the interviews gender-friendly, women interviewed female respondents and men interviewed male respondents. Household heads, however, were interviewed by interviewers of either gender, depending on convenience and the workload of the interviewers and supervisors. Upon completing the fieldwork, the survey research staff met with the interviewers and supervisors to obtain their comments on responses to particularly sensitive and personal survey questions. The findings from these feedback meetings are reported by Thapa and others (2000, 2002).

A total of 18,311 houses were visited in all the urban sample blocks (Thapa and others, 2000). Ninety-six per cent of the selected households were successfully interviewed. This percentage was somewhat lower for individual respondents (92.5 per cent), ranging from 90.9 per cent for married males to 94.7 per cent for married females. A total of 2,824 respondents (51 per cent females and 49 per cent males), were successfully interviewed in the five urban areas: 1,054 single females, 391 married females, 1,278 single males and 101 married males. Given the small sample size for married males the results for that subgroup should be interpreted with caution.

The non-response rate (including incomplete interviews) was 7.5 per cent. Of the 228 non-response cases, 42 per cent were not interviewed because they were not at home (despite up to three attempts by interviewers to contact them), 29 per cent refused to participate in the interview, 13 per cent had their interviews terminated primarily because of interference by family members, and 17 per cent could not be interviewed for other reasons (Thapa and others, 2002:8).

The survey questionnaire included several questions about respondents' exposure to the mass media, including television, radio, the Internet, newspapers and magazines. The responses to those questions form the basis for the present analysis. Separate questionnaires were designed for single females, married females, single males, and married males (Family Health International and Valley Research Group, 2000).

Results

Lifetime exposure to the mass media

The respondents were asked if they had ever listened to a radio, watched television, read a newspaper or magazine, or used the Internet. Table 1 presents the percentages reporting lifetime exposure to these media sources, by respondents' sex and marital status. Most had been exposed to television (98 per cent) and radio (93 per cent) at least once in their lifetime. Three out of four had ever read a newspaper or magazine, but only one out of five had ever used the Internet. Relatively low lifetime exposure to the Internet was expected, given its recent introduction in the country and the higher cost and skill level required to access it. Considerably higher exposure to television and radio than to the print media was also expected because watching television or listening to radio does not require reading skills. Almost all respondents had been exposed to at least one of the four types of mass media in their lifetime. In contrast, the proportion reporting lifetime exposure to all four media sources was only 12 per cent. Three quarters of respondents had been exposed to the three most common media (television, radio and print media) at least once in their lifetime.

Lifetime exposure to each of the four media sources was higher among single than among married respondents. Whereas ever use of television and radio was only slightly lower among married respondents than among their single counterparts, married respondents were much less likely than single respondents to have ever read a newspaper or magazine (65 per cent compared with 88 per cent for males and 37 per cent compared with 84 per cent for females, respectively). About two thirds of single males and females (66 per cent of males and 63 per cent of females) had heard of the Internet, compared with only 29 per cent of married males and only 18 per cent of married females (data not shown). Use of the Internet also varied substantially by sex and marital status. One in four single males (26 per cent) and one in five single females (19 per cent) had used the Internet at least once in their lifetime, compared with only 6 per cent of married males and females.

As shown in table 1, almost everyone in all four subgroups had experienced exposure to at least one of the four media sources during their lifetime, the percentages ranging narrowly from 97 per cent among married

females to 100 per cent among single males. However, lifetime exposure to all four sources not only was much lower among all four subgroups but also varied considerably by sex and marital status, from only 1 or 2 per cent among married males and females to 11 per cent among single females and 17 per cent among single males. These very low levels and sharp differentials by sex and marital status in lifetime exposure to all four media sources were due mainly to low levels and sharp differentials in the use of the Internet. Differentials in lifetime exposure to the three media sources other than the Internet closely resembled the differentials for the print media discussed above.

Table 1. Lifetime exposure to television, radio, newspapers, and the Internet among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage)

Media type	Male		Female		Total
	Single	Married	Single	Married	
Television	98.8	94.7	99.3	92.4	97.8
Radio	95.7	90.3	94.0	84.9	93.2
Newspaper	87.6	64.6	83.9	37.3	77.4
Internet	25.7	6.1	19.4	6.0	21.8
Any one	99.9	98.2	99.4	96.5	99.1
All except the Internet	86.1	63.7	81.5	35.3	75.5
All four	16.7	1.8	11.4	0.9	11.7

Overall, males had higher lifetime exposure to the mass media than females, and single males and females had higher exposure than married males and females. A great majority of married males and females had not heard of the Internet, and most of them had never used it. Exposure to the print media was especially low among married females. Relatively low lifetime exposure to the mass media among females, particularly to the print media and the Internet, reflected their lower levels of education and lack of the special skills required to access the Internet. Lower exposure among married respondents may have been due to the fact that married youth in the 14-22 age range are more likely than their single counterparts to come from lower socio-economic strata. Young people from the lower socio-economic strata are less likely to have access to the mass media. Moreover, married youth, particularly females, may have less time than single youth to enjoy the mass media because of their household chores and childcare responsibilities.

