

Intelligence MEMOS



From: Ian Irvine
To: Canadians Concerned About Vaping
Date: September 4, 2020
Re: TOBACCO HARM REDUCTION (PART THREE) – REGULATORY POLICY

The purpose of regulatory policy is to limit harmful outcomes and promote positive outcomes. How does this apply to e-cigarettes and other harm reduction products?

Advertising and information. Governments should consider how much messaging on reduced harm products should be permitted in various venues and seek equity across other sin goods, many of which are permitted a wide latitude in advertising. Society needs to strike a balance here. In addition to information on reduced harm products, governments should continue to promote an understanding of how seriously addictive nicotine is.

Nicotine concentration. Canada permits nicotine concentration in e-liquid up to a maximum of 66 milligrams per millilitre (mg/ml). It also permits a range of flavours. In contrast, the European Union has set a limit of 20 mg/ml.

Juul Labs is the leader in the e-cigarette market. While it sells liquids containing different nicotine strengths, virtually all its sales are in the form of its highest concentration (60 mg/ml). Most brands made by major tobacco corporations and marketed in North America contain considerably more nicotine than the EU's 20-mg limit.

Reducing concentration to EU levels may result in many habituated smokers deciding to avoid a move to vaping if it means they cannot achieve the nicotine delivery they want. Or having tried vaping, smokers may decide to return to smoking because lower concentration vaping could not yield similar satisfaction. A group of [leading authorities](#) on nicotine and tobacco policy has stated that the 20-mg/ml limit is not supported by sound regulatory policy, finding that at least 50-mg/ml concentration is necessary to match the nicotine delivery smokers obtain from conventional cigarettes.

[Emergent research](#) literature signals that compensatory inhalation by vapers using low-nicotine concentration liquid likely leads to greater health risks. When 'light' cigarettes were first introduced, they were proposed as a means of reducing tar intake. But these claims were based on results emerging from mechanical inhalation devices. In fact, human smokers tended to inhale the light cigarettes more intensely and thus compensate strongly for the design of the product. Hence, some vapers, rather than quitting e-cigarettes, may consume their product more intensively.

The enhanced risk from low-nicotine liquids arises because certain toxins are related to the volume of vapor inhaled. [Research indicates](#) that low nicotine, combined with higher vapor volume, leads to elevated levels of carbon monoxide and carbonyls than higher nicotine combined with lower vapor volume. While e-cigarettes pose dramatically reduced cancer risks relative to combustible cigarettes, they have the potential in certain forms to increase cardiovascular, heart disease and stroke risks. This area of research is still in development.

Flavours. Canada's *Tobacco Vaping Products Act* bans the promotion of vaping products through any indication of flavour that could be appealing to young people, as well as certain flavours including confectionary, dessert, cannabis, soft drinks and energy drinks. This measure may limit youth attraction to vaping products, while maintaining the availability of a limited range of flavours to encourage adult smokers to switch, and it avoids the potential negative consequences of a complete ban on flavours.

In contrast, [some propose](#) that every flavour other than 'tobacco' be banned. This is a step too far. Research points to the important role played by flavors in helping some people quit smoking. [Russell et al. \(2018\) found](#) that access to a variety of non-tobacco flavoured e-liquid assists adults in transitioning to e-cigarettes.

Youth preference for flavours has been widely interpreted as causative in vaping uptake. To what degree it is causative rather than facilitative is difficult to establish.

When flavours attract both youth and adults in their desire to switch to a different delivery system for their nicotine, the policy choice becomes less straightforward. Banning flavours may deter some young people, just as it may deter adults from switching from a deadlier product. This indicates that youth access might be better regulated in a more targeted way than by a broad-sword policy of banning flavors.

Economic impacts. Regulatory policies that inhibit smokers from switching to reduced harm products have strongly asymmetric impacts on producers. Regulations that reduce the vaping market would increase the demand for cigarettes over what that demand would otherwise be. This reduction will primarily impact small local vape businesses that retail and produce their own liquids. Major tobacco corporations, which now offer an array of reduced harm products, will be less affected because nicotine users may stay with cigarettes or revert to cigarettes if a reduced-harm product fails to deliver the requisite level of satisfaction. Vape shops and manufacturers are specialized and are unlikely to absorb the impact of major restrictive practices. Consequently, many small local businesses may fold, while major global cigarette producers will more easily weather the restrictions, as will Juul.

The regulation of nicotine is multi-faceted and poses many challenges. Policy should avoid simplistic solutions and recognize the benefits that attend a harm-reduction approach.

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