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RETROSPECTIVE ARTICLE

WORLD HEALTH ORGANIZATION MPOWER FOR TOBACCO CONTROL IN INDIA: A 6-YEAR RETROSPECTIVE ANALYSIS

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ABSTRACT

Background. Prevalence and practices of tobacco usage in India are diverse and incongruent and Government of India has enacted various laws to overcome this burden. To make tobacco control measures effective and powerful, WHO introduced MPOWER in 2004 and India was one of the first countries that implemented the MPOWER.

Objective. This study is aimed to quantify the implementation of MPOWER tobacco control policies in India.

Material and Methods. In this retrospective analysis, data was gathered from the WHO MPOWER of India from 2015 to 2021. This analysis was based on the checklist which was designed previously by Iranian and international tobacco control specialists in their study on tobacco control.

Results. In the present comparative analysis, India was categorized by scores and these were acquired from each indicator for each activity and 2021 year got the highest scores as compared to the previous year scores i.e. 27 in 2015. In context to individual indicators, noticeable increase in scores has been seen in both health warning on cigarette packages and adult daily smoking prevalence, whereas no progress was observed in smoking related policies.

Conclusion. Although MPOWER programmes are widely accepted by the Indian government, but still substantial improvement in fewer sections is required.

Key words: *MPOWER policies, tobacco, WHO, smoking, policies*

INTRODUCTION

Tobacco sector employment is an important public health concern which is a common cause of addiction, preventable illness and various categories of fatal and disabling diseases including cancerous conditions, cardiovascular and chronic respiratory diseases [2, 3]. Tobacco practice imposes a huge and mounting public health burden in India with 275 million adults consuming different tobacco products and it is growing at a rate of 2-3% per annum [6]. In India, tobacco promptly recognized itself by Portuguese in the 17th century in Goa and the country steadily became the second leading purchaser of tobacco worldwide [6]. Tobacco is consumed in many different forms such as smoking, chewing, applying, sucking, gargling, etc and a few of these products are industrially manufactured either on a huge or diminutive scale. Few are prepared by a trader and some may be primed by the user depending upon the need [2]. Although, consumption of tobacco is socially disapproved due to diverse ill-effects but still its cultivation is unrelenting because of domestic and international demand.

Tobacco usage in any form is treacherous and is the solitary preventable cause of death. The Government of India enacted diverse legislations and comprehensive tobacco control measures during mid-1970s to cut down consumption of tobacco. In 1975, Cigarettes Act (Regulation of Production, Supply and Distribution), which was India's first national level anti-tobacco legislation was passed followed by other regulations. India was also among the first few countries to endorse World Health Organization, Framework Convention on Tobacco Control (WHO FCTC) in 2004 [8].

Basically WHO FCTC is providing and supporting the foundation for countries to execute and deal with tobacco control and to help formulate this into pragmatism by introducing the MPOWER in New

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York City on February 7, 2008. MPOWER with its six evidence-based components: **M**onitor tobacco use and prevention policies, **P**rotect people from tobacco smoke, **O**ffer help to quit tobacco use, **W**arn about the dangers of tobacco, **E**nforce bans on tobacco advertising, promotion and sponsorship, **R**aise taxes on tobacco is projected to support the various countries for execution of effectual interventions to diminish the stipulate for tobacco consumption contained in the WHO FCTC. MPOWER is the only document of a somewhat tactical nature that is a resource of information on the extent of tobacco epidemic, as well as for suggestions pertaining to precise actions for supporting the wrestle against this epidemic [4, 8].

These tobacco control programmes have been followed by different countries with diverse levels of triumph and in order to find out about their constructive nature, timely assessment is required over the time. The foremost such assessment was conducted with the help of MPOWER in 2006 in European countries by *Joossens* et al [5]. In India, a study was conducted by *Malhi* et al in 2015 (assessment from 2009 to 2013) [4]. After 2015, no such study has been reported till date to enumerate the upgrading in tobacco control measures [8]. Therefore, a contemporary analysis was conducted with the help of six measures of MPOWER and WHO reports for examining the accomplishment of tobacco control programs from 2015 to 2021 in India.

