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E-Cigarette Retail Licensing: Theory, Evidence and Regulatory Policy

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Executive Summary

Literature Review

E-Cigarette Retail Licensing and Youth Access

- There is limited evidence demonstrating the association between retail licensing and youth e-cigarette use in Canada, however several American studies demonstrate the potential of retailing laws to reduce youth use of e-cigarettes.
- Studies demonstrate that the strength of the law matters.
- A study of tobacco retail licensing in Pennsylvania showed that adolescent e-cigarette use declined by almost 22% the year after the law was adopted.

Conventional Tobacco Retail Licensing and Youth Access

- There is limited but promising evidence that retail licensing systems reduce youth access to conventional tobacco.
- There are several observational studies from Australia showing the effectiveness of retail licensing strategies to reduce youth access to conventional tobacco.
- An Australian study found that retailers with low tobacco retail volume were most likely to leave the market because of retail licensing strategies.
- These studies showed that retailers without government issued licenses were more likely to violate one or more government regulations, and the importance of setting licensing fees high enough that they discourage retailers from continuing to sell tobacco.
- Studies of retail licensing systems in Finland and Hungary have also shown success in reducing youth access.

Jurisdictional Scan

Canada Federal Regulations

• There are no federal measures in place related to retail licensing.

Canadian Provincial/Territorial Regulations

- Four Canadian provinces have e-cigarette licensing systems in place including British Columbia, Newfoundland and Labrador, Nova Scotia, and Quebec.
- Several provincial/territorial jurisdictions require licenses to sell conventional tobacco products.

Canadian Municipal Regulations

- Toronto requires all licensed businesses, such as convenience stores that sell vapour products, to obtain a vapour product retailer endorsement when renewing their business license. This system was put in place to facilitate enforcement efforts.
- Oakville requires all stores selling e-cigarettes to obtain a license with progressive penalties for infractions.

U.S. Federal Regulations

• There are no federal retail licensing regulations in the United States.

U.S. State Regulations

- 24 states and the District of Columbia have retail licensing laws in place for e-cigarette retailers.
- 38 states and the District of Columbia have retail licensing laws for tobacco retailers.
- There is evidence that state level e-cigarette retail licensing laws could be strengthened by aligning them with recommendations from the American Lung Association guidelines and expanding laws to those states that do not yet have laws in place.

U.S. Municipal Regulations

- Los Angeles, San Francisco, and Santa Clara County all have licensing requirements over and above what is mandated at the state and federal levels.
- Los Angeles funds compliance measures using the fees raised from tobacco retailer licenses.

- San Francisco's licensing system was put in place to reduce retail density and restricts retailers from selling near schools.
- The licensing system in Santa Clara County was put in place to decrease youth access to tobacco and led to a reduction in the number of retailers and reduced youth access.

Jurisdictions Outside Canada and the United States

- Licensing systems have been implemented in Finland, Hungary, France, Italy and Spain.
- The licensing systems in Finland and Hungary were both successful in substantially reducing the number of tobacco retail outlets, whereas there is no evidence that the licensing systems in France, Italy and Spain had a public health impact.
- Research shows that the aims of a tobacco control licensing system are an important factor, and that systems driven by public health goals rather than economic motives are more likely to be successful in reducing smoking.
- Norway and Scotland have attempted to put licensing systems in place but have been unsuccessful. Ireland has recently put forward a bill to propose a federal tobacco licensing system.

Effects

- There is limited evidence demonstrating the effect of retail licensing systems on youth access to e-cigarettes, including several U.S. state level studies that demonstrate the potential of retailing laws to reduce youth use of e-cigarettes.
- The evidence demonstrating the effect of retail licensing systems on conventional tobacco is also limited, however several studies have shown promising results that retail licensing systems may reduce youth access.
- Experts suggest systems developed with clear public health goals goal (e.g. to reduce youth access, increase retailer compliance, reduce outlet density, and/or support the denormalization of tobacco use) and are supported by other strong tobacco control measures are more likely to be successful.
- Modelling data show that retail licensing restrictions will likely have the greatest impact on smoking behaviour if it results in a drastic reduction in density (i.e., 10% of current

level (e.g., less than 10% of current density), and that achieving this type of reduction will help to lower health inequities.

Technical Feasibility

- Retail licensing systems require substantial investments in proactive retail compliance efforts to be effective.
- The use of licensing revenues to cover the cost of enforcement efforts may increase feasibility.
- Retail licensing laws will have a more drastic immediate effect on youth access if they
 result in an immediate reduction in the number of retailers selling e-cigarettes. However,
 international studies have shown that a "grandfathering" approach is generally more
 feasible, and results in positive long-term changes in youth access. A middle ground
 approach could be a "sinking lid" model where the number of outlets is reduced gradually
 over time and licenses are distributed via auction.
- Policies that treat all retailers consistently (as opposed to targeting certain types of stores like convenience stores, or outlets located near schools) may reduce criticisms of discriminatory restrictions and/or undermining competitiveness.
- The exemptions provided to vape shops may increase the feasibility of increasing restrictions for other types of retailers.

Political Viability

- Having political support from government as well as civil society is important for successful adoption of retail policies.
- To increase political support, it is important to set clear public health goals associated with the policy.
- The financial benefits of a system that raises funds for enforcement efforts may increase the political will for retail licensing measures.
- Opposition from retailers may be reduced by involving retailers in the policy process, however this will have to be balanced with ensuring that the tobacco industry does not have influence through their pre-existing relationships with retailers.

• It is likely that convenience store associations, generally associated with the tobacco industry may oppose adult only store regulations.

Alignment with the Canadian Regulatory Landscape

• There are no known domestic or international trade obligations that would interfere with enacting or strengthening retail licensing systems in Canada.