Daily exposure to the mass media

Respondents were asked whether they watched television, listened to the radio, or read a newspaper or magazine at least once a day. Table 2 presents the percentage of urban youth reporting daily exposure to these media, by sex and

marital status. Given the recent introduction of the Internet into the country, the survey did not collect information on daily exposure to that medium. Daily exposure to each of the other three media was much lower than lifetime exposure. Seventy-two per cent of respondents watched television daily, 35 per cent listened to a radio daily, and 25 per cent read a newspaper or magazine daily. Four out of five youths were exposed daily to at least one of the three media sources, but only one out of nine was exposed daily to all three.

Table 2. Daily exposure to television, radio and newspapers among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage)

Media type	Male		Female		Total
	Single	Married	Single	Married	
Television	72.0	36.3	79.8	61.6	71.6
Radio	43.9	29.2	33.1	17.3	35.3
Newspaper	33.4	16.8	23.2	4.4	24.5
Any one	83.7	57.5	86.8	67.8	81.2
All three	17.6	2.7	8.9	1.8	11.4

Note: The NAYA Survey did not collect data on daily use of the Internet.

Differentials in daily exposure to television, radio and the print media, by respondents' sex and marital status, were more pronounced than were differentials in lifetime exposure. Eighty per cent of single females and 62 per cent of married females watched television daily, compared with 72 per cent of single males and only 36 per cent of married males. Males' lower exposure to television probably reflects their tendency to spend more time outdoors than female youth. In contrast, daily exposure to radio and the print media was much higher among males than among females and much higher among single than among married respondents. Daily exposure to radio ranged from only 17 per cent among married females to 44 per cent among single males; and daily exposure to newspapers and magazines ranged from just 4 per cent among married females to 33 per cent among single males.

Daily exposure to at least one of the three major media sources was greater among females than among males, even though females, especially married females, were much less likely than males to listen to a radio or read a newspaper or magazine each day. This was because males, especially married males, were much less likely than their female counterparts to watch television each day. Differentials by sex and marital status in daily exposure to all three media sources resembled the differentials in daily exposure to radio and the print media, although at a much lower level.

Preferred radio stations and television programmes

Respondents who had ever listened to a radio were asked which radio stations they usually listened to, those who had ever watched television were asked what kind of television programmes they usually watched, and those who had ever read a newspaper were asked what type of newspaper (daily, weekly or monthly) they usually read. Table 3 presents the preferences of urban youth for specific radio stations, television programmes, and newspaper types, by sex and marital status of respondents. The percentages are based on multiple responses for each one of the three media types, and therefore their sum is more than 100 per cent.

Table 3. Exposure to specific radio stations, television programmes and newspapers among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage)

Media type	Males		Females		Total
	Single	Married	Single	Married	
Radio stations					
Radio Nepal	88.2	89.2	77.1	83.5	83.6
FM stations	42.9	24.5	46.7	22.8	40.6
All India Radio	24.5	46.1	15.0	32.2	23.1
BBC International	14.1	11.8	6.2	7.6	10.3
Television programmes					
Serials	78.7	77.6	92.6	81.0	83.9
Movies	77.3	76.6	74.6	81.7	77.0
Music	66.0	59.8	82.4	66.8	71.7
News	68.9	59.8	59.0	38.0	60.4
Sports	64.4	38.3	27.5	5.8	41.5
Cartoons	13.1	4.7	17.5	2.4	12.7
Newspaper types					
Daily	83.2	83.6	70.0	66.9	76.9
Weekly	70.9	76.4	75.3	66.1	72.4
Monthly	30.4	21.9	33.2	27.4	30.9

Note: Data in this table refer to only those respondents who had ever used each type of mass media. Media types mentioned by fewer than 10 per cent of respondents in all four subgroups are not shown.

Overall, *Radio Nepal*, the oldest public-sector form of electronic mass media in the country, was the most popular radio station among respondents, 84 per cent of whom listened to it. Next in popularity were FM stations (41 per cent), *All India Radio* (23 per cent), and the BBC (10 per cent). Less than 1 per cent listened to other radio stations. Sex and marital-status differentials in the percentages who usually listened to *Radio Nepal* were small, though slightly

more married females than single females listened to this station. FM stations were much more popular among single than among married youth. Forty-seven per cent of single females and 43 per cent of single males usually listened to FM stations, compared with only 23 per cent of married females and 25 per cent of married males. *All India Radio* was much more popular among males than among females, and much more popular among married than among single youth. Forty-six per cent of married males and 32 per cent of married females usually listened to *All India Radio*, compared with only 25 per cent of single males and 15 per cent of single females. Males were more likely than females to tune to the BBC station, but the differences by marital status were small.

With regard to specific types of television programmes, respondents most commonly watched serials or soap operas (84 per cent) and movies (77 per cent). Other commonly watched programmes included music (72 per cent), news (60 per cent) and sports (42 per cent). Serials and music programmes were more popular among females than among males, but news and sports were more popular among males. The percentage usually watching movies on television did not vary much by respondents' sex or marital status. Single youth were generally more likely than married youth to watch any of the types of television programme listed in table 3, the exception being that married females were somewhat more likely than other youth to watch movies. On the other hand, married females were much less likely to watch news and sports on television than were single females or males (married or single). The popularity of cartoons also varied greatly by marital status; 13 per cent of single males and 18 per cent of single females usually watched them, compared with only 5 per cent of married males and 2 per cent of married females.

Among respondents who had ever read a newspaper, 77 per cent reported usually reading a daily newspaper and 72 per cent reported usually reading a weekly newspaper. Only 31 per cent reported usually reading a monthly newspaper. There was little variation by respondents' sex and marital status in the percentages usually reading daily or weekly newspapers, but females were somewhat more likely than males to read monthly newspapers, as were single youth.

