

UNICEF Nepal Working Paper Series

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A PROFILE OF ADOLESCENT GIRLS IN NEPAL

NEPAL MICS 2014

FURTHER ANALYSIS REPORT ON ADOLESCENTS

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Samik Adhikari
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Executive Summary

This further analysis report on adolescents uses data from the fifth round of the Nepal Multiple Indicator Cluster Survey (MICS) and sheds light on a number of key domains for adolescents in Nepal. The main purpose of this report is to highlight descriptive statistics and trends in a number of domains, including use of mass media and communication technology, attitude towards domestic violence, knowledge of HIV and AIDS, and subjective well-being of female adolescents aged 15-19 in Nepal. Within these domains, sub-group analysis disaggregated by geographical area as well as socioeconomic characteristics helps identify the most marginalized of adolescent groups.

Almost one-fourth of the household members sampled in the NMICS survey were adolescents. More than half of the households had at least one member aged 10-19 years. On average, over 90% of adolescents surveyed were able to read and write. However, the percentage of adolescents currently attending school dropped dramatically after the age of 16. This was especially true with female adolescents who were significantly less likely to complete secondary education, possibly because there are perceived costs of staying in school after a certain age due to marriage, childbirth, or being drawn into supporting work in the fields and at home.

Access and usage of information and communication technologies such as computer and internet is alarmingly low among female adolescents aged 15-19 years in Nepal. Only 13% and 14% of adolescent girls had accessed a computer and internet at least once a week in the last month respectively. Adolescent girls across underprivileged Dalit and Muslim communities in the Terai region had almost no access to computer and internet. Wealth had a varying relationship with different media and communication technologies analyzed in this report. Mobile phones and radio were two technologies where the difference between the first and the fifth wealth quintile in terms of usage and access were the least, possibly suggesting that these two forms of media and communication technologies are more apt for reaching the most underprivileged communities.

More than one-third of adolescent girls aged 15-19 years believed that wife-beating was justified, and six out of ten adolescent girls surveyed did not have a comprehensive knowledge about how HIV can and cannot be transmitted. Further disaggregating these results, this report finds that both justification of wife-beating and incorrect knowledge about HIV prevention and transmission is highest among adolescent girls in Madhesi Dalit, Madhesi, and Muslim households in the Terai region. Girls from these communities also had, on average, lower self-reported subjective well-being.

Finally, logistic regressions helped understand the determinants of higher levels of justification towards wife-beating, and incorrect knowledge of HIV transmission and prevention. This analysis further revealed that education and household size were additional key determinants in adolescent girls having higher justification towards wife-beating and lower knowledge of HIV transmission.

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1. Introduction

Adolescents (10-19 year olds) account for 16 percent of the global population and 23 percent of the population in Nepal.¹ According to the 2011 population and housing census, there were 3,207,821 males and 3,199,583 females aged 10-19 in Nepal.² Compared to the population and housing census of 2001, the percentage of adolescents remained roughly the same in 2011 and 2015 - 23% in 2001 to 24% in 2011 to 23% in 2015.³

In an increasingly globalized and connected world, Nepali adolescents face a number of key and unique challenges to realize their full potential. Based on findings from the latest round of the Nepal Multiple Indicator Cluster Surveys (MICS), this report sheds light on a number of significant domains for adolescents. In particular, this report focuses on adolescent girls aged 15-19 years.⁴

The main purpose of this NMICS further analysis report is to identify the most marginalized and vulnerable groups of adolescents based on sub-group analysis by household characteristics such as wealth, caste/ethnicity, geographic location and where relevant, by education and marital status. While this report does highlight specific aspects of traditional indicators such as education and health, a significant portion of the report is also devoted in identifying gaps in under-explored indicators such as access to media and communication technology, attitude towards wife-beating, knowledge of HIV transmission and prevention, and subjective well-being among adolescent girls.

This report is expected to be useful for two purposes. Externally, the report aims to target an array of policy audiences, including government ministries, policymaking bodies, and parliamentary committees to advocate for programming agendas to increase well-being of adolescents, especially in the most marginalized of places. Internal advocacy aims to inform different sections within UNICEF of possible evidence-based interventions targeting adolescents and relying on cross-cutting themes.

1.1 Background

Decisions taken during adolescence often play a key role in determining whether individuals grow up to reach their full potential. This is especially relevant in a globalized world where the advent of new technologies and newer social norms pose novel challenges to transitions to adulthood.⁵

¹ United Nations, *World Population Prospects: The 2015 Revision*, United Nations, Department of Economic and Social Affairs & Population Division, New York, 2015

² Government of Nepal, Ministry of Youth and Sports, *Nepali Youth in Figures (2014)*, Government of Nepal, Ministry of Youth and Sports, United Nations Population Fund and Restless Development, Nepal, 2014. <http://restlessdevelopment.org/file/nepali-youth-in-figures-december-2014-pdf>

³ According to the 2001 census, there were 2,719,632 males and 2,651,302 females aged 10-19 in a total population of 23,151,423. <http://cbs.gov.np/nada/index.php/catalog/42/download/543>

⁴ See Section 2 on Data Limitations for why other adolescent groups are excluded

⁵ UNICEF, Adolescents Development and Participation (ADAP) Baseline Study, UNICEF and Population Council, Nepal. <http://unicef.org.np/uploads/files/8430761322341894-adap-baseline-report.pdf>

Despite the changing landscapes of factors determining adolescent well-being, very few reports have systematically explored questions regarding how adolescents interact with media and communication technologies, what are their perceptions of discriminatory social norms prevalent in the society, what knowledge do they possess regarding sexual and reproductive health, and what is their overall status of happiness and subjective well-being. These studies are even more rare within the context of Nepal.

The United Nation's Sustainable Development Goals (SDGs) touches upon each of these domains and articulates the need to achieve progress by 2030, particularly among marginalized groups. For example, a specific target within Goal #5 states, "Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women." Within the same goal, another target states, "Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation." Similarly, Goal #3 talks about knowledge regarding sexual and reproductive health by stating, "By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs."

The international development community realizes the importance of these seldom-explored themes and its relevance for the adolescent age group in general, and adolescent girls in particular. By shedding light on these domains, this report hopes to influence discussions in policymaking and programmatic agendas in order to achieve progress in the next 15 years.

1.2 National Policies and Programs for Adolescents

Government of Nepal has identified adolescents as a priority age group and formulated a National Plan of Action (NPA) for Holistic Development of Adolescents (2013/14 – 2017/18) in order to address critical needs faced by adolescents in the country. This plan of action is based on five guiding principles which are listed as:

- a. Investment in adolescents for their future,
- b. Focus on the holistic development of adolescents,
- c. Increment of strength and exploration of possibilities,
- d. Ownership and collective responsibility, and
- e. Rights-oriented working procedure for holistic development of adolescents

The Ministry of Women, Children and Social Welfare (MoWCSW) has been assigned the role of helping National Planning Commission to coordinate implementation and monitoring of the plan of action at central level. Other ministries such as the Ministry of Health and Population, Ministry of Education, Ministry of Law and Justice, Ministry of Home Affairs, Ministry of Industry, and Ministry of Information and Communication, as well as UN agencies and the National Planning Commission have been tasked with formulating strategies to achieve various objectives that includes improving the health status of adolescents, providing a protective environment to realize their rights, providing equal opportunities and access to formal, informal, technical, vocational, and special education, making adolescents capable of addressing financial concerns, and ensuring participation of adolescents in decision-making processes related to them.

Before the NPA, the National Adolescent Sexual and Reproductive Health Program (ASRH) sought to address key issues related to adolescents and youth at the national level and sought to integrate concerns regarding adolescents and youth into several other programs that provided specific services, including safe motherhood, family planning, HIV/AIDS, and STI programs.⁶ A mid-term qualitative assessment of the ASRH programs in Doti and Banke found that the program had been implemented with mixed success and adolescent usage of facilities provided by ASRH was low due to confidentiality issues.⁷ Similarly, the Ministry of Health and Population formulated a National HIV/AIDS Strategy (2011-2016) which planned several course of actions for improving sexual and reproductive health among adolescents by providing knowledge on safe sexual behaviors to adolescents in high migration districts and by providing HIV related counselling through peer educators.⁸ No evaluation has been done of the strategy yet.

The Adolescent Development and Participation (ADAP) section in UNICEF – Nepal country office is currently implementing a comprehensive social and financial skills training package aimed to strengthen adolescents' social and financial knowledge and life skills through 15 modules of interactive activities and games.⁹ The name of the comprehensive skills training package in Nepali is Rupantaran, which means transformation, depicting the changes that are envisioned in adolescents to become social change agents in their families, communities and society and bring about realization of their rights.

Despite commendable efforts from the government and development stakeholders, critical gaps remain in addressing the needs of adolescents in Nepal. This is especially relevant when taking into account different economic, geographic, ethnic, and socio-cultural elements that adolescents interact with on a daily basis. For example, the needs of adolescents in the under-privileged communities in the Terai as well as Mid- and Far-Western hills and mountains vastly differ from those of adolescents in the Kathmandu valley. This disparity in needs should be accounted for in national level planning and policies. Similarly, plans and policies need to keep in pace with the changing nature of demands that adolescents face in a globalized society to realize their full potential, including access to modern information and communication technologies.

This MICS further analysis report will help address critical information gaps among adolescents – both in the domains that are covered in the National Plan of Action as well as in domains that are excluded from the NPA but merit equal attention to address holistic adolescent development.

⁶ Khatiwada, Naresh, et.al., *Sexual and Reproductive Health of Adolescents and Youth In Nepal: Trends and Determinants: Further analysis of the 2011 Nepal Demographic and Health Survey*, ICF International, Ministry of Health and Population, New ERA, Maryland and Kathmandu, Nepal, 2013

⁷ Khatri, R., et al., *National Adolescent Sexual and Reproductive Health Program: Mid-Term Evaluation Report*, GIZ, 2013

⁸ Ministry of Population and Health, Nepal, *National HIV/AIDS strategy (2011-2016)*, MOHP, Nepal, 2011

⁹ United Nations Children's Fund (UNICEF), *Adolescent Development and Participation in Nepal: Donor Report*, UNICEF, Nepal, 2014

2. Data and Methods

2.1 Data

The 2014 Nepal MICS survey covers a total of 12,405 households and provides a comprehensive picture on women and children across all sub-regions in Nepal. Of particular interest to this report are sections of the survey on household characteristics such as caste/ethnicity, wealth quintile, rural/urban status of the household, as well as sections on education, access to mass media and communication technologies, attitude towards wife-beating, knowledge of HIV prevention and transmission, and subjective well-being.

Although our population of interest covers both males and females aged 10-19, certain domains analyzed in this report are limited to focus on 2,781 females aged 15-19 in the MICS sample because male respondents were not included in the survey and the minimum age for respondents to the women's questionnaire was 15 years. Where applicable, trends of indicators are shown using the 2011 National Demographic and Health Survey (NDHS). The NDHS covers both males and females aged 15-19 for a nationally representative sample of 10,826 households.

2.2 Methods

Four key domains are selected for further analysis in this report. Those domains are selected based on their relevance for the adolescent age-group and particularly so for females aged 15-19, as well as based on the availability of modules in the NMICS survey. These domains are:

- Access to mass media and communication technology,
- Attitude towards domestic violence (wife-beating),
- Knowledge of HIV prevention and transmission,
- Subjective well-being

Each domain is explored in further detail by disaggregating relevant indicators and analyzing differences in means by urban/rural, wealth quintiles, caste/ethnicity and in some cases by education and marital status. Confidence intervals are used to assess significance in differences. Finally, associations between domains are explored in the final piece of the analysis.

The statistical software STATA, version 14, was used for the analysis. Elements of sample design were taken into account by using STATA's "svyset" command (including information on sample weight, cluster, and strata). Most graphs are made in Tableau and maps are made using R.