Introduction

Youth are accessing e-cigarettes in a variety of ways—including social sources, brick and mortar stores and online retail establishments—so a multi-pronged regulatory approach to reduce youth access is required (Baker et al., 2019; Braak, 2020). It is unlikely that a single intervention can eliminate most youth vaping (Braak et al., 2020), however this report explores the extent to which regulations related to retail licensing are likely to be important variables.

Retail licensing is a government policy requiring all stores that sell e-cigarettes and/or conventional tobacco to obtain a special license for the privilege of selling these products (Change Lab, 2015). Retail licensing is an extremely versatile policy tool allowing governments to set a range of requirements as a condition of providing a license and maintaining the license (Change Lab, 2015). Retail licensing systems can continually assess retailer performance and put in place a system to address the problem when licensees fail to meet the requirements (Change Lab, 2015). Retail licensing policies can be used to address any policy strategy in the retail environment including selling to minors, retail density, retail proximity/locations, pricing, restrictions on flavours, tobacco sales by certain types of businesses, marketing restrictions and other innovative policy strategies (Change Lab, 2015).

This report explores the evidence directly related to e-cigarettes, as well as other substances including tobacco, alcohol, and cannabis. The paper also includes a jurisdictional scan of Canadian, and American regulations, as well as other notable regulations outside of North America. Finally, the paper summarizes the potential effects, technical feasibility, political viability, and alignment with the Canadian regulatory landscape.

Literature Review

E-Cigarette Retail Licensing and Youth Access

- There is limited evidence demonstrating the association between retail licensing and youth e-cigarette use in Canada, however several American studies demonstrate the potential of retailing laws to reduce youth use of e-cigarettes.
- Studies demonstrate that the strength of the law matters.
- A study of tobacco retail licensing in Pennsylvania showed that adolescent ecigarette use declined by almost 22% the year after the law was adopted.

A 2017 report commissioned by Health Canada estimated that there are up to 1,000 e-cigarette retailers in Canada comprising a market worth over \$500 million CAD (Non-Smokers' Rights Association, 2018). There is limited evidence demonstrating the association between retail licensing and youth e-cigarette use in Canada (Cole, 2019). However, there are several American state-level studies that demonstrate the potential of retailing laws to reduce youth use of e-cigarettes (Patel et al., 2020). A California study showed that stronger regulation of retailers was associated with lower rates of youth e-cigarette initiation (Astor et al., 2019). This study showed that the strength of the law matters with strong retailing laws associated with lower odds of e-cigarette initiation and past 30-day e-cigarette use, as well as lower odds of cigarette initiation (Astor et al., 2019). A study evaluating tobacco retail licensing in Pennsylvania showed that adolescent e-cigarette use declined by almost 22% the year after the law was adopted, a decline which was over 5% more than New York State, which did not adopt a similar law (Azagba et al., 2020).

Conventional Tobacco Retail Licensing and Youth Access

- There is limited but promising evidence that retail licensing systems reduce youth access to conventional tobacco.
- There are several observational studies from Australia showing the effectiveness of retail licensing strategies to reduce youth access to conventional tobacco.
- These Australian studies showed that retailers without government issued licenses were more likely to violate one or more government regulations, and the importance of setting licensing fees high enough that they discourage retailers from continuing to sell tobacco.
- Studies show that retail licensing systems in Finland and Hungary have also showed success in reducing youth access.
- While evidence in support of tobacco retail licensing systems is limited, thought on how to design an effective licensing system has been advanced and tested to some extent by experts including: require annual renewal of licenses, penalize any violation of federal, state or local laws, enforce penalties including suspension and revocation of licenses, and require retailers to pay an annual fee to fund the administration and enforcement of the licensing system. Several studies have shown lower levels of youth tobacco use in jurisdictions that have retail licensing systems that fit these specifications. Experts further suggest that the goals of a licensing system are important and should include the following: strengthening compliance with minimum age regulations, regulating the density and proximity of retail outlets, and contributing to the denormalization of tobacco.

Evidence

The World Health Organization recommended tobacco retailer licensing as an important tobacco control strategy (World Health Organization, 2013; Kuipers et al., 2021). While the evidence for tobacco retail licenses and the association with youth access is limited, experts have concluded that the likely effects are promising (Smoke Free Ontario, Scientific Advisory Committee, 2017). Several studies have shown that retail licensing strategies may reduce youth access to

conventional tobacco (Smoke Free Ontario, Scientific Advisory Committee, 2017; Boyce, 2009; Smoking Policy Internet, 2016).

An observational study of a no cost government licensing scheme in Australia found that the program was positively associated with retailer compliance regulations including point-of-sale display bans and posting notices that it is illegal to sell tobacco products to individuals younger than 18 (Boyce, 2009). Further, the study showed that retailers without government issued licenses were more likely to violate one or more government regulations than stores that were registered. Based on these findings it was suggested that enforcement mechanisms should focus on unlicensed retailers. This study found that while retailers in lower socio-economic status areas were just as likely to be registered, these retailers were significantly more likely to breach instore regulations (Boyce, 2009).

Another Australian observational study demonstrated the importance of setting license fees high enough to discourage retailers from purchasing and/or renewing licenses, especially for retailers with a low tobacco retail volume (Smoking Policy Internet, 2016). The study looked at the impact of increasing retailer fees significantly from \$12.90 AUD to \$200 AUD per year and found that this could be an effective method for reducing the number of active tobacco licenses (Smoking Policy Internet, 2016). The total number of licenses for selling tobacco decreased by almost 24% after the fee increase (Smoking Policy Internet, 2016). Kuipers et al. (2021) reviewed tobacco control licensing systems in Europe and found that licensing systems adopted in Finland and Hungary showed promise to contribute to tobacco control efforts and specifically child protection (Kuipers et al., 2021).

