



I have heard about it for the first time from you! Implementation of tobacco control law by police personnel in India

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Setting and Objectives: Police personnel, alongside other key stakeholders, are responsible for implementing the Cigarettes and Other Tobacco Products Act (COTPA) in India. This study aimed to assess knowledge and attitudes about COTPA among police personnel and explore enablers and barriers in implementing it.

Design: This convergent parallel mixed-methods study used a self-administered questionnaire (quantitative) and key informant interviews (qualitative). Of 300 police personnel across all eight police stations in Daman, 155 participated. Quantitative data were analysed using descriptive statistics and the χ^2 test. Qualitative data from in-depth interviews of six key informants from all coordinating departments were analysed thematically.

Results: Overall, 63.2% of responders were aware of any tobacco control law in India, and only 12.9% were trained in its implementation. One person had conducted inspections for COTPA compliance in the last 12 months. The majority (78.1%) of the police personnel, and significantly more tobacco non-users than users (81.2% vs. 52.9%, $P = 0.016$), felt that enforcing anti-tobacco regulations is one of their most important functions. Perceived benefits of the act and formal authority to act were the two main enablers of COTPA implementation. Lack of awareness and coordination, competing priorities, concentration of authority with higher-ranking officials and evasion of the law by retailers and the public hampered effective implementation of the law.

Conclusion: Knowledge about the COTPA was average and implementation poor. Sensitisation and training of implementers, systematic transparent reporting and creating awareness among public are recommended for effective implementation.

More than seven million deaths worldwide are attributed to tobacco use each year. A fifth of these deaths occur in India, where more than 800 000 people die and 12 million fall ill due to tobacco use each year.¹⁻³ The second Global Adult Tobacco Survey (GATS 2) reported that 28.6% of Indian adults consume tobacco in any form, 10.7% smoke and 21.4% use smokeless tobacco (SLT). *Khaini* (a form of SLT) and *beedis* are the most commonly used tobacco consumed in India, at 11% and 8%, respectively.⁴ According to the World Health Organization (WHO), tobacco kills more people annually than human immunodeficiency virus (HIV), alcohol, other addictions and accidents put together.¹ A steady increase in tobacco-associated problems such as oral pre-cancerous lesions,

tuberculosis and cancers of the oropharyngeal region, have been reported. In addition, health care costs as well as other fiscal losses resulting from premature deaths attributable to tobacco consumption are increasing rapidly.^{1,2,5}

The World Health Assembly adopted the Framework Convention on Tobacco Control (FCTC) in May 2003, and India was one of the first countries to ratify it.⁶ At the same time, on 18 May 2003, the Indian Parliament enacted the Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution, known as the Cigarettes and Other Tobacco Products Act (COTPA).^{6,7} In 2004, specific COTPA provisions were enacted, namely a ban on smoking in all public places, a ban on advertising tobacco products, and the prohibition of sales of tobacco products to minors (age <18 years) and within 100 m of educational institutions. Specific pictorial warnings on tobacco packages were made compulsory in 2009.^{7,8}

Along with implementers from various departments relevant to the COTPA, e.g., departments of Police, Food and Drug Administration, Health, Education, Labour, Transport, Railways, etc., police personnel in India are entrusted with the responsibility of enforcing the tobacco laws.^{7,9} However, despite the reportedly comprehensive legislation put in place by the Indian Government, effective implementation of tobacco control policies largely remains a challenge.⁶ This has been attributed to low awareness or lack of motivation, or both, among the implementers.⁶

Police personnel are known to consume smoking and chewing forms of tobacco at higher rates than the general population, and this is an interesting juxtaposition.¹⁰ The psychological effects of shift work, disrupted sleep patterns and occupational stress contribute to higher tobacco use among police personnel.^{10,11} Other factors, such as fear of public opposition to implementation of the law, lack of proper training and lack of administrative support, have also been reported as barriers to implementing COTPA.^{6,12,13}

Existing literature on COTPA has described compliance with different sections of the Act or examined at knowledge and attitudes among specific groups and the general public. However, less is known about the knowledge, attitudes, enablers and barriers faced by the implementers of COTPA themselves. Generating such evidence requires a combination of quantitative and qualitative research methods.

The present study was undertaken to assess knowledge and attitudes among police personnel in Daman, India, regarding the implementation of COTPA and to

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explore enablers and barriers faced by them and other key stakeholders in implementing the Act.

STUDY POPULATION, DESIGN AND METHODS

Study design

This was a convergent parallel mixed-methods study,¹⁴ with a quantitative component (cross-sectional survey) complemented by a qualitative component (descriptive study).