MATERIAL AND METHODS

Information and scoring criteria

In this paper, secondary investigation information was composed from the WHO report which is prepared once in two years on the Global Tobacco Epidemic Program, India for the year 2015, 2017, 2019 and 2021 and MPOWER was used to appraise the progress/ accomplishment in Tobacco Control Initiative. This investigation was based on the checklist which was premeditated formerly by Iranian and International tobacco control specialists in their study on tobacco control and its cut-offs were set according to the scoring of key sections of the 2011 MPOWER report [4]. There were seven questions with five options ranging from least 0 to utmost 4 scores, and three questions ranging from least 0 to utmost 3 scores as per measures reported in the report and 0 score was given to point for which data was not available (NA). So, the overall score was 37 (7*4 + 3*3) as shown in Table 1.

Training and data collection

A day of training session was carried out for standardization and calibration of the readings. The internal reliability for the examiners was assured using *Cronbach's alpha* coefficient (0.85). After recording,

Table 1. WHO MPOWER score on tobacco control based on WHO report [4]

Indicator	Point scoring
Adult daily smoking prevalence	**(4)**
Estimates not available	0
30% or more	1
20%–29%	2
15%–19%	3
< 15%	4
Monitoring: prevalence data	**(3)**
No known data or no recent data or data that is neither recent nor representative	0
Recent and representative data for either adults or youth	1
Recent and representative data for both adults and youth	2
Recent and representative data for either adults or youth	3
Smoke-free policies	**(4)**
Data not reported	0
Up to 2 public places compl. smoke-free	1
3-5 public places completely smoke-free	2
6–7 public places completely smoke-free	3
All public places completely smoke-free	4
Cessation programmes	**(4)**
Data not reported	0
None	1
NRT and/or some cessation services (neither cost-covered)	2
NRT and/or some cessation services (at least 1 cost-covered)	3
National quit line, and both NRT and some cessation services cost-covered	4
Health warning on cigarette packages	**(4)**
Data not reported	0
No warnings or small warnings	1
Medium-sized warnings missing some appropriate characteristics	2
Medium-sized warnings with all appropriate characteristics	3
Large warnings with all appropriate characteristics	4
Anti-tobacco mass media campaigns	**(4)**
Data not reported	0
No campaign conducted between January 2009 and August 2010	1
Campaign conducted with 1–4 appropriate characteristics	2
Campaign conducted with 5–6 appropriate characteristics	3
Campaign conducted with all appropriate characteristics	4

cont. Table 1.

Indicator	Point scoring
Advertising ban	**(4)**
Data not reported	0
Complete absence of ban in print media	1
Ban on national television, radio and print media only	2
Ban on national and some international television, radio and print media	3
Ban on all forms of direct and indirect advertising	4
Taxation	**(4)**
Data not reported	0
25% of retail price is tax	1
26%–50% of retail price is tax	2
51%–75% of retail price is tax	3
75% of retail price is tax	4
Compliance with bans on advertising	**(3)**
Complete compliance (8/10 to 10/10)	**3**
Moderate compliance (3/10 to 7/10)	**2**
Minimal compliance (0/10 to 2/10)	**1**
Not reported	**0**
Compliance with smoke-free policy	**(3)**
Complete compliance (8/10 to 10/10)	**3**
Moderate compliance (3/10 to 7/10)	**2**
Minimal compliance (0/10 to 2/10)	**1**
Not reported	**0**

Table 2. Ranking of India according to WHO score on tobacco control [10,11,12,13]

Indicator	Points			
	2015	2017	2019	2021
Adult daily smoking prevalence	4	4	4	4
Monitoring: prevalence data	2	0	1	3
Smoke-free policies	3	3	3	3
Cessation programmes	3	4	4	4
Health warning on cigarette packages	1	4	4	4
Anti-tobacco mass media campaigns	4	3	3	3
Advertising bans	3	3	3	3
Taxation	3	2	3	3
Compliance with bans on advertising	2	3	2	3
Compliance with smoke-free policy	2	2	2	2
Affordability	----	YES	YES	YES
Total number	27	28	29	32

all the scores were recorded by one person who acted as an investigator, and established by two proficient persons who acted as chief supervisors. Entry of data was done autonomously by the investigator itself followed by inspection which was done by the supervisors with the checklist.

