Original Article

J Nepal Health Res Counc 2024 Oct.-Dec.;22 (65): 764-771

Compliance with the Legal Provision of Tobacco Products in Nepal

Meghnath Dhimal,[1] Bishal Dahal Khatri,[1] Man Bahadur Basnet,[2] Sailaja Ghimire,[1] Namita Ghimire,[1] Astha Acharya,[1] Nisha Rana,[1] Pramod Joshi[1]

[1]Nepal Health Research Council, Ramshah Path, Kathmandu, Nepal, [2]Department of Industry, Ministry of Industry, Commerce and Supplies, Kathmandu, Nepal.

ABSTRACT

Background: The tobacco epidemic is one of the major threats to public health, causing nearly 8 million deaths annually worldwide. In Nepal, every year, several Nepalese people die from tobacco-related diseases illnesses. Despite the implementation of several policies and strategies, tobacco use remains prevalent. This study, thus, aims to assess compliance with the legal provisions regulating tobacco products in Kathmandu Valley.

Methods: A multimethod study design was adopted to explore compliance with the legal provision of tobacco products in the Kathmandu Valley. Three hundred and five public places within the Kathmandu Valley were observed using the observation checklist, and fourteen key informant interviews were conducted. The ethical approval was obtained from the Ethical Review Board of the Nepal Health Research Council.

Results: Our findings show that the average adherence to the Tobacco Product Control Act in the Kathmandu Valley was merely 33.1%. Public transportation exhibited highest compliance 53.2%, whereas eateries demonstrated the lowest compliance at 15.9%. Health organizations demonstrated the highest adherence to prohibiting indoor smoking (94.7%), although the presence of "No Smoking" signage was inadequate, varying from 1.9% to 22.7% across various locations.

Conclusions: In conclusion, compliance with the legal provision of tobacco products was observed owing to limited knowledge of stakeholders, inadequate multi-sectoral coordination, and lack of monitoring mechanisms in public areas. Whereas awareness initiatives through diverse communication channels are found effective in improving compliance.

Keywords: Compliance; legal provision; Nepal; public places; tobacco products.

INTRODUCTION

The tobacco pandemic has been one of the greatest risks to global health. Cigarette smoking increases the risk of several non-communicable diseases such as lung disease, cardiovascular disease, and cancer. In Nepal, 27,100 premature deaths per year are due to the diseases caused by tobacco use.[1] According to STEPS' 2019 Non-communicable Disease Risk Factors survey, 28.0 percent of males and 7.5 percent of women smoke tobacco.[2] The Tobacco Product (Control and Regulatory) Act, 2011, mandates 100% smoke-free public places to prevent Second Hand Smoking (SHS) exposure; exceptions include airports, hotels/lodgings, and prisons where smoking areas are designated.[2] Nepal has initiated smoke-free legislation in public places to reduce secondhand smoking however, inadequate monitoring and limited evidence hinders the measurement of the effectiveness of this legislation. Hence, this study aims to assess compliance with the legal provision of tobacco use in public places of Kathmandu Valley and the factors associated with it.

METHODS

A multimethod study design was adopted for this study. For the quantitative study, compliance with the legal provision of tobacco products was observed in the

Correspondence: Meghnath Dhimal, Nepal Health Research Council, Ramshah Path, Kathmandu, Nepal, Email: meghdhimal2@gmail.com; Phone: +9779851167198.

selected public places within Kathmandu Valley using an observation checklist based on the Tobacco Products (Control and Regulatory) Act, 2068 (2011).

For the qualitative study, the phenomenological design was used to assess the status of compliance, exploring the effectiveness of legal provision on tobacco products and understanding the challenges to application of its legal provision. The observation was undertaken in selected public places in the Kathmandu Valley. Out of 305 public places selected for a quantitative study, 62 were entertainment and shopping venues, 54 were restaurants/hotels, 54 were workplaces like government/ nongovernment buildings, banks, factories/industries, workshops and showrooms, 46 were educational institutions (within 100 meters), 38 were health institutions (within 100 meters), 29 were religious places and 22 were public transportations and those sites were chosen purposively.

