

# Retail-focused tobacco control: equity and endgame implications

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This e-issue represents the journal's second collection of articles focused on the tobacco retail environment, featuring studies from Canada, China, England, India, Israel, Pakistan, South Africa and the USA. With few exceptions, the first retail e-issue (published in 2015) focused primarily on cigarettes.<sup>1</sup> This e-issue focuses primarily on non-cigarette tobacco products and Electronic Nicotine Delivery Systems (ENDS), an indication that a global proliferation of tobacco and nicotine products poses challenges for surveillance, prevention, cessation, regulation and enforcement.

Two decades ago, tobacco sales to minors were the predominant concern for retail research. This e-issue reflects a more comprehensive vision of retail-focused tobacco control, including research to inform or evaluate policies that restrict: (1) the marketing environment (product availability, promotion and price) and (2) the built environment (quantity, type and location of stores that sell tobacco and/or ENDS).<sup>2</sup> Two of the 17 studies in the e-issue evaluate tobacco sales bans, an endgame strategy that was unimaginable two decades ago.

Equity is a dominant theme of this e-issue, with many studies reporting comparisons by income or socioeconomic status, race and ethnicity, or rurality. Promoting equity-oriented research requires greater investment in and improved methods for sampling across priority populations defined by higher rates of tobacco use, including participants characterised by economic disadvantage, race and ethnicity, nativity, sex and gender minority, and rural residence. Nine of the 17 studies evaluate policy compliance or impact on use, but surprisingly none address policies to restrict the built environment. Systematic reviews of place-based disparities exist for tobacco retail marketing and price,<sup>3 4</sup> but disparities in retail availability of tobacco and ENDS are ripe for synthesis, including studies in this e-issue.<sup>5-7</sup>

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Licensing schemes are essential to develop and enforce retail reduction and other retail tobacco control policies.<sup>8</sup> In the USA, no federal licence requirement exists and state and local requirements vary. A \$297 penalty for a first violation of Food and Drug Administration's (FDA) sales-to-minor inspections is approximately equivalent to the average retail price of four cartons of cigarettes and more than the annual cost of a tobacco retail licence in most US states.<sup>9-11</sup> Comparative research could inform appropriate benchmarks for retail licence fees and penalties.<sup>8 12</sup> Licensing schemes for cannabis and alcohol should likewise be considered.<sup>13-15</sup>

## TOBACCO RETAIL ENVIRONMENT RESEARCH

Nearly half of the 17 studies in this e-issue characterise the marketing environment,<sup>16 17</sup> the built environment<sup>18-21</sup> or both.<sup>6 7</sup>

### Marketing environment

With concern for whether tobacco display ban policies should include ENDS, retail surveillance at chain supermarkets in two cities in England documents widespread visibility of ENDS displays and smoking paraphernalia, and no differences by neighbourhood deprivation.<sup>16</sup> In California, retailers in neighbourhoods with higher per cent of black residents are twice as likely to advertise menthol cigarettes and charge significantly lower prices for the most popular brand, patterns that are not observed for non-menthol cigarettes.<sup>17</sup> This replication of earlier findings suggests a pro-equity impact of proposed restrictions on sales of flavoured products in California and the USA.<sup>18</sup>

### Built environment

A meta-analysis of 27 studies from 6 countries provides the strongest evidence to date that reductions in tobacco retailer density and proximity of tobacco retailers are associated with reductions in the relative risk of adult tobacco use, even after controlling for individual-level and area-level covariates.<sup>19</sup> In addition, a scoping review of 35 studies from 6 countries provides complementary evidence about

retailer availability and cigarette smoking for both adults and adolescents.<sup>20</sup> It calls for further research regarding retailer density/proximity and ENDS use among adults and adolescents. Adding to a growing list of reasons for retailer reduction, a study from China considers the role of tobacco retailer density in increasing exposure to secondhand smoke.<sup>21</sup> Across 21 cities, 28% of non-smokers report at least 15 minutes of daily exposure to secondhand smoke, with higher odds of exposure among those living in cities with greater tobacco retail density.

Three studies investigate retailer availability of ENDS and/or tobacco products near youth. In Israel, most schools are located within walking distance (1 km) of stores selling IQOS (86%) and JUUL (74%).<sup>5</sup> On average, 8.6 stores sell IQOS and 5.2 sell JUUL within 1 km of schools, with significantly greater numbers in middle-income neighbourhoods. In Mumbai and Kolkata, India, the lowest socioeconomic neighbourhoods contain three times as many tobacco retailers as the highest socioeconomic neighbourhoods.<sup>7</sup> In addition, objective measures of tobacco retail density and perceived measures among school-age youth are associated with different cognitive risk factors for tobacco initiation.