2.3 Definition of Indicators

1. Access to mass media and communication technology

- Newspaper/Magazine: Yes (1) if respondent reads newspapers or magazines at least once a week, No (0) otherwise
 - Radio: Yes (1) if respondent listens to radio at least once a week, No (0) otherwise
 - TV: Yes (1) if respondent watches TV at least once a week, No (0) otherwise
 - Computer: Yes (1) if respondent has accessed a computer at least once a week in the last month, No (0) otherwise
 - Internet: Yes (1) if respondent has accessed a computer at least once a week in the last month, No (0) otherwise
 - Mobile: Yes (1) if respondent has a mobile phone, No (0) otherwise
2. Attitude towards wife-beating
- In the respondent's opinion, is a husband justified in beating his wife when the wife:
 - Goes out without telling him: Yes (1), No (0)
 - Neglects their children: Yes (1), No (0)
 - Argues with him: Yes (1), No (0)
 - Refuses to have sex with him: Yes (1), No (0)
 - Burns food: Yes (1), No (0)
3. Knowledge of HIV prevention and transmission
- Chances of getting the HIV virus can be reduced by:
 - Having sex with one uninfected partner who has no other sex partners: Yes/Correct (1), No/Incorrect (0)
 - Using condoms during sexual intercourse: Yes/Correct (1), No/Incorrect (0)
 - HIV can be transmitted by:
 - Supernatural means: No/Correct (1), Yes/Incorrect (0)
 - Mosquito bites: No/Correct (1), Yes/Incorrect (0)
 - Sharing food with HIV infected person: No/Correct (1), Yes/Incorrect (0)
4. Subjective well-being¹⁰
- How would you rate your overall happiness: Very/Somewhat Happy (1), Very/Somewhat Unhappy (0)
 - How satisfied are you with your:
 - Family life: Very/Somewhat satisfied (1), Neutral/Very/Somewhat unsatisfied (0)
 - Friendships: Very/Somewhat satisfied (1), Neutral/Very/Somewhat unsatisfied (0)
 - Health: Very/Somewhat satisfied (1), Neutral/Very/Somewhat unsatisfied (0)

¹⁰ These topics on subjective well-being were selected based on diversity of topics, and if the indicator in question had enough variation in the data to conduct sub-group analysis. This criteria subsequently led to the exclusion of question related to future expectations.

- Living Space: Very/Somewhat satisfied (1), Neutral/Very/Somewhat unsatisfied (0)

2.4 Data Limitations

The NMICS survey is a comprehensive tool to assess the well-being of women and children globally. However, for the purpose of this report, the questionnaire has its limitations. The primary limitation is that among the adolescent age group, NMICS covers certain modules only for adolescent girls aged 15-19. As such, some findings are limited to this group, while other findings take into account the entire adolescent cohort.

Further rounds of NMICS will benefit the programming agenda for adolescents by adding modules relevant for all females and males aged 10-19. For example, NMICS does not administer questions on what adolescents perceive to be the right age for marriage or childbirth, what they think of discriminatory norms during menstruation, or whether they are part of community groups and youth clubs. Further rounds of NMICS surveys will benefit from broadening its focus to cover a wider range of themes.

Secondly, NMICS is a cross-sectional survey. Hence this report is limited in the kind of analysis that can be carried out for relevant domains. It is not possible in most cases to draw causal inferences from cross-sectional data. Therefore, this report is limited to descriptive analysis using cross-tabulation and correlational approach.

3. Results

3.1 Basic Profile of Adolescents in Nepal

Adolescents constitute of 23.3% of the 56,539 household members in the MICS sample, similar to that accounted for in the population of Nepal according to the Population and Housing Census of 2011. 57.6% of the 12,405 households in the sample had at least one member aged 10-19 years out of which 51.1% were female.

3.1.1 Demographics

The average size of households with adolescents was 5.9, with the 95% confidence interval ranging from 5.7 to 6.1. Figure 1 shows the distribution of adolescent population by household size. Close to 60% of adolescents lived in a household with 4-6 members. Only 15.7% of adolescents lived in urban households, slightly lower than 17.2% of population covered in the NMICS sample.

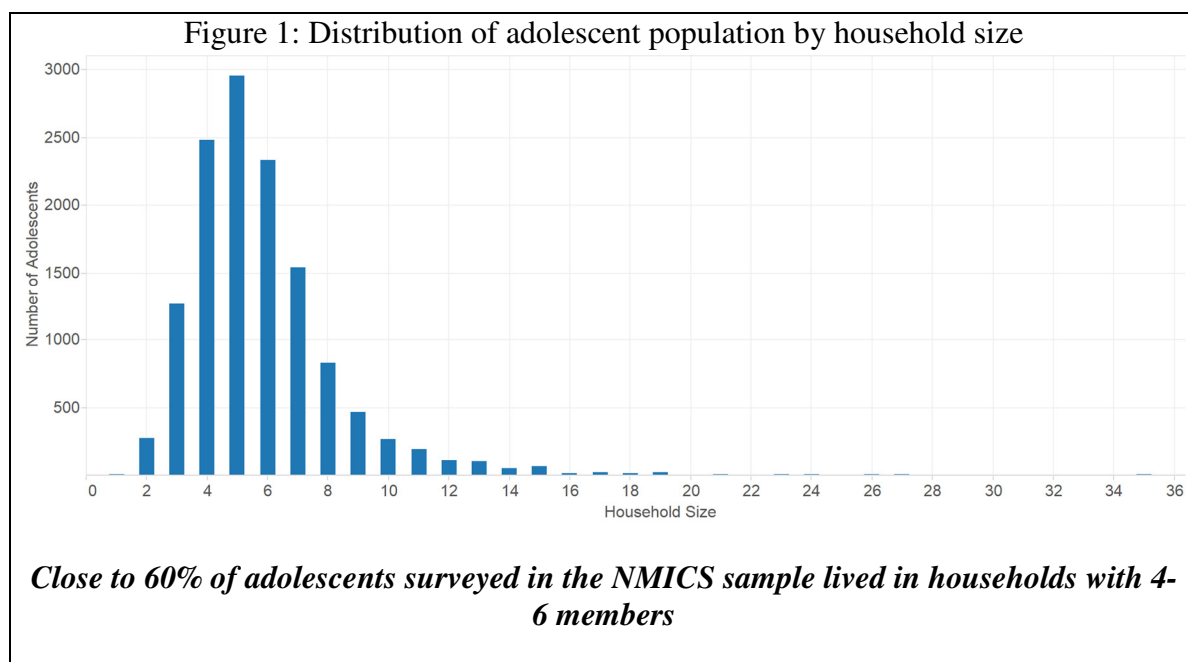


Table 1 summarizes the major religions, languages, and ethnicities of household heads with adolescents in the NMICS sample. Majority of adolescents come from a Nepali speaking Hindu household. Maithali, Bhojpuri, and Tharu are other prevalent languages. Hill Janajati, Hill Chhetri, Hill Brahmin, and Madhesi (non-Brahmin/Chhetri) make up more than 60% of the prevalent ethnicities. These figures are roughly in line with the overall ethnic distribution of Nepal as reported in the 2011 census.

Table 1: Major religions, languages, and ethnicities of household heads with adolescents

Religion		Language		Ethnicity	
Hinduism	84.7%	Nepali	44.2%	Hill Janajati	19.1%
Buddhism	6.0%	Maithali	13.5%	Hill Chhetri	19.0%
Islam	4.6%	Bhojpuri	8.5%	Madhesi (Other)	14.0%
Kirat	2.6%	Tharu	6.4%	Hill Brahmin	11.1%
Christianity	1.7%	Tamang	3.8%	Hill Dalit	9.6%
Others	0.4%	Newar	2.8%	Terai Janajati	9.3%
		Limbu	2.0%	Muslim	4.7%
		Gurung	0.8%	Madhesi Dalit	4.6%
		Others	18%	Others	8.6%

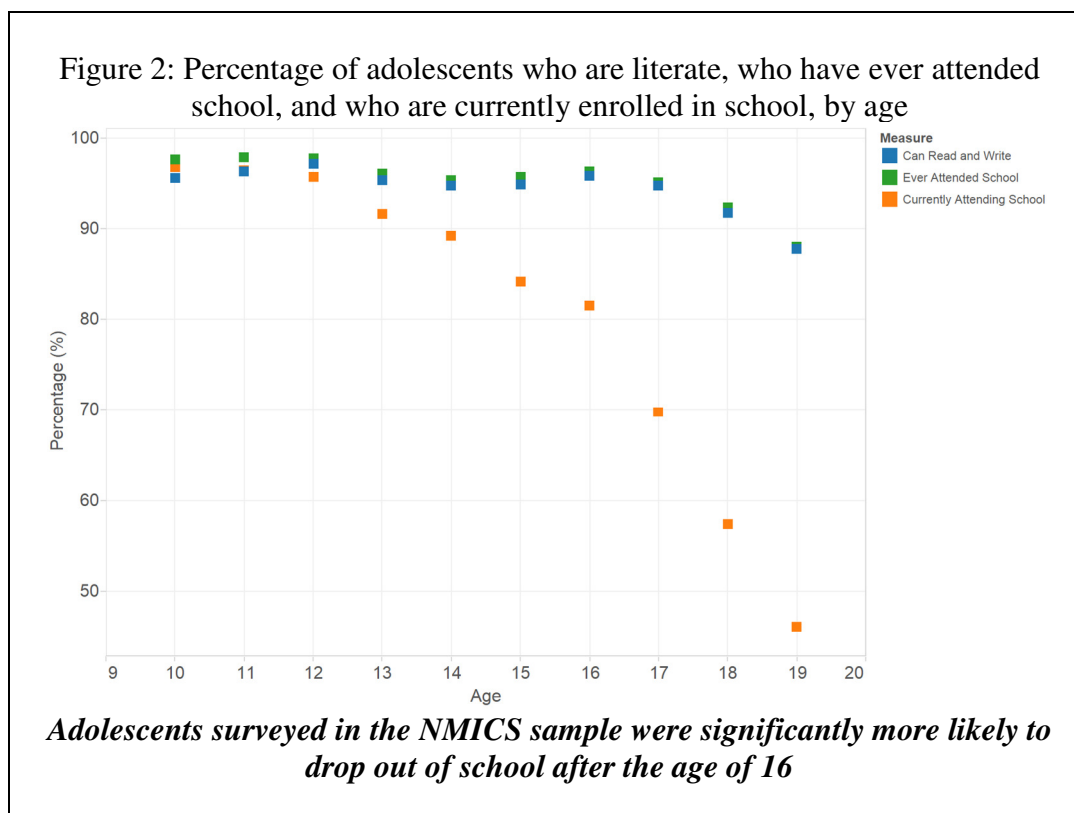
N = 13,183

3.1.2 Educational Achievement

Achieving universal primary education was one of the key targets set by the Millennium Development Goals (MDGs). According to the 2014 NMICS key findings report, 86% of primary school age children were currently enrolled in primary school.¹¹ Similarly, 66% of secondary school age children were enrolled in secondary school. Most adolescents are considered just past the primary school mark. Yet, there are sizable differences in the educational attainment indicators among adolescents.

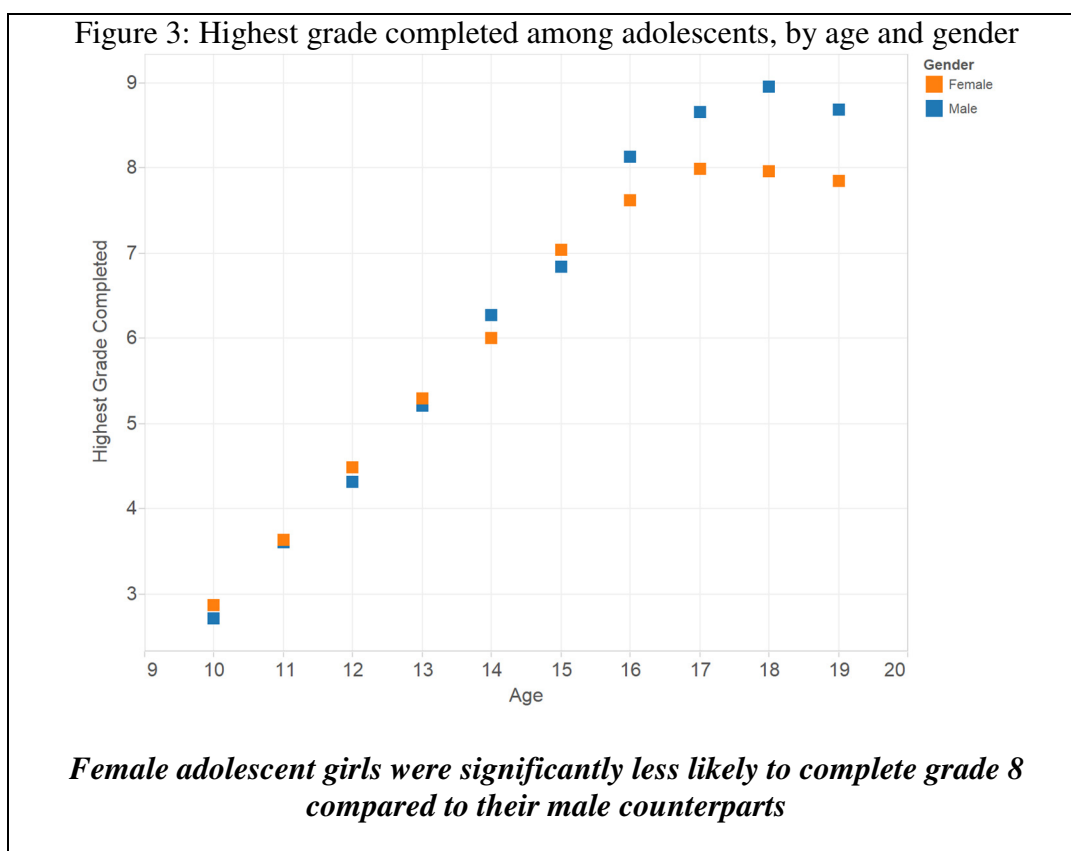
In the MICS sample, 95% of the adolescents could read and write. A small but statistically significant difference was found in literacy rate with males (96%) having slightly higher ability to read and write than females (93%). Similarly, 96% of adolescents had attended school at some point in their lives, with similar differences seen across gender for males (97%) and females (94%). Figure 2 shows the distribution of educational attainment indicators by age group. What is stark is the rapid drop in the percentage of adolescents currently attending school after the age of 16, possibly alluding to the perceived costs in attending school once adolescents are able to physically pursue other livelihood options or get married.