Study setting

The study was conducted in Daman, a city and a municipal council in Daman District in the Indian Union Territory of Daman and Diu. According to the 2011 census, Daman District has a population of 191 173 and a population density of 2655 inhabitants per km².

Cigarettes and Other Tobacco Products Act (COTPA)

According to COTPA provisions, it is suggested that for the effective implementation of the law, any police officer with the rank of sub-inspector or above, or any officer of the State Food or Drug Administration, or any other officer holding a rank equivalent to that of Sub-Inspector of Police, is authorised by the Central Government or by the State Government to conduct surprise checks to see whether the provisions of the Act are being complied with. In addition, if people are caught violating the provision they should be fined.⁷ According to the COTPA, in addition to the Department of Police, other authorities, including the Food and Drug Administration, the Department of Health and the Department of Education, are also responsible for implementation of the four key provisions of the Act.⁹ These key stakeholders are required to ensure that no person is found smoking in public places, that cigarettes and other tobacco products are not sold within 100 m of educational institutions, and that tobacco products are not sold to or by minors. They may seize tobacco advertisements and cigarettes and any other tobacco packages that are in contravention of the provisions of the Act, and they also have the power to seize tobacco products that are being manufactured or sold without bearing the requisite health warnings.⁷⁻⁹

Study population and study period

The study was conducted from December 2017 to April 2018 across all eight police stations in Daman. Each station was contacted 2–3 times throughout the study period to ensure maximum participation; police personnel who were present at each visit were included. We included all personnel, from the rank of police constable to police inspector, to account for the anecdotal information that despite the COTPA provisions the actual inspections were carried out by lower cadres. For the qualitative part of the study, a total of six key informant interviews were conducted with three police officers, one Food and Drug Inspector, one physician from the Department of Health, and one high-ranking official from the Department of Education, all of whom were purposively selected.

Data variables, sources of data and data collection

Quantitative

Data were collected using an anonymous, self-administered questionnaire consisting of three parts. Part 1 consisted of information on sociodemographic characteristics such as age, sex, rank, years of experience, in-service training on COTPA and number of inspections of COTPA compliance in the last 12 months. Part 2 assessed information on current tobacco use (smoking and smokeless).¹⁵ Part 3 was designed based on four major provisions of COTPA.^{7,8} This included 11 questions to assess the knowledge of the police personnel about COTPA. The attitude questions were designed based on a review of previous studies,^{16,17} and measured their agreement with a set of statements on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The choices of strongly agree and agree were taken as a positive attitude, neither agree nor disagree as neutral, and disagree and strongly disagree as negative.

Qualitative data

Three police officers, a Food and Drug inspector, a doctor from the Health Department and a high ranked official from the Department of Education, all involved in COTPA implementation in Daman, were interviewed by the principal investigator (NA), who is formally trained in qualitative research methods. An interview guide was used to explore enablers and barriers faced by key stakeholders related to COTPA as well as their opinion on the specific responsibilities of the police personnel in implementing COTPA. The interviews were audio-recorded and verbatim notes were taken after obtaining consent. The mean duration of interviews was 10 min (range 7–13). When saturation was achieved, we did not interview any further.

Data entry and analysis

Quantitative

Data were double-entered, validated and analysed using EpiData (v. 3.1 for data entry and v. 2.2.2.178 for data analysis; EpiData Association, Odense, Denmark). Numerical data (age, experience) were summarised in the form of medians (interquartile range [IQR]) and categorical data as frequencies and percentages (sex, rank, in-service training, COTPA inspections). The χ^2 test was used to test the association of tobacco use practices with knowledge of and attitudes towards COTPA, and was considered statistically significant if $P < 0.05$.

Qualitative

Audio-recorded interviews were transcribed verbatim in English on the same day by the principal investigator. Manual thematic analysis was used to analyse the data. The initial coding and theme generation was done by the principal investigator (NA) and reviewed by two co-investigators (JK, PI).¹⁸ Any difference between the investigators was resolved by discussion. Similar basic themes were grouped as organising themes and then into a global theme, using a thematic network analysis method.¹⁹ We reported the study

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TABLE 1 Characteristics of police personnel in Daman District, India, 2018 ($n = 155$)

Characteristics	Total n (%)	Tobacco users n (%)	Tobacco non-users n (%)
Age, years, median [IQR]	33 [27–47]		
Sex			
Male	135 (87.1)	17 (12.6)	118 (87.4)
Female	20 (12.9)	0	20 (100)
Rank			
Police inspector	1 (0.6)	0	1 (100)
Sub-Inspector	2 (1.3)	0	1 (100)
Assistant Sub-Inspector	13 (8.4)	3 (23.1)	10 (76.9)
Head constable	45 (29)	9 (20)	36 (80)
Police constable	94 (60.6)	5 (5.3)	89 (94.7)
Years of experience in the police, median [IQR]	9 [4–19]		
Years of experience in Daman Police, median [IQR]	8 [4–15]		
In-service training on COTPA			
Yes	20 (12.9)	2 (10)	18 (90)
No	125 (80.6)	14 (11.2)	111 (88.8)
Don't know	10 (6.5)		
Inspections for COTPA compliance in the last 12 months			
Yes	1 (0.6)	0	1
No	154 (99.4)	17 (11)	137 (89)