While evidence in support of tobacco retail licensing systems is limited, thought on how to design an effective licensing system has been advanced and tested to some extent by experts. While experts have begun to explore how to design an effective licensing system, evidence is limited on how to support such a system. It is proposed that the aims of the system and the corresponding design will influence the effectiveness on reducing youth access to tobacco.

Goals

Experts including Kuipers et al. (2021) have suggested that although licensing systems take on diverse forms depending on their goals. For example, jurisdictions with licenses in place solely to enforce tobacco tax laws are not likely to be as effective as those designed to improve public health (Change Lab, 2015). Experts suggest that retail licensing systems should aim to do the following:

1. Strengthen compliance and enforcement of existing point-of-sale regulations including minimum age restrictions.

A license should require retailers to comply with all tobacco control regulations (Galanti, 2014; McLaughlin, 2010). Failure to comply with relevant regulations (e.g., taxation, selling to minors) results in consequences such as the license being revoked and/or fines and suspensions (McLaughlin, 2010). Publicizing inspection results and violations may further incentivize retailers to follow the law and ensure that they do not see fines simply as part of doing business (Non-Smokers' Rights Association, 2018). Additionally, public health units may consider increasing public awareness of violations by using social media and issuing press releases (Non-Smokers' Rights Association, 2018).

Retail licensing may also play a role in helping with tax collection and allowing enforcement officers to identify and track tobacco retail outlets (Galanti, 2014; McLaughlin, 2010). It is proposed that licensing strategies may be designed to cover the cost of administration and oversight (McLaughlin, 2010). A barrier that would need to be considered in the design of a licensing scheme is tobacco industry payment, promotions and incentives to tobacco retailers that may offset the disincentive of the license fee (OTRU, 2012).

2. Reduce the number/density/proximity of tobacco retail outlets and/or restricting licensing to certain types of retailers.

Several strategies have been proposed to use licensing systems to reduce outlet density and restrict proximity to youth. Strategies include capping the number of retail licenses, restricting the licenses to certain types of retailers, and restricting where and when tobacco can be sold (Smoke Free Ontario, Scientific Advisory Committee, 2017). To reduce the number of retailers, governments can choose to make licenses costly and set strict criteria for purchasing and retaining a license (Kuipers et al., 2021).

It is further proposed that licensing systems could be used to increase restrictions on retailers over time. This could be done by limited the number of new licenses that could be issued, gradually increasing the licensing fee, or holding an auction or lottery for a limited number of available licenses (Centres for Disease Control and Prevention, 2013; Galanti, 2014). Other suggestions include limiting the hours and/or days during which tobacco can be sold (Galanti, 2014).

Tobacco retailer density is greater in lower SES areas (Flay, 1993; Galanti, 2014) contributing toward smoking-relating disparities (OTRU, 2016). It has been suggested that policies that cap the number of retailer licenses issued within a disadvantaged area can reduce these disparities (OTRU, 2016).

3. Contributing toward the denormalization of tobacco, expand tobacco control goals and address inequities.

Regulating where tobacco can be sold may contribute toward denormalization of tobacco by communicating to the public that tobacco products are much more harmful than other products sold in the retail environment (Kuipers et al., 2021). Retail licensing systems can be expanded to regulate any policy aimed at the retail environment supporting both prevention and cessation goals (Change Lab, 2015). It is further suggested that retail licensing strategies can be designed to reduce health inequities (Change Lab, 2015).

Guidelines and Tools for Developing Policies

The American Lung Association has put forward a set of guidelines for designing an effective licensing system: 1) require licenses to be renewed annually; 2) enforce penalties including license suspension and revocation; 3) make any violation of local, state or federal laws a license violation; and 4) require retailers to pay an annual fee to fund the administration and enforcement of the licensing system (American Lung Association, 2018). Two studies have shown that jurisdictions with higher grades, based on these guidelines, have lower tobacco access and tobacco use (Azagba et al., 2020; Coxe et al., 2020; Astor et al., 2019).

Change Lab Solutions has developed a playbook outlining the steps to develop, implement, and enforce a comprehensive tobacco retailer licensing system that can improve public health (Change Lab, 2015).

Suggested steps include:

- 1. Conduct and environmental assessment to determine where tobacco products are sold
- 2. Develop a clear public health goal (i.e., reducing illegal sales to minors, reduce retail density or location, regulate marketing
- 3. Assess the legal landscape to identify potential pre-emption
- 4. Convene a community coalition including stakeholders and youth to build support for retailers licensing
- 5. Educate decision makers and the public
- 6. Create and adopt a strong policy
- 7. Calculate costs to implement and enforce the law
- 8. Work with other agencies to develop enforcement mechanisms
- 9. Data collection and policy evaluation
- 10. Exploring additional ways to expand the use of retail licensing to address innovative retail policy regulations (e.g., price, flavours) (Change Lab, 2015).

These guidelines suggest that retail licensing strategies can be designed to reduce health inequities and that these considerations should crosscut all of the steps in the process (Change Lab, 2015).

While these tools and guidelines have been developed primarily for retail licensing measures aimed at conventional tobacco, these systems may include e-cigarettes in their definition of tobacco products or guidelines could be used to develop distinct systems to regulate ecigarettes. The Change Lab suggests a comprehensive definition of a "tobacco product" that includes e-cigarettes (Change Lab, 2015). Whereas, the Non-Smokers Rights Association recommends that e-cigarette retailers should be licensed independently of tobacco product retailing. It is further suggested that e-cigarette licenses should be established at a lower fee than traditional tobacco to reflect the reduced harm. Jurisdictions may want to consider a twotier licensing system for e-cigarette vendors for adult only specialty vape shops, and for lower volume retailers (Non-Smokers' Rights Association, 2018).

