Willingness to quit tobacco and its correlates among Indian tobacco users—Findings from the Global Adult Tobacco Survey India, 2016–17

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ABSTRACT

Background: Willingness to quit in a tobacco user forms the basis for future quit attempts and quitting successfully. Objective: To determine the prevalence and correlates of willingness to quit among tobacco users in India using the Global Adult Tobacco Survey (GATS), India, 2016–2017. Methods: GATS, 2016–17 was a multistage geographically clustered sample survey done among 74,037 individuals aged 15 years and above across all the states and two of the Union Territories of India. Data of all those reported using any form of tobacco were studied for past attempts to quit tobacco, advised to quit by a health care provider, and exposure to anti-tobacco messages delivered through various media and the correlation of these with the willingness to quit using multivariate analysis. Results: Of the 21,085 current tobacco users in the survey, 11,679 (52.2%), were willing to quit all forms of tobacco. Multivariate analysis showed that those in younger age groups (OR: 1.39 [1.23–1.56]), higher education levels (OR 1.15 [1.05–1.18]), time of first tobacco use in the day being more than 60 min after waking up in the morning (OR 1.11 [1.03–1.2]), history of attempts to quit in the past 12 months (OR 1.78 [1.69–1.87]), those advised to quit by health care provider in the past 12 months (OR 1.11 [1.06–1.17]), those using single form of tobacco (OR 1.1 [1.05–1.17]), those exposed to anti-tobacco messages in newspapers/magazines (OR 1.1 [1.05–1.17]), and cinemas (1.14 [1.08–1.20]) were more willing to quit compared to their counterparts. Conclusion: Enhanced publicizing of anti-tobacco messages through the currently employed media, and ensuring that doctors give a brief advice to quit during any contact with a tobacco user could improve the willingness to quit and the consequent quit rate, especially among those tobacco users who are in younger age groups and who have attempted to quit earlier.

KEY WORDS: correlates, GATS 2- India, tobacco use, willingness to quit

Introduction

According to the Global Burden of Diseases study estimate in 2015, each year, tobacco use causes 7 million deaths worldwide. Of this, 6 million people die due to direct tobacco use and about a million die from exposure to second-hand smoke. Low- and middle-income countries share the highest-burden of the smoke form of tobacco use constituting 80% of the world’s smokers. In India, tobacco use (smoked or smokeless form) is present in 28.6% of all adults.

While preventing the initiation of tobacco use is the main strategy to address the tobacco epidemic, the promotion of quitting tobacco use is the most effective supplementary strategy to prevent tobacco-induced diseases in those already using tobacco.
addicted to it. Quitting at any age provides immediate benefits including reduced risks in cardiovascular diseases, cancers, and improvement in the quality of life. Quitting smoking is found to be associated with living longer than currently smoking irrespective of the age of quitting.\textsuperscript{[4]}

Several studies have been conducted to determine the correlates of willingness to quit.\textsuperscript{[5-11]} These studies are from high-income countries which make generalizability of its findings to a developing nation like India questionable, because of varied tobacco forms used in India. A secondary analysis conducted among smokers in India using the first Global Adult Tobacco Survey (GATS, 2009–10) showed that those in younger age group, who take first smoke after 1 h of waking up from sleep in the morning, who were advised to quit by a health care provider and those who witnessed anti-tobacco messages in various media had higher levels of willingness to quit compared to their counterparts.\textsuperscript{[12]}

Consistent with this understanding, several initiatives have been launched as part of the National Tobacco Control Programme for promoting quitting.\textsuperscript{[13]} These include a dedicated national toll-free number to support quitting, mTobacco cessation program\textsuperscript{[14]}; subnational smoking cessation campaigns on special days\textsuperscript{[15]} increase in the size of health warnings to 85% in the tobacco pack, and directives to include quitline number on tobacco packs.\textsuperscript{[16]} These initiatives are expected to have positively influenced the willingness to quit among the tobacco users in the country. However, there is little information available on the reach and effectiveness of these programs.

At this juncture, it is, therefore, imperative to estimate the change in prevalence of willingness to quit between GATS 1 (2009–10) and GATS 2 (2016–17) which would indicate the penetration of various measures undertaken to promote cessation in the country.

In addition, identifying the subgroups of tobacco users who are more willing to quit will help the program managers to prioritize target groups for tobacco cessation activities and develop customized cessation interventions so as to improve quit rates among the target groups.