IQR = interquartile range; COTPA = Cigarette and Other Tobacco Products Act.

findings in accordance with the Strengthening The Reporting of OBservational Studies in Epidemiology (STROBE) and Consolidated Criteria for Reporting Qualitative Research (COREQ) statements.^{20,21}

Ethics

Ethics approval was obtained from the Ethics Advisory Group of the International Union Against Tuberculosis and Lung Disease, Paris, France. In addition, administrative approval was obtained from the local police department in Daman, India. Written informed consent was obtained for both the questionnaire survey and the key informant interviews.

RESULTS

Quantitative

The median age of the 155 police personnel included in the study (135 males, 87.1%) was 33 years (IQR 27–47). Most—139 (90%)—had the rank of head constable or below, and 125 (80.6%) were not trained in COTPA implementation. Only one had conducted inspections for COTPA compliance in the last 12 months (Table 1).

Tobacco use was reported by 17 (11%) police personnel. Overall, 98 (63.2%) were aware of any tobacco control law in India. Although 73.5% ($n = 114$) knew about the ban on smoking in public places, only 37 (23.9%) were aware about the penalty. The majority were aware of the minimum age for buying and selling tobacco products (respectively, 139 [89.7%] and 142 [91.6%]); however, only 2 (1.3%) knew about the penalty. The knowledge about various aspects of the law was found to be similar among tobacco users and non-users (Table 2).

Significantly more tobacco non-users than users (81.2% vs. 52.9%, $P = 0.016$) felt that enforcing COTPA is one of the most important functions of the police force. The attitudes of tobacco users compared to non-users towards the implementation of COTPA is shown in Table 3.

Qualitative

Six key informant interviews were conducted to explore enablers and barriers faced by police personnel and other key stakeholders in implementing COTPA.

Enablers of COTPA implementation

The police personnel felt that the COTPA had effectively reduced the accessibility of tobacco products for the public, thereby reducing consumption.

There were many people using tobacco. But after the implementation of COTPA, the government has increased excise duty on tobacco products, I think more than 250 times. This has led to a decrease in consumption of both smoking and chewing of tobacco products and *pan masala*. (46-year-old male, Food and Drug Inspector)

This led to the implementers' perception of the act as effective and beneficial in controlling tobacco use in the community, which was identified as an important enabler.

Especially our youth nowadays use tobacco and if this law is implemented, it is good for the future of our nation. (48-year-old male, police officer)

The formal legal authority conferred upon them by the act also motivated them to implement it enthusiastically.

Before this act, when someone used to smoke in hotels, we could not tell anyone that you are not supposed to smoke here, but after this act and display of No smoking sign, we can easily tell people and they also co-operate with us and don't smoke. (46-year-old male, Food and Drug Inspector)

Police can catch the vendor selling tobacco, charge them and send them to court by making a case against them. (39-year-old male, police officer)

Barriers to COTPA implementation

From the transcripts, barriers in implementing COTPA were coded under 10 basic themes grouped under three main organising

TABLE 2 Association of tobacco use practices with knowledge about implementation of COTPA among police personnel in Daman District, India, 2018

Variables	Personnel with correct knowledge about COTPA			P value
	Total (n = 155) n (%)	Tobacco users (n = 17) n (%)	Tobacco non-users (n = 138) n (%)	
Awareness about any tobacco control law in India	98 (63.2)	10 (58.8)	88 (63.8)	0.68
Ban on smoking in public places	114 (73.5)	11 (64.7)	103 (74.6)	0.38
Penalty for smoking in public places	37 (23.9)	3 (17.6)	34 (24.6)	0.52
Person to be contacted for reporting smoking in public places	36 (23.2)	4 (23.5)	32 (23.2)	0.97
First penalty for advertisements of tobacco products	28 (18.1)	1 (5.9)	27 (19.6)	0.16
Second penalty for advertisements of tobacco products	33 (21.3)	1 (5.9)	32 (23.2)	0.10
Minimum age for buying tobacco products	139 (89.7)	15 (88.2)	124 (89.9)	0.83
Minimum age for selling tobacco products	142 (91.6)	15 (88.2)	127 (92)	0.59
Penalty for selling tobacco products to minors	2 (1.3)	0	2 (1.4)	0.61
Tobacco sale near educational institutions	56 (36.1)	9 (52.9)	47 (34.1)	0.12
Health warnings on tobacco packages	56 (36.1)	6 (35.3)	50 (36.2)	0.93