Media exposure to specific social and health topics

Respondents who had ever watched television, listened to radio, or read newspapers were asked if at any time during the six months preceding the survey they had seen, heard or read about specific topics from each of the three media sources. The six topics were condoms, drug addiction, sexually transmitted infections such as HIV/AIDS, family planning, girl-trafficking, and domestic violence. In the case of radio, respondents were also asked whether they had listened to *Ram Bilas & Dhaniya* (a radio serial drama named after

two fictional male and female characters), or *Ghanti heri haad nilaun* (Cut Your Coat According to Your Cloth), another serial drama. Large majorities of respondents reported watching or listening to programmes about the six topics, or reading about them, during the six months preceding the survey (table 4). Two thirds or more of all respondents had seen a programme on each of the topics on television, had heard about them on radio, and had read about them in newspapers. Fewer had heard the programmes *Ram Bilas & Dhaniya* (58 per cent) and *Ghanti heri haad nilaun* (46 per cent).

Table 4. Specific topics learned about on television, on radio or in newspapers at any time during the six months preceding the survey among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage reporting)

Media type and topic	Male		Female		Total
	Single	Married	Single	Married	
Television					
Condoms	86.2	87.7	86.5	74.0	84.5
Drug addiction	87.4	71.0	88.8	64.4	83.8
HIV/AIDS/STIs	87.1	75.7	88.7	62.5	83.5
Family planning	72.4	65.4	87.7	80.3	78.7
Girl-trafficking	74.6	45.8	84.8	63.9	75.5
Domestic violence	67.7	43.9	76.6	53.8	67.8
Radio					
Condoms	92.9	88.1	90.7	89.0	91.4
Drug addiction	89.2	75.0	88.5	73.3	86.5
HIV/AIDS/STIs	93.1	83.5	93.4	79.0	91.2
Family planning	82.9	72.6	90.2	90.0	86.1
Girl-trafficking	82.8	66.7	89.2	73.0	83.4
Domestic violence	70.7	50.6	76.5	60.1	70.8
<i>Ram Bilas & Dhaniya</i>	55.8	61.2	61.2	55.3	57.9
<i>Ghanti heri haad nilaun</i>	40.5	40.0	52.1	46.8	45.5
Newspaper					
Condoms	76.2	69.9	60.1	64.9	69.0
Drug addiction	82.0	67.1	77.2	73.2	79.0
HIV/AIDS/STIs	82.7	79.2	78.6	73.2	80.3
Family planning	64.4	53.4	61.6	67.3	63.2
Girl-trafficking	75.7	59.7	81.4	78.0	77.5
Domestic violence	64.8	52.1	71.3	65.5	66.9

Note: The data in this table refer to only those respondents who had ever used each type of mass media.

Males were slightly more likely than females to have seen, heard or read about condoms, drug addiction and HIV/AIDS or other sexually transmitted infections; but females were more likely to have seen, heard or read about family planning, girl-trafficking and domestic violence. This is not surprising, given

that in Nepal, condom use, drug addiction and HIV/AIDS are usually associated with men, whereas family planning, girl-trafficking and domestic violence are of greater concern to women. Married respondents were generally less likely to have seen, heard or read about each of the topics than their single counterparts, with the notable exceptions that married females were more likely than single females to have read about family planning in newspapers, and married males were more likely than single males to have heard the programme *Ram Bilas & Dhaniya*.

The mass media as a source of information about contraception

The respondents who had heard of at least one method of family planning (modern or traditional) were asked about their sources of information on contraceptive methods. All sources reported by each respondent were recorded. Table 5 presents the proportions reporting specific sources of information about contraceptive methods. Overall, television was by far the most commonly reported source of information about contraceptive methods. Nine out of ten respondents who knew of at least one contraceptive method reported learning about contraception from this source. Radio and newspapers or magazines were the second and third most commonly reported sources of information on contraceptive methods, respectively. These findings indicate that the mass media play an important role in providing information about family planning to urban youth in Nepal. Other frequently reported sources of information on contraceptive methods were friends (33 per cent), schools (25 per cent) and posters or pamphlets (20 per cent).

Table 5 also shows the sources of information about contraceptive methods by respondents' sex and marital status. Television and radio were the two most frequently mentioned sources of family planning information in all four groups of respondents, but single respondents were more likely than their married counterparts to have obtained such information from television or radio. Newspapers or magazines were also mentioned far more frequently by single than by married respondents. In contrast, married respondents were much more likely than single ones to report friends as their source of information about contraceptive methods. Sixty-two per cent of married males and 32 per cent of married females mentioned friends, compared with 46 per cent of single males and only 14 per cent of single females. Overall, males were much more likely than females to report friends as a source of information about contraceptive methods.