Alcohol and Cannabis Retail Licensing Regulations

While there are no international standards put forward by the Framework Convention on Tobacco Control or MPOWER, for retail licensing for e-cigarettes or conventional tobacco, the World Health Organization recommends retail licensing and government retail monopolies for the sale of alcohol (Physicians for a Smoke Free Canada, 2020; World Health Organization, 2010).

Canadian Federal Regulations

• There are no federal measures in place related to retail licensing, retail density/proximity or restricting sales to adult only stores.

There are no federal measures in place to license e-cigarette retailing, or other measures to reduce retail density/proximity for e-cigarette retail or adult only stores. No additional regulations were proposed in Health Canada documents exploring potential expansion of these e-cigarette regulatory measures (Health Canada, 2019).

Canadian Provincial/Territorial Regulations

- Four Canadian provinces have e-cigarette licensing systems in place including British Columbia, Newfoundland and Labrador, Nova Scotia, and Quebec.
- Several provincial/territorial jurisdictions require licenses to sell conventional tobacco products.

Four Canadian provinces have e-cigarette licensing systems including British Columbia, Newfoundland and Labrador, Nova Scotia, and Quebec (Physicians for Smoke Free Canada, 2020). It is unclear if these provincial licensing systems adhere to the best practices put forward in the literature. The chart below summarizes the retail licensing regulations in place in Canada for e-cigarettes.

Many Canadian provinces also have retail licensing systems in place for conventional tobacco. Almost all licenses for conventional tobacco are issued and controlled by finance ministries (Physicians for a Smoke Free Canada, 2020).

Province/Territory	Tobacco Retail Licensing System in Place (Y/N)	E-Cigarette Licensing System in Place (Y/N)	Details of E-Cigarette Licensing System ¹
Alberta	No	No	No tobacco or e-cigarette retail licensing regulations in place; however, legislation was introduced in June 2020.
British Columbia	Yes	Yes	E-cigarette retail licensing system requires business owners to notify the Ministry of Health by submitting a notice of intent before selling any e-substances from a sales premise. British Columbia's licensing system has no cost (Physicians for a Smoke Free Canada, 2019).
Manitoba	Yes	No	No tobacco or e-cigarette retail licensing system in place. Conditions are set for qualifying as a specialty vape shop but no license is required (Physicians for a Smoke Fee Canada, 2020).
New Brunswick	Yes	No	Although the government requires retailers in New Brunswick to obtain a Tobacco Retailer's License e-cigarettes retailers are not currently regulated under this system, and it does not appear that retailers selling e-cigarettes are required to have a license (National Post, 2020; Physicians for Smoke Free Canada, 2020a).
Newfoundland and Labrador	Yes	Yes	There is a new obligation for each store selling vaping products to have a provincial vaping products retail license (Newfoundland and Labrador Gazette, 2020; Physicians for Smoke Free Canada, 2020a).
Northwest Territories	No	No	No retail licensing systems in place for tobacco or e-cigarettes.
Nova Scotia	Yes	Yes	The retail licensing system require vendors of e-cigarettes and tobacco to display signs available from the Department of Health and Wellness. Vendors are required to pay the applicable fees that may be set by the Minister from time to time (Government of Nova Scotia, 2020).

Table 1: Canadian Provincial and Territorial Retail Licensing Regulations

¹ See Physicians for a Smoke Free Canada report for full description of e-cigarette and tobacco retail licensing fees.

Province/Territory	Tobacco Retail Licensing System in Place (Y/N)	E-Cigarette Licensing System in Place (Y/N)	Details of E-Cigarette Licensing System ¹
Nunavut	Yes	No	There is no e-cigarette retail licensing system in place, however it is illegal to sell conventional tobacco products if you do not have a Tobacco Retailer Permit (Government of Nunavut, 2020).
Ontario	Yes	No	There is no licensing system in place for e-cigarettes. Ontario has introduced guidelines to register as a specialty vape shop, which offers exemptions for these businesses to display, promote, test/sample vaping products. To qualify establishments must register with their local board of health in which the business is located. There is currently no system for registering non vape shops that sell vaping products along with other products (Executive Director Municipal Licensing Standards, 2020).
Prince Edward Island	Yes	No	There is no licensing system in place for e-cigarettes. A license is required to sell conventional tobacco products in PEI (Government of Prince Edward Island, 2020).
Quebec	Yes	Yes	E-cigarette vendors must register with the Health Authority (Physicians for a Smoke Free Canada, 2020).
Saskatchewan	No	Yes	There is no licensing system in place for tobacco. Saskatchewan recently brought in a licensing system requiring vaping product retailers to have a provincial retail license (Government of Saskatchewan, 2021).
Yukon	No	No	There is no licensing system in place for tobacco or e- cigarettes.

Canadian Municipal Regulations

- Several local jurisdictions have recently enacted retail licensing laws aimed at ecigarettes.
- Toronto requires all licensed businesses, such as convenience stores that sell vape products, to obtain a vapour product retailer endorsement which renewing their business license. This system was put in place to facilitate enforcement efforts.
- Oakville requires all stores selling e-cigarettes to obtain a license with progressive penalties for infractions.
- Some Ontario municipalities have successfully implemented retail licensing laws aimed primarily at conventional tobacco.

The ability of municipalities to issue business license varies by province (Physicians for a Smoke Free Canada, 2020). Some municipalities have implemented requirements for tobacco retailers to be licensed and to pay license fees (Physicians for a Smoke Free Canada, 2020).

