Reforming the nicotine market: Options for regulating the manufacture and sale of tobacco products

by Francis Thompson
Non-Smokers' Rights Association
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Introduction

Tobacco control in Canada is a good news-bad news story. On the positive side, the country has gone from the world's highest per capita cigarette consumption in the early 1980s to one of the lowest smoking rates amongst OECD countries. Cigarette taxes have increased dramatically, smoking is prohibited in most public places, and Canada was the first country in the world to introduce large, picture-based warnings on cigarette packs. On the negative side, the death toll from tobacco has never been higher — more than 47,000 Canadians per year, at latest count. The tobacco industry has never been more profitable, with Imperial Tobacco alone reporting pre-tax earnings of about $1 billion per year.[1] There is no evidence the tobacco problem is going away any time soon.

For most of the last three decades, tobacco control has been strictly a David v. Goliath effort. Small numbers of tobacco control advocates, inside and outside government, fought doggedly for individual measures and slowly overcame the industry's lobbyists, consultants and connections in high places. The focus was usually on the 'next big thing' — the next incremental change which looked likely to achieve the greatest reduction in consumption but which was still politically feasible. Getting second-hand smoke recognized as the workplace hazard that it is was not immediately possible under normal labour law; advocates opted for municipal by-laws or stand-alone provincial laws. A total ban on cigarette advertising was not immediately feasible; but newspapers could be shamed into refusing tobacco ads.

Though the Canadian tobacco control community is still nowhere near to matching cigarette companies' financial resources, we are no longer the underdogs of the 1970s or 1980s. There is now an extensive network of tobacco-specific NGOs, provincial and federal coalitions that bring together major health charities, university researchers who specialize in tobacco control. On the government side, the federal Tobacco Control Programme has more staff and resources than ever before. There is wide variation between provinces, but many also have elaborate tobacco control strategies. Public and political opinion has shifted decisively in favour of public health, making previously unthinkable regulatory measures (e.g., banning smoking in bars) popular and feasible.

In this much more favourable climate, we should be able to make a quantum leap in our progress against the tobacco epidemic. Possibly the biggest single obstacle to this occurring is our own lack of imagination and unwillingness to question underlying assumptions that

1 $1.054 billion in 2002, and $763 million in 2003 after a one-time restructuring cost of $303 million related to closure of manufacturing facilities. See Imperial Tobacco Canada, "Management Report and Consolidated Financial Statements (For the year ended December 31, 2003)".

served us well before but no longer apply. We have fought hard for restrictions on some of the most galling aspects of cigarette marketing, but have not thought enough about what motivates unethical behaviour by marketers and what, if anything, we can do about it. We have banished cigarettes from pharmacies (in five provinces), yet left cigarettes in virtually every corner store and service station in the country. We have put warnings and quitting advice on cigarette packs, yet still leave half the pack open for deceptive, lifestyle branding. In short, we have left the actual business of manufacturing, distributing and selling tobacco products largely untouched.

In this paper, we will focus almost exclusively on options for *regulatory* change. This should not be taken to mean that programme spending is irrelevant or unimportant. We will discuss quite a number of policy options that may appear entirely unrealistic at present, but should nonetheless serve to advance the discussion as to what exactly we are trying to achieve. At the end, we do not expect to have a definitive policy prescription for the tobacco epidemic, nor even an agenda for the next decade, but rather a starting point for a debate that may well take several years.

The *Tobacco Act* and the concept of 'autonomy theft'

Canada's *Tobacco Act* might more accurately be entitled *Cigarette Industry Control Act*. That is, most of its provisions are attempts to prohibit or restrict certain forms of behaviour by those who manufacture or sell cigarettes (and other tobacco products, though these have a tiny market share). Part I gives the government the power to regulate manufacturing practices and require manufacturers to provide extensive data on their products. Part II prohibits the sale of tobacco products to minors, or sale in ways likely to be accessible to minors (vending machines, mail order). Part IV attempts to limit promotion and advertising to certain 'informational' functions. Part V and VI deal with enforcement and penalties faced by delinquent manufacturers and retailers. Even Part III of the Act, portions of which appear to be directed towards smokers — since they notably involve the provision of health information via mandated warnings on the package — can be seen in part as an attempt to correct past misbehaviour by manufacturers, and put an end to ongoing misbehaviour: companies have failed to fulfil their obligation to provide consumers and potential consumers with full and accurate information with respect to the contents, health effects and addictiveness of their products.

In one sense, this focus on the tobacco industry can be seen simply as a quirky by-product of the division of powers between the federal and provincial governments. The *Tobacco Act* is *intra vires* because it falls within the federal government's criminal law power[2]; however much governments might wish to influence smokers' behaviour, few serious commentators would suggest that the damage that smokers' actions inflict upon themselves could or should be dealt with via criminal law. So the federal legislator concentrates on the piece of the 'tobacco problem' that can, in practice, be dealt with via criminal law — the behaviour of manufacturers and retailers.

But what exactly is the behaviour which the *Tobacco Act* seeks to prevent, and why is it worthy of criminal sanction? In its 1995 judgement on the constitutionality of the predecessor legislation, the *Tobacco Products Control Act,* the Supreme Court of Canada summarized the issue as follows:

> The Act has the requisite "criminal public purpose" even though Parliament has not criminalized the "evil" ultimately aimed at but rather an activity ancillary to the "evil". A prohibition upon the sale or consumption of tobacco is not now a practical policy option, given the addictive nature of tobacco products, and the large number of Canadians who smoke.[3]

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2 Under s. 92(27) of the *Constitution Act, 1867* [formerly known as the *British North America Act*], federal Parliament has exclusive jurisdiction over "The Criminal Law, except the Constitution of Courts of Criminal Jurisdiction, but including the Procedure in Criminal Matters".

3 RJR-MacDonald Inc. *v.* Canada (Attorney General), [1995] 3 S.C.R. 199, p. 6. Available on-line at: http://www.lexum.umontreal.ca/csc-scc/en/pub/1995/vol3/html/1995scr3_0199.html .

This is somewhat unsatisfactory to the legal layperson. At first blush, it seems self-evident that the 'hammer' of criminal law should be used only to stop or punish inherently reprehensible behaviour. Yet in this particular passage, there is no indication who is engaged in what reprehensible behaviour. Smoking is unhealthy, often tragic behaviour, but is there a social consensus that it is actually immoral? And even if there were, would that be a suitable justification for criminalizing behaviour by *a third party* that is "ancillary" to tobacco consumption, on the strictly utilitarian grounds that it might reduce the level of somebody else's self-destructive behaviour?