As expected, schools were mentioned more frequently by single youth, who were more likely to be still at school, than by married youth. Posters or pamphlets as a source of family planning information were mentioned much more frequently by males than by females; 30 per cent of single males and 27

Table 5. Sources of information about contraceptive methods among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage reporting)

Source	Male		Female		Total
	Single	Married	Single	Married	
Television	91.1	75.5	93.0	70.8	87.9
Radio	76.4	63.3	69.2	51.5	69.4
Newspaper/magazine	54.5	32.1	43.0	18.5	43.9
Friend	46.1	61.5	13.8	31.9	33.1
School	33.4	13.6	26.2	3.2	25.3
Poster/pamphlet	29.8	26.6	13.3	5.9	20.1
Hospital/PHC/health post/SHP	9.9	9.2	8.0	14.6	9.9
Cinema	12.1	10.9	7.4	5.7	9.4
Neighbour	3.2	7.3	5.8	27.6	8.1
Family member	1.6	1.8	10.0	7.3	5.4
Relative	1.0	2.7	5.0	12.5	4.3
Spouse	n.a.	3.6	n.a.	25.7	4.2

Notes: Percentages in this table are based on multiple responses. Sources mentioned by fewer than 10 per cent of respondents in all four subgroups are not shown.

n.a. = not applicable; PHC = primary health centre; SHP = sub-health post.

per cent of married males mentioned them, compared with only 13 per cent of single females and 6 per cent of married females. Married females were much more likely to mention neighbours (28 per cent) and relatives (13 per cent) as a source of family planning information than were other respondents (only 3 to 7 per cent of whom mentioned neighbours and 1 to 5 per cent of whom mentioned relatives). Married females (26 per cent) were also much more likely than married males (4 per cent) to report their spouse as a source of family planning information. Overall, it appears that in addition to heavy reliance by both sexes on the mass media for such information, married females are much more likely than other youth to rely on their social networks, including husbands, neighbours and relatives, for information on contraceptive methods.

The mass media as a source of information about HIV/AIDS

The respondents who had heard of the human immunodeficiency virus (HIV) or acquired immunodeficiency syndrome (AIDS) were asked about their sources of information on this particular sexually transmitted infection. As in the case of information about contraceptive methods, television and radio were the two most commonly mentioned sources of information about HIV/AIDS, mentioned respectively by 91 per cent and 75 per cent of respondents (table 6). Newspapers and magazines were the third most frequently mentioned source of HIV/AIDS information, mentioned by 48 per cent. These results indicate that, as in the case of family planning, the mass media play a major role in

disseminating information about HIV/AIDS among urban youth in Nepal. Other frequently mentioned sources of information about HIV/AIDS were friends (39 per cent), schools or teachers (38 per cent) and brochures or posters (20 per cent).

Table 6. Sources of information about HIV/AIDS among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage reporting)

Source	Male		Female		Total
	Single	Married	Single	Married	
Television	92.5	78.0	94.1	78.9	90.9
Radio	79.5	67.9	71.2	69.9	74.8
Newspaper/magazine	56.2	38.5	45.8	24.3	47.9
Friend	51.7	54.1	23.6	28.5	38.9
School/teacher	45.0	11.0	42.6	8.8	38.4
Brochure/poster/leaflet	27.9	34.5	11.3	5.2	19.5
Neighbour	3.7	0.9	4.9	17.2	5.6
Spouse	n.a.	3.7	n.a.	30.7	3.8

Notes: Percentages in this table are based on multiple responses. Sources mentioned by fewer than 10 percent of respondents in all four subgroups are not shown.

n.a. = not applicable.

Differentials in the sources of information about HIV/AIDS by respondents' sex and marital status were quite similar to those for sources of information about contraceptive methods (table 6). Married respondents were less likely than their single counterparts to report receiving information about HIV/AIDS from television, radio and newspapers or magazines, particularly less so in the case of newspapers or magazines. For them, friends were a more important source of information about HIV/AIDS. Overall, males were much more likely than females to mention friends as informants and to report receiving HIV/AIDS information from brochures or posters. Single respondents mentioned schools or teachers much more frequently than did married respondents. Married females were much more likely than other youth to report neighbours as a source of HIV/AIDS information (17 per cent compared with 1 to 5 per cent), and they were also much more likely to mention their spouse (31 per cent) than were married males (4 per cent).

All respondents were asked if, in their opinion, it was acceptable or unacceptable to discuss sexually transmitted infections or HIV/AIDS on the radio, on television, in newspapers and in magazines. An overwhelming majority of respondents (95 to 96 per cent) found it acceptable to discuss those topics on each one of the four media sources. Differentials by sex and marital status in the proportion who thought it was acceptable to discuss them in the mass media were generally small. Overall, married females were somewhat less likely than

other youth to find such discussions acceptable in the mass media. Even among this subgroup, however, more than four fifths found it acceptable for each of the four media sources to discuss sexually transmitted infections or HIV/AIDS.

The mass media as a source of information about puberty and related physical changes

Physical and psychological changes related to puberty are often difficult for young people as they make the transition to adulthood. The survey asked all respondents about their initial source of information about puberty and related physical changes. Overall, 46 per cent of urban respondents learned about puberty and related changes on their own (table 7). Among those who received some information about puberty and related physical changes from other sources, friends and schools were the most frequently mentioned sources, 19 and 14 per cent of respondents mentioning each respectively. For only 8 per cent of urban youth, parents were the source of initial information. Only 2 per cent of respondents mentioned the mass media as their initial source of information on this topic. Clearly, the mass media have the potential to play a much greater role in educating adolescents about puberty and related physical changes. Parents and schools can also play a more important role.