**Methodology**

We analyzed the data of the Global Adult Tobacco Survey India, 2016–17 (GATS 2). GATS 2 covered 30 states and two Union Territories (UTs) (99.92% of total Indian population) from August 2016 to February 2017 to provide national and state-level estimates of tobacco use and monitor tobacco-related indicators. This household survey was done among 74,037 individuals aged 15 years and above, using a pretested validated structured questionnaire. The survey methodology was similar to GATS 1 survey. The detailed methodology of this survey has been published.\textsuperscript{[17]} As this study is a secondary analysis of the GATS 2 dataset that is publically available in a de-identifiable manner from Centres for Disease Control and Prevention (CDC) website, exempt from the review has been obtained for the study from the institute’s ethics committee. Moreover, the survey itself had been undertaken with all necessary ethical clearances by the nodal implementing agency.\textsuperscript{[17]}

The classification of the study group as “current tobacco user” and “current tobacco nonuser” was done based on the question, “Do you currently smoke tobacco?” and “Do you currently use smokeless tobacco?” Those who responded as “daily” and “less than daily” to both or either one was classified under “current tobacco user”; while “not at all” were considered as “current tobacco nonuser.” The primary outcome measure for the present study is the willingness to quit tobacco. The current smokers and smokeless users were asked separately—“Which of the following best describes your thinking about quitting smoking?” and “Which of the following best describes your thinking about quitting smokeless tobacco?” The responses being “Quit within next month” or “thinking within the next 12 months” or “Quit someday, but not next 12 months” were considered as “willing to quit.” Those who responded to this question as “Not interested in quitting” were taken as “not willing to quit.” Those who refused to answer or answered as “don’t know” were excluded from the analysis [Figure 1].

The sociodemographic characteristics included in the study are age, gender, education status, occupation status, region, residence, assets, and type of tobacco usage. Assets assessed in the GATS 2 dataset are the presence/absence of electricity, flush toilets, car, moped/scooter/motorcycle, television, refrigerator, washing machine, fixed telephone, cell telephone, radio, computer/laptop, internet connection, air conditioner, and electric fan. “Principal component analysis” was done as Kaiser-Meyer-Olkin value was found to be adequate (0.88) and to generate components and classify the participants on the basis of possession of assets. One component was found to explain the variability in the data (Eigenvalue >1) and a weighted score of the principal component was created. It was then divided into quintiles to obtain a new variable—“asset quintile,” which was used as a proxy for wealth—from the poorest (with minimum score) to richest (with the highest score).\textsuperscript{[18]}

**Figure 1**: Flow diagram showing the derivation of study participants based on Global Adult Tobacco Survey India data, 2016–17
Data were analyzed using Stata statistical software version 14 (StataCorp LP, College Station, TX, USA). Age was reported as mean (standard error [SE]). All the sociodemographic characteristics, tobacco-related factors, and willingness to quit were reported as a weighted proportion (%). GATS 2 assessed willingness to quit among smokers and smokeless tobacco consumers individually without eliciting the same among dual tobacco users. The present study segregated tobacco users into three categories—only smokers, only smokeless users, and dual users. Dual users were considered to have a positive outcome if they were willing to quit either of them—smoke or smokeless form. Sociodemographic characteristics, tobacco-related factors, and exposure to anti-tobacco messages could influence the willingness to quit among tobacco users.[12] Therefore, the correlates of willingness to quit were independently assessed among these variables using bivariate-weighted logistic regression. Weighted forward stepwise generalized linear modeling using Poisson’s regression was done for multivariable analysis. From each previous model, only those variables which had P value < 0.1 were considered for the next model. The final model was built with the variables which had significant P value in the previous model. The collinearity among the variables in the models was checked using the variance inflation factor. The strength of association was expressed as prevalence ratio (PR) with 95% confidence interval (CI). A P value <0.05 was considered statistically significant.

## Results

Of the 21,857 current tobacco users aged 15 years and above interviewed in GATS 2, 21,085 (96%) responded regarding the willingness to quit tobacco and were included in the analysis [Figure 1].

Of the 21,085 current users, the mean age (SE) among male and female users were 42 (0.24) years and 48.3 (0.42) years, respectively. Three-fourth of the users were males (15,059) and belonged to rural areas (15,766), and only smokeless tobacco users accounted for 62.7% (11,938) of all tobacco users [Table 1].