An analogy may help clarify this important point. Let us imagine there was an epidemic of Canadians jumping off tall buildings. Governments would likely increase spending on counselling services and psychiatric treatment. They would presumably impose restrictions on access to building roofs. But they would be unlikely to adopt legislation restricting real estate promoters from advertising office space in skyscrapers, or giving inspectors the right to search the premises of construction companies — unless, for example, promoters took to posting advertisements in mental institutions for 'short-term accommodation' on the top floors of skyscrapers.

Indeed, it is plausible that most of the security measures needed to stop the epidemic of jumping cases would be implemented voluntarily by building owners, ahead of any government regulation. Similarly, though there might be a public discussion of the role of certain kinds of music or movies in encouraging jumpers, only if there were active incitement to commit suicide (a criminal offence) could one imagine the federal government using its criminal law power to require optimistic, cheerful art as part of a broader suicide control programme. The reluctance to legislate would likely prevail even if some social scientist authoritatively demonstrated a correlation between exposure to depressing art and suicide.

Thus, the fact that Parliament has (twice) decided to adopt criminal legislation restricting cigarette marketing is a good sign that legislators view industry behaviour not as "ancillary" to cigarette use, but rather as an important cause of the tobacco epidemic, which kills upwards of 47,000 Canadian per year.

In particular, *manufacturers' behaviour towards young people* is widely seen as reprehensible. One does not need to be an exceptionally attentive student of cigarette marketing to have noticed that manufacturers show a strong interest in things that teenagers are likely to find cool: race cars, mountain biking, fashion shows etc. For example, the recent Export 'A' (sponsorship) advertising slogan, "Ma blonde s'appelle Adrénaline" ("My girlfriend's name is Adrenaline") — and indeed, the whole Extreme Sports series — was pitched at the aggressively immature male. The Imperial Tobacco entry in the same demographic, Player's, is slightly less down-market, but nonetheless closely identified with

the fast-cars-and-loose-women imagery of professional car racing. Other brands have a more female skew, but no marketer bothers trying to pitch brands to 50-year-olds. For as cigarette marketers have long realized, the vast majority of smokers begin to smoke in their teenage years, and virtually nobody starts after the age of 25. Moreover, brand loyalty is high, so that the manufacturer that captures a large share of the 'first usual brand' market has an almost insurmountable advantage over competitors.[4] This explains why teens are seen to be the 'must-have' demographic, out of all proportion to their number.[5]

In traditional cigarette marketing, the pitch to teenagers is based almost entirely on extraneous lifestyle imagery (glamour, excitement, adventure, etc.), rather than on actual product characteristics. The not-so-subtle message is: Buy brand X and show the world what kind of adventurous rebel you really are. This does not mean many young people believe that smoking a particular brand will actually make them sexy or thin or muscular, but brand choice can have an important badge function, showing their peers (and adults) what they aspire to be.[6]

Now, lifestyle advertising pitched at teenagers is hardly restricted to cigarettes: teens regularly pay large 'brand image' premiums for clothing, electronic gadgets and a host of other goods. Though one might consider lifestyle advertising for Nike to be an annoying rip-off, few people would suggest making it illegal. The critical difference is not simply the fact that cigarette smoke contains numerous carcinogens and toxins, while running shoes do not. After all, very few people die from cigarettes in their teenage years, and new smokers will have many years to learn further about the health risks of smoking before their risk of tobacco-caused disease begins to rise substantially. The critical difference is that cigarettes are *powerfully addictive*, so that a substantial number of teenagers will never 'recover' from their initial infatuation with a particular lifestyle image, but will instead smoke themselves to death.

Thus, the business of making and selling cigarettes can be likened to a *chemical extortion racket*: elaborate marketing is the 'bait'; product engineering and chemistry is the 'hook'. Once the 'customer' is hooked, only a modest marketing effort is required to keep him or her that way.

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4 For a fascinating account of these marketing realities, in a US context, see *A Review of R.J. Reynolds' Internal Documents Produced in Mangini vs. R.J. Reynolds Tobacco Company, Civil Number 939359 — The Case that Rid California and the American Landscape of "Joe Camel"*, available on-line at: http://galen.library.ucsf.edu/tobacco/mangini.pdf .

5 "...the key 15-19 age group is a must for RBH [Rothmans, Benson & Hedges]...", to quote the *Strategic Plan 1997/98: Sales and Marketing*, entered into evidence in J.T.I. Macdonald Corporation et al. v. Attorney General of Canada, Québec Superior Court (2002), as exhibit D-170; quote at page number 002757.

6 Cf. Grant McCracken, *"Got a Smoke?": A Cultural Account of Tobacco in the Lives of Contemporary Teens*. Project for the Ontario Ministry of Health, 1992.

The deeper thinkers within the industry have been aware of this two-part process for many years. For example, the infamous Claude Teague memo of 1972 nicely captures how manufacturers are essentially selling two different products to different groups of people:

> Paradoxically, the things which keep a confirmed smoker habituated and "satisfied", i.e., nicotine and secondary physical and manipulative gratifications, are unknown and/or largely unexplained to the non-smoker. He does not start smoking to obtain undefined physiological gratifications or reliefs, and certainly he does not smoke to satisfy a non-existent craving for nicotine. Rather, he appears to start to smoke for purely psychological reasons — to emulate a valued image, to conform, to experiment, to defy, to be daring, to have something to do with his hands, and the like... [**W]e somehow must convince him with wholly irrational reasons that he should try smoking**, in the hope that he will discover for himself the real "satisfactions" obtainable.[7] *[our emphasis]*

How effective is the 'hook' portion of the chemical extortion racket? Polling consistently demonstrates that the overwhelming majority of smokers are anything but happy to be customers of cigarette companies. For example, a recent Canadian Cancer Society poll found:

- Fully 80% of smokers said they wished they had never started smoking;
- 82% reported that they intended to make a quit attempt;
- 48% reported intending to quit within one month;
- 54% reported making a serious quit attempt in the previous year.[8]

We know that, in reality, upwards of 90% of quit attempts will fail.