Table 7. Initial source of information about puberty and related physical changes among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage distribution)

Source	Male		Female		Total
	Single	Married	Single	Married	
None (own experience)	37.5	40.2	51.0	57.4	45.5
Friends	25.2	26.8	9.9	16.4	18.5
School	17.8	10.7	15.1	4.0	14.4
Parents	4.0	11.6	12.0	12.0	8.4
Books other than schoolbooks	3.8	4.5	3.3	0.2	3.1
Neighbours/relatives	2.1	0.9	1.4	5.1	2.3
Magazines/newspapers	1.8	0.9	0.7	0.7	1.2
Radio	1.1	0	0.5	0.2	0.7
Television	0.7	0	0.4	0.2	0.5
Other	1.9	2.7	4.9	2.7	3.1
No response/missing	4.1	1.8	0.8	1.1	2.4
Total	100	100	100	100	100

Table 7 shows that more than half of females and about two fifths of males received no information about puberty and related physical changes from any source other than their own experience. Married respondents were slightly more likely than single ones to have learned about puberty and related changes on their own. Friends were the initial source of information for about one

fourth of married and single males, compared with 10 per cent and 16 per cent of single females and married females, respectively. Schools were a more common source for single youth than for married youth. Single females were more likely than single males to have learned about puberty from their parents, but married males and females were about equally likely to have learned from their parents. Very few youth in all four subgroups reported learning about puberty from the mass media.

The mass media as a source of sex education

Respondents were asked what they thought were appropriate sources of sex education for girls and boys. The most frequently mentioned source considered to be appropriate for both boys and girls was television, mentioned by about three fifths of all respondents (tables 8 and 9). Next in frequency of mention were formal education and radio call-in programmes, mentioned by more than two fifths of respondents in each case. Peer education and group meetings also received frequent mention, more than two fifths of respondents in each case. Mentioned much less frequently were health workers, training programmes, counselling, and other forms of the mass media such as street drama, newspapers or magazines, and films or videos. Overall, the percentages of youth mentioning specific sources of sex education as appropriate for girls also mentioned them as being appropriate for boys, a result that suggests there is no gender bias in the sources that young urban Nepalese consider appropriate for sex education.

Table 8. Specific sources mentioned as appropriate for sex education for girls among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage mentioning)

Source	Male		Female		Total
	Single	Married	Single	Married	
Television	53.4	35.4	69.7	61.2	59.6
Formal education	52.3	36.3	45.7	25.6	45.1
Radio call-in programmes	43.9	26.5	48.4	35.1	43.4
Peer education	25.5	14.2	23.3	23.1	23.9
Group meetings/discussions	14.6	21.2	26.7	29.8	21.5
Health worker	17.3	12.4	16.6	11.3	15.9
Training	11.4	8.8	17.7	13.6	13.8
Counselling	15.3	12.4	10.9	10.2	12.9
Street drama	18.1	12.4	8.6	4.4	12.4
Newspaper/magazine	9.3	4.4	14.7	6.4	10.5
Parents	8.8	4.4	13.4	8.2	10.1
Film/video	9.8	7.1	7.6	10.4	9.0

Note: Percentages in this table are based on multiple responses. Sources mentioned by fewer than 10 per cent of respondents in all four subgroups are not shown.

Table 9. Specific sources mentioned as appropriate for sex education for boys among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage mentioning)

Source	Male		Female		Total
	Single	Married	Single	Married	
Television	56.5	44.2	69.8	60.7	61.3
Formal education	52.9	38.1	44.4	26.0	45.1
Radio call-in programmes	45.4	29.2	46.1	36.0	43.5
Peer education	28.7	15.9	24.0	27.1	26.3
Group meetings/discussions	15.9	23.0	27.9	29.3	22.6
Health worker	18.3	8.9	17.9	10.9	16.6
Training	11.3	11.5	18.2	13.3	14.1
Counselling	15.6	14.2	11.5	10.2	13.3
Street drama	18.9	11.5	9.7	3.6	13.0
Film/video	15.4	11.5	8.8	13.6	12.6
Parents	7.5	4.4	13.2	8.2	9.5
Newspaper/magazine	8.6	3.5	12.9	6.2	9.5

Note: Percentages in this table are based on multiple responses. Sources, including an unspecified source, mentioned by fewer than 10 per cent of respondents in all four subgroups are not shown.

The responses to this question, however, indicated considerable differences by respondents' sex and marital status in their preferences for specific sources of sex education for boys and girls. Married males were much less likely to mention television as an appropriate source for the sex education of girls (35 per cent) than were single males (53 per cent) or either single or married females (70 and 61 per cent, respectively). A similar pattern is observed for the sex education of boys.

As in the case of television, males, especially married males, were less likely than females to mention radio call-in programmes, peer education, group meetings, training programmes, newspapers or magazines, and parents as appropriate sources for the sex education of girls or boys; but males, especially single males, were more likely than females to mention formal education as an appropriate source. Married respondents were generally less likely than single respondents to approve each specific source as appropriate for the sex education of girls or boys, group meetings being the most notable exception. A considerable proportion of respondents either did not answer this question or said that they did not know of any appropriate source for sex education for young children. Males were more likely than females, and married respondents more likely than single ones, to give no response or a "Don't know" response.

To find out where young urban Nepalese obtained their information on sexual matters, the survey asked respondents, "If you want to know more about sexual matters, what do you usually do?" All reported responses were recorded.

Table 10 shows that friends were the most commonly sought source of information on sexual matters (mentioned by 47 per cent), followed by books (38 per cent) and physicians or clinics (37 per cent). Mass media sources were also mentioned frequently, 31 per cent of respondents saying they sought information on sexual matters from magazines, 28 per cent from television and 19 per cent from radio. Few mentioned teachers, family members or neighbours.