¹¹ Central Bureau of Statistics (CBS) Nepal, *Nepal Multiple Indicator Cluster Survey 2014: Key Findings Report*, CBS and UNICEF, Kathmandu, Nepal, 2014. <http://unicef.org.np/uploads/files/44234273128039655-nmics-5-key-findings.pdf>



Except for adolescents who were 10 years old at the time of the survey, at every other age-point, females are less likely to be currently enrolled in schools compared to males. On average, 85% of males were currently enrolled in school while only 81% of females were currently enrolled. Although the timing of the survey and its relation with the school year likely lead to an overestimation of the number of out-of-school children, the differences across various age-points do tell a coherent story that a significant portion of adolescents drop out before completing secondary school.

Figure 3 corroborates this finding, where data on highest grade completed is presented across different age-groups and gender. Although the age of 10 is generally considered a time to enter secondary school (grade 6 or higher) in Nepal, on average, adolescents were not completing grade 6 until the age of 14. Females were significantly less likely to complete grade 8 or higher after reaching the age of 16, perhaps succumbing to pressures of marriage and childbirth, or being drawn into supporting work in the fields and at home, both of which takes time away from schooling. The new constitution of Nepal mandates free and compulsory education upto to the eighth grade for all children aged 4-12 years, and the Ministry of Education in Nepal is currently working to amend the Education Act which will bring the constitutional mandate into effect in the near future.



3.1.3 Family characteristics

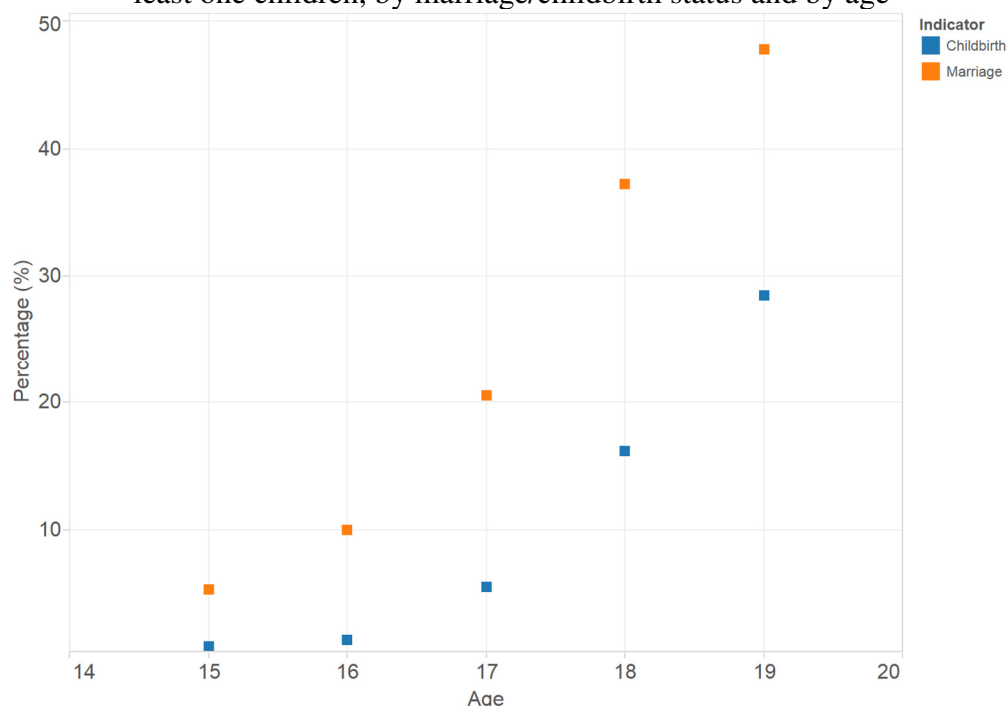
Among adolescents aged 10-17 years, 89% lived with their natural mother. However, when disaggregated by age, it was seen that 92% of adolescents aged 10-14 lived with their biological mother compared to 84% of adolescents aged 15-17. There was no statistical difference in percentage of adolescents who lived with their natural father.¹² Overall, 71% of adolescents lived with their natural father and 69% lived with both their biological parents. Remarkably, 14% of adolescents aged 10-17 had their biological father working abroad, confirming the growing scale of labor migration trends observed in Nepal in the last decade. Comparatively, only 1.6% of adolescents had their mothers working abroad. Adolescents belonging to Hill Chhetris, Hill Dalits, and Hill Janajatis ethnic groups are significantly less likely to be staying with both their biological parents compared to other ethnicities.

3.1.4 Marriage and Childbearing

In the NMICS sample, marital and childbirth status questions were administered to adolescent girls aged 15-19 years. Overall 24% of adolescent girls aged 15-19 years were married and 10% had given birth to at least one child. Figure 4 shows the marital and childbirth status of adolescent girls at different age points.

¹² Information on living arrangement was not collected in the MICS sample for adolescents aged 18 and 19.

Figure 4: Percentage of adolescent girls aged 15-19 who were married and who had at least one children, by marriage/childbirth status and by age



Adolescent girls aged 17-19 years were more likely to get married and have at least one children compared to adolescent girls aged 15-16 years

Interestingly, only adolescents in the richest quintile were significantly less likely to be married or have at least one child by the age of 19. There was no statistical difference among adolescents in the first four wealth quintile in terms of being married or having at least one child, on average. Muslims, Hill Dalits, and Madhesi adolescents were more likely to be married and have at least one child by the age of 19.

3.2 Access to mass media and communication technology

Overall, 18.6% of the population in the NMICS sample of women aged 15-49 years read newspapers or magazines, 41.3% listened to radio, and 56.9% watched television at least once a week. Comparatively, these statistics are higher for adolescent girls aged 15-19 years of age. In this age group, 24% read newspapers or magazines, 50% listened to radio, and 58.3% watched television at least once a week. On the other hand, information and communication technologies questions were only administered to women aged 15-24. The overall statistics of access to communication technologies for women aged 15-24 years are comparatively similar to statistics for adolescent girls aged 15-19 years. Among adolescents, 13.3% had used a computer and

13.6% had used internet at least once a week in the last month, and 52.9% had access to a mobile phone.

3.2.1 Trends from DHS (2011) and MICS (2014)

Both the 2011 Nepal Demographic and Health Survey (NDHS) and 2014 NMICS are representative household surveys that use similar sampling strategies and administer many of the same questions to households in Nepal. As such, it is possible to look at trends on available indicators related to media and communication technologies for adolescent girls from these two surveys. The 2011 NDHS had questions on access and usage of media but not on communication technologies.

Table 2 shows that compared to 2011 NDHS, adolescent girls who read newspapers/magazines at least once a week increased from 17.6% to 24%. This difference is statistically significant at the 95% significance level as assessed from the confidence interval. Although adolescent girls who watched TV at least once a week increased from 55% to 58.3% in the NMICS sample, and adolescent girls who listened to radio at least once a week decreased from 52.2% to 50%, these differences were not statistically significant. It would be interesting to observe these trends in the next rounds of the NDHS and NMICS surveys.

Table 2: Percentage of adolescent girls aged 15-19 who had read newspapers/magazines, listened to radio, or watched TV at least once a week in NDHS 2011 and NMICS 2014 surveys

Indicator	Newspaper/Magazine		Radio		Television	
Source	DHS 2011	MICS 2014	DHS 2011	MICS 2014	DHS 2011	MICS 2014
Mean	17.6	24.0	55.0	50.0	52.2	58.3
95% Confidence Interval	[14.3, 20.8]	[21.1, 27.0]	[51.0, 59.0]	[46.5, 53.5]	[47.6, 56.9]	[54.7, 62.0]
N	2753	2713	2753	2718	2753	2717

3.2.2 Geographic variation among usage of media and communication technology

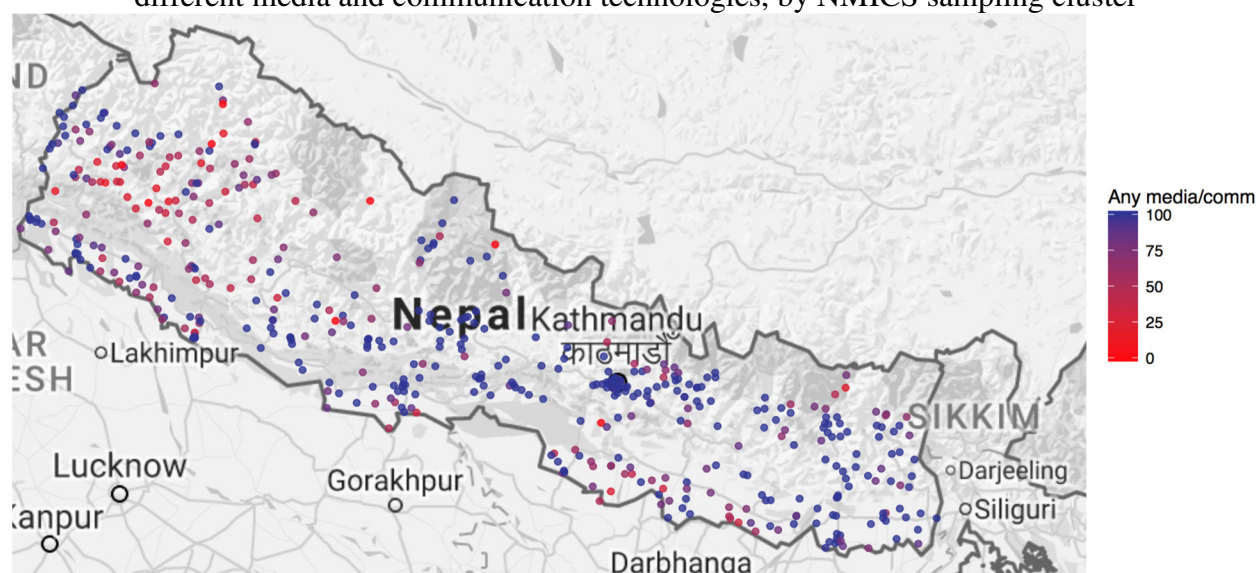
Figure 5 shows geographic variation across the usage of all media and communication indicators among adolescent girls aged 15-19 years in Nepal. Each sampling cluster covered in the NMICS survey is represented by a dot in the map. Blue colored dots represent higher usage and access and red colored dots represent the opposite. The indicator used to measure access is coded as 1 if adolescent girls aged 15-19 in concerned sampling clusters had access to any of the six media and communication technologies and 0 otherwise. For example, the value is 100% for a cluster if all adolescent girls had access to at least one media/communication technology, 50% if half of adolescent girls had access to at least one media/communication technology, and so on.

Therefore, what the red colored dots are really showing are the most deprived of clusters which do not have access to any of the six media and communication indicators included in this section. One limitation of these statistics on geographical variation is that the questionnaire included in the NMICS survey does not help differentiate between low access and low usage. Since the

questions are mostly about usage of media and communication technologies in the last week, one can hypothesize that low usage places are also places with low access.

Unsurprisingly, the highest usage areas are concentrated in and around the Kathmandu valley. Adolescent girls in Mid-Western hills and mountains, and parts of Central Terai regions have relatively low usage in all six indicators. Even within the six media/communication technology indicators, radio and mobile phones have low geographic variation in terms of usage whereas other media and communication indicators have high variation.

Figure 5: Percentage of adolescent girls aged 15-19 years who have accessed at least one of different media and communication technologies, by NMICS sampling cluster



Adolescent girls in pockets of Mid-Western hills and mountains and Central Terai regions do not report using newspaper, TV, radio, computer, or internet at least once a week and do not have access to mobile phones

3.2.3 Variation based on area, wealth quintile, and caste/ethnicity

Media and ICT usage statistics are further disaggregated based on rural/urban setting, wealth quintile and caste/ethnicity to derive further insights on specific marginalized groups who haven't realized the benefits of growing media and ICT access in Nepal.