Of the 21,085 current tobacco users, 11,679 (52.2%, 95% CI: 50.8–53.6) were willing to quit all forms of tobacco.

The willingness to quit was higher in the younger age group compared to those aged 65 years and above, with the highest willingness in the category of 15–24 years (PR: 1.56, 95% CI: 1.40–1.75). Males showed 24% more willing to quit as compared with females (95% CI: 17–32). Around two-thirds (62%) of the tobacco users in the North-East were willing to quit tobacco. Education showed significant association—those who had graduated were more willing to quit as compared with those who had no formal education (PR: 1.49, 95% CI: 1.34–1.65). Compared with those unemployed, homemakers showed the highest willingness to quit (PR: 1.51, 95% CI: 1.3–1.75). People belonging to richer asset quintiles showed more willingness to quit. One-quarter of the respondents (25%) used tobacco in smoking form only, out of which 57.8% had the willingness to quit tobacco. Whereas around two-thirds of the respondents (62.6%) used tobacco in smokeless form only, half of them (51.2%) had the willingness to quit tobacco. Those who were using only smoked form had 27% more willing to quit compared to dual users (PR: 1.27, 95% CI: 1.17–1.39). Whereas, on comparing with individuals using the only smokeless form, they had 13% higher willingness to quit compared to dual users (PR: 1.27, 95% CI: 1.17–1.39). The willingness to quit was higher in the younger age group compared to those aged 65 years and above, with the highest willingness in the category of 15–24 years (PR: 1.56, 95% CI: 1.40–1.75). Males showed 24% more willing to quit as compared with females (95% CI: 17–32). Around two-thirds (62%) of the tobacco users in the North-East were willing to quit tobacco. Education showed significant association—those who had graduated were more willing to quit as compared with those who had no formal education (PR: 1.49, 95% CI: 1.34–1.65). Compared with those unemployed, homemakers showed the highest willingness to quit (PR: 1.51, 95% CI: 1.3–1.75). People belonging to richer asset quintiles showed more willingness to quit. One-quarter of the respondents (25%) used tobacco in smoking form only, out of which 57.8% had the willingness to quit tobacco. Whereas around two-thirds of the respondents (62.6%) used tobacco in smokeless form only, half of them (51.2%) had the willingness to quit tobacco. Those who were using only smoked form had 27% more willing to quit compared to dual users (PR: 1.27, 95% CI: 1.17–1.39). Whereas, on comparing with individuals using the only smokeless form, they had 13% higher willingness to quit compared to dual users (PR: 1.27, 95% CI: 1.17–1.39).
more willing to quit (PR: 1.13; 95% CI: 1.08–1.19). [Table 1]

However, there was an 11% lesser willingness to quit among dual users when compared to individuals using the only smokeless form (PR: 0.89; 95% CI: 0.82–0.96).

Those who had their first tobacco use more than 60 min after waking up were more willing to quit compared with those who use within 5 min (PR: 1.18; 95% CI: 1.08–1.29). Those individuals who had attempted to quit in the past 12 months were nearly twice more willing to quit compared to those who did not (PR: 1.87; 95% CI: 1.78–1.96). Individuals who were not allowed to smoke in their house, those who believed that tobacco usage causes serious illness, and those who were advised to quit by a health care provider in the past 12 months were found to have more willingness to quit [Table 2].

Individuals who had seen, read, or heard about any anti-tobacco messages in any media in the past 30 days were more willing to quit compared with those who did not. Those who saw information about the dangers of tobacco or messages that encouraged quitting in newspapers/magazines and cinemas were 30% more willing to quit compared with those who did not (95% CI: 24–37) and (95% CI: 25–37), respectively; those exposed to these messages on other media also showed significant increase in willingness to quit [Table 3].

The model for multivariable analysis was built step by step and the final model included 10 factors [Table 4]. Multivariable analysis showed that young age, an individual’s region of residence in India, formal education, type of tobacco consumption (smoke/smokeless), time of first tobacco use after waking up, attempts to quit in the past 12 months, smoking not allowed inside house, advised to quit by health care provider in the past 12 months, and anti-tobacco messages on newspapers/magazines and cinemas—are the factors which independently had a positive association with willingness to quit tobacco (P < 0.05).