Toronto and Oakville have recently enacted e-cigarette retail licensing laws. As of April 2020, the City of Toronto requires all licensed businesses, such as convenience stores that sell vapour products, to obtain a vapour product retailer endorsement when renewing their existing business license (City of Toronto, 2020). This system was established to accurately track and inspect all vapour retailers to ensure compliance (Executive Director Municipal Licensing Standards, 2020).

As of February 2021, Oakville required stores selling e-cigarettes to obtain a license (Inside Halton, 2021). Retailers will be required to comply with the *Smoke Free Ontario Act*, with progressive penalties for infractions (e.g., a second violation will result in the license being suspended and a third violation will result in a license being revoked) (Inside Halton, 2021).

Hamilton charges an additional fee of (\$63.72) on top of the fees for a conventional tobacco retail license for retailers who sell e-cigarettes (Physicians for a Smoke Free Canada, 2020; Hamilton Business Reference Guide, 2020). London Ontario's tobacco retail licensing fee includes e-cigarettes (Physicians for a Smoke Free Canada, 2020).

Some municipalities in Ontario, Saskatchewan and Alberta have implemented retail licensing systems aimed at conventional tobacco. Municipalities in Ontario include Brampton, Burlington, Chatham-Kent, Cornwall, Hamilton, Kingston, London, Markham, Mississauga, North Bay, Oakville, Ottawa, Richmond Hill, Sudbury, Toronto, Vaughan, Waterloo, and Windsor and Wasaga Beach (Non-Smokers Rights Association, 2018; Physicians for a Smoke Free Canada, 2020).

Some municipalities have achieved some success with conventional tobacco retail licensing laws. For example, Ottawa has nearly halved its number of retailers in recent years with a strategy of charging significant licensing fees to tobacco retailers (Non-Smokers Rights Association, 2018). Hamilton has also established a relatively high licensing fee (Non-Smokers Rights Association, 2016). While some municipalities have promising elements (i.e. high fees, meaningful conditions), the Non-Smokers' Rights Association concluded that none can be considered a comprehensive best practice example (Non-Smokers' Rights Association, 2018).

Several municipalities in Alberta have also established retail licensing systems for conventional tobacco (Non-Smokers Rights Association, 2016). Communities with a retail license requirement for conventional tobacco include Calgary, Edmonton, St. Albert and Lloydminster (Physicians for a Smoke Free Canada, 2020). Lloydminster (an Alberta/Saskatchewan border city) has an innovative retail licensing strategy charging a tobacco surcharge on top of its regulator business license fee to fund non-profit organizations, schools and volunteer groups for projects that raise awareness of the health risks associated with tobacco or that support the adoption of a tobacco free lifestyle (Non-Smokers' Rights Association, 2018; City of Lloydminster, 2016). E-cigarettes are included under the definition of tobacco retailing. Prince Albert has established a retail licensing system with a significantly high retail licensing fee (Non-Smokers Rights Association, 2016). Lethbridge, Alberta has licensing fees intended to support local tobacco control efforts (Physicians for a Smoke Free Canada, 2020).

Prior to the new provincial retail licensing regulation in Saskatchewan, only two municipalities, Saskatoon and Regina, had retail license requirements for conventional tobacco (Physicians for a Smoke Free Canada, 2020).

U.S. Federal Regulations

- There are no federal retail licensing regulations in the United States.
- There is no formal federal licensing system for e-cigarettes in the United States.

U.S. State Level Regulations

- 24 states and the District of Columbia have retail licensing laws in place for ecigarette retailers.
- 38 states and the District of Columbia have retail licensing laws for tobacco retailers.
- There is evidence that state level e-cigarette retail licensing laws could be strengthened by aligning them with recommendations from the American Lung Association guidelines and expanding laws to those states that do not yet have laws in place.

As of January 1, 2020, only 24 states and the District of Columbia had laws in effect requiring a license for over-the-counter retail sales of e-cigarettes, whereas 38 states and the District of Columbia required a license for over-the-counter sales of other tobacco products (CDC, 2020). While most states require retailers to obtain a license to sell tobacco, almost all states use the system to enforce tobacco tax laws rather than to further public health goals (Change Lab, 2015).

A study by Patel et al. (2020) examined state level e-cigarette specific tobacco retailing laws. The study found that 23 laws had clearly defined license terms for the sale of e-cigarettes including a license fee. Nineteen of these laws identified penalties for violations including license suspension and revocation (Patel et al., 2020). The fees ranged from \$5-\$1,000 annually, and all but 8 laws directed fees toward the administration and/or enforcement of the laws (Patel et al., 2020). None of the laws required that retailers comply with all local, state, and federal tobacco or e-cigarette laws (Patel et al., 2020). With e-cigarette licensing laws in effect in over half the states, the study concluded that laws could be strengthened by aligning with the components recommended in the American Lung Association guidelines and by expanding retailing laws to states that do not yet have laws in place (Patel et al., 2020).

Washington state has recently enacted a statewide licensing system for business that sell vape products. The state estimates that 6,000 retailers will be affected by the new rules which require retailers to obtain a separate license to sell "vapour products" online (Counter Tobacco, 2021; Public Health Law Centre, 2020).

U.S. Municipal Regulations

- Los Angeles, San Francisco, and Santa Clara County all have licensing requirements over and above what is mandated at the state and federal levels.
- Los Angeles funds compliance measures using the fees raised from tobacco retailer licenses.
- San Francisco's licensing system was put in place to reduce retail density and restricts retailers from selling near schools.
- The licensing system in Santa Clara County was put in place to decrease youth access to tobacco and led to a reduction in the number of retailers and reduced youth access.

Across the United States, most of the innovative retail licensing systems aimed at promoting public health have occurred at the local level (Change Lab, 2015). Several municipalities have licensing requirements over and above what is mandated at the state and federal level. Los Angeles requires a Tobacco Retailer's License for all retailers selling tobacco. A fee is paid on an annual basis to cover the cost of compliance measures to ensure that tobacco is not sold to minors (Los Angeles Department of Finance, n.d.).