Table 3 presents the difference in all six indicators of interest based on whether adolescents lived in rural or urban setting. The differences are also assessed for their statistical significance based on p-value of the differences. In all six indicators, adolescent girls living in an urban household had significantly higher usage of media and communication technologies. Urban adolescent girls were 39% more likely of having read newspaper/magazine, 7% more likely of having listened to radio, and 37% more likely of having watched television at least once a week. Similarly, they were 32% more likely of having used computer, and 34% more likely of having used internet at

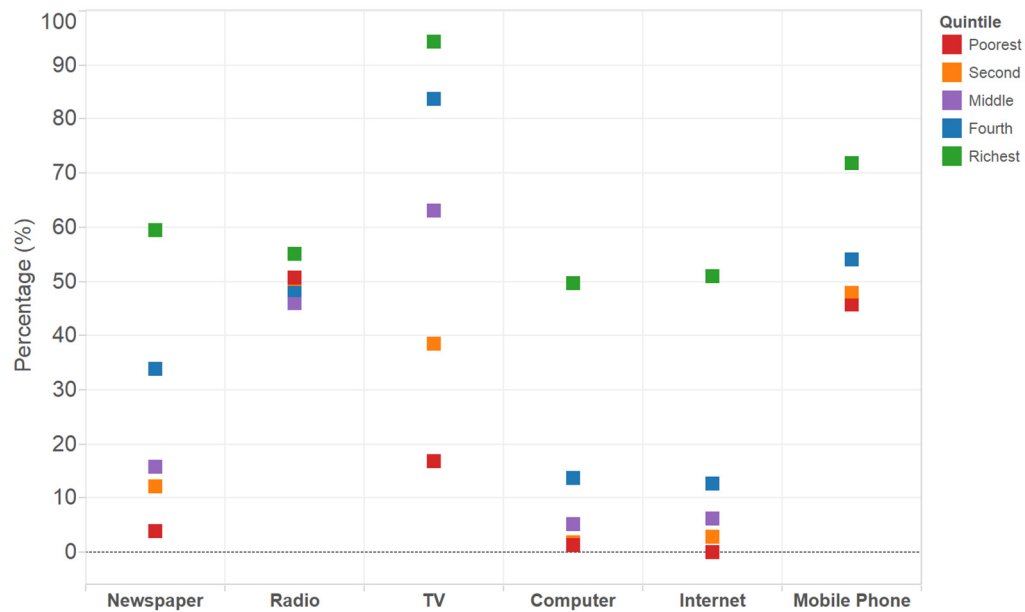
least once a week in the last month. Finally, they were also 17.5% more likely to own a mobile phone compared to their rural counterparts.

Table 3: Difference in percentage of adolescent girls aged 15-19 years who have accessed different media and communication technologies, by type and rural/urban distinction

	Newspaper	Radio	Television	Computer	Internet	Mobile Phone
Urban household	0.386***	0.071*	0.368***	0.318***	0.340***	0.175***
	(0.000)	(0.065)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	2774.00	2778.00	2776.00	2778.00	2781.00	2777.00
* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$						

Figure 6 shows differences in usage of media and communication technologies based on wealth quintiles. Unsurprisingly, those in the richest quintile have universally higher usage of newspapers, radio, TV, computer, internet and mobile phones. However, there are nuanced differences in the distribution of access across different forms of media and communication technologies. For example, there is no statistically significant difference in radio listening over any of the five quintiles. Similarly, only adolescents in the richest quintile have significantly higher access to mobile phones, whereas the first four quintiles have similar level of access to mobile phones. Adolescents in the richest quintile have significantly higher likelihood of having accessed computer and internet at least once a week in the last month.

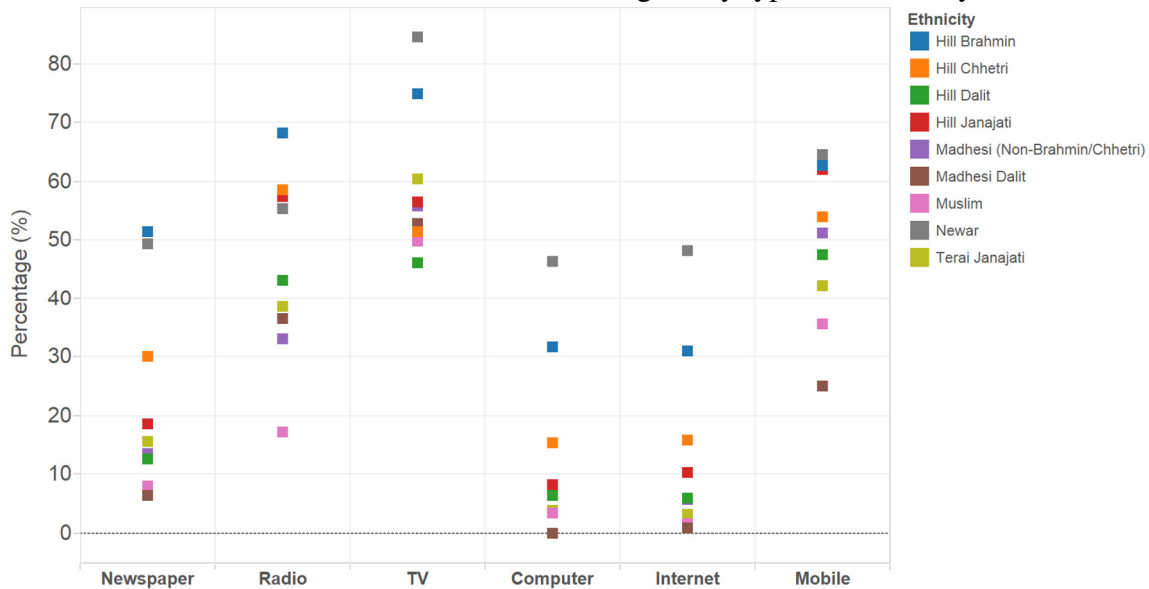
Figure 6: Percentage of adolescent girls aged 15-19 years who have accessed different media and communication technologies, by type and wealth quintile



Usage of radio and access to mobile phone among adolescent girls show the least variation by wealth quintile while TV usage shows the greatest variation

Figure 7 shows differences in usage of media and communication technologies based along the lines of caste and ethnicity. Across all forms of media and communication technologies, Madhesh based caste and ethnicities (Madhesi, Madhesi Dalit, Terai Janajati, and Muslims) have significantly lower likelihood of usage/access. Hill Brahmins and Newars have significantly higher likelihood of reading newspapers/magazine, using computer, and internet at least once a week in the last month, compared to any other ethnic group. In stark contrast, barely any adolescent girls in the Madhesi Dalit community had accessed computers or internet at least once a week in the last month. At least 40% of adolescent girls from all ethnic groups had watched TV at least once a week in the last month.

Figure 7: Percentage of adolescent girls aged 15-19 years who have accessed different media and communication technologies, by type and ethnicity



Adolescent girls in Hill Brahmin and Newar households have significantly higher usage of newspaper, television, computers, and internet

Overall, these findings reveal that likelihood of reading newspapers/magazines and access to computers and internet are low among adolescent girls in Nepal in comparison to other forms of media and communication technologies. This is especially true among marginalized groups in the poorest quintile and ethnicities based in the Terai region. Information and knowledge campaigns targeting adolescent girls are better off using technologies such as TV, radio, and mobile phones that are more equitably distributed along wealth and ethnic lines.

3.3 Attitude towards Wife-Beating

Ending all forms of violence and discrimination against girls and women is an objective that is firmly embedded in the United Nation's Sustainable Development Goals (SDGs). According to the 2011 Nepal DHS survey, roughly one-fourth of all women and girls aged 15-49 in Nepal have suffered some kind of physical violence at least once since age 15.¹³ Part of the reason for high relative incidences of violence against women in Nepal, and in South Asia generally, is that women themselves feel violence against them is justified under certain circumstances. This is because of strong patriarchal norms and customs that has governed Nepali society for many years. However, increased awareness created from access to formal education and exposure to cultural norms in other societies around the world may be slowly helping reverse this trend. For

¹³ Ministry of Health and Population (MOHP) Nepal, New ERA and ICF International Inc. *Nepal Demographic and Health Survey 2011*, MOHP, ICF International, Calverton, Maryland and New ERA, Kathmandu Nepal, 2012, p. 236.

example, one public information campaign in the United States helped challenge common beliefs and changed attitude towards domestic violence.¹⁴

Overall, 43% of women aged 15-49 believed that a husband is justified in beating his wife whereas only 34.5% of adolescent girls aged 15-19 felt that wife-beating was justified. This difference is statistically significant at the 99% significance level. 25.7% of adolescent girls felt that a husband is justified in beating his wife if she neglects their children. Similarly, 19.1% of adolescent girls said beating is justified if a wife goes out without telling her husband, whereas only 1.7% of adolescent girls said so if a wife refuses to have sex with her husband.

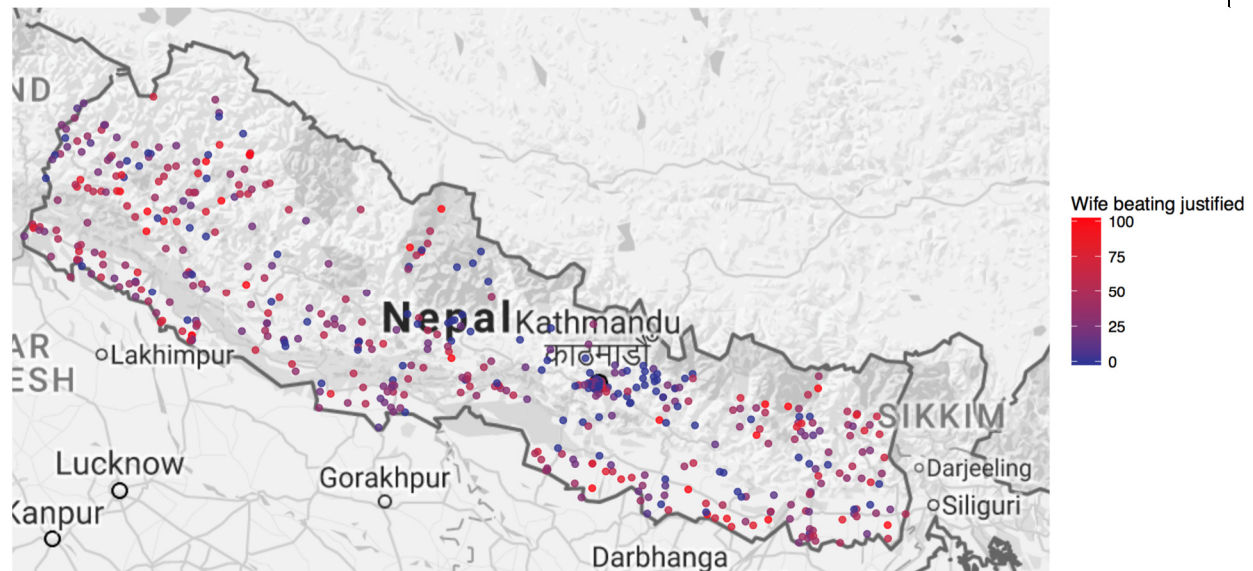
3.3.1 Geographic variation in attitude towards domestic violence

Figure 8 shows geographic variation in if adolescent girls aged 15-19 feel wife-beating in any form is justified. Each sampling cluster covered in the NMICS survey is represented by a dot in the map. Blue colored dots represent lower percentage of adolescent girls feeling wife-beating justified and red colored dots represent the opposite. The indicator used to measure justification in wife-beating is coded as 1 if adolescent girls aged 15-19 in concerned sampling clusters said wife-beating is justified under any circumstances and 0 if adolescent girls said wife-beating is not justified for at least one of the five reasons analyzed. For example, the value is 100% for a cluster if all adolescent girls in that cluster said wife-beating is justified under any circumstances, 50% if half of adolescent girls in that cluster said wife-beating is justified under any circumstances, and so on.

Adolescent girls living in certain pockets of Mid- and Far-western hills and mountains, Eastern hills, and Central and Eastern Terai regions have comparatively higher justification of wife-beating in these indicators compared to other parts of the country.

¹⁴ UNICEF, *Behind Closed Doors: The Impact of Domestic Violence on Children*, The Body Shop International and UNICEF, West Sussex, UK and New York, 2006. <http://www.unicef.org/media/files/BehindClosedDoors.pdf>

Figure 8: Percentage of adolescent girls aged 15-19 years who consider a husband to be justified in hitting or beating his wife under any circumstance, by NMICS sampling cluster



Adolescent girls in Southern, Eastern hills and Far-Western regions are more likely to say that a husband is justified in beating his wife under any circumstance

3.3.2 Variation based on area, wealth quintile, caste/ethnicity

Table 4 presents the difference in all five indicators of interest based on whether adolescent girls lived in rural or urban setting. The differences are also assessed for their statistical significance based on p-values. In all five indicators, adolescent girls living in an urban household were less likely to say any form of wife-beating is acceptable. The differences were significant for the first three indicators. Urban adolescent girls were 10.4% less likely to say that it was justifiable for a husband to beat his wife if she goes out without telling him, 10.8 % less likely if she neglects children, and 6.3% less likely if she argues with him.

