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Prevalence and factors associated with self-reported injuries in Nepal: a secondary analysis of the nationally representative cross-sectional STEPS Survey, 2019

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ABSTRACT

Objective This study aims to determine the prevalence and factors associated with injuries in the adult population of Nepal.

Design and participants Secondary analysis of the data from the cross-sectional WHO STEPwise Approach to NCD Risk Factor Surveillance (STEPS) Survey Nepal, 2019. A multistage cluster sample of 5593 adults aged 15–69 years who have been the usual residents of the household for at least 6 months. A binary logistic regression model was employed to identify the determinants of injuries.

Setting Data were derived from the STEPS Survey Nepal, 2019.

Primary and secondary outcome measures The primary outcome was injured person defined as one who had road traffic injuries (RTIs), had other serious unintentional/accidental injury, or had been seriously injured in a violent incident within the past 12 months. The secondary outcome measure was factors associated with injuries.

Results Over 11% of the 4996 study participants reported any injuries during the past 12 months. About 3.75% of the participants experienced a RTI, 4.71% had experienced unintentional injuries other than RTI, while 5.33% had been injured in violent incidents. Individuals belonging to the middle wealth quintile (crude OR (COR)=2.95, 95% CI 1.27 to 6.84) were associated with increased odds of RTIs. By occupation, homemaker (COR=0.45, 95% CI 0.24 to 0.84) was protective against these injuries. Likewise, currently married individuals (COR=3.74, 95% CI 1.37 to 10.17), ever married individuals (COR=3.49, 95% CI 1.08 to 11.25) and individuals not in employment (COR=2.13, 95% CI 1.16 to 3.91) were associated with an increased likelihood of sustaining an intentional injury. Injuries were higher among rural participants.

Conclusions This study provides the baseline population-based estimates of the prevalence of injuries in Nepal. It describes the mechanisms and risk factors of these injuries. It is hoped that this evidence will serve as a stimulus for future studies to elucidate comprehensive national information about injuries.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ To our knowledge, this is the first study to assess the magnitude and risk factors of injuries based on the most recent nationally representative sample of the Nepalese population.
⇒ We used multistage stratified cluster sampling and probability weights to avoid potential biases.
⇒ Self-reported information collected from past events is subject to recall bias.
⇒ Due to the cross-sectional nature of the study, causal relationships could not be identified.

BACKGROUND

Injuries are one of the leading causes of premature death and disabilities globally.[1] According to world health organizatio(WHO) estimates, around 4.4 million deaths occur globally from injuries, which is nearly 8% of total deaths from all causes.[2] Road traffic injuries (RTIs) are responsible for 1.3 million deaths, unintentional injuries cause 1.8 million deaths, and self-harm and violent injuries are responsible for 1.3 million deaths.[3] Additionally, injuries contribute to 69.3 million years lived with disability (YLDs). The top three leading causes of death worldwide due to injuries including road traffic crashes, suicide and homicide are all predicted to increase in rank compared with other causes of death, placing them among the top 20 leading causes of death in the world by 2030.[4] Developing countries carry the largest burden of injuries where more than 90% of deaths and 94% of disability-adjusted life years (DALYs) resulting from injuries occur in low-income and middle income countries (LMICs).[5] The burden of injury is highest in the younger age group. This age group is believed to be the most productive, and injury will, in

turn, have an impact on the growth and financial development of a nation.[6]

Nepal is an LMIC and has a substantial burden from injuries in terms of a high number of hospital visits, hospitalisation and disabilities. Injuries are a major cause of death. The Integrated Health Management Information System record shows that injuries were the reason for 1.4 million outpatient morbidities in Nepal in the year 2020/2021.[7] In Nepal, economic development, urbanisation, unsafe exposure to road traffic, motorisation, ageing, environmental and lifestyle changes over the past decades have led to injury being reported as the seventh leading cause of premature death.[8] Literature indicates a range of risk factors associated with injuries including youth,[9] low socioeconomic status,[10] those covered by health insurance,[11] disabilities related to vision, hearing, motor and cognitive function,[12] male sex,[11] college-level education,[13] presence of comorbidities, alcohol use,[13] unsafe environment including inadequate traffic laws, poor road engineering and high-risk road users.[14]