San Francisco's Tobacco Retail Density Policy came into effect in 2014, following years of youth advocacy (Bright Research Group, 2016). The licensing system is an unprecedented effort by a local government to reduce the number of retail stores that can sell tobacco products. In San Francisco, stores, bars and restaurants can obtain a license to sell tobacco, however the density policy caps the number of tobacco sales permits in each of the City's districts at 45, limiting the citywide total to 495. With approximately 1,000 outlets licensed to sell tobacco at the time that the policy came into place, the intention was to halve the number of licensed outlets. The density policy did not revoke licenses from retailers that were already licensed to sell tobacco but relied on attrition and denial of new requests. The system also restricts retailers from selling tobacco near schools and limits the concentration of outlets on the same block (Bright Research Group, 2016).

Santa Clara County initiated a licensing system to decrease youth access to tobacco by implementing a policy requiring tobacco retailers to obtain an annual permit to sell any type of tobacco product while increasing tobacco enforcement and implementing other interventions near schools to reduce youth exposure to tobacco retailers (Coxe et al., 2014). At the time the system was brought into place, the state of California required retailers to acquire a state issued license to sell tobacco at a one-time cost of \$100, with no charge to renew (Coxe et al., 2014). The statewide licensing program did not include any enforcement of illegal sales to minors, and no state tobacco license has ever been revoked for selling to a minor (Coxe et al., 2014). The new system required retailers to obtain a \$425 annual permit to sell tobacco, and restricted new licenses for any retailer applying to operate within 1000 feet of a K-12 school or within 500 feet of another tobacco retailer. Retailers with existing licenses were grandfathered in however the ordinance did not allow transferability of tobacco licenses when a business is sold with the aim of reducing retailer density over time (Coxe et al., 2014). The ordinance led to an immediate reduction in the number of tobacco retailers, and an increase in compliance with laws prohibiting sales to minors (Coxe et al., 2014).

Other local areas in California have adopted similar measures. Huntington Park California adopted a licensing system, which prohibits new retailers from obtaining a permit to sell tobacco if they are located in a residential area (Robertson, 2016; Robertson, 2018; Robertson, 2019). Richmond California has a system which requires retailers to be a certain distance from schools and other retailers (Robertson, 2016; Robertson, 2018; Robertson 2019). San Marcos, California passed an ordinance requiring any shop that sells tobacco including e-cigarettes to purchase a license (Counter Tobacco, 2021). All the Californian examples have used grandfathering which is more likely to be politically acceptable. However, the trade off is a more gradual decline in density brought about by natural attrition from the market over time (Robertson, 2019).

A new tobacco retailer system came into place in Philadelphia in 2017. Prior to this Philadelphia had approximately double the number of retailers per population compared to other major U.S. cities. Under the retailing restrictions, tobacco retailers of any type selling any type of tobacco product, including e-cigarettes, are required to apply for an annual license from the department of public health. The new regulations, which were implemented with a grandfather clause for

existing retailers, included: 1) a density cap of 1 retailer per 1000 daytime population for each of the 18 planning districts; 2) smoke-free school zones that prohibited new retailers within 500 feet of school property; 3) an increase in the licensing fee from \$50 to \$300 to fully fund the compliance program; and 4) a standardization of penalties for youth sales violations, such that after the third violation in 2 years, tobacco sales privileges are suspended and grandfather status is lost. A reduction in levels of retailers is brought about when existing retailers in capped districts sell or close their business or when retailers lose sales privileges.

Jurisdictions Outside Canada and the United States

- Licensing systems have been implemented in Finland, Hungary, France, Italy and Spain.
- The licensing systems in Finland and Hungary were both successful in substantially reducing the number of tobacco retail outlets, whereas there is no evidence that the licensing systems in France, Italy and Spain had a public health impact.
- Research shows that the aims of a tobacco control licensing system are an important factor, and that systems driven by public health goals rather than economic motives are more likely to be successful in reducing smoking.
- Norway and Scotland have attempted to put licensing systems in place but have been unsuccessful. Ireland has recently put forward a bill to propose a federal tobacco licensing system.

In Europe, licensing systems have been implemented in several countries including Finland, Hungary, France, Italy and Spain (Kuipers et al., 2021). According to Kuipers et al. (2021), these countries have different motivations for implementing licensing systems with Finland and Hungary implementing relatively strict systems for the purposes of advancing public health. Finland's goal was to reduce illegal tobacco sales to minors (Monshouwer et al., 2014). Similarly, Hungary's primary goal was to reduce the number of tobacco outlets to prevent adolescent smoking (Robertson et al., 2015). Because France, Italy and Spain are controlled by a government monopoly, the goals of the retail licensing systems could not be separated from these governments' goals to increase profits from the sale of tobacco (Kuipers et al., 2021). The licensing systems in Finland and Hungary were both successful in substantially reducing the number of tobacco retail outlets, whereas there is no evidence that the licensing systems in France, Italy and Spain had a public health impact (Kuipers et al., 2021).

In Finland, sales of e-cigarette devices and liquids are limited almost exclusively to specialized ecigarette shops. Finland's licensing system was implemented in 2009, requiring retailers to apply and submit an annual self-monitoring plan, pay a licensing fee set at the municipal level (ranging from €100 to €180) and pay an additional supervision fee (up to €500 per cashier) applied separately for tobacco products and nicotine liquids (Monshouwer et al., 2014; Robertson et al., 2016; Finland Ministry of Social Affairs and Health, 2016). The success of the licensing system in Finland is supported by strong political and societal support for tobacco control policies over many decades (Kuipers et al., 2021), the framework to protect children from taking up smoking, and the goal to reduce smoking to under 5% prevalence by 2030 (Kuipers et al., 2021).