Just as a sufficiently energetic fish may (depending what part of its body the hook goes through) successfully escape the fisherman's hook, many smokers, usually after numerous attempts, are able to overcome their addiction. But a significant minority do not succeed: at latest report, 10% of Canadian adults aged 55 years or more reported being daily smokers, compared to 38% who reported being former smokers[9]; this ratio (3.8 : 1) almost certainly overstates the lifetime odds of successfully quitting.[10] Moreover, former smokers do not outnumber continuing smokers until around the age of 40, suggesting that becoming

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7 Claude E. Teague Jr., "Research Planning Memorandum on the Nature of the Tobacco Business and the Crucial Role of Nicotine Therein", RJR, April 1972. On-line at www.rjrtdocs.com at Bates numbers 5000898378-8386.

8 Environics, Focus Canada Report 2003-4, for the Canadian Cancer Society. For similar data from the United States, see Slovic P, "Cigarette Smokers: Rational Actors or Rational Fools?", in Slovic P ed., *Smoking: Risk, Perception and Policy*, Thousand Oaks, California: SAGE, 2001.

9 Canadian Tobacco Use Monitoring Survey, First Wave 2003. See http://www.hc-sc.gc.ca/hecs-sesc/tobacco/research/ctums/index.html .

10 Because of the effect of differential mortality (smokers die significantly younger, and so are under-represented in the sample), and because a proportion of former smokers will already be ill from a tobacco-caused diseased at the time of the survey. Though quitting attempts continue through late middle age and old age, so does relapse.

addicted commits at least half of smokers to two decades or more of smoking — long enough to do substantial and permanent damage to health. And to stick with the fishing analogy, polling also confirms that even the youngest smokers are 'thrashing about', attempting to get off the addiction hook: in the 20-24 age group, the proportion of daily smokers who report having made *no* quit attempt in the past year (16%) is lower than the proportion who report having made four or more attempts (26%).[11]

Of course, there are a great number of behaviours that people repeatedly resolve to stop engaging in but relapse into anyway (fighting with one's mother-in-law, eating chips, staying up late to watch television etc.); this does not in itself distinguish addiction/dependence from run-of-the-mill lack of willpower to resist temptations. However, there is widespread agreement that nicotine (at least as delivered by cigarettes) is an addictive drug in the same class as heroine, opiates and alcohol.[12] Characteristic features of addiction include:

- Effect on dopamine 'reward circuitry' in the brain, often by mimicking a neurotransmitter. In the case of nicotine, there is also an impact on serotonin levels.[13]

- Development of tolerance, i.e. the brain learns to adapt to high levels of the drug that would previously have caused adverse effects. In the case of nicotine, tolerance occurs so rapidly that even a non-smoker can tolerate a dose of nicotine through a (slow-acting) nicotine patch that would make him/her sick if taken more rapidly, i.e. from a cigarette.[14]

- Withdrawal symptoms — which are the flip-side of tolerance. Having adapted to high levels of a particular drug, the brain generates feelings of discomfort when the drug is not available. In the case of nicotine, lack of concentration, irritability and hunger are common symptoms in the first weeks of a quit attempt.

- Strong cravings, often cue-induced. One widely discussed theory of cravings is that when the brain of an addicted person expects a dose of that person's drug, it begins 'counter-measures' (e.g., release of antagonists) even before the dose is

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11 CTUMS note: "High sampling variability, interpret with caution".

12 See for example US Department of Health and Human Services, *The Health Consequences of Smoking: Nicotine Addiction. A Report of the Surgeon General,* 1988. On-line at http://www.cdc.gov/tobacco/sgr/sgr_1988/index.htm .

13 There has been considerable research on the correlation between schizophrenia and smoking: patients report smoking to relieve symptoms of schizophrenia, though it is possible nicotine may actually relieve side-effects of common drugs used to treat the condition. Such self-medication, if it exists, is not addictive *per se*, though the practical effect in this context is much the same.

14 On this point, see Henningfield JE and Heishman SJ, "Behavioral Toxicology of Nicotine", in Benowitz NL, *Nicotine Safety and Toxicity*, p. 135.

> actually administered. If for some reason the drug does not arrive, the person experiences strong craving. Since habitual drug-takers learn to associate a whole series of things with their usual drug, their environment is generally full of 'cues' of this sort that can trigger a craving, sometimes even years after they have stopped taking the drug. Under the influence of craving, addicts often report losing all control over their behaviour and looking for their drug even when they are convinced that taking it will be a personal disaster. In the case of cigarettes, their high visibility, in the form of smokers outside public buildings and in bars, and product displays in all manner of stores, help ensure that smokers who attempt to quit are exposed to many cue-induced cravings.

In short, particularly when experiencing a craving, the addict's brain is 'hijacked' by the drug (or lack thereof); this is qualitatively different from occasionally acting rashly or impulsively.

As economist George Loewenstein points out,[15] the impact of cravings and other such 'visceral factors' on behaviour is both hard to remember (after the fact) and very difficult to imagine (before the fact). *Being told* that cigarettes are highly addictive does not provide the potential starter with any clear idea of *what it feels like* to be in the grip of intense cravings. Given this fact, it is unclear that it would *ever* be possible (even for a mature adult) to make an informed choice to begin taking an addictive drug.

The manufacturer's role in the process of addiction/quit attempts/relapse is not merely to passively provide an opportunity for addicted smokers to obtain their preferred drug. Apart from encouraging young people to try cigarettes in the first place through its marketing efforts, the industry has a long record of:

1. Making cigarettes as widely visible and available as possible, including in places where relapse by recent ex-smokers is particularly likely to occur (e.g., bars);

2. Denying or minimizing the health impact of cigarettes, on smokers and non-smokers alike;

3. 'Improving' cigarette design in ways likely to prolong addiction.

With respect to visibility/availability (point 1), it may seem odd to highlight this point, since manufacturers of virtually any consumer product seek to maximize visibility and availability. However, even if Canada chose to seriously liberalize its drugs policy, it is hard to imagine a situation in which people who had recently got off heroin or cocaine would be forced to run a gauntlet of drug displays every time they went out to buy

15 See for example Lowenstein G, "Out of Control: Visceral Influences on Behavior", *Organizational Behavior and Human Decision Processes*, 1996, **65(3)**:272-292.

groceries, newspapers or chewing gum. Even alcohol — addictive to only a small proportion of users, unlike cigarettes — is subject to significant sales restrictions. Compulsive gamblers can voluntarily black-list themselves from casinos. There is no self-exclusion list for smokers who wish to quit.