Reporting of injury data in Nepal is very limited; the majority of the data on injuries are generated from hospital and police records. However, population-based epidemiological data needed to inform policy and programme development are not readily available in Nepal. According to recent estimates, in Nepal, 4.11% of all deaths were attributed to transport injuries, 3.54% were attributed to unintentional injuries, and 1.55% were attributed to self-harm and interpersonal violence.[15] Previous studies conducted by the Nepal Health Research Council and reports from other studies show that RTIs are a common cause of trauma-related injuries in Nepal.[16 17] Nepal traffic police statistics suggest that the number of road traffic-related death and injury is increasing annually.[18–20] A community-based survey suggested that injuries occurring at home and around, such as falls and burns, poisoning, and work-related injuries also have a significant impact on Nepal's injury burden.[21] A recent study recorded an incident rate of 22.40 per 1000 (3 months incidence) for injuries in Makwanpur district. Nearly 36% of all injuries occurred at home and 29% of injuries were work-related.[22] The Nepal Demographic and Health Survey (NDHS) 2016 revealed that 9% of women had experienced physical violence from their husbands in the past 12 months.[23] Although data are not available for recent years, the NDHS 2006 found that injury was the cause of death for 2.8% postnatal and 10.7% of child (12–59 months) deaths.[24] While many injuries are preventable, there is a lack of attention paid to injury prevention, but it is gradually appearing in Nepal's national health and development agenda.[25] The Nepal Road Safety Action Plan 2013–2020,[26] the Nepal Health Sector Strategy (NHSS) 2015–2020,[27] the NHSS Implementation Plan 2016–2021[28] and the Fifteenth Plan (2019–2024)[29] have included activities related to the prevention of injuries where road safety and postcrash response are highlighted but provisions for other types of injuries are neglected. A recent review of national documents has indicated that over 60 different existing laws and policies are relevant to this particular public health issue.[30] Limited progress in the implementation of these plans and policies has challenged any efforts related to prevention of injuries in Nepal. Knowing the factors that are associated with injuries is important to encourage actions regarding health promotion and prevention in different contexts. Therefore, this paper reports the prevalence and factors associated with injuries among the adult population of Nepal.

METHODS

This study used secondary data derived from population-based NCD risk factor surveys using a standardised method from the WHO, called the STEPwise Approach to NCD Risk Factor Surveillance (STEPS) Survey Nepal 2019.[31] The STEPS 2019 Survey collected data using a WHO-recommended optional module on unintentional injuries and violence which is presented in this paper.[32]

Study design and sampling

We used nationally representative population-based cross-sectional study data from the STEPS Survey 2019. In brief, the STEPS Survey applied multistage cluster sampling using the Central Bureau of Statistics data to obtain a random sample of 5593 adults aged 15–69 years who have been the usual residents of the household for at least 6 months and have stayed in the household the night before the survey. One participant per household was selected for the survey. The detailed methodology has been presented elsewhere.[33–35]

Data collection tools and techniques

The survey was conducted using the standardised WHO NCD STEPS Questionnaire V.3.2. Data collection was done using ODK software by trained enumerators using the eSTEPs questionnaire which was loaded on android tablets. As part of the household survey, STEP 1 measures sociodemographic and behavioural information on tobacco and alcohol use, diet, physical activity, history of chronic diseases, family history of chronic conditions, health screening, and healthcare costs. STEP 2 measures physical measurements such as height, weight, blood pressure and waist circumference. STEP 3 measures biochemical tests such as fasting blood glucose, total cholesterol, triglycerides, high-density lipoprotein and low-density lipoprotein cholesterol. Unintentional injuries and violence were covered in STEP 1 as one of the optional modules, of which we used all the questions prescribed in the stepwise approach to surveillance. The data collected from this survey has been deposited in a public repository which is available for reuse on reasonable request. Data can be accessed via the South-East Asia regional microdata repositionary at https://nada.searo.who.int/index.php/catalog with the reference ID NPL_2019_STEPS_v01.[36]