Hungary introduced the most restrictive licensing system in Europe in 2013 (Kuipers et al., 2021). To be eligible to participate in an auction for licenses, the system requires retailers to apply, submit a business plan, and pay a license fee (Caceres & Chaiton, 2013). The number of available licenses in a region is determined by the population, with one license allowed for every 2000 residents (Monshouwer et al., 2014; Robertson et al., 2016). As a result of the system, outlet density was reduced by 83% by only allowing tobacco sales at 7000 stores (Robertson, 2018). Unlike Finland, Hungary implemented the licensing system in the face of strong opposition from both civil society and retailers (Caceres & Chaiton, 2013). The system of granting licenses lacked transparency, and the government was accused of nepotism (Caceres & Chaiton, 2013). Strong political will was credited as a significant factor in implementing licensing in Hungary, however the approach has been criticized for being undemocratic (Caceres & Chaiton, 2013).

In France, Italy and Spain, tobacco sales are controlled by a government monopoly (Valiente et al., 2019). In France, retailers must meet several personal and business criteria to hold a license (Démarche Devenir, 2020). In Italy, tobacco retailers are required to be a minimum distance apart from other retailers depending on the population size (e.g., 300 metres between retailers in municipalities with a population of 30,000 or less) (Decreto Ministeriale, 2013). In 1998, Spain introduced national regulations requiring a minimum distance of 150 meters between retailers. Licenses in Spain are auctioned, with the number of licenses available determined by the volume

of sales in the area (Valiente, 2019).

There is no empirical evidence that the licensing systems of France, Italy and Spain influenced retail outlet reduction or smoking outcomes; however, anecdotal evidence shows that these systems were not successful in advancing tobacco control aims (Kuipers et al., 2021). Findings from Kuipers et al. (2021) analysis show that the aims of a tobacco control licensing system are an important factor, and that systems driven by public health goals rather than economic motives are more likely to be successful in reducing smoking.

Other European countries have attempted to put licensing systems in place but have been unsuccessful (Kuipers et al., 2021). In 2013, Norway attempted to put a licensing system in place to improve enforcement of minimum age laws (Norwegian Ministry of Health, 2016). The system was not implemented because of strong opposition from retailers and an eventual change of government (Monshouwer et al., 2014). Norway has since scaled back and implemented a registration system instead, with requirements varying across municipalities including the requirement of a licensing fee in some regions and fines for retailers selling tobacco without a license (Kuipers et al., 2021).

Scotland attempted to introduce a licensing system in 2007. A campaign led by the tobacco industry raised strong opposition, spread misinformation, and organized retailers to denounce the policy (Kuipers et al., 2021). Retailers argued that they would suffer financial losses if they did not meet requirements for a license (e.g., distance to schools or other retailers) (Kuipers et al., 2021; Kok et al., 2020). The tobacco industry also lobbied members of parliament to turn against licensing legislation (Kuipers et al., 2021; Kok et al., 2020). Like Norway, the Scottish government also chose a lighter registration system that does not involve payments in order to reduce the burden on retailers and local authorities (Monshouwer et al., 2014; Kuipers et al., 2021). The potential burden for the authorities was not a barrier for adoption in Finland and Hungary because license fees were designed to cover the administrative costs and include a supervision fee (Kuipers et al., 2021). According to Kuipers et al. (2021), the cases of Norway and Scotland demonstrate that retail licensing systems may fail in the absence of strong political support and in the face of strong retailer opposition backed by the tobacco industry (Kuipers et al., 2021). Ireland recently introduced a Tobacco and Nicotine Inhaling Products Bill which proposes a federal retail licensing system and limits on e-cigarette retailers (Ireland Ministry of Health, 2019).

Regulatory Policy Options and Assessment Criteria E-Cigarette Retail Licensing Systems

Effects

There is limited evidence demonstrating the effect of retail licensing systems on youth access to e-cigarettes in Canada (Cole, 2019). However, there are several U.S. state-level studies that demonstrate the potential of retailing laws to reduce youth use of e-cigarettes (Patel et al., 2020).

While the evidence for tobacco retail licenses and the association with youth access to conventional tobacco is also limited, experts have concluded that the likely effects are promising (Smoke Free Ontario, Scientific Advisory Committee, 2017), and largely depend on the public health goals of the licensing system. Tobacco retail licenses and fees may increase compliance with in-store tobacco retail restrictions and reduce the number of licensed retailers (Smoke Free Ontario, Scientific Advisory Committee, 2017). Several studies have shown that retail licensing strategies may reduce youth access to conventional tobacco (Smoke Free Ontario, Scientific Advisory Committee, 2017).

Evidence shows that policies are likely to be most effective if they are designed with a clear public health goal (e.g., to reduce youth access, increase retailer compliance, decrease outlet density and/or and support the denormalization of tobacco use) and are supported by other strong tobacco control measures (Kuipers et al., 2021). Modelling data show that retail licensing restrictions will likely have the greatest impact on smoking behaviour if it results in a drastic reduction in density (e.g., less than 10% of current density), and that achieving this type of drastic reduction will help to lower health inequities (Pearson et al., 2017).

Further evidence is needed to support wide-scale adoption of licensing systems and to understand how systems can be optimized to reduce youth access to tobacco—including ecigarettes—and reduce unintended negative impacts on stakeholder groups including retailers (Kuipers et al., 2021; Kuipers, 2019).

Technical Feasibility

Unlike some laws that are self-enforcing, tobacco retailer laws require a substantial investment in proactive efforts to ensure retailer compliance (Change Labs, 2015). Without highly effective enforcement systems in place, retail licensing laws will have no effect (Change Lab, 2015).