Table 4: Difference in percentage of adolescent girls aged 15-19 years who consider a husband to be justified in hitting or beating his wife under certain circumstances, by circumstance and by urban/rural distinction

	Goes out w/o saying	Neglects children	Argues	Refuses Sex	Burns Food
Urban household	-0.104***	-0.108***	-0.063***	-0.006	-0.013
	(0.000)	(0.000)	(0.001)	(0.385)	(0.198)
Observations	2756.00	2748.00	2736.00	2690.00	2735.00
* p < 0.1; ** p < 0.05; *** p < 0.01					

Figure 9 shows wealth quintile differences in attitude towards wife-beating from the perspective of adolescent girls. As was the case with differences based on urban/rural setting, there is no

significant difference in how adolescent girls view wife-beating when the cause is wife refusing to have sex with her husband or burning food. Among the first three indicators, only adolescent girls in the richest quintile were statistically less likely to say wife-beating was justified compared to adolescent girls in the first four quintiles. This is an interesting result because up to the fifth quintile of income, wealth does not seem to matter in attitude towards wife-beating.

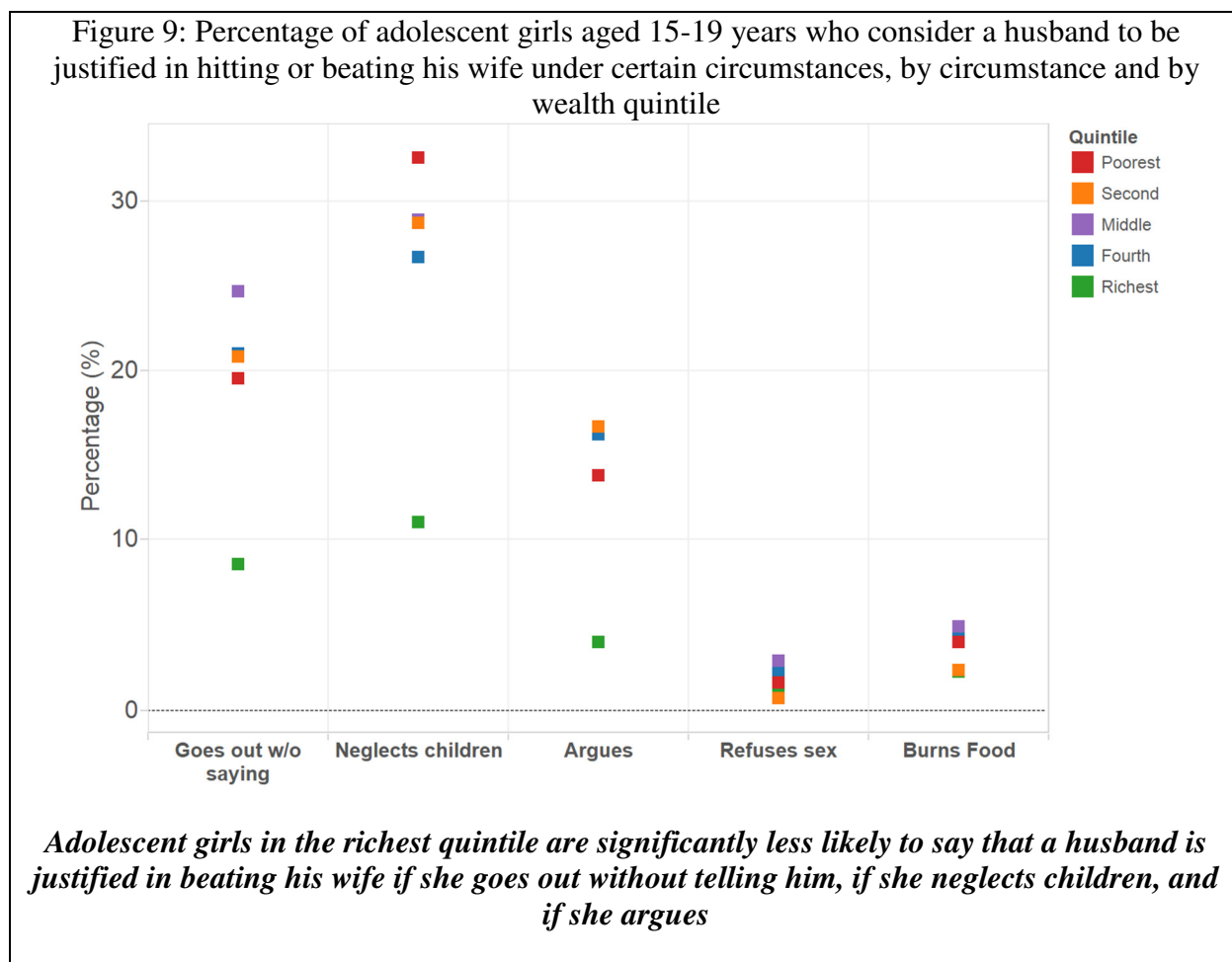
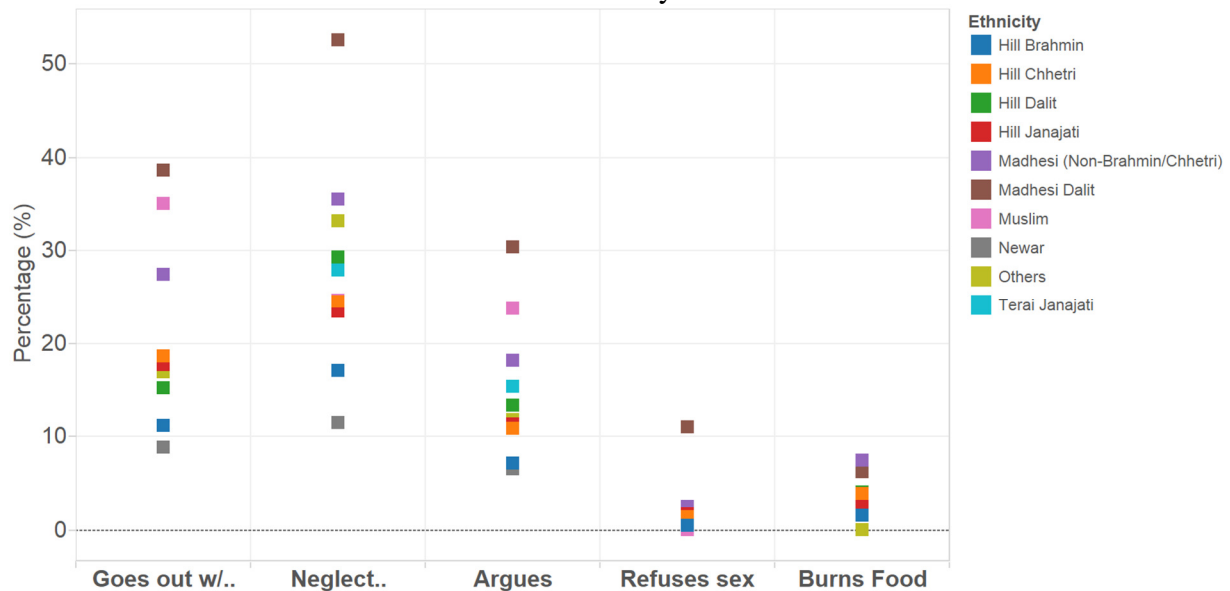


Figure 10 shows differences in attitude towards wife-beating based on caste and ethnicity. Adolescent girls in the Madhesi Dalit, Muslim, and non-Brahmin/Chhetri Madhesi community were significantly more likely to say wife-beating was justified under all circumstances. On the contrary, adolescent girls in the Hill Brahmin and Newar community were less likely to say wife-beating was justified.

Figure 10: Percentage of adolescent girls aged 15-19 years who consider a husband to be justified in hitting or beating his wife under certain circumstances, by circumstance and by ethnicity



Adolescent girls in Madhesi Dalit communities are significantly more likely to say a husband is justified in beating his wife if she goes out without telling him, if she neglects children, if she argues, and if she refuses to have sex with him

3.3.3 Variation based on education and marital status

Married adolescent girls are more likely to say wife-beating is justified under some circumstances in comparison to unmarried adolescent girls. Table 5 shows that adolescent girls who are married are 11% more likely to say that a husband is justified in beating his wife if she goes out without telling him, 7.7% more likely to say violence is justified if a wife argues with her husband, and 2.6% more likely to say so if a wife refuses to have sex with her husband. Whereas there is no significant difference in adolescent girls who view neglecting children as a justified reason for husband beating his wife.

Table 5: Difference in percentage of adolescent girls aged 15-19 years who consider a husband to be justified in hitting or beating his wife under certain circumstances, by circumstance and by marital status

	Goes out w/o saying	Neglects children	Argues	Refuses Sex	Burns Food
Married	0.110***	0.032	0.077***	0.026**	0.013
	(0.000)	(0.191)	(0.000)	(0.011)	(0.272)
Observations	2756.00	2748.00	2736.00	2690.00	2735.00
* p < 0.1; ** p < 0.05; *** p < 0.01					

Finally, Table 6 shows differences in attitude towards wife-beating based on the highest grade completed by adolescent girls aged 15-19. With each additional grade completed, adolescent girls are less likely to justify wife-beating. For example, Table 6 shows that with each additional grade completed, adolescent girls are 2.7% less likely to say a husband is justified in beating his wife if she goes out without telling him, 2.4% less likely to say violence is justified if she neglects children and 1.9% less likely to say so if she argues with him.

Table 6: Difference in percentage of adolescent girls aged 15-19 years who consider a husband to be justified in hitting or beating his wife under certain circumstances, by circumstance and by highest grade completed

	Goes out w/o saying	Neglects children	Argues	Refuses Sex	Burns Food
Highest Grade Completed	-0.027***	-0.024***	-0.019***	-0.003**	-0.007***
	(0.000)	(0.000)	(0.000)	(0.040)	(0.001)
Observations	2756.00	2748.00	2736.00	2690.00	2735.00
* p < 0.1; ** p < 0.05; *** p < 0.01					

Overall, these findings reveal that, as a policy lever for policymakers, education is perhaps a more powerful means of lowering justification for wife-beating than wealth related indicators. As in the case with access to media and communication technology, the findings from this chapter show that adolescent girls living in certain geographic pockets and of marginalized ethnicities in the Terai region have a higher likelihood of justifying wife-beating. Interventions aimed at changing perception towards domestic violence should keep these results in mind to have a greater impact, with the caveat and understanding that these women justifying domestic violence does not necessarily imply they are victims but it does create a risk that, should they become victims, they are more likely than other women to rationalize it.

3.4 Knowledge of HIV

Adolescence is an important period to gain useful knowledge on sexual and reproductive health. It is important for adolescents to be aware and have accurate information on how HIV can and cannot be transmitted. Although 15-24 year olds make up 22% of the global population, 34% of all new HIV infections occur among this age-group, further stressing the importance of providing sound knowledge on HIV to youths and adolescents.¹⁵ Correct knowledge about HIV transmission are helpful in preventing other STIs and, in the case of condoms, unintended pregnancy. Finally, it can also prevent discrimination against people suffering with the HIV virus.

According to the NMICS 2014 survey, only 26% of girls and women aged 15-49 have comprehensive knowledge about how HIV can and cannot be transmitted. And although female adolescents aged 15-19 have significantly higher likelihood of knowing methods of HIV

¹⁵ Joint United Nations Programme on HIV AIDS (UNAIDS), 'Global AIDS update', UNAIDS, 2016. www.unaids.org/sites/default/files/media_asset/global-AIDS-update-2016_en.pdf

transmission and prevention compared to the 15-49 age group, 6 in 10 female adolescents still do not have comprehensive knowledge.

Overall, 78% and 70% of adolescent girls in the NMICS sample respectively believed that HIV can be prevented by having sex with one partner at a time and using condoms during sexual intercourse. On the other hand, 17% of adolescent girls still believed that HIV can be transmitted by supernatural means, 42% believed that it can be transmitted through mosquito bites and 31% believed that it can be transmitted by sharing food from a person with HIV. As such, there is still large information gaps among female adolescents in correctly recognizing what can prevent HIV and how it can be transmitted.

3.4.1 Trends from DHS (2011) and MICS (2014)

Similar to NMICS 2014, the 2011 NDHS had four out of the five questions on knowledge about HIV transmission and prevention. Table 7 shows that compared to 2011 NDHS, adolescent girls who correctly stated that HIV cannot be transmitted through mosquito bites increased significantly from 32.1% to 58.3%. Similarly, adolescent girls who said HIV cannot be transmitted by sharing food increased from 61.8% to 69.3%. However, this difference was not significant at the 95% confidence level. On the other hand, adolescent girls who said using condoms can prevent HIV decreased from significantly from 78.2% to 69.5%, which should worry policymakers.