Primary outcome and measures

The primary outcome was injured person defined as one who had either been injured in a road traffic crash or

collision (RTIs), had other serious unintentional/accidental injury, or had been seriously injured in a violent incident within the past 12 months. Unintentional/accidental injuries included injuries such as a fall, burn, poisoning, near-drowning and electrocution. Violent incidents included intentional use of physical force to cause injury. A serious or severe injury was defined as an injury that required medical attention. These variables included the following questions: 'did you have any injuries in this road traffic crash which required medical attention?', 'in the past 12 months, have you been accidentally injured, other than the RTIs which required medical attention?' and 'in the last 12 months, how many times have you been in a violent incident where you were injured and required medical attention?'.

The explanatory variables used in this study include sociodemographic and socioeconomic variables (age, sex, education, marital status, occupation, place of residence, wealth quintile); sex (male, female), marital status (never married, currently married, ever married); age in three categories (15–29, 30–44 and 45–69 years); place of residence stratified into two categories (urban and rural); educational status (none/less than primary, primary, secondary and more than secondary); occupation (categorised as employed, student, homemaker, unemployed and others) and wealth quintile (classified into the following categories: lowest, second, middle, fourth, highest). We also calculated the prevalence of protective and behavioural factors for RTIs, particularly, seat belt use (yes, never, seat belt not present) and reports of driving under the influence of alcohol (no, yes, don't know). The dependent variable for this study was reporting of any injury within the preceding 12 months.

Statistical analysis

Statistical analysis was performed using STATA V.13 (StataCorp, USA) with appropriate methods for complex sampling design of the survey. Background characteristics for all participants were described, and descriptive summaries for all variables reported. Bivariate analyses were used to examine associations between the explanatory variables and injuries using χ^2 tests with a 95% CI. Likewise, the crude OR (COR), along with its CIs, was estimated using a binary logistic regression model to identify the determinants of injuries. All tests were two-sided and value of $p<0.05$ was considered statistically significant.

Patient and public involvement

Neither the patients nor the public were involved in the design, conduct, reporting or dissemination plans of this research.

RESULTS

Table 1 depicts the sociodemographic characteristics of research participants and injured persons. A majority (64.21%) of the research participants were women. More men (12.14%) were injured than women (10.97%). By age, injuries were highest (12.15%) among participants aged 15–29 years and lowest (10.85%) among the 45–69 years age group. In terms of education, injuries were highest (13.61%) among those participants who completed secondary-level education and lowest (9.87%) among those who had primary education. Injuries were lower among the participants residing in metropolitan/submetropolitan cities (9.67%) compared with those who reside in municipalities (10.89%) and rural municipalities (11.74%). By wealth quintile, injuries ranged from 10.20% among participants in the fourth wealth quintile to 12.47% among participants in the second wealth quintile. Injuries were higher (14.35%) among unemployed participants. Regarding marital status, injuries were higher (13.96%) among the ever-married and lower (11.14%) among the currently married participants.

Table 2 depicts the place of occurrence and type of unintentional injuries. Place of injury occurrence was available for 154 participants (27.06%) who reported 205 unintentional injury incidents other than road injuries. Among them, 32.68% of injuries occurred at home followed by 23.41% in the farms, 19.51% at workplaces and 19.02% on roads. Among those injured at home, 83.58% were fall injuries, followed by cut wounds (11.94%), animal bites (2.99%) and burns (1.49%). Likewise, 85% of all unintentional injuries occurring at workplaces were falls followed by near-drowning (7.50%), burns (5%) and cut wounds (2.50%). Among the 39 injuries that occurred on roads/streets/highways, majority were falls (87.18%) followed by animal bites (7.69%) and cut wounds (5.13%). Another common place for injury was farmland where 47.92% of falls and 43.75% of cuts occurred. Other injuries that occurred were animal bites and burns. All the unintentional injuries that occurred in schools and sports or leisure areas were falls.