On the other hand, qualitative data were collected until data saturation was achieved. Altogether fourteen Key Informant Interviews (KIIs) were conducted. Policy Makers, Representatives from District Administration Office, Police Department and Municipalities and Other stakeholders were included in the study. An observation checklist was employed to collect quantitative data from 20th June to 26th June 2022. The checklist mostly assessed questions on compliance with the legal provision of tobacco products. All the tools were shared and discussed within the core team and were justified along with the Tobacco Products (Control and Regulatory) Act, 2068 (2011). while for a qualitative study, interview guidelines were developed, focusing on; compliance with the legal provisions of tobacco products, challenges faced, and future recommendations for the effective implementation of the tobacco control act.

Collected quantitative data were entered cleaned, and reviewed using Microsoft Excel 2010. Descriptive analysis was carried out using frequency and percentage while for qualitative analysis, audio recordings of the interviews were done, which were then transcribed in Nepali language. Furthermore, independent people compare the transcribed text with the audio recording ensuring accuracy. Then the text was translated into English

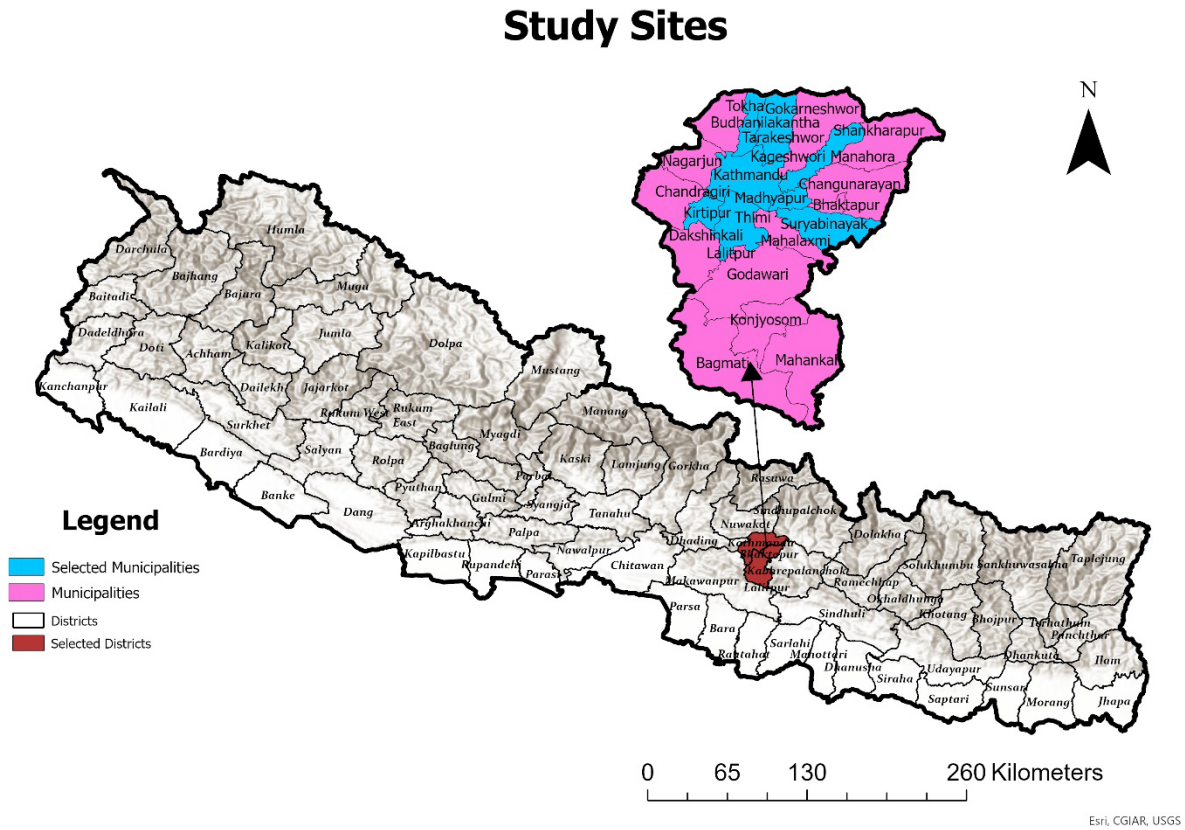

Figure 1. Study Sites.

language. Inductive thematic analysis done where initially, codes were generated and then themes were developed.