Figure 2 illustrates the states whose current tobacco usage is higher than the national average (28.6%) in the GATS 2 survey. 53.9% (12,175) of the respondents resided in high tobacco usage states/UT, GATS 2, 2016–17.
these high prevalence states. Half of them (6,732, 50.9%) had the willingness to quit tobacco. Compared to national average (52.2%), some of these states had low willingness to quit like 29.7% (Jharkhand), 41.4% (Chhattisgarh), 44.1% (Tripura), 45% (West Bengal) whereas some had as high as 87.8% (Nagaland), 72.1% (Meghalaya), 65.3% (Manipur), and 63% (Mizoram) [Figure 2].

Figure 3 shows the states whose current tobacco usage is lower than the national average (28.6%) in the GATS 2 survey. 46.1% (8,910) of the respondents resided in these low-prevalence states. More than half of them (4,947, 53.7%) had the willingness to quit tobacco. Compared to national average (52.2%), only five states had lower willingness to quit like 45% (Bihar), 46.2% (Gujarat), 47.6% (Rajasthan), 48.6% (Tamil Nadu), and 49.7% (Punjab); rest all had higher like 76.3% (Delhi), 74.5% (Kerala), 71% (Himachal Pradesh), and 70% (Telangana) [Figure 2].

Table 4: Multivariable analysis showing correlates of willingness to quit tobacco among people aged 15 years and above in India (Global Adult Tobacco Survey 2016-2017) (n = 21085)

| Sociodemographic characteristics          | Adjusted PR (95% CI) |
|-------------------------------------------|---------------------|
| Age (years)                               |                     |
| 15-24                                     | 1.39 (1.23-1.56)    |
| 25-44                                     | 1.36 (1.25-1.48)    |
| 45-64                                     | 1.26 (1.15-1.37)    |
| >65                                       | Reference           |
| Region                                    |                     |
| North                                     | 1.20 (1.11-1.30)    |
| Central                                   | 1.02 (0.95-1.10)    |
| East                                      | Reference           |
| North-East                                | 1.34 (1.24-1.44)    |
| West                                      | 1.18 (1.07-1.31)    |
| South                                     | 1.11 (1.02-1.22)    |
| Education*                                |                     |
| No formal education                       | Reference           |
| Primary incomplete                        | 1.13 (1.06-1.20)    |
| Primary but not secondary                 | 1.12 (1.05-1.18)    |
| Secondary and higher secondary            | 1.15 (1.06-1.24)    |
| Graduation and above                      | 1.13 (1.00-1.26)    |
| Usage type                                |                     |
| Only smoking                              | 1.1 (1.05-1.17)     |
| Only smokeless                            | Reference           |
| Dual                                      | 0.82 (0.76-0.89)    |
| Time of first tobacco use after waking up*|                     |
| Within 5 min                              | Reference           |
| 6-30 min                                  | 1.04 (0.96-1.11)    |
| 31-60 min                                 | 1.05 (0.96-1.14)    |
| >60 min                                   | 1.11 (1.03-1.20)    |
| Attempted to quit in the past 1 year      |                     |
| Yes                                       | 1.78 (1.69-1.87)    |
| No                                        | Reference           |
| Smoking inside home*                      |                     |
| Allowed                                   | 1.06 (1.00-1.12)    |
| Not allowed                               | Reference           |
| Advised to stop using tobacco by a health care provider in last 1 year | | |
| Yes                                       | 1.11 (1.06-1.17)    |
| No                                        | Reference           |
| Newspaper/magazine                        |                     |
| Yes                                       | 1.11 (1.05-1.17)    |
| No                                        | Reference           |
| Cinemas                                   |                     |
| Yes                                       | 1.14 (1.08-1.20)    |
| No                                        | Reference           |

* Few refused or didn’t know

Discussion

Willingness to quit among tobacco users

Willingness to quit among tobacco users in India has increased from 41% (author’s unpublished observation) to 52% between the two rounds of GATS. With the launch of NTCP in 2007, several key tobacco control initiatives including enhanced awareness generation on harmful effects of tobacco use at national and subnational levels,\[13\] increase in the size of health warning to 85% on tobacco packs were undertaken.\[16\] The increase in the proportion of willingness to quit observed in the current study might be attributed to these tobacco control developments occurred between the GATS surveys which potentially have positively influenced the willingness to quit levels among tobacco users in India.