Table 3 highlights the prevalence of protective and risk factors for road safety. Among adults who used seat belts, only 9.15% reported injury. Likewise, 9.80% of injuries were reported among alcohol users while driving.

Figure 1 shows the prevalence rate of injuries by its type. The most common types of injuries were violent incidents (5.33%), followed by unintentional injuries (4.71%) and RTIs (3.75%).

Online supplemental table 1 shows the bivariate analysis of independent variables with RTI, unintentional injury, intentional injury and overall injury. In bivariate analysis, RTI was found to be associated with wealth quintile and occupation. The middle wealth quintile had almost three times higher odds (COR) of having RTI (COR=2.95, 95% CI 1.27 to 6.84) compared with the lowest wealth quintile. Homemakers had almost half the odds of having RTIs compared with the employed (COR 0.45, 95% CI 0.24 to 0.84). Those who were unemployed had more than two times higher odds of intentional injury compared with those who were employed. Likewise, those currently married (COR=3.74, 95% CI 1.37 to 10.17) and ever married (COR=3.49, 95% CI 1.08 to 11.25) had more than three times higher odds of intentional injury

Table 1 Sociodemographic characteristics of research participants and injured persons

Category	Injured n (%)	Not injured n (%)	Total Number (%)	P value
Sex (n=4996)				
Male	217 (12.14)	1571 (87.86)	1788 (100)	0.896
Female	352 (10.97)	2856 (89.03)	3208 (100)	
Age groups, years (n=4996)				
15–29	158 (12.15)	1142 (87.85)	1300 (100)	0.295
30–44	207 (11.40)	1608 (88.60)	1815 (100)	
45–69	204 (10.85)	1677 (89.15)	1881 (100)	
Education level (n=4995)*				
None/less than primary	285 (11.62)	2168 (88.38)	2453 (100)	0.898
Primary	94 (9.87)	858 (90.13)	952 (100)	
Secondary	106 (10.89)	867 (89.11)	973 (100)	
More than secondary	84 (13.61)	533 (86.39)	617 (100)	
Place of residence (n=4996)				
Metropolitan/submetropolitan	76 (9.67)	549 (90.33)	625 (100)	0.827
Municipality	292 (10.89)	2147 (89.11)	2439 (100)	
Rural municipality	201 (11.74)	1731 (88.26)	1932 (100)	
Wealth quintile (n=4996)				
Lowest	157 (10.97)	1274 (89.03)	1431 (100)	0.701
Second	116 (12.47)	814 (87.53)	930 (100)	
Middle	106 (12.30)	756 (87.70)	862 (100)	
Fourth	82 (10.20)	722 (89.80)	804 (100)	
Highest	108 (11.15)	861 (88.85)	969 (100)	
Occupation (n=4990)*				
Employed	195 (12.67)	1344 (87.33)	1539 (100)	0.420
Student	46 (13.11)	305 (86.89)	351 (100)	
Homemaker	295 (10.41)	2538 (89.59)	2833 (100)	
Unemployed	30 (14.35)	179 (85.65)	209 (100)	
Others	3 (5.17)	55 (94.83)	58 (100)	
Marital status (n=4995)				
Never married	58 (12.24)	416 (87.76)	474 (100)	0.629
Currently married	474 (11.14)	3782 (88.86)	4256 (100)	
Ever married	37 (13.96)	228 (86.04)	265 (100)	
Total (15-69)	**569 (11.39)**	**4427 (88.61)**	**4996 (100)**	

*6 cases were missing occupation and 1 each missing for education and marital status.

compared with those who were never married. None of the independent variables were found to significantly associate with unintentional injury and overall injury.