Table 10. Specific sources preferred if needing additional information about sexual matters among urban youth (ages 14 to 22), by sex and marital status: Nepal, 2000 (percentage mentioning)

Preferred source	Male		Female		Total
	Single	Married	Single	Married	
Friends	61.3	56.6	36.1	30.7	47.4
Books	44.7	26.5	42.7	8.2	37.5
Physician/clinic	44.1	50.4	30.7	24.6	36.6
Magazines	39.7	22.1	32.4	8.0	31.4
Television	25.4	8.8	35.1	22.6	27.7
Radio	18.7	11.5	22.8	11.6	18.7
Teacher	17.1	6.2	9.2	1.8	11.5
Neighbours	4.1	8.8	3.9	16.7	6.2
Other	0.8	0	20.0	12.2	9.3
Sister	0.1	0	17.8	12.2	8.2
Spouse	n.a.	8.0	n.a.	51.6	8.5
Other	16.3	13.3	13.4	18.2	15.4

Notes: Percentages in this table are based on multiple responses.
n.a. = not applicable.

Males were much more likely than females to seek information on sexual matters from friends, books and physicians or clinics. In contrast, females were much more likely than males to seek such information from television, neighbours and relatives. Married respondents were generally less likely than single ones to seek such information from each specific source. The exceptional case was neighbours, whom married respondents were more likely to mention than were single respondents. The percentages who said they would seek information on sexual matters from books, magazines and teachers were much lower among married females than among the other respondents. Fifty-two per cent of married females said they would ask their spouse for information on sexual matters, but only 8 per cent of married males said they would ask their spouse for such information. A considerable proportion of females, especially single females, would turn to their mothers and sisters for sexual information, but almost no males said they would request such information from their mothers or sisters.

Factors affecting regular exposure to the mass media

Some of the differentials in the subgroups' exposure to the mass media discussed earlier may be associated with differences in their socio-economic characteristics, such as urban locale, ethnicity, household living standard, age, education, and work status. To examine the influence of these factors on urban youths' media exposure and to estimate the net effects of sex and marital status on that exposure, multivariate logistic regression analysis was performed.

Understanding the factors associated with youths' regular exposure to the mass media is important from a programmatic point of view. In the analysis, regular exposure to the mass media is defined as daily exposure to television, radio or newspapers. Table 11 presents adjusted effects of selected socio-economic factors on daily exposure to television, radio and newspapers, as well as daily exposure to any one of the three and all three sources.

Overall, regular exposure to the mass media was greater among females than among males, and also among single than among married youth, after the authors controlled statistically for the effects of urban locale, ethnicity, household living standard, age education, and work status. Females' greater exposure was due mainly to their greater daily exposure to television. Table 11 shows that the adjusted odds of daily exposure to television among single and married females were higher than among single and married males, respectively. The adjusted odds of daily exposure to radio and newspapers, however, were much lower among females than among males. The adjusted odds of daily exposure to each media source were much lower among married respondents than among their single counterparts. Daily exposure to all three media sources was much higher among single males than among other youth.

The adjusted odds of daily exposure to any one of the three major media were somewhat lower in Pokhara, Biratnagar, and Birgunj than in Kathmandu or Lalitpur; but the differences were not statistically significant. For specific media sources, however, the differentials in daily exposure by urban locale were substantial. Interestingly, the odds of daily exposure to television were considerably lower among youth living in Kathmandu than among those living in other urban locales. In contrast, the odds of daily exposure to radio and newspapers were generally higher in Kathmandu. The odds of daily exposure to radio, newspapers and all three media sources were particularly low in Biratnagar and Birgunj than in Kathmandu, Lalitpur or Pokhara.

By ethnicity, the adjusted odds of daily exposure to any one of the three major mass media were highest among Newars, followed by Brahmans, Chhetris, and others. Again, as in the case of urban locale, the differentials were much larger for specific media sources. In the case of television, Newars

Table 11. Adjusted effects of sex, marital status and other factors on daily exposure to television, radio and newspapers among urban youth (ages 14 to 22): Nepal, 2000 (relative odds ratios)

Factor	Watches television daily	Listens to radio daily	Reads a newspaper daily	Any one of the three ^a	All three
Sex and marital status					
Single male	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)
Married male	0.359 ***	0.816	0.770	0.461 ***	0.209 *
Single female	1.354 **	0.526 ***	0.477 ***	1.071	0.375 ***
Married female	1.056	0.365 ***	0.144 ***	0.734	0.151 ***
Urban area					
Kathmandu	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)
Lalitpur	1.233	0.953	0.777	1.034	0.773
Pokhara	1.476 **	0.331 ***	1.131	0.890	0.709
Biratnagar	1.597 ***	0.194 ***	0.384 ***	0.751	0.223 ***
Birgunj	1.626 ***	0.119 ***	0.329 ***	0.736	0.183 ***
Ethnicity					
Brahman	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)
Chhetri	1.304	0.607 ***	0.867	0.907	1.078
Newar	1.891 ***	0.656 **	0.570 ***	1.423	0.738
Other	0.965	0.537 ***	0.502 ***	0.701 *	0.534 ***
Household living standard^b					
Lower	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)
Higher	2.304 ***	0.714 ***	1.490 ***	2.146 ***	1.145
Age group					
14-16	0.878	0.920	0.627 ***	0.892	0.716 *
17-19	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)
20-22	1.076	1.468 ***	1.150	1.490 **	1.281
Education					
None	0.470 ***	0.503 *	0.015	0.516 ***	0.012
Primary	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)
Secondary	1.450 *	0.793	3.800 ***	1.533 **	2.124
High school or higher	1.807 ***	1.411 *	7.967 ***	2.284 ***	5.665 ***
Work status^c					
Not working	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)	1.0 (r)
Working	0.612 ***	0.906	1.140	0.569 **	1.272
N	2,824	2,824	2,824	2,824	2,824

Notes: (r) = reference category.