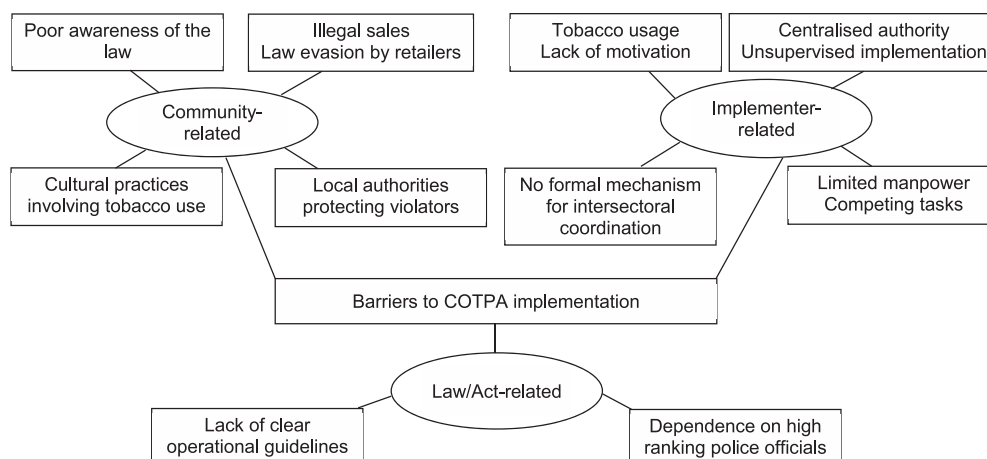
COTPA = Cigarette and Other Tobacco Products Act.

TABLE 3 Association of tobacco use practices with positive attitudes about implementation of COTPA among police personnel in Daman District, India, 2018

Probe	All (N = 155) n (%)	Tobacco users (n = 17) n (%)	Tobacco non-users (n = 138) n (%)	P value
Enforcing COTPA is an important function of the police department	121 (78.1)	9 (52.9)	112 (81.2)	0.016*
Government should not interfere with individuals' decisions about tobacco use	61 (39.4)	5 (29.4)	56 (40.6)	0.652
Prohibition of advertisements of tobacco products will motivate people to quit tobacco	133 (85.8)	15 (88.2)	118 (85.5)	0.673
Tobacco companies should not be allowed to sponsor sporting events, fairs or community events	120 (77.4)	13 (76.5)	107 (77.5)	0.799
Police officers should do more to enforce laws against retailers selling tobacco products to minors or near educational institutions	136 (87.7)	14 (82.4)	122 (88.4)	0.675
COTPA rules are too stringent. It is not very practical to expect 100% implementation of all COTPA provisions.	57 (36.8)	4 (23.5)	53 (38.4)	0.445
Time and manpower in a police department spent enforcing COTPA could be better used elsewhere	41 (26.5)	4 (23.5)	37 (26.8)	0.957

*Statistically significant.

COTPA = Cigarette and Other Tobacco Products Act.

**FIGURE** Barriers to COTPA implementation in Daman District, India, 2018. COTPA = Cigarette and Other Tobacco Products Act.

themes: law/act-related, implementer-related and community-related. These are shown in the Figure and are briefly described below.

LAW/ACT-RELATED BARRIERS: Lack of clear communication about the law and its mandates from the higher authorities was cited as the reason for the lack of implementation.

If it is through proper channels (Daman administration), we can implement. Give us on a paper and we will implement. [...]. In Daman, we don't have anything like this as people are using tobacco. (48-year-old male, police officer)

In addition, dependence on superior police officers, as they are the ones vested with authority under the act, made implementation difficult.

Only if I have been given orders from my superiors to take action based on certain information, as an in-charge I can ask my junior officials to visit that place and bring that person who is illegally selling any such products. (39-year-old male, police officer)

IMPLEMENTER-RELATED BARRIERS: Police reported poor awareness about COTPA and their role in implementing it.

Even police officials are not aware. I know what COTPA is but I don't have any deep knowledge about it. (39-year-old male, police officer)

COTPA, actually we have heard for the first time from you. (48-year-old male, police official)

Tobacco use by police personnel could have influenced their attitudes towards the law and influenced their practices in enforcing the law.

We also have our staff using *mawa* [a chewable form of tobacco] and sometimes I also eat with them as I feel it's ok if I taste it sometime. This is how habit develops. Now we have young police personnel in our department coming from Diu, they bring such tobacco products from their village and have it on a regular basis. (48-year-old male, police officer)

The implementation of COTPA is left to the individual motivation of police personnel and is not seriously viewed or monitored.

