

# Improving the implementation of tobacco control policies in low-and middle-income countries: a proposed framework

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As outlined in the WHO's Framework Convention on Tobacco Control (FCTC), addressing the tobacco epidemic is most effectively done through policy responses such as tobacco taxes, smoke-free public places and bans on tobacco advertising, promotion and sponsorship.<sup>1 2</sup> Although tobacco control policies have been adopted across the globe, effective implementation continues to be a major challenge, particularly in low-income and middle-income countries (LMICs),<sup>3-7</sup> where almost 80% of the world's smokers reside and where the majority of tobacco-related deaths are occurring.<sup>8</sup> In order to fully realise the public health benefit from FCTC policies, effective implementation is required.

Policy implementation is a critical stage in the policy-making process, preceded by agenda setting, policy formulation and policy adoption.<sup>9</sup> It can be broadly defined as the stage that focuses on 'turning policy intentions into action',<sup>10</sup> including the activities undertaken by groups aimed at achieving the objectives set forth by the adopted policy.<sup>11</sup> When a policy is implemented as intended by its designers, the implementation process is considered to have high fidelity, which can in turn positively affect the desired policy outcome.<sup>12</sup>

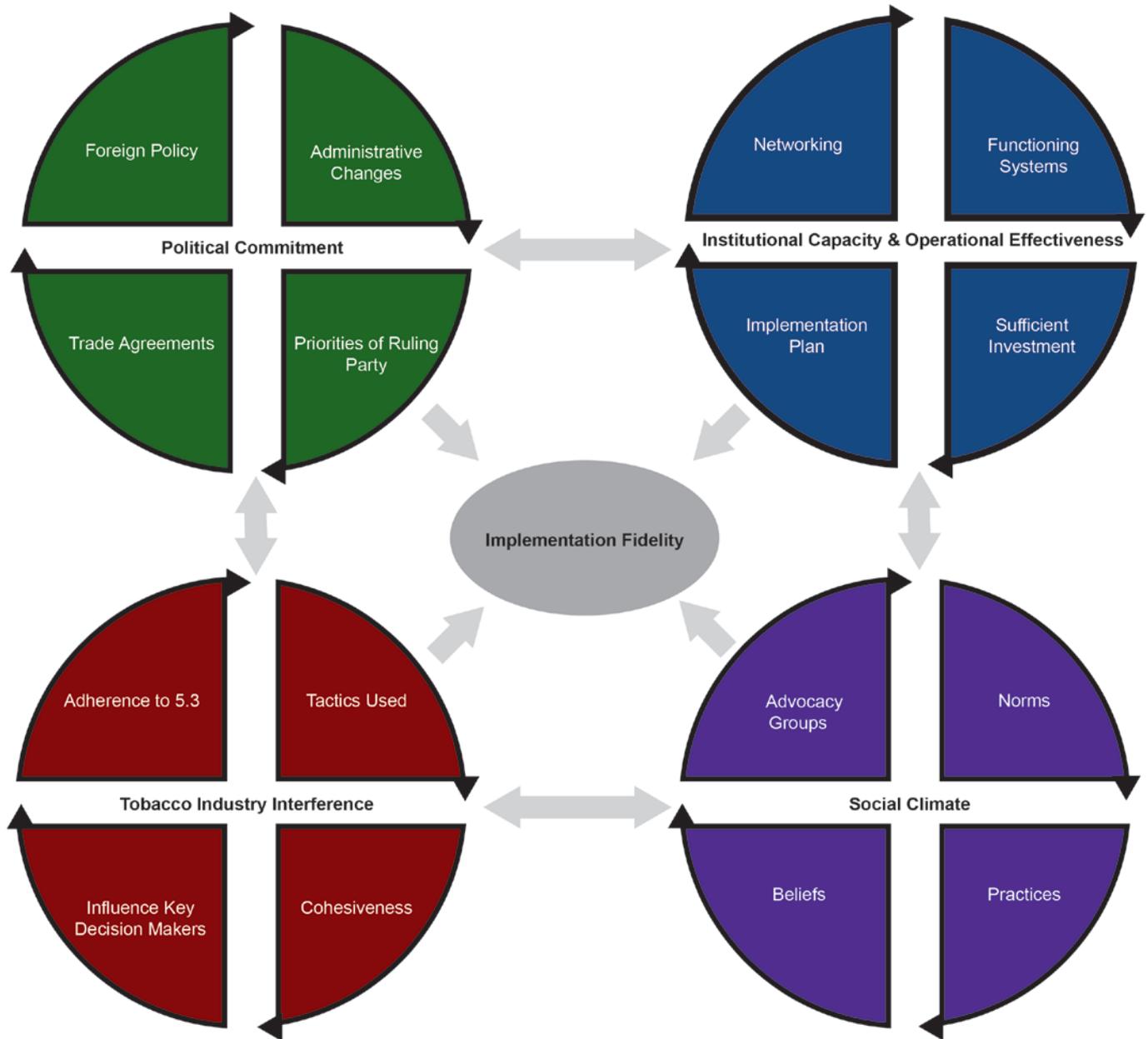
Although a number of renowned policy implementation models, frameworks and theories are available,<sup>13 14</sup> none of these are sufficiently specific to tobacco control, which is complicated by the strategies and tactics of transnational tobacco companies. In fact, one of the most commonly cited barriers to tobacco control policy implementation around the world is tobacco industry interference.<sup>3-5</sup> Existing models that do touch on the concept of partnership have focused solely on the positive aspect of engaging stakeholders

