

Combating the tobacco epidemic in North America: challenges and opportunities

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According to the WHO, the Region of the Americas has the second lowest tobacco use prevalence of any WHO region.¹ WHO projections based on trends since 2000 indicate that the Region of the Americas, which includes both North and South America, is the only region expected to achieve a 30% relative reduction in tobacco use by 2025.¹ However, there are approximately 127 million persons who report smoking tobacco in the Americas Region,² a majority of whom reside in North America.³ North America consists of 23 countries (see table 1) with a combined population of nearly 600 million people, or approximately 7.5% of the world's population in 2019.⁴ Among North American countries, data from 2017 for persons aged 15 years or older show current tobacco smoking prevalence ranged from 6.0% in Panama to 27.8% in Cuba.⁵ Among students aged 13–15 years old in North American countries with available data through 2017, current tobacco smoking prevalence ranged from 4.4% in Dominican Republic to 18.1% in Mexico.⁵ Tobacco smoking among adults is higher among males than females across North America. However, the difference in prevalence between sexes in the Region of the Americas is among the lowest of any WHO region⁵; this pattern is particularly pronounced among youth, where tobacco smoking among girls is similar to or higher among boys in most countries.^{2,5}

Despite lower tobacco use relative to other regions, and future projected reductions,¹ challenges remain to combating the tobacco epidemic in North America, including diversification of the product landscape, tobacco industry interference and uneven application of evidence-based strategies. This commentary discusses these challenges, as well as opportunities for future action to reduce the burden of tobacco use in North America.

DIVERSIFICATION OF THE PRODUCT LANDSCAPE

Over the past decade and a half, the tobacco and nicotine product landscape has evolved to include a variety of smoked, smokeless and electronic products.^{6,7} For example, since entering North America around 2007,⁸ the use of electronic nicotine delivery systems (ENDS) such as e-cigarettes has increased in several countries, especially among youth.^{5,9–11} In addition, new generations of heated tobacco products, with different features and operating mechanisms, have emerged and are marketed in several countries.⁵ Furthermore, a variety of novel smokeless tobacco products, including snus, dissolvables (lozenges, sticks, strips, orbs) and nicotine pouches

have recently entered North American marketplaces.^{7,12}

The increasingly diverse product landscape in North America is further complicated by multiple factors. For example, several emerging products contain nicotine salts, which allow users to be exposed to higher levels of nicotine more easily and with less irritation than the freebase nicotine used in conventional tobacco and nicotine products.⁷ Some existing products can also be modified to accommodate non-tobacco substances, including the use of cannabis in electronic products and in modified cigar products (ie, blunts).¹³ Certain emerging products, such as ENDS, expose individual users to significantly lower levels of toxic substances compared with combustible tobacco cigarettes; thus, completely substituting these products for cigarettes has the potential to benefit smokers at the individual level.^{7,8} However, the continued diversification of the product landscape could have several different potential impacts at the population level, with the need to consider possible outcomes, including increasing the rates of complete cessation among adult tobacco smokers and decreasing progress in reducing all forms of nicotine-containing product use among young people.⁷

Regulation of emerging products is critical to minimise risks and maximise any potential benefits. Multiple factors affect a country's ability to regulate emerging products, including national and subnational regulatory authorities, political influence, enforcement capacity and tobacco industry interference. Countries in North America have used a range of strategies to regulate ENDS, in some cases depending on whether the products contain nicotine, including: banning sales (eg, Mexico, Panama); regulating the products as tobacco products, therapeutic products or both (eg, USA); or having no regulations at all (eg, Guatemala, Grenada).¹⁴ When addressing the challenges posed by emerging products, including ENDS, the WHO recommends prioritising measures in accordance with the Framework Convention on Tobacco Control (FCTC) and national law, including but not limited to: preventing initiation, particularly among young people; protecting people from exposure to product emissions; prohibiting advertising, promotion and sponsorship; and regulating product contents.¹⁵

TOBACCO INDUSTRY INTERFERENCE

One of the greatest obstacles to implementing and sustaining strong tobacco control measures is tobacco industry interference, especially in