There is authority given to us but no one cares much about this law and neglect it. (39-year-old male, Police officer)

Police officials are being assigned to different areas and they are being given responsibility but whether they go for checks or not it's up to them. (43-year-old male, police official)

Another major barrier among implementers was the lack of intersectoral coordination.

We only see 100 yards near schools. Other sections, we do not interfere. We stay within our boundaries. (54-year-old male, high-ranking official from Education Department)

As per my knowledge, no fines are collected by the Police Department and even I have never done this. I don't know if fines are collected by the Food or Health Departments. (48-year-old male, police officer)

From the implementer's perspective, competing, more urgent priorities made it difficult to focus on COTPA implementation.

There is less staff in Daman. (39-year-old male, police officer)

There are so many criminal cases, so this law becomes secondary to us. (48-year-old male, police officer)

COMMUNITY-RELATED BARRIERS: One repeatedly cited barrier to COTPA implementation was lack of awareness among the public about the mandate and penalties of the law.

There is no awareness among the public about this law.

Like if someone smokes in public places, no one knows where to complain and whom to complain, which is most important. (35-year-old male, physician from the Department of Health)

One of the interviewees said that cultural acceptance of tobacco use in society was an important challenge to law implementation.

I have seen a family in Daman, in which when someone from the family is dead, they welcome people with tobacco/cigars to their place. So, I must say it is in the system of our society to use tobacco. (46-year-old male, Food and Drug Inspector)

Easy availability of alcohol in Daman was reported as a factor encouraging more tobacco use, as it was a common to use tobacco with alcohol.

As alcohol is easily available in Daman, and tobacco and alcohol use go hand in hand, this can be an issue. (35-year-old male, physician from Health Department)

Another barrier reported was the illegal sale of tobacco products in some parts of Daman.

There is a ban on *gutkha* [chewable form of tobacco] and tobacco products in Daman, but still illegal selling taking place in some places of Daman. (46-year-old male, Food and Drug Inspector)

Taking legal action against violators of the law was impeded by interference from the local authority to protect them.

As currently we do not have power and in Daman, local people know some person or the other, we cannot act. (43-year-old male, police officer)

DISCUSSION

This is the first mixed-methods study in India to systematically assess knowledge and attitudes among the primary implementers of COTPA, the police personnel, and to discuss enablers and challenges to effective implementation of the law. While it was commonly expressed by the implementers in this study that the law is beneficial in discouraging tobacco use by reducing its availability, accessibility and affordability, this positive attitude was not reflected in the implementation of the law. What they had in perceived benefits of the law, they lacked in the motivation and capacity to implement it.

The lack of knowledge among the police personnel about the law has been attributed to the lack of clarity in the law itself as to what is expected from them. Similar findings were reported in other studies among the general population and local self-government bodies.^{12,13,22,23} While the law is quite objective in its guidelines, whether these have been communicated to the implementers effectively was questionable. This lack of knowledge also extended to not knowing how and with whom to coordinate when it came to liaising with other sectors who also have a role in implementing the law. Implementers from different sectors were not aware of any formal coordination mechanism and their boundaries of action. This could lead to duplicate activities and no-man's lands, both of which are examples of the inefficient use of resources to achieve the objective.

The suboptimal knowledge and indifferent attitude towards the law led to—and was also compounded by—a lack of motivation, which sprang from non-existent in-service training, supportive supervision or periodic evaluations. Competing tasks that are seen to be more urgent, such as criminal cases, eclipsed the COTPA in the list of priorities of the police personnel. Similar findings were reported in other studies,^{12,24,25} where low priority impacted policy implementation. The rigid line of authority within the police force also had a dampening effect on the implementation of COTPA. The police personnel interviewed felt that the law had conferred authority to higher-ranking officials who were not involved in ground-level implementation. This may be one cause of the delayed, ineffective enforcement of the law, as the personnel felt they lacked the power to act.

Only one of the 155 police personnel surveyed claimed to have conducted supervisory visits and checked public places for COTPA violations. Such poor performance is to be expected, given the reported knowledge levels and attitudes towards COTPA. The effect of tobacco use by police personnel on their attitudes and behaviour in implementing the COTPA was interesting. Non-users were more positive than users about implementing the COTPA. How this may have influenced their practices could not be studied, as only one person reported ever implementing the law in the past 12 months.

While legislation is an essential major player in curbing tobacco, it does not stand alone, and will fail if not ably complemented by behaviour changes in an aware and conscientious public. Police personnel in our study said that awareness among the public about the health hazards of smoking and the provisions of COTPA was not satisfactory. Low awareness^{23,26} of and suboptimal compliance with the law²⁷ among the general population have already been documented in India. This prevents the individual and society from benefiting optimally from the law.

