

# Awareness and Implementation Status of Tobacco Policy Provisions among Students of Public Schools in Budhanilkantha Municipality, Nepal

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## ABSTRACT



**Background:** The tobacco epidemic was responded globally with the enforcement of the WHO Framework Convention on Tobacco Control (WHO FCTC), a first public health treaty, on 27 February 2005. As a party and signatory country to FCTC, Nepal ratified the tobacco product (control and regulation) act in 2011. After endorsement of the act and other related tobacco policy documents, it is necessary to measure awareness level and the implementation status among different stakeholders including adolescent students. This study aimed to assess the awareness and implementation status of tobacco policy provisions in the students of Budhanilkantha Municipality of Kathmandu district, Nepal.

**Methods:** This study was a school-based cross-sectional survey. A total of 378 students were recruited from five schools of Budhanilkantha municipality of Kathmandu, Nepal. The self-administered questionnaires were adapted from the Global Youth Tobacco Survey (GYTS) tool of the World Health Organization and youth-tobacco survey tool of the Center for Disease Control and Prevention (CDC) to collect the data.

**Results:** The study showed that less than half of the participants (45.8%) knew that there is a tobacco product (control and regulatory) act in Nepal. Similarly, two-thirds (65.9%) of the participants responded that they were aware of the selling of tobacco products to a person below 18 years was legally prohibited in Nepal. In terms of tobacco laws enforcement, 66.2% of the participants were not prevented from buying tobacco products because of their age.

**Conclusions:** More than half of the students were found unaware of tobacco control policies of Nepal, despite the students are the key target stakeholders of tobacco control policies. Additionally, implementation of policy provisions related to protecting the students from tobacco in school or home is not effectively enforced although Nepal has comprehensive tobacco control policies.

**Keywords:** Awareness, Tobacco policy, Implementation status, School, Nepal

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## INTRODUCTION

Tobacco use is one of the greatest public health problems in the world<sup>1</sup> causing annual global deaths of more than seven million people.<sup>2</sup> Among of these deaths, 884,000 people die each year globally because of second hand smoke.<sup>3</sup> A total of 1.2 million die each year in the South-East Asia only.<sup>4</sup> In Nepal, more than 27,000 people die every year due to the use of tobacco.<sup>5</sup> By considering the alarming situation of tobacco use, WHO Framework Convention on Tobacco Control (WHO FCTC)<sup>6</sup>, the first treaty in public health, was developed and signed in 2003.<sup>7</sup> Now, more than 180 countries, covering more than 90% of world's population, are parties to the convention.<sup>6</sup> This is a milestone achievement in tackling the tobacco epidemic.

Based on FCTC, the tobacco product (control and regulatory) act was endorsed by the Government of Nepal in 2011.<sup>8</sup> In the act and subsequent policy directives, there are regulatory and legal provisions to address tobacco use among minors. For instance, selling tobacco to and by the minors below 18 years of age is strictly prohibited in Nepal.<sup>9</sup> Nobody is allowed to consume tobacco products in public places such as educational institutes.<sup>9</sup> For the effective implementation of the anti-tobacco policy, the parties who must comply with the law and the parties who are affected by the law must be aware of the law. In this light, Ministry of Health and Population of Nepal has been conducting awareness and health education programs through multimedia and community orientations to increase knowledge and promote healthy behaviours against tobacco use among the public.

Previous studies from Nepal have shown that two in five students lived in homes where someone in their family smoke and half of the students was around others who smoked in enclosed public places.<sup>10</sup> Likewise, 27.1% of students aged 13-15 years bought cigarettes from stores.<sup>10</sup> After the implementation of the anti-tobacco law, the access to tobacco in the vendor and sale of tobacco products to and by minors is expected to decrease. However, the current situation of awareness on tobacco policy provisions and implementation status among students

remains unknown due to the lack of studies on these issues. This study assesses the awareness level of students on anti-tobacco policy and its provisions and implementation status among the students of public schools of Budhanilkantha municipality of Kathmandu district, Nepal.

## MATERIALS AND METHODS

This is a cross-sectional study for which data were collected in February and March of 2016 in Kathmandu, Nepal. The study population was students of grades eight and nine of five different public schools in Budhanilkantha municipality of Kathmandu district, Nepal. Probability Proportional to Enrollment Size (PPES) technique was used as a sampling method to select schools and students.<sup>11</sup> There were a total of 10 public secondary schools and a total of 1280 students in grades eight and nine as recorded in the registers. Five public schools out of these 10 public secondary schools were selected based on PPES (five schools with 14 sections of grade eight and nine; among the 14 sections, three schools have a single section in each and the remaining two schools have two sections each). Finally, a total of 10 sections were selected for study with each section of grades eight and grade nine being randomly selected from five public schools. These 10 sections that we randomly selected for our study had a total number of 445 students as per the records of the school registers, out of which 408 students participated in our study. However, only 378 students completed questionnaires and were considered eligible for the study. The estimated sample size was also calculated to 375 considering approximately 20.4 percent of students were current smokers.<sup>12</sup> The non-response rate was taken 10 percent with design effect two.