This study adhered to ethical principles throughout the research process. Informed consent was obtained from all participants after providing detailed information about the study's purpose, procedures, and their right to withdraw at any time. Confidentiality was ensured by using pseudonyms and secure data storage methods. The research was conducted with sensitivity to participants' well-being, avoiding harm and respecting cultural and personal values. Ethical approval [ref no. 4273/2022] was obtained from the Ethical Review Board (ERB) of Nepal Health Research Council prior to data collection.

RESULTS

We collected data from a total of 305 public places in the Kathmandu Valley. Out of 305 62 (20.3%) were entertainment and shopping venues, 54(17.7%) were Eateries (restaurants/hotels), 54(17.7%) were workplaces like government/ nongovernment buildings, banks, factories/industries, workshops and showrooms (inside and outside), 46 (15.1%) were educational institutions (within 100 meters), 38 (12.5%) were health institutions (within 100 meters), 22 (7.2%) were public transportations, and 29(9.5%) were religious places (Table 1).

Enumerators observed for hours at each site. They found out that wrappers of tobacco products like *gutka* and *khaini* were found with higher rates in places like health and educational institutions in a radius of 100 meters.

Table 1. Predictors of tobacco-using behavior at public places in Kathmandu Valley.

Types of public place	Entertainment/ shopping venues n=62 (%)	Eateries n=54 (%)	Workplaces ** n=54 (%)	Education Institute * n=46 (%)	Health Institution * n=38 (%)	Religious Place n=29 (%)	Public Transportation n=22 (%)
Active smoking in a public place	35 (56.5)	39 (72.2)	25 (46.3)	23 (50)	12 (31.6)	18 (62.1)	8 (36.4)
Smoking tobacco products indoor	18 (29.0)	35 (64.8)	16 (29.6)	5 (10.9)	2 (5.3)	11 (37.9)	3 (13.6)
Presence of "No Smoking" notice	21 (33.9)	3 (5.6)	3 (5.6)	3 (6.5)	16 (42.1)	6 (20.7)	5 (22.7)
Presence of "No Smoking" notice at the entrance	14 (22.6)	9 (16.7)	1 (1.9)	3 (6.5)	7 (18.4)	2 (6.9)	5 (22.7)
Presence of the smell of tobacco products	38 (61.3)	**50 (92.6)**	38 (70.4)	27 (58.7)	17 (44.7)	18 (62.1)	10 (45.5)
Cigarette/bidi buts/ends	48 (77.4)	**50 (92.6)**	48 (88.9)	36 (78.3)	28 (73.7)	26 (89.7)	5 (22.7)
Wrapper of tobacco products	**54 (87.1)**	48 (88.9)	**52 (96.3)**	**42 (91.3)**	**33 (86.8)**	**29 (100)**	**12 (54.5)**

*** Within one hundred meters' premises**
**** Government/nongovernment buildings, banks, factories/industries, workshops, and or showrooms**

In total, sixty-two entertainment/shopping venues were observed. Among the seven variables, wrappers of tobacco products were the most prevalent (87.1%) followed by cigarettes/bidi/buts/ends (77.4%) while a lower number of no-smoking signage (22.6%) were observed at the entrances. The similar patterns were observed in eateries, workplaces, education institutes, health institutions, religious places, and public transportation as shown in Table no 1. The number of active smokers was also quite common in the observed locations.