With respect to industry denials of the health impact of cigarettes (point 2), companies' long-time position that smoking was merely "statistically associated" with some diseases, but hadn't been proved to cause anything,[16] may in retrospect look like little more than a tasteless joke. Surely only very stupid people could have believed such obvious lies, one might be tempted to think. However, this ignores the psychology of addiction. Just as patients suffering from incurable cancer are peculiarly vulnerable to claims of miracle cure to cancer, so those who are addicted to cigarettes are peculiarly vulnerable to even the suggestion that the risks of smoking have been exaggerated. The emphasis on the 'statistical' nature of the link between lung cancer and cigarettes fed into what risk perception specialists refer to as *optimism bias*, "the tendency for consumers to assume that population risks that they may understand, or even overestimate, do not apply with equal force to themselves."[17] Moreover, through various forms of health reassurance cigarettes (filter tips in the 1950s, 'light' and 'mild' in the 1970s and 1980s), manufacturers have given smokers the *illusion of control* over their own risk level, which has also been shown to reduce perceptions of risk.

Finally, with respect to product design (point 3), manufacturers have systematically studied the pharmacokinetics of nicotine, smoke chemistry and the various parameters of cigarette design since at least the 1950s. To give one example amongst many, the increasing use of filter ventilation (small holes around the filter that, under some circumstances, dilute the smoke coming down through the cigarette) since the 1960s, combined with other filter features, has brought the modern cigarette closer to the 'optimal' (and optimally addictive) nicotine delivery device, making it 'all things to all people'.[18] A beginning smoker can extract from the cigarette highly diluted smoke that does not provoke coughing, with a small dose of nicotine, below the nausea threshold. On the other hand, the addicted smoker, without having the impression of 'sucking on air', can extract substantially more nicotine and smoke that is much less diluted.

To summarize this discussion, the pattern of tobacco industry behaviour that is most deserving of criminal sanction is what we will refer to as *autonomy theft leading to death.* Through marketing strategies, false claims on various health issues, product ubiquity,

16 Within the last four years, companies have taken to saying that there is a "widespread consensus in the medical community" that smoking causes various diseases, though they continue to deny the risks of second-hand smoke.

17 Hanson JD and Kysar DA, "The Joint Failure of Economic Theory and Legal Regulation", in Slovic P ed., *Smoking: Risk, Perception, & Policy*, Thousand Oaks, California: SAGE, 2001.

18 See Kozlowski LT and O'Connor RJ, "Cigarette filter ventilation is a defective design because of misleading taste, bigger puffs, and blocked vents", *Tobacco Control*, March 2002, **11:**40i-50.

product engineering and chemistry, cigarette companies trick consumers into surrendering control of their own actions in a way that is likely to kill them. This pattern of behaviour is arguably a longer-term, more elaborate version of the acts prohibited under s. 222(5)(c) of the *Criminal Code of Canada*, which stipulates that "a person commits culpable homicide when he causes the death of a human being... by causing that human being, by threats or fear of violence or by deception, to do anything that causes his death."[19]

The *Tobacco Act* does not prohibit 'autonomy theft' per se, and indeed it may be impossible to draft legal language that would satisfactorily capture the concept. Instead, the Act includes, as one of its four purposes, "to protect young persons and others from inducements to use tobacco products and the consequent dependence on them".[20] It then creates the power to adopt regulations dealing with the 'hook' portion of autonomy theft operations, and attempts to prohibit various major and minor manifestations of the 'baiting' portion:

- *Lifestyle advertising* is prohibited, as is any advertising that "could be construed on reasonable grounds to be appealing to young persons." (s. 22(3))

- *False promotion* is illegal, more specifically, promoting a tobacco product "by any means, including by means of the packaging, that are false, misleading or deceptive or that are likely to create an erroneous impression about the characteristics, health effects or health hazards of the tobacco product or its emissions." (s. 20)

- *Product testimonials and endorsements* are illegal. (s. 21)

- Give-aways, prizes, contests and the like are illegal. (s. 29)

- *Sponsorship advertising* is illegal. (s. 24)

- *Furnishing cigarettes to minors* is illegal, except in a private place. (s. 8)

- *Self-service displays, mail order and vending machine sales* (except in bars) are illegal. (s. 11-13)

- etc.

Though there are lots of practical drafting reasons why legislators might wish to focus on the individual acts that make up a difficult-to-define operation they wish to stop, it is worth pausing for a minute and imagining how the *Criminal Code* might look if a similar

19 Available on-line at http://laws.justice.gc.ca/en/C-46/41726.html .
20 See *Tobacco Act*, consolidated version, at http://laws.justice.gc.ca/en/t-11.5/105072.html .

approach were taken to other crimes.

For example, let us take the offence of breaking and entering. Under s. 348(1)(a) of the *Criminal Code*, anyone who "breaks and enters a place with intent to commit an indictable offence therein" is guilty of an indictable offence if the "place" broken into is a dwelling. Also, s. 351 criminalizes possession of a break-in instrument "under circumstances that give rise to a reasonable inference that the instrument has been used or is or was intended to be used" for a break-in, as well as "disguise with intent", i.e. masking one's face in order to commit an indictable offence.

The legislator could instead have chosen to criminalize, without any reference to *intent*:

- roaming the streets at night with a crowbar or other instruments suitable for forcing doors or windows
- covering one's face
- forcing open a door or a window while in possession of a large bag suitable for transporting stolen goods
- etc.

There are two obvious problems with such a piecemeal approach. First, the law would catch some innocent carpenters and many Halloween trick-or-treaters. Second, many professional burglars would learn to break and enter without committing any of the specific prohibited acts — for example, by breaking in during daylight hours, or by picking locks.

Similar problems arise with the *Tobacco Act*. It is difficult to imagine circumstances under which somebody might fall afoul of the *letter* of the Act without also contravening the *spirit* of the Act. However, it is very easy to imagine ways to continue committing autonomy theft without necessarily violating specific provisions of the Act:

1. There is no prohibition on the use of cigarette additives or engineering so as to encourage starting, facilitate addiction or make quitting more difficult. Indeed, the only control on cigarette content and engineering — the 'hook' part of the autonomy theft operation — is the as-yet unused power to adopt regulations "prescribing the amounts of substances that may be contained in the product or its emissions, and prescribing substances that may not be added to tobacco products". (s. 7 (a)). Reporting regulations adopted to date do not unequivocally give Health Canada the power to even demand a truthful explanation of the reasons for particular design features.