Data analysis

The scores were summed and the rankings were computed. The checklist with its scoring and scale is shown in Table 1. It was found that proper explanation of the items was essential for understanding of the concept which prevents misinterpretation. The chief supervisors made sure that proper explanation of each item was done.

RESULTS

The current secondary analysis was done with the help of WHO report (2015, 2017, 2019 and 2021) on tobacco control using MPOWER and we found the changes in the scores over six years (2015-2021) after comparing the scores for the each year. In the present study, India was ranked by scores and these scores were obtained from every indicator for each activity. Table 2 shows the changes in the scores and after analysing the six main MPOWER measures, year 2021 getting the highest scores in India [10, 11, 12, 13].

It has been observed through this secondary analysis that data remained unbothered i.e. 04 for all the respective six years for adult daily smoking prevalence whereas for monitoring the prevalence data initially in 2015, score was 02 later on declined in 2017. In 2019 was 01 but again raised to 03 in 2021. As far as appraisal is concerned for smoking related policies and advertisements, we can see that scores remained same throughout all the six years i.e. 03 (2015-2021). In the case of health warnings over cigarette packaging, the score was 01 (least) in 2015 but rapidly increased to 04 in 2017 and remained same throughout the remaining years (2019 and 2021). Compliance with bans on advertisement / taxation policies remained unchanged throughout all the years with a score of 02 (2015-2021). In context to taxation, scores were 03 initially in the year 2015, then suddenly declined to 02 but increased to 03 again for remaining years whereas for anti-tobacco mass media campaigns, scores declined from 04 in year 2015 to 03 for the rest of the years (2017-2021).

DISCUSSION

Tobacco imposes a gigantic encumber of ailments leading to calamitous health. Prevalence and practices of tobacco usage in India are diverse and incongruent. Various anti-tobacco programmes are

conceded out among different countries in order to curtail the tobacco practices. The past decade has seen a considerable swing in policies regarding tobacco which further lead to a momentous diminution of tobacco usage in numerous countries [1, 8]. The present secondary analysis was done for the six years (2015-2021) year with the help of WHO report (2015, 2017, 2019 and 2021) on tobacco control using MPOWER. The changes in the scores have been noted for these six years after comparing the scores for each year and year 2021 got the highest scores in India.

In this study, adult daily smoking prevalence scores remain constant i.e. 04 for all the respective six years which meant smoking prevalence was less than 15%. This indicates that India is rolling towards tobacco control as in the previous studies it was reported that the prevalence of tobacco use among adults (15 years and above) was 35%. The prevalence of both smoking and chewing tobacco varied considerably among different states in India. In context to monitoring the prevalence data, initially in 2015, score was 02 which later on declined in 2019 (01) but again got escalated to 03 in 2021 as recent, representative and periodic data was made available in the 2021. However, this data was not available previously in 2017 as score was zero for this year which meant that no known data was available in the Tobacco Control survey globally. This might be due to the incomplete monitoring of tobacco use within the populations. It can be stated that monitoring should be done more in affordable way with thoughtful integration of health systems.

Although WHO approximated the prevalence of tobacco consumption of all forms on the basis of studies conducted at smaller level but focus was more on smoking form due to limited availability of literature with regard to other forms of consumption.