An interesting counteractive effect is exerted by the fact that among some communities it is cultural practice to consume tobacco as part of rituals and ceremonies. This custom has been reported previously in India and elsewhere.^{28,29} It needs to be dealt with sensitively, and highlights the need to devise more inclusive strategies.

Illegal sales of tobacco products in some areas in Daman continue despite the COTPA. Similar findings were reported in a study in Manipur, India, where, despite the ban, tobacco was available illegally across the state.³⁰ Tobacco vendor compliance with point-of-sales regulations under COTPA has been found to be associated with tobacco use.³¹ Even when vendors were aware of the legislation, compliance was poor,³² necessitating strict penalties and punishments to ensure adherence. When vendors were caught contravening the law, interference from the local authorities made it difficult for the police personnel to take action against them.

The study had some limitations. The use of interviews to collect self-reported data makes our study prone to social desirability bias, given the sensitive nature of some questions and the fact that the respondents were implementers of the law. Of the 300 police personnel who constitute the police workforce in Daman, we could interview only 155, mostly due to the nature of their duties, which requires them to be on different shifts. This small sample size limited any conclusive deductions that could be made from the statistical associations observed. This may have also restricted the possibility of obtaining the views of other potential respondents at data collection sites. The study findings may not be generalisable to the entire country, given the inherent diver-

sity in the social, cultural, political, legal and economic climate of the Indian states. Furthermore, views of key stakeholders involved in COTPA implementation may also differ in other parts of India. However, despite the inherent limitations, the study provides meaningful information on stakeholder views about COTPA, which can be vital in further strengthening the law and intensifying tobacco control efforts. Future research studies should focus on detailed policy implementation and compliance data from all stakeholders, including police officers, food and drug inspectors, doctors, education officers, school principals and teachers. There is also a need for reliable data from local communities where these important tobacco control policies are implemented.

CONCLUSION

Knowledge about the COTPA was lacking among most of the police personnel. There was almost no implementation of any of the legal guidelines in terms of supervisory visits to ensure adherence to the law or penalisation of violators. Despite the perceived benefits of the law, inadequate sensitisation of the implementers, competing priorities, lack of an established formal coordination mechanism between coordinating sectors, concentration of authority among higher-ranking officials, and evasion of the law by retailers and the public, hampered effective implementation of the law. To reduce tobacco use, the Government of India thus needs to strengthen its existing tobacco control policies, such as protection from secondhand tobacco smoke; enforcement of bans on tobacco advertising, promotion and sponsorship; effective implementation of pictorial health warnings; raising taxes on tobacco; and offering help to those who want to quit. This will only be possible with better monitoring practices, training and intersectoral coordination involving different stakeholder departments.

Recommendations

Based on the findings above, we highly recommend several actions for proper implementation of the law. First, formal training and capacity building of police personnel on the implementation of COTPA, its provisions and penalties are needed. Second, delineation of the responsibilities of the various coordinating sectors and creation of coordination mechanisms is essential. Third, delegation of power to lower-ranking officials directly involved in implementation of the act, with supportive supervision by higher-ranking officials, could decongest the burden and boost the morale of the implementers. Fourth, periodic, transparent reporting mechanisms for recording visits, violations and penalisations should be in place to promote unbiased implementation. Finally, communication campaigns to encourage behaviour change among the public should be conducted to enable greater compliance with the law and facilitate its implementation.

References

- 1 World Health Organization. WHO report on the global tobacco epidemic, 2017: monitoring tobacco use and prevention policies. Geneva, Switzerland: WHO, 2017.
- 2 Mishra S, Joseph R A, Gupta P C, et al. Trends in *bidi* and cigarette smoking in India from 1998 to 2015, by age, gender and education. *BMJ Global Health* 2016; 1: e000005.
- 3 Mohan P, Lando H A, Panneer S. Assessment of tobacco consumption and control in India. *Indian J Clin Med* 2018; 9: 1–8.
- 4 Global Adult Tobacco Survey. GATS 2 India Factsheet 2016–17. New Delhi, India: Ministry of Health and Family Welfare, Government of India, 2017.
- 5 Saha I, Paul B. War against tobacco: Where do we stand? *Indian J Public Health* 2018; 62: 55–57.
- 6 Kaur J, Jain D C. Tobacco control policies in India: implementation and challenges. *Indian J of Public Health* 2011; 55: 220–227.