2. The Act provides no satisfactory way to deal with accumulated brand equity. When a 14-year-old boy chooses Export 'A' to demonstrate he's a 'man's man', he is acting on an image fostered by decades of heavy advertising, up to and including the sponsorship advertising that was not prohibited by the *Tobacco Act* until October 2003 (and illegal

advertising for the Export 'A'-linked Extreme Sports Series that continues even today). In the absence of any new imagery and associations, the effect of such promotion will remain for at least some years. Moreover, under the *Tobacco Act* restrictions, there is still room for *reminders* of previously established brand imagery, from packaging to point-of-sale displays. Thus, manufacturers of long-established brands can commit autonomy theft through means that would be of little use to newcomers.

3. More generally, by focussing on the *individual acts* that constituted past autonomy theft operations, the Act condemns Health Canada to an eternal game of catch-up: every time manufacturers come up with a new method to recruit starters or discourage quitting, Health Canada has to 1) figure out what is going on; 2) adopt regulations to stop it, if that is required or 3) obtain an amendment to the *Tobacco Act*, if existing legislation is too narrow in scope.

In this context, it is worth remembering that the *Tobacco Act* is not the only legal restriction that exists on tobacco industry behaviour: normal consumer protection legislation, the *Criminal Code*, as well as civil law obligations, apply to cigarette manufacturers just as they do to makers of toothpaste or mini-vans. Even in the absence of tobacco-specific legislation, building a business on tricking children into long-term addiction to an extremely dangerous product offends a number of basic legal principles.[21] Consumer fraud is illegal, even in the absence of a specific regulation banning a specific fraud (e.g., the proposed ban on use of the terms 'light' and 'mild'.) Failure to warn is an obvious cause of action for civil suits. There is also a good case to be made that the manufacturer behaviour that contributed to the tobacco epidemic constituted (and continues to constitute) criminal negligence.

In practice, whether because of the immensity of the challenge of successfully prosecuting such cases, or simply because of the difficulty of imagining that the core business of a significant industry could actually be criminal activity, governments have acted as if all manufacturer behaviour not explicitly prohibited by tobacco-specific legislation is permitted.

21 For a forceful discussion of this point, see Liberman J and Clough J, "Corporations That Kill: The Criminal Liability of Tobacco Manufacturers", *Criminal Law Journal*, August 2002, **26:**1-12.

Cigarette companies: driven to undermine the *Tobacco Act*?

At least as long as the *Tobacco Act* is treated as the sole rulebook for cigarette company behaviour, competition will inevitably push manufacturers to see its provisions as a series of obstacles to be creatively overcome in the pursuit of business as usual. To abide by the *spirit* of the Act would be to forgo new customers except for switchers from competitors' brands, which is an overwhelming competitive handicap in the present market. Moreover, in a market where objectively interchangeable brands are distinguished largely by extraneous imagery and brand 'personality', to forgo starters means to accept a huge competitive disadvantage with respect to switchers, since it is difficult to design branding strategies that appeal only to the latter.

At first glance, this might look like the same dilemma faced by companies in many other industries. A pulp-and-paper mill may be forced to choose between closing because of increased costs or looking for loopholes in new emissions regulations. The owner of a janitorial service, faced with calls to abide by labour standards, may feel it is impossible to operate within the spirit (or the letter) of the law without being crushed by competitors willing to employ illegal immigrants.

However, there is an important difference: pumping organochlorides into the environment is not a fundamental component of paper-making; exploiting illegal workers is not a fundamental component of cleaning office buildings. The paper company has access to a technical solution (i.e. closed-circuit paper-making technology); the janitorial service can ask for levelling of the playing field through improved enforcement of labour standards on its competitors.

In contrast, autonomy theft is the core of the cigarette business. Cigarette companies would lose virtually all their sales if they restricted themselves to selling to people who were not addicted. A newly 'ethical' manufacturer that attempted to stave off unfair competition from more traditional companies by calling for stronger measures against autonomy theft might thereby slow its loss of market share, but would still imperil its own future.

To date, there has been little discussion of this dilemma. On the one hand, tobacco control advocates tend to spend little time considering the business problems of tobacco executives, and may at any rate assume the problems raised here belong to some far-off future. On the other hand, cigarette companies have been loath to raise the issue directly, since it would involve some far-ranging admissions about the role of addiction in their business. Instead, industry executives have tried various fudges:

1. "We're happy to take just those smokers who start when they are over 18/19."[22] Apart from its lack of credibility as a business plan — few smokers start after the age of 18 — this line of defence assumes that, upon reaching the age of majority, people are automatically capable of making an informed choice of a life-long addiction that has a 50% chance of killing them — a dubious proposition.

2. "Yes, lots of health authorities talk about addiction, and we agree that quitting can be hard for some people, but they can stop if they want to." By implication, even if they started smoking as children, they are still willing customers. Then why are they constantly trying to quit yet failing to do so?

3. "Yes, kids may be getting addicted, but it's not our fault. The government should punish kids for smoking, do a better job of enforcement on sales-to-minors legislation." This is similar to the man who makes a living by following people on the street and collecting the money that drops through holes in their pocket and who claims he's not doing anything wrong. Except it turns out he's been digging holes, filling them with fabric-eating liquid and camouflaging them carefully.

   For this defence to have any merit, manufacturers would have to be making a serious effort to ensure their products were unavailable and unattractive to non-smokers, and that addicted smokers were provided with resources to quit.

A more honest request for assistance to deal with the dilemma could run something like this: Yes, we acknowledge we built out business through unsavoury means, including making our brands attractive to children and using addiction to guarantee future profits. We want our company, and our competitors, to stop doing that, but we need your help. In the very long term, we will content ourselves with a niche business, a little like premium cigars: occasional cigarettes for unaddicted adults. In the medium term, the bulk of our business will come from providing cigarettes to those who are already addicted, while trying to help them quit. We will commit to change our cigarettes to make them harder for starters to smoke, less addictive and less toxic. We will set up a registry for addicted smokers, and restrict our sales to them. We will provide full disclosure on health effects and product characteristics, and make repeated offers of cessation help. Now, we ask the

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22 At hearings of the Standing Senate Committee on Energy, the Environment and Natural Resources on June 8th, 2000, Imperial Tobacco's then-CEO Bob Bexon stated: "The argument that has been made that we need [youth] to sustain our business is bunk, frankly. My personal position, and I know it has been the position of Mr. Brown, is that if no underage person started to smoke — because you do hit a point that you have an adult decision to make — I would take my chances with what is left. I would beat it out with these two guys for people who have validly chosen to use the product." See transcript of committee hearings, available on-line at http://www.parl.gc.ca/36/2/parlbus/commbus/senate/Com-e/enrg-e/14ev-e.htm?Language=E&Parl=36&Ses=2&comm_id=5 .

government to make this system obligatory for our competitors also.