## Summary box

- ▶ Although tobacco control policies have been adopted across the globe, effective implementation continues to be a major challenge, particularly in low-income and middle-income countries, where almost 80% of the world's smokers reside.
- ▶ This conceptual framework illustrates the constellation of factors that have been shown to influence implementation fidelity: political commitment, institutional capacity and operational effectiveness, social climate and tobacco industry interference.
- ▶ Researchers and practitioners can use this framework to identify the points of leverage in the implementation process and contribute to actionable knowledge as well as theory development.

without taking into account opponents or disruptors.<sup>15</sup> Moreover, the applicability of these existing frameworks and theories to LMICs requires further exploration in general, as these countries face unique challenges including a lack of resources, the need for more political support, a lack of sufficient national and local research, and limited state capacity<sup>16-18</sup> (defined here as the ability of states to provide public goods).<sup>19</sup> A study examining the implementation of health warning labels, for example, found that countries with weaker state capacity were less likely to implement FCTC-compliant health warning labels.<sup>18</sup> Public health researchers have urged for a better understanding of the process of effectively translating tobacco control policy into practice, particularly in LMICs, an understanding that encompasses the political and economic dynamics of the process.<sup>20</sup>

The implementation framework presented here draws on existing frameworks, theories and studies, the FCTC, and experiences of



**Figure 1** Framework.

experts at the Johns Hopkins Institute for Global Tobacco Control. Critical factors were identified by triangulating the aforementioned sources. As illustrated in [figure 1](#), the framework depicts the constellation of factors that influence implementation fidelity and aims to enable countries to improve the implementation of, and compliance with, tobacco control policies. Tobacco control advocates can use this framework to better manage the policy implementation process in their countries, uncover weak areas of implementation, and leverage associated strengths and opportunities. Interventions can also be devised to target identified gaps.

The framework outlines four interacting components and related factors that have been shown to contribute to increased implementation fidelity: the first component relates to the *political commitment* from high-level

decision makers in the country. Public policy scholars have long argued that favourable changes in government, such as turnover of key governmental actors as a result of elections and complementary priorities of the ruling party, can serve as facilitators.<sup>13</sup> In the Philippines, for example, elections brought about new leaders who were keen on increasing tax collection efficiency and achieving universal healthcare. This created an opportunity for advocates to convince decision makers to change the existing tax structure on tobacco and alcohol products in order to generate resources for health, which ultimately enabled the successful enactment and implementation of the Republic Act 10351, otherwise known as the ‘Sin Tax’.<sup>21</sup> As tobacco control transcends national borders, a country’s relationship with the rest of the world, including its trade agreements and foreign policy,

may also influence the level of political commitment for tobacco control. Turkey's desire to gain global visibility, for example, created a political environment that was receptive to global norms and standards, facilitating the adoption of its 100% smoke-free legislation.<sup>22</sup>

The second component describes the *institutional capacity and operational effectiveness* of the country, state/province or municipality. Effective implementation requires networks to be forged across sectors and among key stakeholders. Such networks can provide a critical platform for information exchange and the sharing of resources, knowledge and expertise.<sup>23</sup> It also allows organisations to find solutions outside their traditional boundaries and address policy misalignment across sectors.<sup>24</sup> In Zambia, for example, misalignment between the health and economic sectors served as a key barrier to the implementation of FCTC. Fostering economic growth through providing investment incentives, including for tobacco production, was central to the country's economic agenda; this is despite the high burden of tobacco use in the country and the FCTC's goal of decreasing tobacco use globally.<sup>24</sup> Effective implementation also benefits from a functioning system, the presence of a detailed implementation plan that clearly defines roles, and responsibilities and sufficient investments to ensure adequate resources and workforce.<sup>14</sup> This second component is consistent with Articles 5.1 and 5.2 of the FCTC that requires parties to have multisectoral national tobacco control strategies and national coordinating mechanisms.