Table 2. Compliance with specific indicators of tobacco product control legislation at different public places.

Types of public place	Entertainment/ shopping venues n=62 (%)	Eateries n=54 (%)	Workplaces ** n=54 (%)	Education Institute * n=46 (%)	Health Institution * n=38 (%)	Religious Place n=29 (%)	Public Transportation n=22 (%)
Absence of active smoking in a public place	27 (43.5)	15(27.8)	29 (53.7)	23 (50)	26 (68.4)	11 (37.9)	14 (63.6)
No Smoking tobacco products indoor	44 (71.0)	19 (35.2)	38 (70.4)	41 (89.1)	36(94.7)	18(62.1)	19 (86.4)
Presence of " No Smoking" notice	21(33.9)	3(5.6)	3 (5.6)	3 (6.5)	16(42.1)	6(20.7)	5(22.7)
Presence of "No Smoking" notice at the entrance	14(22.6)	9(16.7)	1(1.9)	3 (6.5)	7(18.4)	2(6.9)	5(22.7)
Absence of smell of tobacco products	24 (38.7)	4(7.4)	16(29.6)	19 (41.3)	21 (55.3)	11(37.9)	12(54.5)
Absence of cigarette/bidi buts/ends	14(22.6)	4(7.4)	6(11.1)	10(21.7)	10(26.3)	3(10.3)	17(77.3)
Absence of wrapper of tobacco products	8(12.9)	6(11.1)	2(3.7)	4 (8.7)	5(13.2)	0 (0)	10 (45.5)
Overall Compliance (%)	35	15.9	25.1	32.0	45.5	25.1	53.2
Total average compliance: 33.10%							

The average population compliance with the Tobacco Product Control Act found to be only 33.1% in Kathmandu Valley. Compliance with tobacco control acts were highest in public transportation (53.2%), followed by health institutions, while eateries had the least compliance (15.9%). No smoking tobacco products indoors had the highest compliance in all the places while, the lowest compliance is affected by different variables in various places as shown in Table 2.

Themes and sub-themes emerged from the study

Themes	Sub-themes
Knowledge about tobacco, control and regulation	
Active smokers in public places	
Approaches in tobacco control act	*Penalty for abusing tobacco law*
	Coordination with stakeholders
	Community Sensitization on Tobacco Control
Progress on implementing tobacco control act	
Challenges and obstacles	
Way forward	Supervision and monitoring
	New amendments/modifications in tobacco control act

Several participants were aware of the existing tobacco control regulation and Act 2068 and were knowledgeable about the provisions, rules, regulations, and content of the act. In addition, participants were aware that consumption of tobacco is linked with adverse health effects.

The Tobacco Control and Regulatory Act 2068 was the first law proposal in Nepal. Nepal had also signed the Framework Convention of Tobacco Control (FCTC) in 2003. Most of the stakeholders were aware of the Tobacco Control Act 2068. They are also aware of the penalty of Rs. 100 if a person uses tobacco products in the public place, tobacco tax, and health awareness including the restriction on sale of the tobacco products to minors.

"*There was the implementation of tobacco control regulation and act 2068 and this is the first law proposal in the tobacco related substances. We had signed the FCTC in 2003, after that; we have to follow as per the Nepal government rule". (Representative, NHEICC)*

Participants stressed that mostly males were engaged in consuming tobacco products, while students from classes 9 to 10 were excessive users of cigarettes. However, one of the stakeholders emphasized that teenagers especially female students from +2 are also reported to be involved in smoking. Socioeconomic factors such as unemployment, illiteracy, and low socio-economic status contributed to tobacco use.