DISCUSSION

This population-based study estimated the national-level prevalence of injuries and its associated factors among adults aged 15–69 years. The overall prevalence of injury was found to be 11.39%. More men (12.14%) were injured compared with women (10.97%). Maximum injuries was seen among the young age group (12.15%) followed by the middle age group (11.40%) and participants with a level of education above secondary (13.61%). However, none of these differences were statistically significant. Similarly, the prevalence rates of RTI, unintentional injury and violent incident were 3.75%, 4.71% and 5.33% respectively. Bivariate analysis showed that RTI was significantly associated with wealth quintile and occupation. Similarly, occupation and marital status were found to be strong predictors of intentional injury.

Table 2 Place of occurrence of injury for other unintentional injuries, n (%)

Place of injury (other than RTI)	Falls n (%)	Burns n (%)	Cuts n (%)	Near-drowning n (%)	Animal bites N (%)	Total N (%)
Home (n=67)	56 (83.58)	1 (1.49)	8 (11.94)	0	2 (2.99)	67 (100)
Farmland (n=48)	23 (47.92)	1 (2.08)	21 (43.75)	0	3 (6.25)	48 (100)
Workplace (n=40)	34 (85.00)	2 (5.00)	1 (2.50)	3 (7.50)	0	40 (100)
Road/street/highway (n=39)	34 (87.18)	0	2 (5.13)	0	3 (7.69)	39 (100)
Sports/leisure area (n=7)	7 (100)	0	0	0	0	7 (100)
School (n=4)	4 (100)	0	0	0	0	4 (100)

RTI, road traffic injury.

The prevalence of injury (11.39%) was consistent with the nationwide studies conducted in Nepal (13.1%)[21] and Kenya (15%),[37] however, we found a higher prevalence compared with a study conducted in eastern Nepal (3.1%).[38] This calls for the implementation of laws and regulations aimed at reducing injuries which encompass environmental modifications, addressing barriers to implementing injury-control policies, continuing research for providing evidence for decision making and strengthening injury prevention policies.[30 39]

Similarly, our findings are in line with other studies conducted in Pakistan,[40] Kenya,[37] Sudan[41] and Tanzania[42] that have found a higher risk of injuries among men than in women. The gender disparity can be attributed to masculine norms, expectations and identity, occupation: work on various sites, travelling by different modes,[43] drinking and driving,[44] and exposure to risky behaviour.[45] This calls for strengthened policies for safety promotion, especially in areas of occupational injuries and road safety. Findings from the burden of injuries in Nepal, 1990–2017 revealed that young and middle-aged adults experience a greater burden of injuries that other age groups, which is convergent to our results.[15] Furthermore, a systematic analysis for the Global Burden of Disease, 2019 showed that three injury causes: road injuries, self-harm and interpersonal violence were among the top causes of DALYs in adolescents aged 10–24 years which is also in agreement with our findings.[46] A possible explanation could be that the young age group people have risk-taking lifestyles and behaviours. The burden of injury in this age group might have a greater impact on the social and economic development of the country. Place of residence is another major factor for injury. We found that participants residing in metropolitan/submetropolitan cities were more injured as compared with those who resided in municipalities and rural municipalities. The result is similar to that of a study done in Nepal[47] in 2015, however, it contradicts the findings from USA,[48] Kenya[37] and Tanzania.[42] Possible explanations might be unplanned urbanisation, high population, and the greater number of vehicles in metropolitan and submetropolitan cities of Nepal.

Bivariate analysis showed that the odds of having RTIs were almost three times higher (COR=2.95, 95% CI 1.27 to 6.84) in middle wealth quintile participants than in lower wealth quintile participants. This is an interesting finding because most of the previous studies have found that people from poorer economic backgrounds have higher rates of injury and death in comparison to wealthier people.[4 49 50] A possible explanation could be that participants in the middle wealth quintile could afford two-wheeler vehicles and access to other means that may increase the risk of injury. Also, middle wealth quintile participants are active and engaged in occupations that may increase their chances of encountering occupational injury as compared with the participants in the lowest quintile. Likewise, participants who were

Table 3 Prevalence of protective and behavioural risk factors for road safety, n (%)