The *social climate* makes up the third component: this is characterised by norms, practices and beliefs throughout the fabric of society that increases the likelihood of policy compliance. The presence of advocacy groups actively devising strategies to facilitate implementation and increase compliance is also critical.<sup>13</sup> These groups tend to be more powerful when linked to a global tobacco control network.<sup>25 26</sup> In Colombia, for example, global and domestic actors worked collaboratively to implement the country's tobacco control law. Together, this transnational advocacy network ensured implementation fidelity through an array of activities including increasing public awareness, sensitising decision makers and monitoring for non-compliance.<sup>26</sup>

Finally, the fourth component refers to *tobacco industry interference* in the country. Tobacco companies frequently employ an array of tactics including lobbying, political campaign contributions, corporate social responsibility activities and litigation to influence the policy-making process.<sup>3-5</sup> Implementation is likely to be even more difficult if these companies are cohesive and able to influence government officials and key decision makers. In India, for example, multinational tobacco companies, local bidi producers and smokeless tobacco companies joined forces to successfully delay the implementation of graphic health warning labels in 2007.<sup>27</sup> It is important to note that countries like China and Japan face a unique set of challenges given that the tobacco companies are state-owned and curbing tobacco use can threaten government

income. The level of a country's adherence to FCTC Article 5.3 (parties protecting policy setting and implementation from commercial and other vested interests of the tobacco industry) can also be influential. Unfortunately, findings from the 2019 Global Tobacco Industry Interference Index showed that adherence to Article 5.3 has been 'far from satisfactory' (p. 5) worldwide.<sup>28</sup>

As illustrated in figure 1, these four components interrelate. *Political commitment* for policy generation and effective implementation, for example, can influence the number of resources dedicated to the issue,<sup>29</sup> thereby enhancing *institutional capacity and operational effectiveness*. It can also have a direct impact on the population's acceptance of the policy<sup>30</sup> and industry interference; and, committed leaders may seek to cultivate an environment that diminishes interference by adhering to FCTC Article 5.3. Likewise, enhanced *institutional capacity and operational effectiveness* can help foster a receptive *social climate* and address *industry interference* through both effective enforcement and public education. It also has the potential to influence *political commitment* through the presence of an empowered network of stakeholders and political constituents. A conducive *social climate* may encourage politicians to be more committed and lessen the amount of resources required to enforce the policy and fuel support to prevent tobacco industry interference.<sup>26</sup> On the other hand, the tobacco industry can also negatively affect the other three components by lobbying politicians, interfering with enforcement efforts and disseminating false evidence to the public.<sup>3-5</sup>

There are some limitations to this framework. The relative importance of each of the components needs to be further explored. Likewise, critical questions such as how can we best leverage the different components to achieve implementation fidelity, specifically if certain components are weak also need to be answered. Despite these limitations, however, this framework draws from multiple sources of evidence and contributes to the field of health policy research in LMICs by identifying, compiling and outlining in a clear and concise manner the critical factors to be considered if the implementation of effective and reliable tobacco control policies in LMICs is to be achieved. We hope that future studies will be undertaken to test and refine this framework and to explore the applicability of this framework to other public health epidemics perpetuated by powerful industries (eg, alcohol and sugar-sweetened beverages). Such evidence will contribute to actionable knowledge and would have substantial value for both theory development and practice.