"Mostly female teenagers are involved in smoking. I should say female students from +2 are seen smoking. We cannot see young females smoking in open places, but we can see them smoking in restaurants". (Deputy Inspector, Kirtipur)

Many participants have engaged in initiatives to mitigate the use of tobacco-related substances in public places. These initiatives included activities such as aware people not to smoke in restricted areas. In addition, awareness-raising activities like attaching posters, noticeboards, and pamphlets in restricted areas have been conducted to minimize the use of tobacco in public as per participants. Along with the awareness of less use of tobacco products participants were sensitizing community people to its harmful effects on the health of people such as increasing the risk of non-communicable diseases. Focusing on sensitization, Female Community Health Volunteers were mobilized to conduct timely meetings with the mother's group as emphasized by the participants. Participants stressed that the rigid policy on sales, and distribution controlling the mechanism in supply and demand is key to reducing the use of tobacco. For instance, the majority of participants believed that raising the tax on this substance has highly reduced the consumption of tobacco-related products. Multi-sectoral coordination and collaboration is essential in mitigating the use of tobacco-related products. For instance, most of the participants involved diverse sectors like Nepal Police, educational institutes, and rehabilitation centers to sensitize the community people.

Participants were aware of the punishment an individual receives if they violate the rules as per the act; however, few of the guilty individuals are only being punished showcasing the weak implementation of the act. On the other hand, few participants stressed that despite suggestion if the law breaker is found to be consuming tobacco products in public places repeatedly then they are fined Rs 100 rupees. Participants consider that the punishment in the act is incredibly insignificant, thus they believe the punishment should be substantial as in Ma Pa Se *(This is the case where people is found guilty of consuming alcohol while driving and is called Ma Pa Se in Nepali)*. Participants are actively engaging in monitoring the supply of tobacco products and if they find the tobacco products being supplied illegally for instance in school environment, and against the law they seize and destroy the products.

"If anyone who smoke at the public places, then he/she will be out from that public places or he/she will be fine by Rs.100. If we do the regular follow-up, then we take the charge of Rs.100 on the spot where they smoke". (Representative, District Administration Office)

Participants acknowledged the importance of coordination in tobacco control. Most of the respondents highlighted the importance of coordination with the community police, NGOs/INGOs, provincial government, local government and the stakeholders. Multispectral coordination with local and provincial governments is also crucial for many aspects like license, health impacts and proper utilization of health tax.

"It will not be successful with the effort of one person or ministry. This tobacco product control is crosscutting issue and it is related to many sectors. Some sector gives the license, some take the tax, and health ministry looks after its health impacts. (Representative, Ministry of Health and Population)

Community people are being aware of less utilization of tobacco products through posters, social campaigns, mass media, and warning signs in tobacco products with "this causes cancer" being mandatory in each packet. This is possible with the support from Nepal Police, educational institution, respective hospitals, and government institutions as emphasized by the participants. However,

few participants revealed that the awareness program has been conducted in extremely smaller numbers in their areas.

"There is the restriction for smoking and using tobacco in the public places. For more awareness, the posters had been placed in the public places and vehicles too. Sometimes, we had coordinated with the traffic police also for this". (Police Officer, Kathmandu)

Participants underscored that smoking in public transportation, and public places is in decreasing order. In addition, compared to the past the promotion of cigarettes advertisements has been reduced along with the declining number of people dying from diseases linked to tobacco use.

"The users of the tobacco have been reduced than before. So, in such cases, there has been reduction of the diseases and death rate also. There has been control after the implementation of the tobacco control, regulations and acts". (Representative, NHEICC)

Participants faced obstacles such as the weak implementation of policies, insufficient awareness among community people, an increase in number of children exposed in utilizing tobacco products, less monitoring of tobacco consumption on school, public places, hospitals, children, pregnant women, the terrible influence of tobacco industry and policy leader on tobacco act, easy accessibility of tobacco-related substances, human resources on monitoring and flawed infrastructure were the major barriers faced by the participants.

"There must be the strict rules for below 18 years for the sales, distribution and consumption. There is the maximum use of the children who are below 18 and there is the buying and selling without any identification cards".(Representative, District Administrative Office)

Participants underlined strict rules and regulations ensuring punishment for law violators multi-sectoral coordination, conducting awareness programs at local level, and giving emphasis on follow up of such activities is crucial in controlling and preventing the use of tobacco related products.