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low/middle-income countries with economies in transition.¹⁶ Common tactics that have been used by the tobacco industry in North America, as well as other regions, include: industry-sponsored 'youth prevention' programmes that lack the necessary components of effective programmes; working against farming and other environmental regulations that might prevent maximum tobacco yields; lobbying and making political campaign contributions to ensure 'self-regulation' deals, where regulations contain minor concessions that do not adversely impact tobacco sales; engaging in corporate social responsibility efforts in an attempt to improve the industry's damaged reputation; and use of front groups to promote non-evidence-based messages or non-rigorous industry-funded research.^{3 17} In the USA, the tobacco industry has a long history of seeking pre-emption at the state level to prevent stronger community-level policies, including smoke-free laws, youth access and retailer licensing restrictions, and advertising and promotion regulations.¹⁸ The tobacco industry also uses litigation to thwart, delay or weaken tobacco control policies, particularly in countries that plan to implement strong measures. For example, Panama was unsuccessfully sued by the tobacco industry in an effort to nullify several tobacco control strategies, including Latin America's first comprehensive ban on tobacco product advertisement, promotion and sponsorship.¹⁹ Moreover, in Mexico, the tobacco industry has lobbied extensively against new tax increases, including successfully blocking one in 2013.²⁰

To limit tobacco industry influence, countries can implement strategies outlined in Article 5.3 of the WHO FCTC, including: raising awareness about the harmful effects of tobacco products and industry interference; establishing measures to limit interactions with the industry; rejecting partnership and non-binding and non-enforceable agreements with the industry; avoiding conflicts of interest for government officials; requiring that information provided by the industry be transparent and accurate; de-normalising, and to the extent possible, regulating activities described as 'socially responsible' by the industry; not giving preferential treatment to the industry; and treating state-owned tobacco industry in the same way as other tobacco industry.²¹

UNEVEN APPLICATION OF EVIDENCE-BASED STRATEGIES

Evidence-based population-level strategies have served a critical role in preventing and reducing tobacco use in North America, and the FCTC has been a central organising entity for these strategies. Among the 23 countries in North America, 19 signed and ratified the FCTC between May 2004 and July 2014; 3 countries have only signed (Cuba, Haiti and the USA); and 1 country has neither signed nor ratified (Dominican Republic).²²

In parallel with the FCTC, the WHO created the MPOWER package of demand-reduction strategies for implementation at the national and international levels.²² While progress has been made in implementing the FCTC and MPOWER across North American countries, much remains to be done. As of 2020, few of the 23 countries in North America had met the highest level of achievement for MPOWER measures, including: monitor tobacco use (FCTC Article 20; 5 countries); protect people from tobacco smoke (FCTC Article 8; 11 countries); offer help to quit tobacco use (FCTC Article 14; 5 countries); warn about the dangers of tobacco (FCTC Articles 11 and 12; 12 countries); enforce bans on tobacco advertising, promotion and sponsorship (FCTC Article 13; 2 countries); and raise taxes on tobacco (FCTC Article 6; no countries) (table 1).^{5 23} Between 2016 and 2018, improvement in achieving MPOWER measures occurred in only five countries (Antigua and Barbuda, Barbados, Honduras, Saint

Lucia and the USA), while reversal of past progress occurred in three countries (Dominica, El Salvador, Panama).⁵

To enhance coverage of evidence-based interventions, it is critical that countries throughout North America implement key MPOWER demand reduction strategies consistent with the provisions of the FCTC.^{21 24 25} In addition to implementation of evidence-based strategies, compliance and enforcement are essential for reducing tobacco use. For example, in Canada and Panama, the only two North American countries to meet the highest level of achievement for four MPOWER measures,⁵ prevalence of current tobacco use among persons aged 15 years or older is projected to decline from 37.3% to 12.1% and 16.9% to 5.0%, respectively, during 2000–2025.¹ Numerous studies have found that the implementation and enforcement of evidence-based tobacco control interventions, including MPOWER strategies, is associated with declines in tobacco use.^{26–31} However, it is important to note that differential impacts may be observed depending on a country's initial burden of tobacco smoking, the extent of evidence-based policy adoption, and the strength and enforcement of the policies that are adopted. For example, an analysis of worldwide implementation of the MPOWER package during 2008–2017 found a negative association between progress in MPOWER implementation and adult daily tobacco smoking in countries with high initial preparedness (ie, MPOWER composite score), as well as in countries with low preparedness and high initial smoking burden.³¹ However, a positive association was observed between progress in MPOWER implementation and daily tobacco smoking prevalence among countries with low preparedness and low initial tobacco smoking burden, which might be due to multiple factors, including progress in these countries not being enough to impart a meaningful impact on the relatively low tobacco smoking prevalence rates.³¹