Table 7: Percentage of adolescent girls aged 15-19 who had correct knowledge of what can prevent or transmit HIV in NDHS 2011 and NMICS 2014 surveys

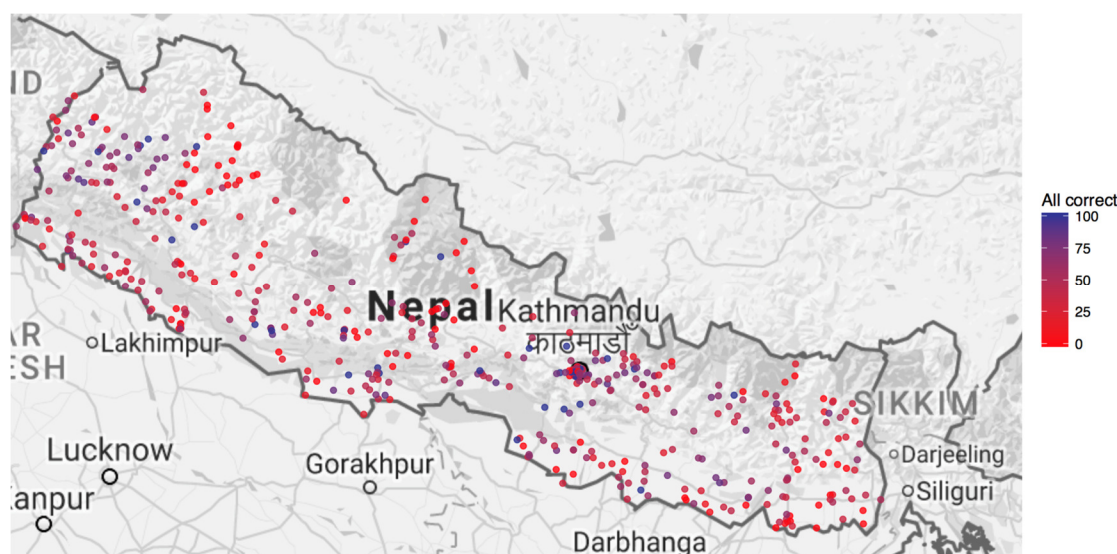
Indicator	<u>One Partner</u>		<u>Using Condoms</u>		<u>Mosquito Bites</u>		<u>Sharing Food</u>	
Source	<u>DHS 2011</u>	<u>MICS 2014</u>	<u>DHS 2011</u>	<u>MICS 2014</u>	<u>DHS 2011</u>	<u>MICS 2014</u>	<u>DHS 2011</u>	<u>MICS 2014</u>
Mean	83.7	78.1	78.2	69.5	32.1	58.3	61.8	69.3
Confidence Interval	[79.3, 88.1]	[75.1, 81.1]	[73.6, 82.9]	[66.3, 72.6]	[28.9, 35.3]	[55.3, 61.2]	[57.3, 68.2]	[66.5, 72.1]
N	2753	2721	2753	2721	2753	2721	2753	2721

3.4.2 Geographic variation in correct knowledge about HIV transmission and prevention

Figure 13 shows geographic variation in comprehensive knowledge about HIV transmission and prevention methods among adolescent girls aged 15-19 years in Nepal. Each sampling cluster covered in the NMICS survey is represented by a dot in the map. Blue colored dots represent higher comprehensive knowledge of HIV prevention and transmission. The indicator used to measure knowledge is coded as 1 if adolescent girls aged 15-19 in concerned sampling clusters answered all five questions related to HIV prevention and transmission correctly and 0 otherwise. For example, the value is 100% for a cluster if all adolescent girls surveyed in that cluster answered all five HIV related questions correctly, 50% if half of adolescent girls in a cluster answered all five questions correctly, and so on.

The map in figure 11 clearly shows large geographic pockets where adolescent girls lack comprehensive knowledge about methods of HIV transmission and prevention. This information gap is particularly stark throughout the southern border, and in eastern and mid-western hills and mountains. Even urban areas surrounding the Kathmandu valley show information gaps, which should worry policymakers as knowledge of HIV transmission is one of the primary ways of avoiding the HIV virus.

Figure 11: Percentage of adolescent girls aged 15-19 who had correct knowledge of HIV transmission and prevention, by NMICS sampling cluster



Adolescent girls across all geographic pockets show very weak knowledge on HIV prevention and transmission methods

3.4.3 Variation based on area, wealth quintile, caste/ethnicity

Table 8 shows that adolescent girls living in an urban household are far more likely to have correct knowledge regarding methods of HIV transmission and prevention. The differences were significant for all five indicators. Urban adolescent girls were 12% more likely to say having one partner at a time reduces chances of HIV, 10% more likely to say using condoms during sex can prevent HIV, and 14.5%, 14% and 13% respectively more likely to identify supernatural means, mosquitoes, and sharing food as events that does not lead to HIV transmission.

Table 8: Difference in percentage of adolescent girls aged 15-19 who had correct knowledge of what can prevent or transmit HIV, by cause and by urban/rural distinction

	One Partner	Condoms	Supernatural	Mosquitoes	Share Food
Urban household	0.120***	0.103***	0.145***	0.139***	0.128***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

Observations	2781.00	2781.00	2781.00	2781.00	2781.00
* p < 0.1; ** p < 0.05; *** p < 0.01					

Figure 12 shows that wealth plays an important role in determining whether adolescent girls have the right information about what transmits and prevents HIV. However, the effect of wealth as seen in figure 14 is not linear. For all five knowledge indicators, adolescent girls in the fourth and fifth income quintile have significantly higher knowledge on methods of HIV transmission and prevention whereas there is no statistically significant difference in knowledge among adolescent girls in the first three quintiles for four of the five indicators. The likelihood of having correct knowledge on HIV transmission and prevention significantly jumps from fourth to the fifth income quintile in four of the five indicators (except on knowledge about use of condoms).

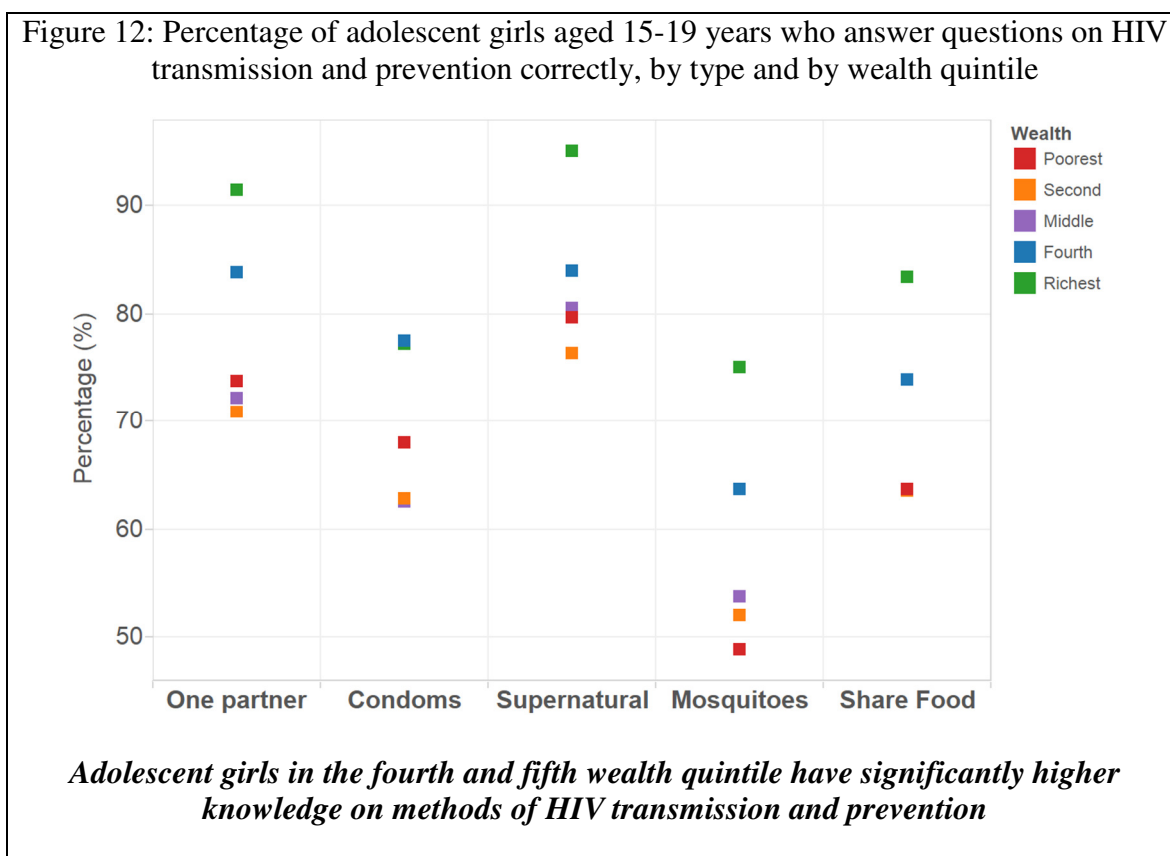
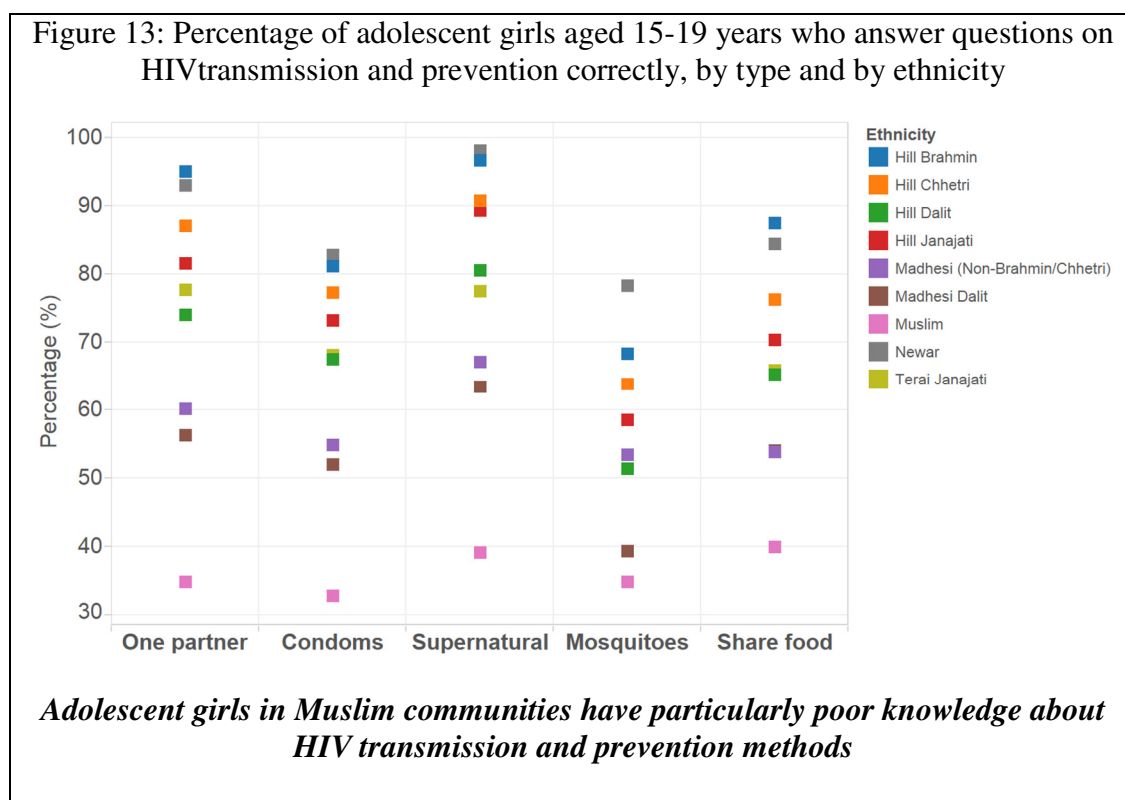


Figure 13 shows that there are important ethnic differences in knowledge about HIV transmission and prevention among adolescent girls aged 15-19. Across the board, Madhesi Dalit and Muslim adolescent girls have significantly lower likelihood of having correct knowledge on methods of HIV transmission and prevention. On the contrary, Hill Brahmins, Hill Chhetris, and Newars are more likely to show better awareness in most of the HIV related indicators. Adolescent girls close to the southern border of Nepal often fall prey to traffickers who utilize this lack of awareness among adolescents to involve them as sex workers across the border. Policymakers need to act fast in response to this systematic lack of knowledge and awareness

faced by adolescent girls of certain communities to reduce the rate of HIV transmission among those communities.



3.4.4 Variation based on education status

Table 9 shows differences in correct knowledge about HIV transmission and prevention based on the highest grade completed by adolescent girls aged 15-19. With each additional grade completed, adolescent girls are significantly more likely to increase their awareness about methods of HIV transmission and prevention for all five indicators of interest. For example, Table 9 shows that with each additional grade completed, adolescent girls are 6.4% more likely to say having sex with one partner at a time can reduce HIV transmission, 6% more likely to say using condoms can prevent HIV, and 6.3% less likely to say sharing food with an HIV infected person can transmit HIV.