Participants underlined the need for ongoing supervision, follow-up, and monitoring to ensure that the Tobacco Control Act is strictly enforced in public places and other restricted areas like schools and colleges. Most participants cited a lack of a proper monitoring system owing to the absence of authority and a clear system. Some participants stated that they had conducted formal and informal surveillance of tobacco use in public places and had warned the public not to do so.

There must be the monitoring team of the tobacco related substances and there must be regular follow-up and monitoring in every public places by monitoring team". (Public Health Officer)

Participants felt that the Tobacco Control Act need to be centered on health promotion and health awareness including vulnerable age groups. In addition, the act needs to address problems on *hukka* that are being more and more popular and have become fashionable below 18 years of age. In addition, participants stressed that they are increasing age limit to 21 years for purchasing tobacco products and increasing the health warning sign from 75% to 90% in the packet of tobacco product.

The law is just made but has not been implemented effectively. As far as I think the law has to be implemented properly focusing on the health promotion and awareness campaigns by concerning with the vulnerable age groups in cooperation with different concerned parties". (Stakeholder from Action Nepal)

DISCUSSION

Our study aimed to assess the compliance of the Tobacco Control Act in public places and identify associated factors. The quantitative analysis found that the overall compliance is low (33%). This study showed higher compliance compared to Bangladesh (26.5%)[3] this could be due to higher public awareness, stricter rules and regulations, and higher monitoring of the supply and demands of tobacco products. The compliance is far lower compared to India (Punjab i.e.83.8%.) [4], and Biratnagar (Nepal) 56.4%. [5] It is likely owing to weak governance and regulation, limited awareness in public and vendors, minimum societal and cultural acceptance, and ineffective implementation of punishments.

On the other hand, from the qualitative analysis of this study highlighted that Knowledge about tobacco, control, and regulation, the proportion of active smokers, approaches in Tobacco Control Act, the penalty for abusing tobacco law, coordination among stakeholders, raising awareness, challenges during implementation, and supervision and monitoring were the substantial factors associated with compliance of tobacco control acts. Surprisingly, our study didn't identify vendors' knowledge and awareness as a factor linked to compliance of the Tobacco Control Act which was evident in our neighboring countries such

as India[6,7] and Pakistan.[8] However other factors were quite similar such as the need for educational outreach,[9] regular monitoring,[9,10] strict enforcement of laws,[9,11] enhancing public awareness,[6,8,11,12] implementing strict rules and regulation for advertising tobacco products,[13] government enforcement,[6,12] awareness on local tobacco control legislation,[8] and perception of policymakers.[8] Our study highlights several key factors that play a crucial role in improving tobacco compliance, aligning closely with findings from previous research. Educational outreach initiatives are essential in fostering knowledge and understanding of tobacco control measures, as noted in earlier studies. Regular monitoring and strict enforcement of laws further ensure adherence, as these measures establish accountability and deter violations. Additionally, enhancing public awareness about the harmful effects of tobacco use and the importance of compliance has been shown to generate widespread support for control measures. Implementing stringent regulations on advertising tobacco products is another critical step, as it limits the influence of marketing strategies that promote tobacco consumption. Government enforcement of these policies, coupled with efforts to raise awareness about local tobacco control legislation, reinforces commitment to public health. Finally, the perception and active involvement of policymakers are pivotal in shaping and sustaining effective tobacco control strategies. Together, these factors underscore the multifaceted approach needed to achieve comprehensive and sustainable compliance, as evidenced in our findings and corroborated by prior studies. This study captured perspective from diverse participants shedding deeper understanding on compliance of Tobacco Control Act. Furthermore, the observation of public places led us to the real scenario of the compliance of the tobacco control act. However, this study was conducted in specific geographic areas, and the quantitative findings were based on descriptive analysis only therefore the findings may not be generalizable to other settings. Thus, researchers are recommended to carry out analytical research to explore the association between associated factors and compliance with the Tobacco Control Act.

