

# The burden of nicotine-dependent smokers in China: The role of primary healthcare providers

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In their article in *The Lancet Regional Health – Western Pacific*, Liu, and colleagues<sup>1</sup> have reported the prevalence, distribution, and burden of current cigarette smoking and the burden of tobacco-dependent smokers among Chinese adults aged 20–69 years using a nationally representative China Health Literacy survey data (2018/19). The study emphasizes the importance of assessing tobacco dependence in population-based surveys. The data from 84,839 participants aged 20–69 years shows that nearly one in four were currently smoking and nearly half of them were tobacco-dependent. The rate of prevalence and dependence is a challenge for policymakers and clinicians to achieve the targeted 20% smoking prevalence in 2030 set by the Chinese government.<sup>2</sup>

Data from the China Health Literacy survey are also not surprising. High levels of tobacco dependence as shown by this study are supported by the sequential Global Adult Tobacco Survey (GATS) data.<sup>3</sup> About half of the current smokers had not made any quit attempts in the past 12 months and a majority (>80%) of them had no intention to quit during the next 12 months. Smoking prevalence and the mean number of cigarettes smoked per day had also not improved between two rounds of GATS in 2010 and 2018. In China about a third of all current smokers were hardcore smokers. Low quit ratios (the ratio of former smokers to ever smokers) were seen in both years. GATS shows that less than 5% of all current smokers had tried any recommended quit methods.<sup>3</sup> The WHO's Framework Convention on Tobacco Control recommends cessation interventions to be provided to reduce the dependence.<sup>4</sup> However, the findings of a national survey in all 31 provinces of China show that 3/4th of the cessation clinics were in the hospitals mainly in respiratory departments. Over 90% of the facilities provided counseling with just 40% of them providing medication.<sup>5</sup> However, behavioral counseling and telephone-based quitlines are convenient, population-based, cost-effective cessation strategies and more effective when combined.<sup>6</sup> There is a lack of data if these smoking

cessation services are provided in China. Given the high level of tobacco dependence, more efforts are to be made to provide medications such as nicotine replacement therapy, varenicline, and buprenorphine at the cessation clinics and expand the cessation clinics in primary care settings to improve accessibility to smokers closer to their community.<sup>7</sup>

Results that tobacco dependence was strongly associated with smoking intensity (pack-years) and the score of the Fagerstrom Test for nicotine addiction show a discouraging landscape for tobacco control in China. The current pool of smokers is very dynamic as it is influenced by those who quit or die and the addition of new smokers who join the current pool of smokers. The authors highlighted that about 50% of the current smokers were tobacco-dependent translated to a projected 183.5 million tobacco-dependent population, most of them being men.<sup>1</sup> These staggering numbers have enormous implications for future tobacco control strategies in China. The quantum of the population that needs treatment for dependence to reduce smoking prevalence to less than 20% is a very challenging task. Nicotine addiction is a chronic compulsive brain disorder with repeated attempts to quit and high relapse rates, while cessation is a complex decision-making process that involves a smoker's personal choices of seeking or not seeking assistance. The availability of cessation services, motivation to quit, self-efficacy, and precipitating conditions also determines the cessation decision.<sup>8</sup>

Primary healthcare providers (HCP) at primary care clinics in China have an enormous role to play, as evidence shows healthcare providers' interventions such as brief advice are effective in promoting smoking cessation.<sup>9</sup> The Heaviness of Smoking Index is known to be a quick and effective means to assess nicotine dependence. HCPs should assess dependence and offer quick advice in every clinical encounter. Both behavioral and medical interventions are known to complement each other in smoking cessation and should be adopted by HCP. Text messaging and app-based interventions and hypnotherapy should also be explored. The role of electronic cigarettes as a quit-smoking tool is still debatable.<sup>6</sup> However, it is still a good alternative tool particularly for highly dependent perhaps hardened Chinese smokers. Evidence shows that nicotine-containing e-cigarette improves quit rates as compared to nicotine replacement therapy and electronic cigarettes alone

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have seldom been shown to reduce the population prevalence of smoking.<sup>10</sup>

In conclusion, both demand and supply-side issues are to be addressed to lower the burden of dependence on smokers in China. Evidence-based cessation methods both behavioral and pharmacological should be provided and expanded peripherally to the primary care level. To improve the demand for cessation, widespread education about the harms of smoking and population-level measure tobacco control measures should complement cessation services. Healthcare providers in China need to play a greater role by integrating smoking cessation interventions into their clinical practice.

### Declaration of interests

The author has not any conflict of interest to declare.

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