INVITED COMMENTARY

Smoking, vaping and public health: Time to be creative

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ABSTRACT

The development of policies on vaping in health care organizations (HCOs) needs to be based on a solid understanding of science and a recognition of individual rights. It should also be seen in the broader public health context of innovative alternative nicotine delivery systems playing a key role in ending the immense devastation of combustible cigarettes. Opposition to vaping based on inaccurate and incomplete information, or fear of unlikely and avoidable hypothetical unintended consequences, will invariably cause great harm to individuals, impede rather than assist the attainment of public health objectives, and unnecessarily prolong the epidemic of cigarette-caused diseases.

KEY WORDS: Smoking; vaping; harm reduction; HCOs; tobacco; e-cigarettes

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The issue of vaping bans by hospitals has been getting much attention of late. It has also attracted a comprehensive critique.[1] Rather than simply reiterate the strong case against such policies, it is worth putting this issue into a broader context.

One of the defining features of the epidemic of death and disease caused by cigarette smoking is that this horrendous public health catastrophe is so well known that even in a journal article one need not provide citations when pointing out that it is Canada's leading cause of preventable death. It is like a judge taking 'judicial notice' of the fact that the sun rises in the east. We know the problem; it is a matter of how to address it.

We have also known for decades that "people smoke for the nicotine but die from the tar".[2] Cigarettes are, very simply put, an incredibly 'dirty' drug delivery system. As the Royal Society for Public Health has pointed out, nicotine use itself can be usefully compared to caffeine consumption: dependence-producing but not a significant cause of disease.[3] The substitution of far less harmful and less addictive alternatives can be ranked as among the really simple but really dramatic breakthroughs in public health history; comparable to things like vaccinations, citrus to prevent scurvy, sanitary food manufacturing, hand washing and implementation of auto safety measures.

If the mission of health care organizations (HCOs) is to improve the health of our communities, this could hardly be better pursued than through efforts that facilitate reducing smoking. So it is incumbent upon us to implement policies that facilitate rather than undermine that goal.

The current generation of electronic vaporizers, despite all the publicity, the great data from those willing to look objectively at the situation,[4] and innumerable testimonials from ex-smokers, are not the solution to the cigarette epidemic. But they are proof of concept, something akin to what variolation was to modern vaccinations.[5] As with other areas of technology, the potential for ongoing improvements is immense. Rather than focusing on minor, hypothetical and containable potential downsides, we should be looking at how to get maximum health gains by recognizing that we finally have a route to a valid endgame for cigarettes, and proactively working to eliminate lethal cigarettes as rapidly as possible.

If innovation is encouraged rather than stymied, and consumers informed rather than misled, vapor devices as they exist today will go the way of flip phones. They will be rapidly replaced by technology that better meets the needs of those wishing to quit smoking, as well as those wishing to quit nicotine. Instead, current Canadian policy is discouraging innovation in Canada, even of alternative nicotine products that emit no vapor that have been developed by leading Canadian doctors and researchers.[6]

We have numerous advantages in seeking a viable endgame for cigarettes. Canadians are spending many billions of dollars a year on a product that most wish not to be using, one that has a high likelihood of killing them, makes them stink, turns them into social pariahs and empties often already-thin wallets (smoking rates are highest among the most economically disadvantaged Canadians). They are smoking because we have inadvertently given a virtual nicotine maintenance monopoly to the cigarette companies.[7] But if we were to craft regulations to tilt the market to alternative products, to respect the stated desires of smokers to get off cigarettes, to facilitate rather than threaten the existence of alternatives to cigarettes, the innovation we have witnessed to date would be greatly accelerated. It can be a self-financing public health breakthrough.

So, keeping the overall public health context in mind in dealing with cigarette smoking, what should HCOs do about vaping?

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We can start with a look at the science on the risks from second-hand vapor, which are decidedly minor.[8–11] There are credible organizations that have studied the available evidence and formulated informed public positions. These include the Royal College of Physicians,[12] Public Health England[4] and Action on Smoking and Health (UK).[13] For reasons perhaps best explained by cultural anthropologists, US bodies adhere much more to a 'war on drugs' orientation to nicotine, focusing on risks rather than public health benefits and promoting a moral panic eerily reminiscent of the Reefer Madness[14] approach to marijuana and the Anti-Saloon League approach to alcohol.[15]

The evidence tells us that the risks associated with vaping are massively less than that from smoking,[4] and the risks from second-hand exposure to the vapor from such devices is virtually non-existent.[7–10] Certainly less than the combustion-related fumes associated with candles, barbeques and automobile exhaust. Or, indeed, the truly significant risks associated with the lack of adequate hand washing in HCOs. So in the interest of protecting third parties from comparatively inconsequential risks, we are at risk of violating the precautionary principle:

> *"The process of applying the Precautionary Principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action."*[16]

Broad restrictions on vaping are measures that are likely to cause great harm to Canadians by delaying the move away from lethal cigarettes, putting barriers that are not backed by good science in the way of Canadians seeking to quit smoking. 'Deadly precaution' should be an oxymoron in public health.