CONCLUSIONS

In conclusion, the implementation of the Tobacco Control Act has contributed to reducing consumption of tobacco products. However, Act should be developed, amended and implemented considering the socio-economic context and evolving societal dynamics. Designing sensible interventions that address existing challenges are essential for improving compliance and reducing utilization of tobacco products.

CONFLICT OF INTEREST

Authors declare no conflict of interest

REFERENCES

1. Khanal GN, Khatri RB. Burden, prevention and control of tobacco consumption in Nepal: a narrative review of existing evidence. International health. 2021 Mar;13(2):110-21.Available from: /pmc/articles/PMC7902273/

2. Basnet LB, Budhathoki SS, Adhikari B, Thapa J, Neupane B, Moses T, et al. Compliance with the smoke-free public places legislation in Nepal: A cross-sectional study from Biratnagar Metropolitan City. 2022 Mar; doi: https://doi.org/10.1371/journal.pone.0264895

3. Chowdhury SR, Sunna TC, Das DC, Chowdhury MR, Mahmud HM, Hossain A. Compliance with smoke-free legislation in public places: an observational study in a northeast city of Bangladesh. Plos one. 2023 Apr 26;18(4):e0283650. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0283650

4. Sonu G, Khaiwal R, Rana J, DeepakSharma S. Effective smoke-free policies in achieving a high level of compliance with smoke-free law: experiences from a district of North India. Tob Control. 2014;

5. Lila B, Shyam B, Sundar B, Biplov A, Jeevan T, Bandana N, et al. Compliance with the smoke-free public places legislation in Nepal: A cross-sectional study from Biratnagar Metropolitan City. PLoS One. 2022;

6. Turner MM, Rimal RN, Lumby E, Cohen J, Surette A, Roundy V, et al. Compliance with tobacco control policies in India: an examination of facilitators and barriers. The International Journal of Tuberculosis and Lung Disease. 2016 Mar 1;20(3):411-6.doi: https://doi.org/10.5588/ijtld.15.0376

7. Ritesh Mistry RM, Sharmila Pimple SP, Gauravi Mishra GM, Gupta PC, Mangesh Pednekar MP, Ranz-Schleifer N, et al. Compliance with point-of-sale tobacco control policies in school-adjacent neighborhoods in Mumbai, India.

8. Fayaz A, Zohaib K, Kamran S, Muhammad N, Zeeshan K, Sarah K, et al. Awareness, perceptions of and compliance with tobacco control policies among

naswar vendors in Khyber Pakhtunkhwa Pakistan. 2021;

9. Steve S, Tess B, L. CS, Chih-Ping S, B. CJ, Natalie U, et al. Tobacco regulatory compliance with STAKE Act age-of-sale signage among licensed tobacco retailers across diverse neighborhoods in Southern California. Tobacco Induced Diseases; 2018.

10. Zohaib K, Rumana H, Aziz S, Anne R, Jappe E, Cath J, et al. Compliance of smokeless tobacco supply chain actors and products with tobacco control laws in Bangladesh, India and Pakistan : protocol for a multicentre sequential mixed-methods study. BMJ Open; 2020.

11. Amina K, Rumana H, Sarwat S, Jagdish K, Sushil B, Prakash C, et al. Smokeless tobacco control policies in South Asia: a gap analysis and recommendations. Nicotine Tob Res. 2014;

12. Sajid I, Rubina B, Pammla P, Laila A, Rameesha L, AbdulKabir R. Retailer opinions about and compliance with family smoking prevention and tobacco control act point of sale provisions: a survey of tobacco retailers. BMC Public Health. 2022;

13. Mead EL, Rimal RN, Cohen JE, Turner MM, Lumby EC, Feighery EC, et al. A two-wave observational study of compliance with youth access and tobacco advertising provisions of the Cigarettes and Other Tobacco Products Act in India. Nicotine & Tobacco Research. 2016 May 1;18(5):1363-70. doi: https://doi.org/10.1093/ntr/ntv263