Exploration of novel strategies, including 'end game' strategies to help eliminate the toll of tobacco, can also be beneficial, including reducing nicotine yield in cigarettes and other tobacco products, reducing the toxicity of tobacco products, prohibiting the sale of tobacco products to future generations and prohibiting the sale of certain types of tobacco products (eg, flavoured tobacco products).⁷ For example, Canada was among the first countries to ban menthol cigarettes, which led to significant increases in quitting,³² and the USA has proposed banning menthol cigarettes and is considering reducing nicotine yield in cigarettes.^{6 33 34} Other novel strategies that have been implemented in some North American countries include increasing the age-of-sale for tobacco products to 21 years (Honduras, USA),³⁵ retail display bans (Canada, Costa Rica, Panama, Trinidad and Tobago)³⁶ and plain packaging (Canada).³⁷ Meaningful goal setting (eg, decreasing combustible tobacco use to less than a certain percentage by a specified time period) can also provide a useful framework for documenting desired benchmarks and progress related to the implementation of novel strategies.

CONCLUSION

Considerable progress has been made in reducing tobacco use in North America, with projected reductions through 2025 being among the greatest globally.¹ While 19 out of 23 countries across the continent have ratified the FCTC, only 2 have implemented at least four of the MPOWER measures at the highest level of achievement, and 9 have implemented none of these measures at this level. To accelerate reductions in tobacco use and end the tobacco epidemic in North America, efforts are warranted to: accelerate and strengthen the implementation and

Table 1 Summary of North American countries meeting the highest level of achievement for WHO MPOWER strategies, 2020

Country	Highest level of MPOWER strategy/FCTC article achieved (X) and date (year)						
	FCTC ratification or accession date	Monitor tobacco use* (Article 20)	Protect people from tobacco smoke† (Article 8)	Offer help to quit tobacco use‡ (Article 14)	Warn about the dangers of tobacco§ (Articles 11, 12)	Enforce bans on tobacco advertising, sponsorship and promotion¶ (Article 13)	Raise taxes of tobacco** (Article 6)
Antigua and Barbuda	5 Jun 2006		X (2018)		X (2018)††	X (2018)	
Bahamas	3 Nov 2009	X (2018)					
Barbados	3 Nov 2009		X (2010)		X (2017)		
Belize	15 Dec 2005						
Canada	26 Nov 2004	X (2007)	X (2007)	X (2008)	X (2011)		
Costa Rica	21 Aug 2008	X (2007)	X (2012)		X (2013)		
Cuba	Only signed						
Dominica	24 Jul 2006						
Dominican Republic	Not signed						
El Salvador	21 Jul 2014		X (2015)	X (2016)	X (2011)		
Grenada	14 Aug 2007						
Guatemala	16 Nov 2005		X (2008)				
Haiti	Only signed						
Honduras	16 Feb 2005		X (2010)		X (2017)		
Jamaica	7 Jul 2005		X (2013)	X (2016)	X (2013)		
Mexico	28 May 2004			X (2013)	X (2009)		
Nicaragua	9 Apr 2008						
Panama	16 Aug 2004	X (2012)	X (2008)		X (2005)	X (2008)	
Saint Kitts and Nevis	21 Jun 2011						
Saint Lucia	7 Nov 2005		X (2020)		X (2017)		
Saint Vincent	29 Oct 2010						
Trinidad and Tobago	19 Aug 2004		X (2009)		X (2013)††		
USA	Only signed	X (2007)		X (2008)	X (2020)		

Information obtained from the WHO.

*Defined as having recent, representative and periodical data for both adults and youth.

†Defined as all public places being completely smoke-free (or at least 90% of the population covered by complete subnational smoke-free legislation).

‡Defined as having a national quitline, and both nicotine replacement therapy and some cessation service costs covered.

§Defined as large warnings on cigarette packs (≥50% of front and back surfaces) with all appropriate characteristics, including use of pictures.

¶Defined as having a ban on all forms of direct and indirect advertising (or at least 90% of the population covered by subnational legislation completely banning tobacco advertising, promotion and sponsorship).

**Defined as share of total taxes in the retail price of the most widely sold brand of cigarettes (>75% of retail price is tax).

††Regulation pending.

FCTC, Framework Convention on Tobacco Control.

enforcement of the FCTC and of evidence-based strategies such as MPOWER, and to consider the implementation of end game strategies; address the risks of emerging products, particularly among young people, while continuing to explore any potential benefits of these products among adult tobacco smokers; and counter tobacco industry influences.

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