Structured self-administered questionnaires were pretested and used as a tool to collect data in the study. The self-administered questionnaires were adapted from the Global Youth Tobacco Survey of WHO and youth tobacco survey of the Centre for Disease Control and Prevention (CDC).<sup>13</sup> The questionnaires for the study were developed both in English and Nepali languages. The questionnaires developed in the Nepali language were pre-tested in a school that was identical to the study schools. The

tool was revised as per feedback from the pre-test and suggestions from supervisors and relevant experts.

The filled self-administered questionnaires were checked for any incompleteness such as missing sections and were corrected on the same day of the data collection. EpiData 3.1 software was used for data entry and was transported to IBM SPSS (Statistical Package for Social Science) software version 21.0. Having exported the data, researchers themselves cleaned, decoded and recoded for statistical analysis. The data were analysed through descriptive analysis techniques. Ethical approval for the study was taken from the Institutional Review Board of Institute of Medicine, Nepal. Informed verbal consent for the study was taken from the guardians of the students and written assent was also obtained from the students.

## RESULTS

### Knowledge about tobacco policy provisions

Knowledge about tobacco policy provisions was assessed through three questions each with answer options of true, false, and do not know (Table 1). Only less than half of the study participants knew that there was a tobacco product (control and regulatory) act in Nepal. Similarly, two-thirds of the study participants knew that the sale of a tobacco product to people below 18 years was prohibited.

**Table 1: Knowledge about policy provisions of tobacco in Nepal (N=378)**

Statements	Correct Response
There is a tobacco product (control and regulation) act in Nepal.	173(45.8%)
Smoking and tobacco use in schools is prohibited in Nepal.	284(75.1%)
Sales of tobacco products to people below 18 years are prohibited.	249(65.9%)

### Anti-tobacco message exposure

Television (79.7%) was identified as the main source of anti-tobacco message exposure in the past 30 days followed by radio (41.5%) and newspaper (39.0%).

**Table 2: Anti-tobacco message reach**

Media	No of responses* (N=378)	Percentage
Radio	147	41.5
Television	282	79.7
Internet	75	21.2
Social media	92	26.0
Hoarding board	35	9.9
News-paper	138	39.0
Films	132	37.3
At least one media	354	93.7

\*Multiple responses have been recorded.

### Second hand smoke exposure

Among the study participants, 59% were exposed to tobacco smoke at home and 31.2% saw someone smoking inside the school building or at the school premises.

**Table 3: Second hand smoke exposure**

Category	Male (n=183) n (%)	Female (n=195) n (%)	Total (N=378) N (%)
Exposed to tobacco smoke at home in the past 7 days	115(62.8)	108(55.4)	222(58.7)
Saw someone smoking inside the school building or outside on school periphery in the past 30 days	70(38.3)	48(24.6)	118(31.2)

### Access and availability

Among the tobacco buyers and users, 60% obtained cigarettes buying them from a store or a shop. Additionally, among tobacco buyers, 66.2% were not prevented from buying them because of their age. Similarly, 53.3% of students bought cigarettes in stick/s among cigarette buyers and users.

**Table 4: Sources of tobacco access**

Sources	Male (n=47) n(%)	Female (n=16) n(%)	Total (N=63) N (%)
Bought from the store	26(55.3)	12(75.0)	38(60.3)
Bought from street vender	6(12.8)	1(6.3)	7(11.1)
Got bought someone	6(12.8)	1(6.3)	7(11.1)
Got from someone else	2(4.3)	0(0)	2(3.2)
Stole	2(4.3)	0(0)	2(3.2)
Got them some other way	5(10.6)	2(12.5)	7(11.1)

**Table 5: Units of purchase and selling to below 18 year of age**

Units of Purchase	Male (n=32) in (%)	Female (n=13) n (%)	Total (N=45) N (%)
In pack	16(50.0)	5(38.5)	21(46.7)
In stick	16(50.0)	8(61.5)	24(53.3)
Refusing /not refusing to sell as per age N=(male = 44 and female = 24)			
Refused to sell	12(27.3)	11(45.8)	23(33.8)
Did not refuse to sell	32(72.7)	13((54.2)	45(66.2)