Table 9: Difference in percentage of adolescent girls aged 15-19 who had correct knowledge of what can prevent or transmit HIV, by cause and by highest grade completed

	One Partner	Condoms	Supernatural	Mosquitoes	Share Food
Highest Grade Completed	0.064***	0.060***	0.056***	0.051***	0.063***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	2781.00	2781.00	2781.00	2781.00	2781.00
* p < 0.1; ** p < 0.05; *** p < 0.01					

Overall, this section on HIV transmission and prevention knowledge among female adolescents shows that there are critical gaps in comprehensive knowledge about what causes and prevents HIV. This information gap is particularly severe in rural areas, and among poorest adolescent girls in Madhesh based communities in Nepal. Education, as shown in the previous section, can be one of the most effective ways in changing misconceptions about HIV transmission and prevention.

3.5 Life Satisfaction

Along with economic and physical well-being, subjective well-being as measured by happiness and life satisfaction indicators have increasingly received more attention in the development literature. These indicators, borrowed from psychology, have even more prominence for the adolescent age-group as adolescents are highly susceptible to frequent changes in their mental state. A study done among adolescents in the UK found that along with low-income, lower subjective well-being was associated with higher drug usage.¹⁶

In the NMICS sample, data is available on overall happiness and satisfaction with certain aspects of social life for females aged 15-24. And although there is no statistically significant difference in indicators measuring happiness and life satisfaction among adolescent girls aged 15-19 compared to young women aged 20-24, high percentage of adolescent girls say they are very or somewhat satisfied with different aspects of life. 84% of adolescent girls aged 15-19 said they were somewhat or very happy with their life, 86% said they are somewhat or very satisfied with their family life, 86% also said they are somewhat or very satisfied with their friendships, 80% said they were somewhat or very satisfied with their health status, and 76% said they were somewhat or very satisfied with their living space. This section further disaggregates these numbers by urban/rural, wealth quintile, caste/ethnicity, and education status.

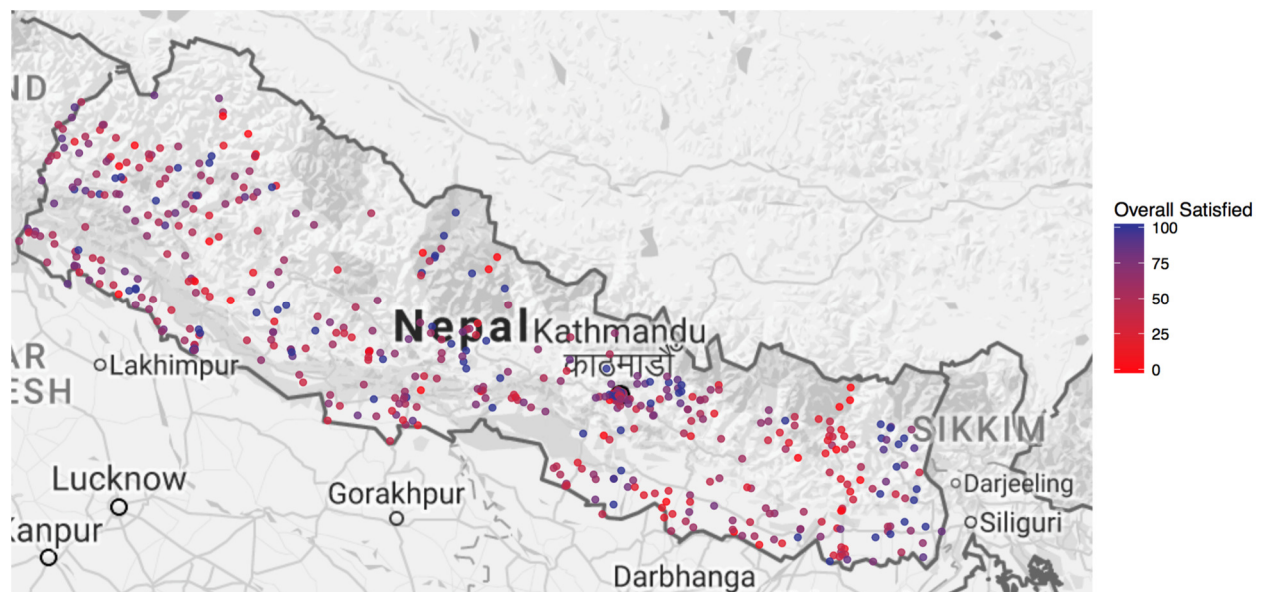
¹⁶ Farmer, Siobhan, and Barbara Hanratty, *The relationship between subjective wellbeing, low income and substance use among schoolchildren in the north west of England: a cross-sectional study*, Journal of Public Health 34, no. 4, 2012, pp. 512-522

3.5.1 Geographic variation in overall happiness and satisfaction

Figure 14 shows geographic variation in overall subjective well-being among adolescent girls aged 15-19 years in Nepal. Each sampling cluster covered in the NMICS survey is represented by a dot in the map. Blue colored dots represent higher subjective well-being and red colored dots represent the opposite. The indicator used to overall satisfaction is coded as 1 if adolescent girls aged 15-19 in concerned sampling clusters said they were somewhat or very satisfied in all five domains of subjective well-being indicators and 0 otherwise. For example, the value is 100% for a cluster if all adolescent girls surveyed in that cluster said they were very or somewhat satisfied in all five domains of subjective well-being, 50% if half of adolescent girls in a cluster said they were very or somewhat satisfied in all five domains, and so on.

There are some clear patterns that emerge yet again from looking at the map in figure 16. Interestingly, and unlike previous sections, the entire geographic pocket connecting the borders between Central and Eastern zones have more red dots than other nearby geographic areas. Similarly, adolescent girls living in pockets of Central Terai, and parts of Western and Mid-Western hills show lower level of overall satisfaction.

Figure 14: Percentage of adolescent girls who are overall happy and satisfied with different aspects of life based on subjective well-being domains, by NMICS sampling cluster



Adolescent girls in the Eastern regions have lower level of self-reported subjective well-being scores than adolescent girls in the Western parts of the country

3.5.2 Variation based on area, wealth quintile, caste/ethnicity

Table 10 shows that adolescent girls living in urban households are more likely to be satisfied with certain aspects of their life. But unlike previous sections, it is less obvious if an urban setting indeed matters for subjective well-being. The differences between happiness and life satisfaction were only significant for three of the five indicators. Urban adolescent girls were 5% more likely to be satisfied with friends, family, and living space. There was no significant difference in overall happiness between adolescent girls in rural and urban settings.

Table 10: Difference in percentage of adolescent girls aged 15-19 who are happy and satisfied with certain aspects of their life, by domain and by urban/rural distinction

	Happy	Satisfied w/Family	Satisfied w/Friends	Satisfied w/Health	Satisfied w/Living Space
Urban household	0.019	0.049**	0.049**	0.030	0.052**
	(0.412)	(0.011)	(0.011)	(0.200)	(0.033)
Observations	2781.00	2781.00	2781.00	2781.00	2781.00
* p < 0.1; ** p < 0.05; *** p < 0.01					

Similar to previous sections, figure 15 yet again shows that wealth plays a significant role in the overall subjective well-being of adolescent girls. However, the wealth effect is far from linear in overall happiness and life satisfaction indicators. Adolescent girls in the richest quintile are significantly happier compared to adolescent girls in the poorest quintile. But there is no statistically significant difference in overall self-reported subjective well-being of adolescent girls in the second, third or fourth quintile. Adolescent girls in the richest quintile are also significantly more satisfied with family and friends compared to the rest. On the other hand, adolescent girls in the poorest quintile are significantly less satisfied with their living space. These findings reveal that while wealth is strongly correlated with happiness and life satisfaction of adolescent girls in the NMICS sample, the jump from one wealth quintile to another does not always produce an expected jump in overall satisfaction levels.

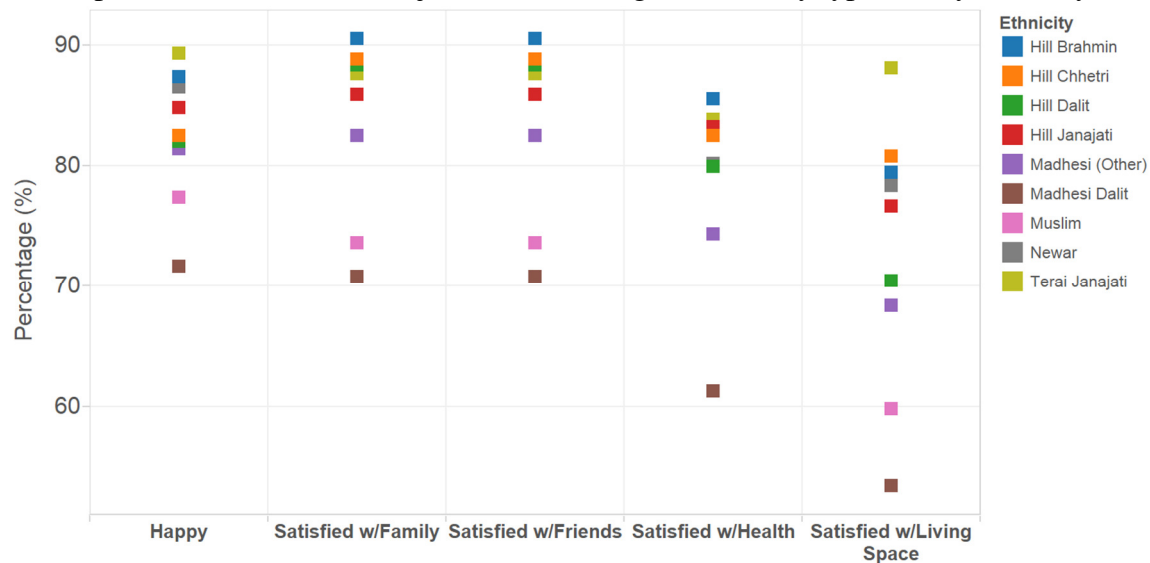
Figure 15: Percentage of adolescent girls who are overall happy and satisfied with different aspects of life based on subjective well-being domains, by type and by wealth quintile



Adolescent girls in the richest quintile are significantly more likely to self-report higher level of overall happiness, and are more likely to be satisfied with friends and family

Figure 16 shows overall happiness and life satisfaction levels by ethnicity. Remarkably, as in all of the previous sections, adolescent girls from the Madhesi Dalit and Muslim communities are less likely to be happy and satisfied with different aspects of their life compared to adolescent girls from other communities. However, this difference is only significant at the 5% level in life satisfaction with the current living arrangement. Adolescent girls from the Terai Janajati community fare considerably better in happiness and life satisfaction indicators compared to other indicators in previous section and in relation to their peers from other communities.

Figure 16: Percentage of adolescent girls who are overall happy and satisfied with different aspects of life based on subjective well-being domains, by type and by ethnicity



Adolescent girls in the Madhesi Dalit and Muslim communities self-report significantly lower happiness and life satisfaction across all subjective well-being domains

3.5.3 Variation based on education status

Table 11 shows differences in happiness and life satisfaction based on each additional level of grade completed by adolescent girls aged 15-19. There is a small but highly significant association between each additional level of grade completed and overall life satisfaction. Adolescent girls who have completed one additional unit of schooling are 1.5% more likely to be happy, 1.7% more likely to be satisfied with family and friends, 1.6% more likely to be satisfied with their health and 2.3% more likely to be satisfied with their living space. However, reverse causality cannot be ruled out in this case because a friendlier and happier living space might drive one to achieve more education.

Table 11: Difference in percentage of adolescent girls aged 15-19 who are happy and satisfied with certain aspects of their life, by domain and by highest grade completed

	Happy	Satisfied w/Family	Satisfied w/Friends	Satisfied w/Health	Satisfied w/Living Space
Highest Grade Completed	0.015***	0.017***	0.017***	0.016***	0.023***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	2781.00	2781.00	2781.00	2781.00	2781.00
* p < 0.1; ** p < 0.05; *** p < 0.01					

Overall, the findings from this section reveal that most adolescent girls in the NMICS sample were very or somewhat satisfied with different aspects of their familial and societal life. However, even when the average life satisfaction ratings were high, there were adolescent girls from under-privileged communities who ranked significantly lower on certain aspects of subjective well-being.

3.6 Trends and determinants of attitude towards wife-beating and knowledge of HIV among adolescent girls: A Logistic Regression Framework

In this section, two of the variables explored in previous sections, namely attitude towards wife-beating, and comprehensive knowledge of HIV prevention and transmission, is further examined using a logistic regression framework. A host of individual and household level characteristics are used as explanatory variables to test the association between these characteristics and the two outcome variables of interest.

The reference categories and the variables are selected based on descriptive analysis from previous sections and based on previous literature.¹⁷ For example, in terms of geography, Mid-Western region is selected as a reference category because geographical variation show that certain parts of this region lags behind in both sets of outcome variables explored in this section. Similarly, Hill Brahmins are selected as a reference category for ethnicity because traditionally, Hill Brahmins are considered the most privileged ethnic group occupying the highest category in the unofficial social hierarchy in Nepal. Other variables chosen in the model are wealth quintile, urban/rural distinction, education, marital status, household size, and usage of media and communication technology. While these variables are selected based on suitability of context and based on preceding descriptive analysis, it is not meant to be a comprehensive list of factors affecting the two outcome variables in question. As such, this section should be treated as further exploratory analysis.