As far as assessment is concerned for smoking related policies and advertisements, we can see that scores remained same throughout all the six years i.e. 03 (2015-2021). This depicts that 6-7 public places are mostly smoke free in various regions of India and ban on advertising at national level is more focused and fruitful. Even to some extent, ban on international advertisements were also contributing towards smoking prohibition. It has also been stated through WHO Global report on tobacco control that in India that cessation services have also been started to control this tobacco usage and 2.1 million users have registered themselves. Some authors also reported in their study that there is apparent evolution in tobacco control in India due to enforcement and incessant monitoring but assessment of these policies is still a challenging task [14]. Fewer studies have reported that Indian courts have issued quite a few instructions regarding ban on advertisements, endorsement and sponsorships by the tobacco manufacturers in many states. The best examples in this case are removal of advertisements of tobacco displayed on the public transport vehicles in Gujarat State and The Honourable Karnataka High Court engaged the Indian Government to extract the funding support by the tobacco industry or board [8].

The Cigarettes Act, 1975 was regulated by the Government of India which made mandatory to exhibit a constitutional health warning on all packages with the rationale of informing the citizens about the adverse effects of smoking so that the demand for cigarettes would be reduced [4, 8]. Even through a memorandum was issued by the Cabinet Secretariat in 1990, it has been said that there is prohibition over tobacco smoking in all of the health care sectors, like educational institutions, domestic flights, air-conditioned coaches in trains, suburban trains and air-conditioned buses, etc. Moreover after an extensive legal battle and interventions by the civil society, revised smoke-free rules came into effect from 2nd October, 2008 where ban over smoking in work places also got included. This can be witnessed with remarkable change in scores from 01 to 04 points from year 2015 to 2021 as no data was reported in 2015 but rapidly scores got increased which depicts the large coverage of health warnings over the packages. It has been said that pictorial warnings are easiest and successful way of illustrating the detrimental effects of tobacco usage. Some authors are in agreement with this as they reported affirmative response in their study on general population for execution of health warnings on tobacco products thus motivating the local population to change their behaviour and discouraging them for not adopting the smoking habits (Figure 1) [9]. Although taxation was less i.e. just 50% in 2017 but it got enhanced to 75% in the year 2021. In 2013, it was also reported that smoke free legalisation and tobacco taxation is one of the effective strategies for tobacco control at larger scale in India [7]. Even the cigarettes got less affordable since 2017 onwards which remained consistent throughout the remaining years which are one of the better approaches towards tobacco control. This might be due to the reason of increased taxation over the tobacco related products that lead to higher cigarette prices even after adjusting for purchasing power parity. Affordability is a strong measurement for all countries especially like India and similar other countries; increasing the excise taxes can make the cigarettes less affordable. Even fewer methods to curb tobacco usage have proven to be efficient such as taxation and media awareness of health risks associated with tobacco. It has been observed that worldwide effective tobacco control can be achieved through various approaches with much more emphasis on reduction on utilization of tobacco, raising taxes, bans on advertising and promotion. These affirmative results in tobacco control can further

Figure 1. Various health benefits associated with quitting tobacco (WHO) [9]

facilitate and encourage the governmental agencies to fortify the tobacco control efforts at more of superior level. Henceforth newer innovative methods in tobacco control programmes should be implemented by assembling various fiscal and human resources.

CONCLUSION

In the last 15 years since WHO's MPOWER tobacco control measures were introduced globally, smoking rates have fallen. Smoke-free public spaces is just one policy in the set of effective tobacco control measures, MPOWER, to help countries implement the WHO Framework Convention on Tobacco Control and curb the tobacco epidemic. Eight countries (Ethiopia, Iran, Ireland, Jordan, Madagascar, Mexico, New Zealand, and Spain) are just one MPOWER policy away from joining the leaders in tobacco control. There is still much work to be done as still 44 countries remain unprotected by any of WHO's MPOWER measures. Although Indian Government have endorsed various laws, regulations such as taxation/health warnings but it could only be improved by focusing more over the policies or training of health care workers/ school teachers etc. By implementing more of evaluation or monitoring of these policies, attainment of a smoke-free society can be done so that we can shield health of the upcoming generations.

Conflict of interest

The Authors declare no conflict of interest.

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