In California, dollar stores are more likely to locate in census tracts that are rural, have lower median household income and higher proportion of school-age residents.<sup>6</sup> Moreover, the cheapest cigarette pack costs less in dollar stores than all other store types except smoke shops. Tobacco-selling discount stores are not unique to the USA and comparative data from other jurisdictions would be informative.

## RETAIL POLICY ENFORCEMENT AND EVALUATION

Evaluating compliance with policies and effects on tobacco use is a major focus of this e-issue, with 9 of 17 studies examining minimum legal sales age (MLSA),<sup>22-25</sup> price and flavour restrictions,<sup>26-28</sup> or tobacco sales bans.<sup>29 30</sup>

### Minimum legal sales age

According to the WHO, 90% of countries require a MLSA for tobacco, but only 42% of countries that permit sales of ENDS have adopted such regulations.<sup>31</sup> Retailer interviews in Pakistan reveal low awareness of the MLSA and marketing regulations on naswar, a smokeless tobacco product widely used in South Asia.<sup>22</sup> More than 70% of retailers engage in selling and

marketing the product to minors, and lower awareness among rural than urban retailers raises concern about exacerbating use disparities among youth. In California, effects of increasing the MLSA from 18 to 21 years on youth tobacco use vary by product category as well as student race and ethnicity.<sup>23</sup> Policy change is associated with lower odds of all tobacco and nicotine outcomes among Latinx students, suggesting a pro-equity effect. Future research should evaluate tobacco-free generation policies that prohibit sales to persons born after a certain date, as proposed in Singapore and New Zealand.

Two studies identify strategies that could improve MLSA enforcement by the US FDA. Using propensity score modelling, one study illustrates how results from previous sales-to-minor inspections could identify violation hot spots and guide priorities for future inspections.<sup>24</sup> The stiffest penalty for repeat violations is a no-sales order. Although 76% of inspected retailers with repeat violations could be eligible, merely a fraction received it (2%), and delays in issuing the penalty average 453 days.<sup>25</sup> Findings suggest that FDA's sales-to-minor enforcement is unnecessarily lenient and slow.

### Price and flavour

To prevent and reduce tobacco use among US military personnel, the Department of Defense strengthened regulation to set all tobacco prices equal to prevailing prices in the local community.<sup>32</sup> However, evidence of significantly lower median prices for cigarettes (packs and cartons) and smokeless tobacco in on-base than off-base stores suggests that more stringent regulations should be considered.<sup>26</sup>

The increasing adoption of sales bans on flavoured tobacco marks progress toward the endgame. By 2019, Brazil, Canada, Ethiopia, the European Union (28 Member States), Mauritania, Moldova, Niger, Senegal, Singapore, Turkey, Uganda and the USA had adopted such regulations.<sup>33</sup> Following a menthol cigarette ban in Ontario, Canada, sales decreased by 93% within 7 months, with little evidence of substituting non-menthol varieties.<sup>27</sup> Sales of cigarettes with menthol flavour capsules remain low, while increasing sixfold in British Columbia where no ban was present. After San Francisco restricted sales of all flavoured tobacco (including menthol), average weekly sales decreased by 96% and total tobacco sales decreased by 25%, with little evidence of substitution.<sup>28</sup> Different from other evaluations of flavour restrictions in the USA, there is no

evidence of increasing sales for 'concept-flavoured' cigars, such as Jazz.

### Ending tobacco sales

At the start of the COVID-19 pandemic, South Africa mandated a temporary sales prohibition on tobacco and vaping products. Combined with the health threat from COVID-19, the unanticipated ban resulted in the fastest fall in smoking prevalence in South Africa's history over 5 months, with 16%–49% of adults who smoke reporting abstaining from smoking.<sup>29</sup> In the USA, some state governments mandated temporary closures of smoke shops and vape shops, declaring them non-essential businesses.<sup>34</sup> The notion of tobacco sales as an essential business is anathema to public health.

Endgame policies that were unimaginable two decades ago now exist in a growing number of countries.<sup>35</sup> To mark the beginning of the endgame in California, Beverly Hills (population 32 701) was the first city to end tobacco sales (with exemptions for hotels and cigar bars) in January 2021 and 6 months later Manhattan Beach (population 35 506) ended sales with a temporary exemption for hardships that soon expired. In this e-issue, a phone survey of the tobacco retailers in both cities obtained a low cooperation rate (16 of 45 participated), but 8 of 11 retailers that were not exempt from the law reported that compliance was easy or very easy.<sup>30</sup> Research on compliance is needed, and studies to examine change in product availability and marketing in affected as well as cross-border stores. To complement endgame simulation models, evaluations of the real-world economic impact and public health benefits of tobacco sales bans are warranted. This e-issue adds to a growing body of evidence that comprehensive tobacco control requires retail regulations to complement effective media campaigns, tobacco taxes, and smoke-free air policies.

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