There are accusations that allowing smokers a viable alternative to cigarettes might somehow 'normalize smoking', but merely stating a hypothetical risk is not the same as identifying one. The evidence to date on this, as on the vast range of other technological innovations, is that the movement of consumers is precisely in the other direction.[17] People migrate to better, safer, less expensive products, and we can accelerate this through measures such as differential taxation.[18] Vaping normalizes vaping, thus encouraging other smokers to do the same. Just as modern neurosurgery normalizes scientific medicine rather than medieval trephining.

But there is a serious risk of once again normalizing smoking that seems often to be overlooked. It is grounded in the fact that people learn a great deal from the environment around them and discount health messages that seem at odds with personal observations. This is why tobacco control advocates have worked so hard to restrict cigarette advertising and sponsorship, end glamourous cigarette packaging, and eliminate cigarette retail displays. After all, how could the public be expected to believe that these products are so extraordinarily deadly when the social environment communicated the opposite? Particularly important is that we are battling the cognitive dissonance of smokers and thus their ongoing efforts to reassure themselves that smoking is not as bad as health authorities tell them. Treating non-combustion product use in public areas as the same as cigarettes will reassure smokers that the restrictions on smoking are not based on health concerns; that smoking is no more hazardous than vaping.

There are further unintended consequences from a ban on vaping in HCOs. As we know, these products, the manufacturers and the regulatory environment are changing rapidly. They are also being found by many clinicians to be effective cessation aids, and much preferred by smokers over other cessation products and services.[19] Would we really want vape-free policies to preclude an HCO's helping smokers to quit through its demonstration of such devices in a clinical setting? Would we want to discourage the nicotine-dependent from accessing needed health care? Would we really want to convey the misleading message that health care institutions think that smoking cigarettes is no more dangerous than the use of non-combustion products?

But it gets worse. Some want vapers to have to completely forgo use of their vaporizers while on HCO property, even outdoors. This not only lacks compassion and an understanding of the contents of vapor, but also an understanding of the basic human rights espoused by John Stuart Mill. Others think vapers should be forced to go to designated smoking areas to use their devices. Yet there is an entirely predictable, and tragic, outcome of such policies that goes beyond involuntary exposure to truly hazardous second-hand smoke. We know from research on smoking cessation attempts that two of the most powerful factors associated with an unsuccessful quit attempt are the proximity to smokers and the availability of cigarettes.[20] So why would we even consider adopting policies that take those who are trying to get off cigarettes, the very thing we urge them to do to protect their health, and place them in a situation that makes such an accomplishment maximally unlikely? This would be akin to dictating that all Alcoholics Anonymous meetings must be held in bars. During happy hour.

There is another way than a total ban on vaping. We can have nuanced rather than absolutist policies. We can have policies that normalize smoking cessation and fit within an overall framework of promoting health and dealing with social inequities. There will surely be areas within HCOs where vaping should not be allowed. But where the net health impact of prohibiting use would be decidedly negative, we need to rethink such an approach. The cigarette trade has for too long had too many advantages in Canada, things that have slowed progress in reducing smoking and caused huge loss of life. We should not offer them protection from health-focused technological innovations that constitute a viable endgame for cigarette smoking.

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RÉSUMÉ

La formulation de politiques sur le vapotage dans les organismes de soins de santé (OSS) doit être fondée sur de solides connaissances scientifiques et sur la reconnaissance des droits individuels. Elle devrait également être vue dans le contexte général de la santé publique, où des innovations dans les dispositifs d'apport de nicotine peuvent jouer un rôle clé pour mettre fin aux dégâts immenses des cigarettes combustibles. L'opposition au vapotage fondée sur des données inexactes et incomplètes ou sur la peur d'hypothétiques conséquences imprévues, lesquelles sont improbables et évitables, causera invariablement de graves préjudices aux particuliers, entravera plutôt que de favoriser l'atteinte des objectifs de santé publique et prolongera inutilement l'épidémie de maladies causées par la cigarette.

MOTS CLÉS : tabagisme; vapotage; réduction des dangers; organismes de soins de santé; tabac; cigarettes électroniques