At the moment, it is hard to conceive of a tobacco executive making such a statement. First, there is the small matter of management's perceived obligations towards shareholders; these do not easily allow for voluntarily surrendering the company's primary source of profits. Second, any such bold move would have to be taken in every country where the manufacturer operates, in order to limit liability; even then, courts in the United States and other countries might well take such a strategy as an admission of liability for past action. Third, tobacco company executives prefer to see their business as a 'controversial' portion of the consumer products industry, not as purveyors of a deadly and addictive drug. Indeed some of them presumably hope to go on to jobs selling chocolate bars or cosmetics. Even if 'coming clean' turned out to be in the long-term interests of the company, the psychological barriers that would have to be overcome would be enormous.

And so, a combination of legal, economic and psychological pressures mean that companies will remain committed to a 'trench warfare' defence against the *Tobacco Act*, and against tobacco control efforts more generally. They will continue to pour millions of dollars into litigation against the Act, even when they can be fairly certain of losing their case in the long term. On the political side, they will continue to lobby for delays, voluntary measures and lengthy transition periods for legislative measures that are finally adopted.

The question for the public health community, and for government, is whether we should simply improve our own 'trench warfare' tactics, or whether we should explore other options. In the following, we will explore three possible approaches:

1. Incremental change, within the existing framework of adversarial regulation;
2. Structural reforms that fundamentally alter manufacturers' incentives and/or give governments direct control of at least parts of the manufacturing, distribution and/or retail sector
3. Market-based solutions, that might 'morph' the nicotine industry into a public health partner.

Incremental change within the existing framework of adversarial regulation (Option I)

At first blush, Canada's tobacco control policies appear to be working rather well at present, with significant drops in cigarette consumption and smoking prevalence since the *Tobacco Act* was adopted in 1997, particularly in the last few years.

It is an open question how much of this progress can be attributed to the *Tobacco Act* itself. The end of manufacturers' paid media presence (subject to progressively more stringent restrictions that came into effect between 1997 and 2003) and the picture-based warnings are both encouraging reforms, but the major tax increases of 2001 and 2002, as well as the wave of second-hand smoke legislation at the provincial and municipal levels, have clearly been major factors also.

Once all workplaces (including restaurants and bars) are smoke-free — which will likely happen within a decade — and once we have had one or two more rounds of major tax increases, short-term gains from second-hand smoke regulation and taxation will likely no longer be forthcoming. It is then that we will see whether the promise of long-term gain from limiting industry marketing activity is actually realized. The first step, then, is to ensure that marketing activity — or at least, marketing activity contrary to the spirit of the *Tobacco Act* — actually declines.

1. Point of sale

Limiting power walls/signage

Point-of-sale displays are one of the last feasible venues for cigarette promotion to the general public — at least until cigarette manufacturers exhaust their legal remedies against the *Tobacco Act,* after which they will presumably begin testing the limits of 'informational advertising' in adult publications. [23] Existing legislation prevents sponsorship advertising and the display of brand elements in advertising at point of sale. However, manufacturers remain free to pay retailers for wall space to display large numbers of packs (so-called *power walls*) .

23 At the moment, the industry's position in court is that the *Tobacco Act* amounts to an unconstitutional advertising ban; this effectively prevents companies from testing the exceptions in the Act that allow for informational and brand-preference advertising in some venues.

Fig. 1. Benson & Hedges product display, Montréal, 2000.
Photo: Info-tabac.

Manufacturers have also taken to displaying signs showing 'artistic' arrangements of cigarette packs against a background of colours or an abstract design. (See Figure 1, above.) This is a grey area, since s. 22(1) prohibits any advertisement that "depicts, in whole or in part, a tobacco product or a brand element of one or that evokes a tobacco product or a brand element." Doubtless one could make a case that after a certain time, a design regularly used in conjunction with packs of a specific brand becomes an illegal advertisement, since it has come to "evoke a tobacco product or a brand element." Certainly if a manufacturer were to being buying billboards to display simply the abstract designs used as backdrops at point of sale, prosecution would be in order. Arguably, the general prohibition on promoting tobacco products already makes the backdrops illegal, though to date no enforcement action has been attempted.

Barring that, the more straightforward approach is to regulate what may be displayed at point of sale, in accordance with the existing principles of the *Tobacco Act.*

In particular, the *Tobacco Act* makes an exception for truthful, informational advertising. The only conceivable informational content to point-of-sale displays and signage is:

1. Cigarettes are available here.
2. Brands X, Y and Z are available here, at prices A, B and C.[24]

Putting all cigarettes under the counter and posting a simple, standardized sign mentioning the availability of cigarettes, brands and their respective prices would achieve the same informational effect as power walls, without providing opportunities to manufacturers to glamorize their products. If it is not possible to amend the *Tobacco Act* to achieve this directly, obvious intermediate steps include:

24 Branded price signs are considered illegal by Health Canada, but the conjunction of unbranded price signs and packs of a specific brand — a common occurrence — has the same effect.

- A mini-amendment, clarifying that the federal *Tobacco Act* does not prevent provinces from adopting stricter legislation
- A ban on all extraneous signage, and rules on a single, standardized sign
- A limit on number of packs that can be posted (presumably one per brand).

Education at point of sale

If our ultimate objective is to reduce the level of 'autonomy theft', a logical step would be to use the point of sale to provide health and cessation information to smokers. This could be achieved, for example, by requiring that at least as much wall space be allotted for government-mandated messages as for product displays. Several provinces already require health warnings at point of sale, and the *Tobacco Act* provides for regulations to require health information leaflets at retail.

An interesting side-effect of this approach would be to decrease the over-representation of cigarettes in the retail environment. Cigarette companies, unlike manufacturers of chocolate bars and other 'impulse' items, have few other marketing channels available to them, and are hence willing to pay a premium vis-à-vis other product categories; a mandatory point-of-sale warning system would reduce the effective premium paid by cigarette manufacturers.