Key regulatory features that have been demonstrated to reduce both compliance violations and youth cigarette use include a mandatory tobacco retailer licensing fee to provide sustainable funding for enforcement efforts including at least one annual visit to each vendor (Astor et al., 2019; DiFranza, 2012; Centre for Tobacco Policy & Organizing, 2013).

Although modelling data show that an immediate drastic reduction in outlet density would likely have the greatest effect on smoking prevalence and health inequalities, policies that would bring about a sudden and dramatic reduction in density may not be feasible. This type of immediate and direct reduction was only seen in Hungary and it was criticized for being undemocratic. A more feasible alternative seen in various localities in California would be to prohibit sales in certain types of outlets, but grandfathering in existing retailers for a certain period during which they can continue selling tobacco but would have to cease after the transition period (Ackerman et al., 2017).

Another alternative proposed by experts to increase feasibility is a progressive "sinking lid" on the amount of tobacco available for sale and an auction to allocate licenses to retailers (Thomson et al., 2010). The design of retail licensing systems will inevitably entail a trade-off between policy effectiveness and acceptability, and gradual declines in outlet density are likely to be more feasible and politically acceptable than immediate sweeping changes (Robertson et al., 2017). Policies that treat all retailers consistently (as opposed to targeting certain types of stores like convenience stores, or outlets located near schools) may reduce criticisms of discriminatory restrictions and/or undermining competitiveness (Robertson et al., 2015).

A study by Braak et al. (2018) found that the regulatory environment and enforcement of regulations influence the location where vapers purchase their products. The exemptions provided to vape shops may increase the feasibility of increasing restrictions for other types of retailers.

Political Viability

Case studies show that having political support from government as well as civil society is important for the successful adoption of a tobacco retail policy (Kuipers et al., 2021). For example, political support was strong in Finland, while it was lacking in Norway and Scotland (Kuipers et al., 2021). Societal support was increased in Finland by framing licensing as a way to protect children from the harms of tobacco (Kuipers et al., 2021).

To increase political support, it is important to emphasize the public health benefits of ecigarette and tobacco retail licensing including the improved enforcement of existing tobacco control regulations (Kuipers et al., 2021). Adoption of local tobacco retail licensing in California was facilitated by public campaigns to raise awareness and support (Saturlund et al., 2014). Successful campaigns (i.e., leading to policy adoption) tended to collaborate with enforcement agencies and decision-makers from the start to increase support (Kuipers et al., 2021).

In addition to the public health benefits, the financial benefits of a licensing system that raises funds for enforcement may be appealing to governments (Kuipers et al., 2021). Other financial benefits may include reducing tax evasion and contributing a potential source of income for enforcement of regulations at the point of sale (Kuipers et al., 2021). Highlighting that the sale of other harmful products (e.g., alcohol, gambling items) or other types of services (physicians, hairdressers) sometimes require a license, while tobacco and e-cigarettes currently does not, may increase support (Kuipers et al., 2021).

Opposition from retailers supported by the tobacco industry has been an issue in other jurisdictions aiming to bring in a retail licensing system. It is likely that convenience store associations, generally associated with the tobacco industry may oppose adult only store regulations. Involving retailers in the policy making process may undermine the policy making process and should be approached with caution (Action on Smoking and Health, 2016; Willemson, 2018). Experts have suggested that offering financial or other types of incentives (business consultations, other resources) to retailers to discontinue tobacco sales may reduce opposition and could expedite the process of reducing the number of retail outlets (McDaniel & Malone, 2014). Change Lab Solutions has published a Tobacco Retail Licensing playbook outlining ten strategies creating and implementing effective tobacco retailer licensing policies in your community (Change Lab Solutions, 2015).

Alignment with the Canadian Policy Landscape

International Standards on tobacco control including the *Framework Convention on Tobacco Control*, MPOWER, and the European Union do not offer models for tobacco retail licensing (Physicians for a Smoke Free Canada, 2020). There are no known international trade obligations that would interfere with enacting or strengthening retail licensing systems in Canada.

Discussion

Limitations

When reviewing and analyzing licensing systems it can be difficult to discern the extent to which e-cigarettes are covered by tobacco retailing laws, and if so, which products are covered (Patel et al., 2020). In some cases, e-cigarette licenses are included under the same license requirements for other conventional tobacco products, and in other cases separate standalone licenses are required for e-cigarettes (Patel et al., 2020). Even in instances where it is clear that a tobacco retailing law covers e-cigarettes, it not easy to decipher if laws include both products that contain nicotine and those that don't; products that are not derived from tobacco; and whether laws include e-cigarette devices, e-liquids and cartridges (Patel et al., 2020). Recognizing these challenges, in this evidence review and jurisdictional scan we have attempted to clarify the products targeted by licensing.

While it is proposed that tobacco retail licensing could help reduce youth access to and use of ecigarettes and conventional tobacco products, this cannot be a stand-alone measure. Other retail restrictions should include prohibiting contracts between retailer and suppliers of tobacco and vaping products (Physicians for a Smoke Free Canada, 2020).

It is proposed that tobacco retail licensing could help to reduce youth access to and use of tobacco products, in particular, e-cigarettes (Lipperman et al., 2015). There are no federal regulations in place for retail licensing in Canada, and this was not raised as a policy option in Health Canada's recent reports. However, there has been movement at the provincial and regional level. Retail licensing measures cannot address youth access to e-cigarettes as a standalone measure. It is important to recognize that youth are also accessing e-cigarettes from social sources (Fichtenbert & Glanz, 2002; DiFranza, 2012) and via internet vendors, which may limit the effectiveness of retail licensing measures (Mackey et al., 2015).

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