3.6.1 Attitude towards wife-beating

This section explores the factors that affect adolescent girls' attitude towards wife-beating. By using a logistic regression framework, we use a host of household and individual characteristics to determine the association with the dependent variable of justifying attitude towards wife-beating .

Table 12 shows a number of key factors that are strongly associated with attitude towards wife-beating:

¹⁷ For example, see:

Sulabha Parasuraman, et.al.. *A Profile of Youth in India: National Family Health Survey (NFHS-3), India, 2005-06*, ICF Macro and International Institute for Population Sciences, Maryland and Mumbai, 2009

- Education is a key predictor of whether adolescent girls think wife-beating is justified. Compared to adolescent girls with no education, adolescent girls who have at least primary education are much less likely to say wife-beating is justified. The probabilities, as depicted by odds-ratio, is more than half for adolescent girls with primary education and further decreases with more education.
- Adolescent girls from a large household (n>8) are more likely to justify wife-beating.
- Being in Madhesi ethnicity (Madhesi Brahmin/Chhetri, Madhesi (Other), and Madhesi Dalit) is significantly associated with more tolerating attitude towards domestic violence for adolescent girls.
- In terms of wealth quintiles, adolescent girls in the richest quintile are significantly less likely to report that wife-beating is justified compared to the reference category of the poorest quintile.
- On the contrary, access and usage of media and communication technology are not significantly associated with attitude towards wife beating after controlling for household and individual characteristics. However, it is helpful to keep in mind that one possible reason why these indicators may not be significantly associated with the outcome variable is because most media/communication technologies do not cater to local languages spoken among different regions and groups in Nepal and may not be able to reach the most marginalized of communities.

These results further corroborate findings from the previous sections. Adolescent girls who are more likely to justify wife-beating have no education, are from Madhesi ethnic communities, live in larger households and do not belong to the richest quintile.

Table 12: Trends and determinants of attitude towards wife beating among adolescent girls aged 15-19 years in Nepal

<u>Background characteristics</u>	<u>Odds Ratio</u> <i>Dependent variable: Is wife-beating justified?</i>
<u>Region</u>	
<i>Ref. category: Mid-Western</i>	
Eastern	1.33
Central	0.77
Western	0.86
Far Western	1.31
<u>Household Size</u>	
<i>Ref. category: Small (1-4)</i>	
Medium (5-8)	0.99
Large (9 or higher)	1.48**
<u>Urban/Rural</u>	
<i>Ref. category: Rural</i>	

Background characteristics	Odds Ratio <i>Dependent variable: Is wife-beating justified?</i>
Urban	1.00
<u>Education</u>	
<i>Ref. category: None</i>	
Primary	0.45***
Secondary	0.35***
Higher Secondary	0.32***
<u>Marital Status</u>	
<i>Ref. category: Unmarried</i>	
Married	1.06
<u>Ethnicity</u>	
<i>Ref. category: Hill Brahmin</i>	
Hill Chhetri	1.23
Newar	0.79
Madhesi Brahmin Chhetri	4.08**
Hill Dalit	1.21
Hill Janajati	1.28
Terai Janajati	1.48
Other	1.55
Madhesi Dalit	2.29**
Madhesi (Non-Brahmin/Chhetri)	1.63*
Muslim	1.18
<u>Wealth Quintile</u>	
<i>Ref. category: Poorest</i>	
Second	1.02
Middle	0.99
Fourth	1.21
Richest	0.61**
<u>Media</u>	
<i>Ref. category: No media</i>	
Any media (Newspaper/TV/Radio)	0.82
<u>Communication</u>	
<i>Ref. category: No mobile phone</i>	
Mobile phone	0.97

*p<0.1 ; ** p<0.05 ; ***p<0.01

3.6.2 Knowledge of HIV transmission

This section explores factors determining correct knowledge of HIV transmission and prevention methods among adolescent girls in the NMICS sample. A logistic regression framework is used once again to control for household and individual characteristics. The dependent variable in this case is correct knowledge of all five HIV transmission related indicator explored in previous sections.

Table 13 shows key factors that are strongly associated with correct knowledge regarding different forms of HIV transmission and prevention methods:

- As in the case with attitude towards domestic violence, education is one of the key predictors in having comprehensive knowledge about HIV transmission methods and ways to prevent them. Adolescent girls with just primary education are more than twice as likely to give correct answers on HIV related questions. This likelihood increases exponentially with higher level of education. Adolescent girls with higher secondary education are 10 times more likely to give correct answers on HIV related questions compared to adolescent girls with no education.
- Unlike attitude towards domestic violence, geography seems to matter in being aware regarding forms of HIV transmission. Adolescent girls in central and Far-Western regions are more likely to be give correct answers compared to the reference category of adolescent girls in the Mid-Western region.
- Similar to the previous section, adolescent girls in large households ($n > 8$) are much less likely to have correct knowledge on forms of HIV transmission compared to adolescent girls who come from households with smaller size.
- Interestingly, ethnicity does not seem to matter and none of the ethnicities are strongly associated with having correct knowledge on HIV related questions.
- Similarly, wealth does not seem to be strongly correlated with knowledge of HIV.

Overall, education is one of the key predictors in making adolescent girls aware regarding different forms of HIV transmission and ways to prevent them. Similarly, access and usage of media and communication technology is not strongly associated with correct knowledge on HIV transmission methods.

Table 13: Trends and determinants of correct knowledge regarding HIV transmission and prevention among adolescent girls aged 15-19 years in Nepal

	<u>Odds Ratio</u> <i>Dependent variable: Correct knowledge on HIV transmission and prevention</i>
<u>Background characteristics</u>	
<u>Region</u>	
<i>Ref. category: Mid-Western</i>	
Eastern	0.96
Central	2.08***
Western	1.11

	<u>Odds Ratio</u> <i>Dependent variable: Correct knowledge on HIV transmission and prevention</i>
<u>Background characteristics</u>	
Far Western	1.78***
<u>Household Size</u>	
<i>Ref. category: Small (1-4)</i>	
Medium (5-8)	1.15
Large (8 or higher)	0.68**
<u>Urban/Rural</u>	
<i>Ref. category: Rural</i>	
Urban	1.00
<u>Education</u>	
<i>Ref. category: None</i>	
Primary	2.42***
Secondary	5.94***
Higher Secondary	10.21***
<u>Marital Status</u>	
<i>Ref. category: Unmarried</i>	
Married	0.86
<u>Ethnicity</u>	
<i>Ref. category: Hill Brahmin</i>	
Hill Chhetri	0.92
Newar	1.00
Madhesi Brahmin Chhetri	1.23
Hill Dalit	0.89
Hill Janajati	0.79
Terai Janajati	0.76
Other	0.97
Madhesi Dalit	0.84
Madhesi (Non-Brahmin/Chhetri)	0.87
Muslim	0.97
<u>Wealth Quintile</u>	
<i>Ref. category: Poorest</i>	
Second	1.00
Middle	1.15
Fourth	1.20
Richest	0.94
<u>Media</u>	

	<u>Odds Ratio</u> <i>Dependent variable: Correct knowledge on HIV transmission and prevention</i>
<u>Background characteristics</u>	
<i>Ref. category: No media</i>	
Any media (Newspaper/TV/Radio)	1.18
<u>Communication</u>	
<i>Ref. category: No mobile phone</i>	
Mobile phone	1.06

4. Discussion and Conclusion

This report highlighted several key findings regarding the overall state of adolescents in the NMICS sample. It found that adolescents in general and adolescent girls in particular are much more likely to drop out of school after the age of 16. This finding is corroborated by looking at marital status and childbirth data among adolescent girls, which showed that both marriage and childbirth among adolescent girls increased exponentially after the age of 16.

Further analysis of several modules from the NMICS questionnaire shed light on adolescent girls aged 15-19 and identified vulnerable groups based on household and individual characteristics. Adolescent girls in the urban community were significantly more likely to have better access and usage of media and communication technologies, have a lower tolerance towards the practice of wife-beating, and have correct knowledge regarding HIV prevention and transmission methods. Similarly, wealth had a non-linear correlation with different outcomes examined in this report. Generally, there was a big jump in wealth effect from the first four to the fifth quintile, and adolescent girls in the richest quintile were significantly more likely to say wife-beating was not okay compared to adolescent girls in the first four quintiles. Adolescent girls from under-privileged communities in the Madhesh region including Muslims were more likely to justify wife-beating and overall had lower happiness and life satisfaction levels.

Logistic regressions further shed light on key factors determining attitude towards wife-beating and knowledge of HIV transmission and prevention. This section found that education is one of the key predictors of attitude towards wife-beating and correct knowledge regarding HIV. Adolescent girls with just primary education were less than half as likely to justify wife-beating, and more than twice as likely to know about HIV transmission and prevention methods, compared to adolescent girls with no education, after controlling for a host of household and individual characteristics. Household size was another key predictor of outcome variables explored in this section.

While this report highlighted some important aspects regarding adolescent life, it was constrained by the availability of data on adolescents. In particular, the findings for adolescent girls aged 15-19 may not be generalizable for adolescent girls in the 10-14 age cohort, or for male adolescents aged 10-19. One of the key recommendation from this report is to include modules relevant to the entire 10-19 age group for both males and females in further rounds of the NMICS survey. Future rounds of the NMICS survey will benefit from adding other modules relevant to adolescent age-group such as perception of marriage, childbirth, and other aspects of sexual and reproductive health. It does not cover questions regarding how adolescents participate in their community and get involved in the decision-making process. These set of questions, which are included in the Adolescents Development and Participation (ADAP) baseline survey implemented in 14 of the poorest districts in Nepal by UNICEF, should be considered for possible inclusion, after further validation and testing, in other surveys as such in future rounds of the NMICS.

Despite these limitations, the findings from this report on adolescents filled large information gaps on adolescent life in Nepal. Policymakers should consider the most marginalized group of adolescent girls when designing awareness campaigns about domestic violence and HIV. Even

though most adolescent self-reported high levels of happiness and life satisfaction levels, there are those in the Madhesi and Muslim community who are universally less well-off in these indicators, and deserve particular attention in terms of programmatic agendas and interventions.

References

- Farmer, Siobhan and Barbara Hanratty, '*The relationship between subjective wellbeing, low income and substance use among schoolchildren in the north west of England: a cross-sectional study*', *Journal of Public Health* 34, no. 4, 2012, pp. 512-522
- Government of Nepal, Ministry of Youth and Sports (MoYS), *Nepali Youth in Figures*, Government of Nepal, MoYS, United Nations Population Fund and Restless Development, Nepal, 2014
- Khatiwada, Naresh, et.al., *Sexual and Reproductive Health of Adolescents and Youth In Nepal: Trends and Determinants: Further analysis of the 2011 Nepal Demographic and Health Survey*, ICF International, Ministry of Health and Population and New ERA, Calverton, Maryland and Kathmandu, Nepal, 2013
- Khatri, R., et al.,. *National Adolescent Sexual and Reproductive Health Program: Mid-Term Evaluation Report*, GIZ, 2013
- Ministry of Health and Population (MOHP) Nepal, New ERA and ICF International Inc. *Nepal Demographic and Health Survey 2011*, MOHP, New ERA and ICF International, Kathmandu, Nepal and Calverton, Maryland 2012
- Ministry of Population and Health, Nepal, *National HIV/AIDS strategy (2011-2016)*, MOHP, Nepal, 2011
- National Planning Commission (NPC), *National Plan of Action for Holistic Development of Adolescents*, NPC and UNFPA, Nepal, 2013
- Sulabha Parasuraman, et.al., *A Profile of Youth in India: National Family Health Survey (NFHS-3), India, 2005-06*, ICF Macro and International Institute for Population Sciences, Maryland and Mumbai, 2009
- Joint United Nations Programme on HIV AIDS (UNAIDS), '*Global AIDS update*', UNAIDS, 2016, <www.unaids.org/sites/default/files/media_asset/global-AIDS-update-2016_en.pdf>, accessed December 2016
- United Nations Childrens Fund (UNICEF), *Adolescent Development and Participation in Nepal: Donor Report*, UNICEF, Nepal, 2014
- UNICEF, *Adolescent Participation and Development (ADAP) Baseline Study*, UNICEF and Population Council, Nepal, 2014
- UNICEF, *Behind Closed Doors: The Impact of Domestic Violence on Children*, The Body Shop International and UNICEF, West Sussex, UK and New York, 2006
<http://www.unicef.org/media/files/BehindClosedDoors.pdf>, accessed December 2016
- United Nations, *World Population Prospects: The 2015 Revision*, United Nations, Department of Economic and Social Affairs, Population Division, New York, 2016