## DISCUSSION

The study aimed to obtain information on the awareness of the tobacco control policy provisions and tobacco law implementation status among the public school students in secondary level. The major findings include that the students had insufficient awareness of tobacco control policy provisions. This study showed that less than half of the students (45.8%) knew the fact that there was a tobacco product (control and regulatory) act in Nepal. It reveals that school students do not adequately know about the tobacco policy provision of Nepal and it might be due to inadequate awareness programs among school level students on tobacco prevention. The awareness programs are a must as they lead to behavioral change in people to the comply with the law.<sup>14</sup> Similarly, more than half of the boys (59.6%) and girls (55.7%) in Myanmar had ever heard about the tobacco control law<sup>15</sup> while, awareness of tobacco act among school level students in India was far below than what our study shows for Nepal where only less than one third (29.8%) of Indian students were aware of the tobacco act.<sup>16</sup> In contrast to our study results, the awareness level that the tobacco law exists among students was significantly higher (66%)

among students of Nigeria.<sup>17</sup> These varied awareness levels among the school students might be because of the varied interventions across the countries.

After the endorsement of the tobacco act 2011 in Nepal, the Ministry of Health and Population has been conducting anti-tobacco health education and communication programs. Anti-tobacco messages were delivered through different media all over the country.<sup>18</sup> In this research, 93.7% respondents noticed the anti-tobacco message in at least one of the media among television, radio, internet, posters, newspapers, and movies in the past 30 days while 77.5% of the respondents from India and 82.5 % from Sri Lanka had noticed anti-tobacco message at least one media suggesting that Nepalese students had higher reach to media information about anti-tobacco messages.<sup>19,20</sup>

Regarding the second hand smoking exposure, this study shows that nearly one-third of students saw someone smoking inside their school's premises in the past 30 days indicating that the regulatory provision of tobacco-free public places has not been fully enforced. In the tobacco product (control and regulatory) act 2011 and subsequent directives,

there has been provision of smoke-free public places including schools. Our study finding is similar to the findings of GYTS in Sri Lanka where 30.1% have seen someone smoking inside their school's premises<sup>21</sup> while in Myanmar, this proportion is more than double (64.5%)<sup>22</sup> of what is observed in Sri Lanka.

Second hand smoke exposure in the home was high in this study as almost 59% of students saw someone smoking inside their home. This result is higher than the results found by National GYTS 2011, Nepal which accounted for 38.4 % for in-home smoke exposure.<sup>10</sup> It indicates that the idea of making home free of smoking is not taken seriously even though there is a clear provision in the law that no one is allowed to smoke at home in a way to affect others. In contrast to this finding, research done in India showed that fewer students lived in homes where others smoked in their presence(14%)<sup>19</sup>, and in Sri Lanka, only one in ten students were exposed to second hand smoking inside their homes.<sup>20</sup> A similar study in Myanmar showed that second hand smoke in home was approximately half (32.2%) as compared to the results of this study.<sup>22</sup> Our result shows that among most of the South-East Asian<sup>21</sup> countries, the second hand smoke exposure is high in Nepal.

Even though the fact that the act has banned the minors below the age of 18 to buy and sell any tobacco products, our study illustrates that nearly two-thirds (66.2%) of buyers under the age of 18, were not prevented from buying tobacco products because of their age. Similarly, more than half (53.3%) of the students bought cigarettes in stick though the tobacco product (control and regulatory) act 2011 has a provision that people are not allowed to buy and sell the tobacco cigarettes in a stick. A similar finding was observed in India where 56.2% of respondents under the age of 18 years were not prevented buying cigarettes although the laws have banned them.<sup>19</sup> In China, 80% of the participants aged 13-15 year old were buying cigarettes despite having laws to prohibit the sale of tobacco to those under the age of 18.<sup>23</sup> These findings show that the implementation of sales ban tobacco to and by minors is low among the students in developing countries.

**Limitations:** The study suffers from certain limitations. First, the use of self-administered questionnaires might have affected the responses. Second, this study was conducted only in one Palika, namely, Budhanilkantha, the findings cannot be generalized to nationwide. Despite limitations, this study could be the base for the policymakers and program managers to plan and implement the tobacco-related intervention in school settings and to enforce the law of tobacco control.

## CONCLUSION

This study showed that more than half of the students are not aware of the tobacco control policies of Nepal, despite the students are the key target stakeholders for tobacco control policies. Similarly, our study demonstrates that the implementation of policy provisions related to protecting the children from tobacco in school or home is not effectively enforced although Nepal has comprehensive tobacco control policies in place. Interestingly, the television still remains one of the popular media among students to reach the anti-tobacco message. The effective implementation of the anti-tobacco policy provision targeting from school settings to the household level and to the tobacco retailers can be potential measures to protect the students from tobacco.

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