* $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$;

^a Watched television, listened to radio or read a newspaper on a daily basis;

^b Household living standard is a composite variable. Higher status refers to a house having all four of the following attributes: piped water, toilet with pan or flush system, roof made of concrete materials, and floor made of cement, tile or marble;

^c Work status refers to whether a respondent was, at the time of survey, engaged in any type of income-generating activity.

were much more likely to watch television every day than were Brahmans, Chhetris or other ethnic groups. By contrast, the odds of daily exposure to radio and newspapers were considerably higher among Brahmans than among other ethnic groups. Urban youth belonging to ethnic groups other than Brahman, Chhetri or Newar were the least likely to have daily exposure to each specific media source, as well as to any one or all three sources.

A youth's educational level and household living standard had large positive effects on regular exposure to the mass media. By education, the adjusted odds of regular exposure to any one of the mass media increased from 0.5 among illiterate youth, to 2.3 among those with a high school or higher level of education. Similarly, the odds of regular exposure were 2.1 times greater among youth living in households with a higher standard of living than among those living in poorer households.

Similar adjusted effects of education and living standard were also observed for television and newspapers separately, but not for radio. The odds of daily exposure to radio were lower for youth in better-off households than for those in poorer households, but the relationship between education and daily exposure to radio was weak.

Age had a positive but generally small effect on regular exposure to the mass media. Working youth were less likely to be regularly exposed to the mass media than non-working youth. This was primarily due to their lower odds of watching television every day. There was no significant difference by work status in the odds of daily listening to radio or reading newspapers.

In addition to the variables shown in table 11, the authors examined the adjusted effects of owning a radio or a television set and that of age at marriage on both lifetime and daily exposure to the mass media. The authors did not include these two variables in the final models presented in table 11, however, for the following reasons.

As expected, youth who lived in households that owned a television set or radio were considerably more likely to have had both lifetime and daily exposure to the mass media than were youth who did not live in such households. But including household ownership of a radio or a television set in the equation did not alter much the effects of other variables included in table 11, except that the effects of household living standard were reduced considerably. This may be because owning a radio or a television set was highly correlated with the household's living standard. To avoid multicollinearity problems, we therefore excluded ownership of a radio or television set from the models shown in table 11.

In order to estimate the adjusted effects of age at marriage, the sex and marital-status variable were redefined to include age at marriage for married

respondents. The new variable had six categories: single males, married males (age at marriage below 19), married males (married at 19 and over), single females, married females (married before reaching 18), and married females (married at 18 and over). The adjusted effects of age at marriage on media exposure were generally small and inconsistent.

Summary and conclusion

The data analysed in this article came from a survey that differed in its focus and scope from previous surveys conducted in Nepal in two ways. First, it focused on adolescents and young adults, a population that has not received specific attention in most health research and programmes. Second, it included full cohorts of the population, male and female, single and married, not just one particular group. Because of these unique features, much of the comparative information obtained from the survey may serve as a baseline.

Our analysis indicates that television is by far the most commonly used mass medium among urban Nepalese youth. Seventy-two per cent of urban youth watch television, 35 per cent listen to radio and 25 per cent read a newspaper or magazine at least once a day. Four out of five urban youths are exposed daily to at least one of these three media sources. This fact provides tremendous opportunities for mass media programmes aimed at promoting youth awareness about important social and health issues. The Internet is relatively new and access to it is still limited in Nepal, but its use is growing rapidly.

One of our major findings is that exposure to the mass media varies greatly by youths' gender and marital status. More females than males are exposed to television on a daily basis, but fewer females are exposed to radio and the print media. Married youth have much less exposure to each form of the mass media than their single counterparts. The finding that television is the most commonly used mass medium, and that more females than males are regularly exposed to it, suggests that television can be used to educate urban female youth about major social and health issues. On the other hand, a much lower use of radio and the print media among females and much lower use of all media types among married males and females pose programmatic challenges. Paradoxically, although married youth are less exposed than single youth to the mass media, they may be the ones most in need of information on health issues, particularly reproductive health issues. The reasons for the generally lower media exposure among married youth are not clear from the survey data. It may be due to differences in lifestyle between married and single youth. Single youth probably have a larger social network and may be

more familiar with mass media technology than married youth. Furthermore, married youth may have less time to spend on the mass media than their single counterparts.