Protective and risk factors	Road traffic injuries		Total n (%)
	No n (%)	Yes n (%)	
Seat belt use			
Yes	139 (90.85)	14 (9.15)	153 (100)
Never	1367 (96.88)	44 (3.12)	1411 (100)
Seat belt not present	1799 (96.46)	66 (3.54)	1865 (100)
Drove vehicle under the influence of alcohol			
No	1417 (96.72)	48 (3.28)	1465 (100)
Yes	92 (90.20)	10 (9.80)	102 (100)
Don't know	3777 (96.80)	125 (3.20)	3902 (100)

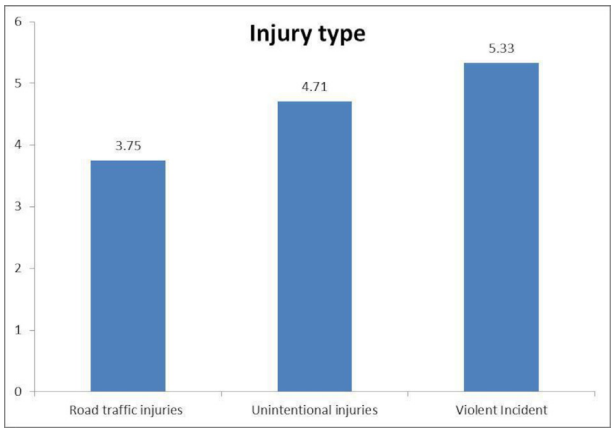

Figure 1 Prevalence rate of different types of injuries.Y-axis represent percentage

homemakers were less likely to be involved in road traffic accidents compared with participants who were employed (COR=0.45, 95% CI 0.24 to 0.84).

Unintentional injuries are predictable and preventable. Cost-effective and equity-oriented interventions such as setting minimum conditions and product standards, imposing safe behaviour and practices through legislation, regulation and enforcement would be promising in mitigating injuries.[51] Also, the study revealed that participants who were currently married (COR=3.74, 95% CI 1.37 to 10.17) and ever married (COR=3.49, 95% CI 1.08 to 11.25) had more than three times higher odds of having unintentional injuries compared with those who were never married. Ever married people might suffer from varying levels of psychological stress and those who are currently married have to adjust to several changes such as changes in child care, housework and work demands. These underlying conditions might compromise safety practices to prevent injuries. Although legislation for key risk factors such as overspeeding, drinking and driving, use of seat belts, motorcycle helmet use exists,[52] comprehensive injury surveillance and concerted multisectoral approaches are needed for implementing existing provisions.

The data included in our study are from a large replicative sample of the general population and quality control was rigorous, increasing the generalisability. However, our study had several limitations. First, the injuries were self-reported, which might have led to recall bias leading to underestimation or overestimation of injuries and affected the actual prevalence. Second, the study was cross-sectional in nature and, therefore, it was unable to tell the direction of association. Third, the study did not take into account financial and social effects of injuries, DALYs, and YLD and mortality. Furthermore, in line with similar studies conducted in Kenya,[37] Sierra Leone[53] and Bangladesh,[54] some of the system-level components (such as conditions of the roads, management and control of traffic, traffic regulations, etc) could not be incorporated as this was a secondary analysis of the STEPS Survey, Nepal, 2019. Despite its limitations, this is the first step towards gathering information that could be useful for injury-prevention interventions and policies at the national, provincial and local levels. Further studies are recommended to incorporate all the comprehensive national information of injuries.

CONCLUSION

This study showed that injuries are a major national public health problem and provides a baseline estimate of injury prevalence in one of the world's disaster-prone countries. Men, those in the younger age group and participants with higher education were seen to be more vulnerable to injuries—requiring special targeted injury-prevention initiatives for these groups. Further research is needed to investigate the context-specific behavioural, environmental and system-level components, and the injury circumstances that shape them. The study also calls for collaborative efforts across various disciplines so that cost-effective and equity-oriented interventions can be employed for safety improvements and behavioural promotions.