Studies carried out in different parts of India have documented varying levels of willingness to quit among tobacco users. A cross-sectional survey conducted in 2012 in the states of Bihar and Maharashtra reported willingness to quit among 33% of tobacco users which was lesser when compared to the current study finding.\[19\] Although the definition used for “willingness to quit” in both the studies was identical, the difference in the observed prevalence could be attributed to the difference in time points when these studies were conducted and the level of population representation achieved in both the studies.
Another population-based survey conducted in 2010 in four states of India documented 19.6% of willingness to quit among tobacco users.\(^{[20]}\) This prevalence was lesser when compared to the willingness to quit levels estimated in both GATS 1 (author's unpublished observation) and 2. The inconsistency in the definition used in the former survey, and inclusion of only two districts for tobacco control activities in each selected state during the initial phase of National Tobacco Control Programme (NTCP) implementation in the country during when the former study was conducted would have led to the observed lower prevalence in the willingness to quit.\(^{[21]}\)

A review of the literature showed a lack of population surveys that estimated willingness to quit levels among smoked and smokeless forms of tobacco users. However, a handful of studies conducted among specific populations like the rural population of Dehradun, urban slum dwellers of West Bengal, and construction workers reported willingness to quit ranging between 54% and 73% among the tobacco users.\(^{[22-24]}\)

**Correlates of sociodemographic factors with willingness to quit**

Studies have shown that age is one of the key predictors for willingness to quit among both smoke and smokeless forms of tobacco users.\(^{[6,8,25,26]}\) Considering this evidence, the tobacco control strategies could intensify efforts among school and college going students and introduce targeted tobacco cessation interventions so as to increase cessation rates among them.

Willingness to quit assessed among smokers in India using GATS 1 showed a decline in the levels of willingness to quit with increasing age, which was also observed in the current study.\(^{[12]}\) A closer look at both the survey results revealed that although the level of willingness to quit has increased in all age groups, the highest increase was observed in the 45–64 years age group and other age groups showed a marginal increase. The increase in willingness to quit across the age groups could be due to various successful tobacco control developments between 2009 (GATS 1) and 2016 (GATS 2) such as up-scaled coverage of NTCP from 42 to 612 districts, staggered increase in tobacco taxation which made tobacco less affordable, and enactment of tobacco control amendment laws from time to time.\(^{[27]}\)

Tobacco users residing in the north-east, northern, and western regions of India were more willing to quit tobacco compared to those living in the eastern region of the country. Considerable variation was also observed between tobacco use and the level of willingness to quit across states in the country [Figures 2 and 3]. Given that India constitutes culturally diverse population groups ingrained with culturally framed tobacco use behaviors, region-specific qualitative studies are essential to elucidate the various factors that are contributing to the observed variations between tobacco use and willingness to quit across the regions and states. Further, although the NTCP and its activities are currently being implemented in almost whole of the country, the differentials observed in the willingness to quit across regions could be due to variations in the cultural acceptability of tobacco use and differential implementation of tobacco control activities in these regions. The study draws the attention of the tobacco control managers in the southern and central India to enhance the anti-tobacco interventions such as increased awareness on harms of tobacco use through various media, and stricter enforcement of Cigarettes and Other Tobacco Products (COTPA) in order to improve the willingness to quit levels in these regions.

The study established an independent association between education level and willingness to quit. In the study, the willingness to quit among educated was higher compared to those who had no formal education. However, the change in the degree of willingness across educational attainment level was only marginal and did not reveal any trend. Studies are done among pockets of the Indian population also revealed results that are similar to the current study findings.\(^{[10,25,26]}\) However, increasing levels of education did not show an independent association with willingness to quit among smokers in India that were assessed using GATS 2009–10 data.\(^{[12]}\) This discordance could be due to the increased literacy rate in India since the last decade and consideration of both smoke and non-smoke form of tobacco users in the current study versus only smokers in the compared study. Residence (urban/rural), occupation, and socioeconomic status (wealth index) of tobacco users had no significant association with willingness to quit, as found in the study among smokers in India.\(^{[12]}\) Further research would be required to discover the rationale behind these findings.