Retailers, manufacturers and sales to minors

Given the high number of cigarette retailers in Canada, there are serious doubts about whether the existing system for preventing sales to minors is likely to have any effect on youth smoking uptake, even with more vigorous enforcement to achieve a higher rate of retailer compliance with the law.[25] It requires only a small number of delinquent retailers to undermine the impact of compliance by other retailers; moreover, the higher the rate of retailer compliance, the *higher* the potential sales for retailers who decide to flout the rules.

On the other hand, tobacco sales to minors are not critical elements of retailers' business plans, as they are for cigarette companies; selling cigarettes to a teenager probably does not mean years of repeat business for an individual retailer.

In the retail sector, the government will probably at some point have to choose. One option is to reduce the number of retailers selling tobacco, so as to make tobacco products seem less normal and potentially make it feasible to effectively enforce rules on sales to minors

25 Ministerial Advisory Council on Tobacco Control, *Challenging conventional wisdom on youth access to tobacco: redefining youth access interventions*, September 2002. Available on-line at http://www.hc-sc.gc.ca/hecs-sesc/tobacco/advisorycouncil_rec5/index.html#1 .

and the like. The drawback is that the remaining retailers will be much more likely to oppose effective tobacco control measures — as shown recently by the *buralistes* (tobacconists) in France.

The alternative is to retain the existing system, while loosening the financial ties that bind retailers to manufacturers (notably the promotional allowances and slotting fees paid by large companies). Consideration should be given to banning promotional payments outright.

A related question is whether any system could be devised that would compel large manufacturers to make serious efforts to prevent sales to minors. With their extensive networks of sales representatives and their power to terminate supply contracts with retailers, manufacturers are in a much better position than governments to deter retailers from selling cigarettes to minors; to date, they have never made any effort to do so. For example, if it were an offence to supply cigarettes to a retailer that is known to sell cigarettes to minors and there were strict and clear rules on what due diligence defences are available to manufacturers, this might conceivably have some impact. However, by simply lengthening the supply chain (adding various distributors between the manufacturer and the retailer), manufacturers might well be able to undermine the effectiveness of such a measure.

2. De-branding

Brands may conceivably be useful as shorthand to distinguish cigarettes with different objective characteristics, but in practice cigarette brands are virtually always shorthand for strictly subjective lifestyle associations. Unfortunately, this is a point that the Supreme Court majority does not appear to have grasped in its 1995 ruling overturning the total advertising ban of the *Tobacco Products Control Act*. Giving reasons for three judges of the majority, McLachlin J. wrote:

> [The TPCA ban] extends to advertising which arguably produces benefits to the consumer while having little or no conceivable impact on consumption. Purely information advertising, simple reminders of package appearance, advertising for new brands and advertising showing relative tar content of different brands — all these are included in the ban. Smoking is a legal activity yet consumers are deprived of an important means of learning about product availability to suit their preferences and to compare brand content with an aim to reducing the risk to their health.[26]

It is a particularly cruel irony that the prospect of comparison shopping by ISO tar numbers

26 RJR-MacDonald Inc. *v.* Canada (Attorney General), [1995] 3 S.C.R. 199, paragraph 179. Available online at: http://www.lexum.umontreal.ca/csc-scc/en/pub/1995/vol3/html/1995scr3_0199.html .

— which have since been shown to be meaningless as indicators of harmfulness[27] — should have prompted the Supreme Court to carve out an exception for "brand-preference advertising."

Having said that, it appears that the Supreme Court considered those aspects of branding that have a lifestyle element to be fair game. Thus, just as it is constitutional to ban lifestyle advertising, it should be constitutional to take reasonable measures to eliminate the "lifestyle tag" aspect of branding. And indeed, it is arguable that existing *Tobacco Act* restrictions on lifestyle advertising and advertising appealing to youth amount to a *de facto* policy of gradual de-branding.

The decay of brand imagery raises a host of issues. First, as it becomes increasingly difficult to compete on extraneous lifestyle imagery, manufacturers will have an incentive to compete more on other things, notably on price (as has already begun happening) and on product characteristics such as flavourings, filters, cigarette paper colour, length and the like. The health consequences of this greater product differentiation are unclear. Canadian smokers in the past have shown themselves to be extremely conservative, so it is not clear, for example, that flavourings would be a success in this country.

Second, if cigarettes become an increasingly generic product, smaller companies are likely to gain more market share and brand loyalty will likely drop. This is potentially an extremely positive trend in that building a youth brand will no longer be the only viable way to break into the market (see previous point) and will no longer be as profitable as it once was. Moreover, gradual de-branding could become a self-reinforcing process — as more small players enter an increasingly generic market, profit margins should begin to drop, leaving manufacturers with less money to spare for marketing, leading to further de-branding.

Third, de-branding and market fragmentation could theoretically, in the very long term, increase the danger of smuggling — at least in the absence of stricter controls on manufacture and distribution. So long as the Canadian market is dominated by three manufacturers making a small number of brands that command high brand loyalty, the only significant threat of smuggling comes from a repeat of the export/re-import scams of the early 1990s. Though counterfeiting may occur, the large manufacturers are in a good position to stop most of it, due to their close monitoring of the retail trade.

In a fully de-branded market, in which there was no residual brand loyalty due to past

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27 In 2002, the World Health Organization's Scientific Advisory Committee on Tobacco Product Regulation issued a *Recommendation on Health Claims Derived from ISO/FTC Method to Measure Cigarette Yield,* including: "Tar, nicotine, and CO numerical ratings based upon current ISO/FTC methods and presented on cigarette packages and in advertising as single numerical values are misleading and should not be displayed." On-line at: http://www.who.int/tobacco/sactob/recommendations/en/iso_ftc_en.pdf .

extraneous brand imagery, the only remaining source of brand loyalty would be product characteristics (i.e. brands as 'seals of quality'). There are hundreds of manufacturers throughout the world able to produce consumer-acceptable, 100% Virginia tobacco cigarettes of the type preferred by Canadian smokers. Of course, in a fragmented, de-branded market, the incentive to enter the market would be small.