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## REFERENCES

- WHO. WHO framework convention on tobacco control, 2017. Available: <http://www.who.int/fctc/cop/about/en/>
- Cairney P, Mamudu H. The global tobacco control 'endgame': change the policy environment to implement the FCTC. *J Public Health Policy* 2014;35:506–17.
- Crosbie E, Sosa P, Glantz SA. Costa Rica's implementation of the Framework Convention on Tobacco Control: overcoming decades of industry dominance. *Salud Pública Mex* 2016;58:62–70.
- Gilmore AB, Fooks G, Drope J, et al. Exposing and addressing tobacco industry conduct in low-income and middle-income countries. *Lancet* 2015;385:1029–43.
- Lee S, Ling PM, Glantz SA. The vector of the tobacco epidemic: tobacco industry practices in low and middle-income countries. *Cancer Causes Control* 2012;23:117–29.
- WHO. WHO report on the global tobacco epidemic, 2019. Available: [https://www.who.int/tobacco/global\\_report/en/](https://www.who.int/tobacco/global_report/en/)
- WHO. 2018 global progress report on the implementation of the WHO framework convention on tobacco control, 2019. Available: [https://www.who.int/fctc/reporting/WHO-FCTC-2018\\_global\\_progress\\_report.pdf?ua=1](https://www.who.int/fctc/reporting/WHO-FCTC-2018_global_progress_report.pdf?ua=1)
- WHO. Tobacco, 2017. Available: <http://www.who.int/mediacentre/factsheets/fs339/en/>
- Anderson J. *Public policy-making*. Boston: Houghton Mifflin Company, 2003.
- John P. *Analysing Public Policy*. 1998. London: Pinter, 1998.
- Van Meter D, Van Horn CE. The policy implementation process: a conceptual framework. *Administration and Society* 1975;6:445–88.
- Carroll C, Patterson M, Wood S, et al. A conceptual framework for implementation fidelity. *Implement Sci* 2007;2.
- Sabatier P, Weible C. *The advocacy coalition framework: innovations and clarifications*. 2nd Ed. PA Sabatier. Boulder: Westview Press, 2007: 189–220.
- Lipsky M. *Street-Level Bureaucracy: Dilemmas of the Individual in Public Service*. New York: Russell Sage Foundation, 2010.
- Tabak RG, Khoong EC, Chambers DA, et al. Bridging research and practice: models for dissemination and implementation research. *American Journal of Preventive Medicine* 2012;43:337–50.
- Munzer A. The WHO FCTC: the challenge of implementation. *Lancet Respiratory Medicine* 2013;1:182–4.
- Leischow SJ, Ayo-Yusuf O, Backinger CL. Converging research needs across framework convention on tobacco control articles: making research relevant to global tobacco control practice and policy. *Nicotine Tob Res* 2013;15:761–6.
- Hiilamo H, Glantz SA. Implementation of effective cigarette health warning labels among low and middle income countries: state capacity, path-dependency and tobacco industry activity. *Soc Sci Med* 2015;124:241–5.
- Ottervik M. Conceptualizing and measuring state capacity: testing the validity of tax compliance as a measure of state capacity, 2013. Available: [https://qog.pol.gu.se/digitalAssets/1468/1468814\\_2013\\_20\\_ottervik.pdf](https://qog.pol.gu.se/digitalAssets/1468/1468814_2013_20_ottervik.pdf)
- Bump JB, Reich MR. Political economy analysis for tobacco control in low- and middle-income countries. *Health Policy Plan* 2013;28:123–33.
- Madore A, Rosenberg J, Weintraub R. *"Sin Taxes" and Health Financing in the Philippines*. Boston, MA: Harvard Business Publishing, 2015.
- Hoe C, Rodriguez DC, Üzümcüoğlu Y, et al. "Quitting like a Turk:" How political priority developed for tobacco control in Turkey. *Soc Sci Med* 2016;165:36–45.
- Roussos ST, Fawcett SB. A review of collaborative partnerships as a strategy for improving community health. *Annu Rev Public Health* 2000;21:369–402.
- Lencucha R, Drope J, Labonte R, et al. Investment incentives and the implementation of the framework convention on tobacco control: evidence from Zambia. *Tob Control* 2016;25:483–7.
- Keck M, Sikkink K, Borders AB. *Ithaca*. NY: Cornell University Press, 1998.
- Uang R, Crosbie E, Glantz SA. Tobacco control law implementation in a middle-income country: transnational tobacco control network overcoming tobacco industry opposition in Colombia. *Glob Public Health* 2018;13:1050–64.
- Sankaran S, Hiilamo H, Glantz SA. Implementation of graphic health warning labels on tobacco products in India: the interplay between the cigarette and the bidi industries. *Tob Control* 2015;24:547–55.
- Stopping Tobacco Organization & Products. Global tobacco industry interference index, 2019. Available: [https://ggtc.world/dmdocuments/GlobalTIIndex\\_Report\\_2019.pdf](https://ggtc.world/dmdocuments/GlobalTIIndex_Report_2019.pdf)
- Shiffman J. Generating political priority for maternal mortality reduction in 5 developing countries. *Am J Public Health* 2007;97:796–803.
- Kaufman MR, Merritt AP, Rimbamaja R, et al. 'Excuse me, sir. Please don't smoke here'. A qualitative study of social enforcement of smoke-free policies in Indonesia. *Health Policy Plan* 2015;30:995–1002.