- 7 Ministry of Health and Family Welfare, Government of India. The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution) Act, 2003. New Delhi, India: MoHFW, 2003.
- 8 Health-Related Information Dissemination Amongst Youth—Student Health Action Network. Tobacco control laws: a resource manual. 3rd ed. New Delhi, India: HRIDAY, 2010.
- 9 Ministry of Health and Family Welfare, Government of India. Guidelines for law enforcers for effective implementation of tobacco control laws. New Delhi, India: MoHFW, 2013.
- 10 Smith D R, Devine S, Leggat P A, Ishitake T. Alcohol and tobacco consumption among police officers. *Kurume Med J* 2005; 52: 63–65.
- 11 Habersaat S A, Geiger A M, Abdellaoui S, Wolf J M. Health in police officers: Role of risk factor clusters and police divisions. *Soc Sci Med* 2015; 143: 213–222.
- 12 Sarma I, Sarma P S, Thankappan K R. Awareness, attitude and perceived barriers regarding implementation of the cigarettes and other tobacco products Act in Assam, India. *Indian J Cancer* 2010; 47: 63–68.
- 13 Mohan S, Thankappan K R. Knowledge, attitudes, and perceived barriers regarding implementation of FCTC provisions and tobacco control measures in general among representatives of local self-government bodies in, Kerala, India. London, UK: Department of International Development, 2007.
- 14 Creswell J W, Plano Clark V L. Designing and conducting mixed methods research. 2nd ed. Thousand Oaks, CA, USA: Sage Publications, Inc, 2011.
- 15 Global Adult Tobacco Survey Collaborative Group. Tobacco questions for surveys: a subset of key questions from the Global Adult Tobacco Survey (GATS). 2nd ed. Global Adult Tobacco Survey Collaborative Group, 2011.
- 16 Panda B, Rout A, Pati S, et al. Tobacco control law enforcement and compliance in Odisha, India—implications for tobacco control policy and practice. *Asian Pac J Cancer Prev* 2012; 13: 4631–4637.
- 17 Snell C, Bailey C, Bailey L. Law enforcement officer attitudes toward Texas tobacco laws and tobacco enforcement activities. Houston, TX, USA: Texas Department of Health, Office of Tobacco Prevention and Control, 2001.
- 18 Saldana J. The coding manual for qualitative research. Los Angeles, CA, USA: Sage Publications, 2010.
- 19 Attride-Stirling J. Thematic networks: an analytic tool for qualitative research. *Qual Res* 2001; 1: 383–405.
- 20 Cevallos M, Egger M. STROBE (STrengthening the Reporting of Observational studies in Epidemiology). Guidelines for reporting health research: a user's manual. 1st ed. Hoboken, NJ, USA: John Wiley & Sons, 2014.
- 21 Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qlty Health Care* 2007; 19: 349–357.
- 22 Shwetha H L, Reddy M N T, Patil R, Limaye M V, Kadam V, Jangid M. Knowledge, attitude and practices regarding cigarettes and other tobacco products act among adults in Bangalore City. *Int J Tobacco Oral Health* 2015; 1: 5–8.
- 23 Sharma N, Anand T, Grover S, Kumar A, Singh M M, Ingle G K. Awareness about anti-smoking related laws and legislation among general population in slums of Delhi, India. *Nicotine Tob Res* 2018; 20: 643–648.
- 24 Robertson J A, Conigrave K M, Ivers R, Usher K, Clough A R. Translation of tobacco policy into practice in disadvantaged and marginalized subpopulations: a study of challenges and opportunities in remote Australian Indigenous communities. *Health Res Policy Syst* 2012; 10: 23.
- 25 Persai D, Panda R, Gupta A, Persai D, Panda R, Gupta A. Examining implementation of tobacco control policy at the district level: a case study analysis from a high burden state in India. *Adv Prev Med* 2016; 2016: 1–8.
- 26 Turner M M, Rimal R N, Lumby E, et al. Compliance with tobacco control policies in India: an examination of facilitators and barriers. *Int J Tuberc Lung Dis* 2016; 20: 411–416.
- 27 Kumar R, Goel S, Harries A D, et al. How good is compliance with smoke-free legislation in India? Results of 38 subnational surveys. *Int Health* 2014; 6: 189–195.
- 28 Ghosh A, Krishan K, Krishan T, Ghosh S. Killing cultural diversity to control tobacco: a democratic approach. *Perspect Public Health* 2016; 136: 6–7.
- 29 Xiao D, Bai C-X, Chen Z-M, Wang C. Implementation of the World Health Organization Framework Convention on Tobacco Control in China: an arduous and long-term task. *Cancer* 2015; 121 (Suppl 17): 3061–3068.
- 30 Shimray R A. The effects of complete ban of smokeless tobacco products in the State of Manipur: a qualitative study. *IOSR J Humanit Soc Sci* 2016; 21: 10–20.
- 31 Mistry R, Pednekar M S, McCarthy W J, et al. Compliance with point-of-sale tobacco control policies and student tobacco use in Mumbai, India. *Tob Control* 2018 May 9. [Epub ahead of print]
- 32 Venugopal D C, Vidhubala E, Sundaramoorthy C. Does awareness on tobacco control legislations pertaining to tobacco sellers lead to compliance? A study from Chennai, India. *Asian Pac J Cancer Prev* 2017; 18: 2349–2354.