The results highlight preferences for radio stations and television programmes among various subgroups. For example, single youth are much more likely than married youth to listen to FM stations. News and sports programmes on television are more popular among males, whereas serials (soap operas) and music programmes are more popular among females. Such information can be helpful to those charged with designing educational programmes to reach specific groups more effectively. The results also indicate that mass media have been effective in informing youth about such social and health issues as drug addiction, HIV/AIDS, family planning, domestic violence, and girl-trafficking. A large majority of respondents reported learning about these issues on television or radio or in the print media. Television, followed by radio, is the most common source of information about contraceptive methods and HIV/AIDS among urban youth. Respondents rarely mentioned the mass media, however, as a source of information on puberty and related physical changes. About one half of all urban youth, though more females than males, learned about puberty and related physical changes on their own.

Most urban youth consider television to be an appropriate source for sex education for girls or boys, but males are less likely than females to hold this view, particularly when it comes to the sex education of girls. When seeking information on sexual matters, urban youth turn most frequently to their friends and, less frequently, to books and physicians or clinics. Relatively few seek information on sexual matters from television or radio. It is possible that few young people seek information on sexual matters from television or radio because those media have conventionally not offered such information. Mass media programmes for youth should be designed with these findings in mind.

Results from the multivariate analysis of factors affecting daily exposure to the mass media suggest that the effects of gender and marital status on urban youths' media exposure are largely independent of the influence of other socio-economic and demographic factors included in the analysis. Education emerges as the strongest predictor of exposure to each specific medium. A respondent's work status, household living standard, ethnicity and urban locale also influence exposure to the mass media to varying degrees.

On the positive side, urban youth in Nepal are receptive to receiving information and education on sexuality and reproductive health issues through television, the most popular form of the mass media in urban Nepal. The task is to design appropriate and effective television programmes. Other mass media, particularly radio, also need to be used. The data point towards the need to use

multiple media sources to cover a target group. Besides the mass media, the important role that schools, parents, neighbours and friends play in providing information about reproductive health to youth should be taken into account, as the respondents themselves noted. Finally, it should be emphasized that the data analysed in this report are limited to urban areas. Many of the findings may not apply to rural Nepal, where access to the mass media and the educational attainment of adolescents and young adults are more limited. It is important for communication programmes to pay attention to differences between urban and rural audiences.

The results of this study underscore the potential use of the mass media in health campaigns and intervention programmes for youth in urban Nepal, while providing insights into how they can be designed to be effective. The findings also underscore the need for media-based interventions to reduce the wide gaps in the reproductive health knowledge that exist between single and married and between male and female Nepalese youth.

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Endnote

1. For more detailed information on the mass media in Nepal, see Institute for Integrated Development Studies (1996). The information in this section is drawn largely from that source, especially pages 37-60. For additional materials, see Kharel (2000, 2001).

References

- Alan Guttmacher Institute, Henry J. Kaiser Family Foundation, and National Press Foundation (1996). "Teens on sex: what they say about the media as an information source", unpublished manuscript (New York, Alan Guttmacher Institute).
- Bastola, Tunga S. (2000). "NAYA Survey: Urban Sample Design", document prepared as part of the NAYA Survey Report (Kathmandu, Valley Research Group).
- Family Health International and Valley Research Group (2000). "Nepal Adolescents and Young Adults Survey", Questionnaires for single males, single females, married males, and married females (Kathmandu, Valley Research Group).

- Hall, A. (1995). "Media campaign aimed at teenagers", *Pediatrics*, 2:298–300.
- Institute for Integrated Development Studies (1996). *Mass Media and Democratization: A Country Study on Nepal* (Kathmandu).
- Kharel, P. (ed.) (2000). *Media Nepal 2000* (Kathmandu, Nepal Press Institute).
- _____ (2001). *Media Practices in Nepal* (Kathmandu, Nepal Press Institute).
- McCaughey, P. Ann and Cynthia Salter (1995). "Meeting the needs of young adults", *Population Reports, Series J, No. 41* (Baltimore, The Johns Hopkins School of Public Health).
- Niraula, Bhanu B. and Dovan Lawoti (1998). "Women's autonomy and reproductive behaviour in two urban areas of Nepal", in Shyam Thapa, Shara G. Neidell and Dilli R. Dahal (eds.) *Contributions to Nepalese Studies*, Special Issue on Fertility Transition in Nepal, 25 (Special Issue):157–172.
- Strasburger, V.C. (1989). "Adolescent sexuality and the media", *Pediatric Clinics of North America*, 36(3):747–773.
- Sultz, H.A., J.E. Bauer, R. Fiedler and K.M. Young (1989). "Targeting teen-age pregnancy: the effect of a state media campaign", paper presented at the 117th Annual Meeting of the American Public Health Association, Chicago, October.
- Thapa, Shyam, Laxmi B. Acharya, and Ram H. Aryal (1997). "Schooling, marriage, work, and childbearing among the youth population of Nepal: emerging insights and challenges", report presented at the Workshop on Youth Across Asia, 23–25 September 1997, Kathmandu.
- Thapa, Shyam, Mala Dhital and Shailes Neupane (2000). "Discussions with the Interviewers and Supervisors of the NAYA Survey on Their Field Experiences in Urban Areas", NAYA Survey background report (Kathmandu, Valley Research Group).
- _____ (2002). "Assessing the quality of survey data on adolescent sexuality by talking with the field staff", *Contributions to Nepalese Studies*, 29(1):1:30.
- Waszak, Cynthia, Shyam Thapa and Jessica Davey (2000). "Perspectives of adolescents in Nepal on the influence of gender norms on reproductive health", paper presented at the International Conference on Adolescent Reproductive Health, 1–4 November 2000, Mumbai, India.