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Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available in a public, open access repository. Data are available upon reasonable request. The data collected from this survey has been deposited in a public repository which is available for reuse upon reasonable request. Data can be accessed via the South- east Asia regional microdata repositionary at https://nada.searo.who.int/index.php/catalog with the reference ID NPL_2019_STEPS_v01

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Supplementary table 1: Factors associated with injuries

Predictor	**Road traffic injuries**		**Unintentional injuries**		**Intentional injuries**		**Overall injury**	
	COR (95% CI)	p-value	COR (95% CI)	P-value	COR (95% CI)	P-value	COR (95% CI)	p-value
Age								
15-29	1							
30-44	0.59(0.26-1.30)	0.19	0.97(0 .53-1.77)	0.93	0.70(0.42-1.18)	0.18	0 .72(0.45-1.17)	0.19
45-69	0.68(0.31-1.49)	0.33	0.94(0.47-1.85)	0.85	0.85 (0.47-1.52)	0.59	0.80(0.49-1.31)	0.38
Sex								
Female	1							
Male	1.40(0.92-2.13)	0.11	0.82(0.48-1.39)	0.47	0.91 (0.59-1.39)	0.67	0.94(0.70- 1.27)	0.72
Education level								
None/less than primary	1							
Primary	0.99(0.37-2.64)	0.99	0.99(0.49-1.98)	0.98	0.61 (0 .35-1.04)	0.07	0.83(0.51- 1.35)	0.46
Secondary	0.83(0.42-1.64)	0.60	1.22(0.61-2.45)	0.56	0.60 (0.27-1.34)	0.21	0.88(0.54-1.42)	0.60
More than secondary	0.94(0.41-2.14)	0.88	1.64(0.88-3.06)	0.11	0.82 (0.38-1.80)	0.63	1.01(0.56- 1.80)	0.96

Place of residence								
Rural	1							
Urban	0.59(0.24-1.45)	0.25	0.91(0.36-2.27)	0.84	1.07 (0.45-2.55)	0.86	0.89 (0.46-1.72)	0.74
Wealth quintile								
Lowest	1							
Second	1.76(0.67-4.58	0.24	1.10(0.62-1.95)	0.72	1.05 (0.57-1.93)	0.86	1.05(0.67- 1.65)	0.80
Middle	2.95(1.27-6.84)	0.01	0.63 (0.28-1.39)	0.25	0.78 (0.45-1.34)	0.37	0 .91(0.58-1.42)	0.69
Fourth	2.26(0.92-5.51)	0.07	0.53(0.23-1.21)	0.13	0.58 (0.27-1.23)	0.15	0.79(0.47-1.33)	0.38
Highest	2.41(0.96 -6.02)	0.06	0.56(0.29-1.08)	0.08	0.49 (0.21-1.17)	0.11	0.78(0.47-1.26)	0.31
Occupation								
Employed	1							
Student	0.70(0.29-1.69)	0.43	0.47(.14-1.54)	0.21	2.35 (.74-7.49)	0.14	0.84(0.43-1.63)	0.61
Homemaker	0.45(0.24-0.84)	0.01	0.75(0.46-1.23)	0.26	1.53 (0.77-3.06)	0.21	0.74(0.47- 1.16)	0.20
Unemployed	0.65 (0.19-2.19)	0.49	0.70 (0.21-2.30)	0.56	2.13 (1.16-3.91)	0.01	1.07(0.55-2.08)	0.82
Others	1	-	0 .07(0.00-.55)	0.01	0.30 (0.06-1.51)	0.14	0.09(0.02- 0.35)	0.00

Marital status								
Never married	1							
Currently married	0.71(0.34-1.46)	0.35	0.50 (0.17-1.51)	0.22	3.74 (1.37-10.17)	0.01	1.02(0.56- 1.85)	0.93
Ever married	0.45(0.10-1.92)	0.28	0.50(0.25-3.34)	0.89	3.49 (1.08-11.25)	0.03	1.15 (0.54-2.46)	0.70

COR: crude odds ratio; CI: Confidence interval; Crude odds ratio estimated from the binary logistic regression with all sociodemographic variables.

[1] Reference group