Contexte et objectifs : Le personnel de la police, en collaboration avec d'autres partenaires clés, est responsable de la mise en œuvre de la Loi cigarettes et autres produits dérivés du tabac (COTPA) en Inde. Cette étude a eu pour but d'évaluer les connaissances et l'attitude au sein du personnel de la police en ce qui concerne la COTPA et a exploré les facilitateurs et les entraves à sa mise en œuvre.

Schéma : Cette étude convergente parallèle à méthodes mixtes s'est basée sur un questionnaire auto-administré (méthode quantitative) et sur des entretiens avec des informateurs clés (méthode qualitative). Sur 300 personnels de police dans les huit stations de police de Daman, 155 ont participé. Les données quantitatives ont été analysées grâce à des statistiques descriptives et au test du χ^2 . Les données qualitatives émanant des entretiens approfondis avec six informateurs clés de tous les services de coordination ont été analysées de manière thématique.

Résultats : Au total, 63,2% des participants étaient au courant de

l'existence d'une loi de lutte contre le tabac en Inde, et seulement 12,9% ont été formés à sa mise en œuvre. Un seul avait réalisé des inspections relatives au respect de la COTPA au cours des 12 derniers mois. La majorité (78,1%) du personnel de police, et significativement plus de non-utilisateurs que d'utilisateurs de tabac (81,2% contre 52,9%, $P = 0,016$), estimaient que mettre en œuvre la loi anti-tabac était l'une de leurs fonctions importantes. Les bénéfices perçus de cette loi et le pouvoir officiel ont été les deux principaux facilitateurs de la mise en œuvre de la COTPA. Le manque de sensibilisation et de coordination, les priorités concurrentes, la concentration de l'autorité au sein des supérieurs et l'évasion de la loi par les revendeurs et le public a entravé une véritable mise en œuvre de la loi.

Conclusion : La connaissance de la loi a été moyenne et sa mise en œuvre médiocre. La sensibilisation et la formation des responsables de la mise en œuvre, des rapports systématiques transparents et la sensibilisation du public sont recommandés pour une mise en œuvre efficace.

Marco de Referencia y Objetivos: El personal policial, junto con otros interesados directos, tienen a su cargo la ejecución de la COPTA (del inglés, *Cigarettes and Other Tobacco Products Act*, por ley sobre el consumo de cigarrillos y otros productos del tabaco) en la India. En el presente estudio se evaluaron los conocimientos y las actitudes de los miembros de la policía con respecto a la COPTA y se exploraron los factores facilitadores y los obstáculos a su aplicación.

Método: Fue este un estudio de métodos mixtos convergentes y paralelos que utilizó cuestionarios rellenos por el encuestado (cuantitativos) y entrevistas a informantes clave (cualitativos). De los 300 oficiales de policía de las ocho estaciones de Daman, 155 participaron en la encuesta. Los datos cuantitativos se analizaron mediante métodos estadísticos descriptivos y la prueba del χ^2 . Los datos cualitativos de las entrevistas exhaustivas de seis informantes clave de todos los departamentos coordinadores se analizaron temáticamente.

Resultados: En general, el 63,2% estaba al corriente de una ley de control del tabaco en la India, y solo el 12,9% había recibido

capacitación relacionada con su aplicación. Solo un funcionario había realizado inspecciones sobre la conformidad con la COTPA en los últimos 12 meses. La mayor parte del personal de policía (78,1%), y una mayor proporción de no consumidores de tabaco (81,2% contra 52,9%; $P = 0,016$), consideraba que la aplicación de la reglamentación antitabaco constituía una de sus funciones importantes. Los dos principales factores facilitadores de la aplicación de la COPTA fueron la percepción de los beneficios de la ley y la autoridad oficial para actuar. El desconocimiento y la falta de coordinación, las prioridades concurrentes, la concentración de la autoridad en los funcionarios superiores y la evasión de la ley por parte de los comerciantes al por menor y de la población obstaculizan la aplicación eficaz de la ley.

Conclusión: Se observó un conocimiento insuficiente y una escasa aplicación de la COTPA. Con miras a lograr una aplicación eficaz, se recomienda sensibilizar y capacitar al personal encargado de aplicar la ley, practicar una notificación sistemática transparente y trabajar por la concienciación de la población.