The study established an independent association between the form of tobacco use and willingness to quit. In the study, the willingness to quit among only smokers was higher than smokeless users, and this was higher as compared to dual users. On comparing with only smokeless form users, smokers had 10% more willingness to quit tobacco. [Table 4] This diminishing level of willingness to quit across smoke, smokeless, and dual users suggest that the healthcare professionals engaged in offering cessation services need to be sensitized to provide added attention to smokeless and dual users in order to retain them in the cessation services and thereby lead them to quitting.

**Association between smoking-related factors and willingness to quit**

Tobacco users who attempted to quit during the last 1 year reported higher intention to quit again, than those who did not. This observation was concurrent with studies done among the smoke and/or smokeless form of tobacco users in India and abroad.\(^{[17,19,25,26]}\) Taking this evidence into consideration, the cessation services offered in the country shall be refocused toward those who attempted to quit during the past 1 year. A single form of tobacco users had a higher willingness to quit than that of dual users, which was also reported in other study findings. In addition, those who used tobacco after 30 min of waking up had a higher willingness to quit than those who used within 5 min of waking up.\(^{[25,30]}\) Based on this finding, the tobacco cessation counselors shall alert those patients using tobacco within 5 min of waking up on their degree of tobacco addiction and, therefore, encourage them to adhere to cessation counseling for quitting the habit.
Tobacco users who had been advised by a health care provider during the past 12 months reported significantly higher levels of willingness to quit, corroborated by other study findings.\([9,15,31,32]\) This emphasizes that health care providers should not miss an opportunity to assess tobacco use and give brief advice to quit. This also signifies that all levels of health care providers in India need to be trained in offering brief counseling for quitting in order to accelerate the intention to quit and the consequent cessation rates in the country.\([33,34]\)

Correlates of anti-tobacco messages in media with willingness to quit

Substantial evidence exists from GATS surveys conducted in various countries showing a significant association between anti-tobacco messages and willingness to quit among tobacco users.\([39]\) Subnational surveys from China and India also reported positive results when exposed to anti-tobacco.\([10,19,25,26]\) Further, few other studies conducted in India have demonstrated that self-motivation and persuasion to quit through mass media and personal communication have resulted in successful quitting.\([36,37]\) This calls for enhanced publicizing of anti-tobacco messages through the above-identified media and strict implementation of the ban on pro-tobacco advertisements in media.

In the study, it is important to be cognizant that except the factor “past attempt to quit,” other factors showed a weak to a modest level of strength of association with the willingness to quit. The factors, especially those associated weakly with the willingness to quit need to be interpreted with caution for public health practice because it is typical that while exploring associations in large sample surveys even a small effect size could achieve statistical significance. This phenomenon calls for further studies at the regional or state levels to establish region-specific determinants of willingness to quit which could inform public health practice for targeted tobacco control interventions in order to improve willingness to quit and the consequent quitting among the tobacco users in the region or state.

Strengths and limitations

This study provides the first national evidence on correlates of willingness to quit among tobacco users in India. In order to identify the independent predictors of willingness to quit, key correlates such as sociodemographic variables, smoking, and health system-related factors were assessed under a single domain. The use of standardized questionnaires, robustness in sampling design, and data collection followed in the GATS survey added value to the study findings. The study revealed the target groups to be focused and the areas for policy implementation to improve willingness to quit in the country. The study results are comparable with other country findings and also with the past and future GATS surveys of India.

The study findings might carry a certain degree of overreporting the willingness to quit due to the self-reported nature of the GATS survey which used only one question to assess the willingness to quit. Socially desirable responses from the tobacco users might have overestimated the prevalence of willingness to quit. Similarly, recall bias could not be ruled out as few questions necessitated participant’s recall of behavior from the past 30 days to 12 months.

**Conclusion**

The present study reports the prevalence of willingness to quit and its associated factors from the nationally representative GATS 2 survey in Indian states. Three main findings emerged from this secondary analysis: (a) about slightly more than half (52.2%) of the current tobacco users are willing to quit tobacco; and (b) young age, higher education status, time of first tobacco use after waking up is greater than 60 min, and attempts to quit in the past 12 months were independently associated with willingness to quit tobacco, and (c) advise to quit by health care provider in the past 12 months and exposure to anti-tobacco messages in newspapers/magazines and cinemas were the two tobacco control measures that have significant impact in promoting quitting by tobacco users. These findings should encourage greater efforts to extend the coverage and intensity of these two measures.

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**Conflicts of interest**

There are no conflicts of interest.

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