

**Prevalence and correlates of tobacco use among  
class 4 to 9 students in Somaliland**

Madam, Located in the eastern horn of Africa, Somaliland is a de facto independent republic; although recognized by the United Nations as part of Somalia. It has an estimated population of 3.5 million.<sup>1</sup> There are no studies reporting on the use of cigarettes or tobacco use in either adolescent or adult populations in Somaliland. Cigarette smoking and tobacco use is a global pandemic, and is

responsible for some 5 million deaths annually, with half the deaths in developing countries.<sup>2,3</sup>

To describe the association of gender, age, offer of cigarette from a best friend, use of cigarettes by closest friends, people smoking in one's home in one's presence, opinion about smoking in the next five years, opinion about smoking for a year or two and than quitting, beliefs about

women who smoke, with self-reported ever use of cigarettes in male and female students in Somaliland, and its prevalence; we used data from the Global Youth Tobacco Survey (GYTS) for Somaliland, conducted in 2004.<sup>5</sup> The GYTS is a collaborative project of the World Health Organization, Centers for Disease Control and Prevention, United States, Canadian Public Health Association, and the Somaliland health authorities; all the findings and opinions reported are solely of the authors. We selected all the respondents who responded to the question of having ever tried/experimented with cigarette smoking even one or two puffs. Students responding affirmatively to this question were identified as tobacco users. A two-stage cluster sample design was adopted for the GYTS-Somaliland to produce representative estimates for class 4 to 9 students. Design-based analysis with SUDAAN 9.03 was done using multivariate logistic regression analysis; adjusted odds ratios (AOR) were computed for the association of ever use of cigarettes with gender, age and various other attributes.

The overall prevalence of ever use of cigarettes, even one or two puffs, by male and female students was 22%, and 95% Confidence Interval (CI) was 13%, 32% (n = 1295). In male students prevalence of ever use of cigarettes was 24%, 95% CI 13%, 34%, while prevalence in female students was 20%, 95% CI 11%, 30%. Compared to female students, males were more likely to have ever smoked cigarettes (AOR 1.37, 95% CI 1.007, 1.87). Compared to students aged 15 to 17 years and above, students who were 11 to 14 years old or younger were much more likely to have ever smoked cigarettes (AOR 3.28, 95% CI 1.70, 6.32). Compared to students who replied as probably or definitely not, to the question that if one of their best friends offered them a cigarette, would they smoke it? Students who had ever smoked a cigarette were more likely to reply as probably/definitely yes (AOR 5.71, 95% CI 3.01, 10.82). While compared to students who replied as probably or definitely not to the question of having any close friends who smoke cigarettes, students who had ever smoked cigarettes were more likely to report either having most of or all close friends who do smoke (AOR 2.12, 95% CI 1.06, 4.22). Compared to students who replied as probably or definitely not to the question of whether they think they would be smoking cigarettes five years from now, students who had ever smoked cigarettes were more likely to reply as probably or definitely yes (AOR 2.44, 95% CI 1.19, 4.98). No statistically significant associations were found between ever use of cigarettes with either, 0-4 versus 5-7 days in the past

week someone having smoked in the student's presence, or opinions about whether it is safe to smoke for only a year or two, as long as one quits after that in terms of probably/definitely yes to probably/definitely not. Similarly no statistically association was observed between ever use of cigarettes and perception of women who smoke as successful/intelligent/sophisticated versus stupid/loser/lacking confidence. Logistic regression analysis results are based on 795 students for whom all the data were available. Results of Hosmer-Lemeshow Wald goodness-of-fit test concluded that the model was a good fit for the data.

The results of this unique representative survey of Somaliland, demonstrate that compared to female students, male students were more likely to report having ever smoked cigarettes even one or two puffs; students under the aged 14 or below were more likely to have smoked cigarettes. The association with influence of close friends in terms of accepting cigarettes for smoking if offered by best friends, and the fact of having close friends who smoke was strongly associated with the ever use of cigarettes. Especially alarming was the finding that students who had ever smoked cigarettes were more likely to think that they would indeed be smoking cigarettes five years from now. The results augur for the need for more active involvement of parents, teachers and school administrations on curbing this addictive behavior in students. Furthermore, public health education efforts at identifying adolescents at high risk of tobacco use; for improved health would be particularly beneficial for this school going group, especially male students in Somaliland. Additionally, continued professional education of primary care physicians and other cadres of health providers in correlates of this addictive behavior would help mitigate burden of diseases associated with smoking cigarettes.

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