Despite this particular hypothetical danger, on balance the advantages of de-branding look greater than the disadvantages. Several options exist that may accelerate the process of de-branding:

Action on deceptive labelling

In 2001, the government announced its intention to prohibit use of the terms 'light' and 'mild' on cigarette packs via regulation[28], though this has yet to occur. This was in response to scientific evidence that brands labelled with such term provide no measurable health benefit to smokers relative to 'regular' brands, but that substantial numbers of smokers do (incorrectly) believe that the terms signify lower levels of 'tar' and/or 'nicotine'.[29]

'Light' and 'mild' brand extensions account for more than half of the Canadian market. False promises of reduced risk are objectionable in any case — and clearly not protected by freedom of expression rights. Eliminating these brand extensions — and attempts to prolong the fraud through other means, such as colour coding of 'lighter' and 'stronger' brands — would have the ancillary benefit of accelerating the de-branding process.

Regulations requiring warnings on permitted advertising

At present, the three large manufacturers are not making any use of their right to engage in informational advertising via signs in bars, publications with adult readership or direct mail to adults. There are two possible reasons. First, they have access to other vehicles — point-of-sale displays and, until very recently, sponsorship advertising. Second, as mentioned previously, engaging in informational advertising at this juncture would undermine their legal arguments against the constitutionality of the *Tobacco Act*.

Some type of warnings on advertisements will be required once Canada ratifies the Framework Convention on Tobacco Control and the Convention comes into effect. Large,

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28 See Department of Health, *Tobacco Act: Proposed Tobacco Regulations,* Canada Gazette Part I, Dec. 1, 2001, pp. 4299-4303. On-line at: http://canadagazette.gc.ca/partI/2001/20011201/pdf/g1-13548.pdf .

29 See [US] National Cancer Institute, *Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine*, 2001. Available on-line at: http://cancercontrol.cancer.gov/tcrb/monographs/13/index.html .

picture-based warnings similar to those found on cigarette packs might well act as a deterrent to future advertising and hence branding efforts, though manufacturers attempting to break into the market with product innovations — even trivial innovations such as flavourings — might decide to advertise anyway.

This is not necessarily a bad thing, since it could mean increases in market share for non-lifestyle-based brands accompanied by a decrease in overall market volume due to heightened salience of health effects.

Action to ban bar promotions

Recently, even after the ban on sponsorship advertising came into effect (October 2003), there have been a series of tobacco marketing events in bars, involving heavy use of brand colours and the hiring of models to act as mobile 'points of sale' (i.e. 'cigarette girls') for the promoted brand.

Such events arguably constitute illegal promotion under the meaning of the *Tobacco Act*, and enforcement action should put an end to them.

Bars are high-risk environments for relapse by smokers who have recently quit, and they are a poor environment for informational advertising. On this basis, an interesting regulatory option would be to amend the *Tobacco Act* to eliminate bars as a permitted venue for advertising, and to prohibit the sale of tobacco products in premises where alcohol is served.

Regulations and/or an amendment to the Tobacco Act *prohibiting lifestyle advertising via packaging*

In the absence of other advertising channels, cigarette packaging provides a vehicle for associating brands with lifestyle imagery. For example, in France, where a (theoretically) complete advertising ban has been in place for more than a decade, packaging is used to much greater effect than in Canada. (See Figure 2.)

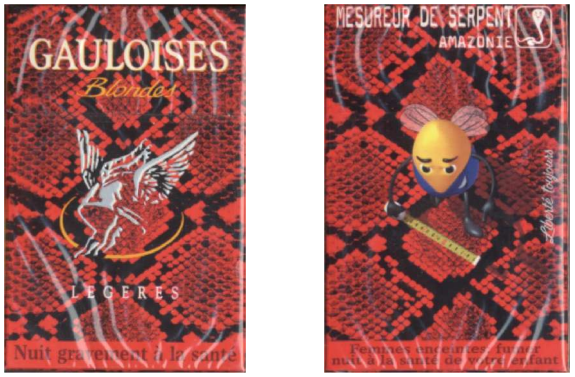

Fig. 2. Front and back of a 'special edition' Gauloises pack, France, 2002.

It does not appear that the existing prohibition on lifestyle advertising under s. 22.(3) applies to the cigarette pack itself. Regulatory action to immediately plug this loophole would thus seem appropriate.

In view of the Supreme Court's apparent endorsement of brand markings and even images of cigarette packs as *aide-mémoires* for objective differences between brands, it is unlikely that regulations on 'lifestyle labelling' will entirely eliminate packaging as a vehicle for lifestyle-oriented branding. To return to the example of running shoes, is the Nike 'swoosh' a purely abstract design that is a handy reminder that these particular running shoes are hugely over-priced and over-hyped, or is it clearly associated with a free-and-easy, sporty lifestyle? Similar definitional problems arise with cigarette branding.

Generic packaging

The more interventionist but potentially simpler solution is to mandate a system of generic packaging, under which brand names could be printed on packs in a standard font and colour, on a plain background. Deceptive or lifestyle-related terms could be eliminated at the same time.

Given the Supreme Court's interest in allowing some forms of comparison shopping, and given also the fiasco of 'light' and 'mild' branding, one intriguing (though difficult to implement) idea would be to set up a system whereby manufacturers could apply to have information on objective distinguishing brand characteristics printed on packaging.

For example, perhaps at the end of a review process, Health Canada would allow a claim such as "50% filter ventilation under ISO conditions", along with an explanation of what that meant and a clear warning that this did not result in any known reduction in risk, despite the taste difference vis-à-vis 20% ventilation.

The review process would need to involve an investigation of the scientific basis of the claim, along with research on consumer perceptions of the health implications. Post-market surveillance would also be needed. In view of the potential expense, some mechanism would be needed to transfer costs to manufacturers.

An application-driven system of pre-market approval for package information would, of course, raise a number of problems, in particular if a manufacturer applied to make a health-related claim. In the absence of definitive epidemiological evidence that would be several decades in coming, Health Canada would be understandably reluctant to (implicitly) give a 'seal of approval' to such a claim, as we shall see at greater length in the section on product modification.

But this could be dealt with by putting the burden of proof on the manufacturer making the application; claims about brand characteristics could be made only if they could be proved true. Though the *Competition Act* requires all manufacturers to have a reasonable basis for product claims, in practice — as the 'light' and 'mild' fiasco has shown — Health Canada appears to allow claims unless it can prove them false, and can then find a regulatory tool to deal with them; it is difficult to believe a court would prefer the existing arrangement over a well-designed claims approval process.

For many claims, the process could be quite simple. A manufacturer who wished to add the word "menthol" to packs of one brand would need to demonstrate: 1) That the cigarettes really contained menthol and that menthol did not increase addictiveness or danger of uptake by young people 2) That consumers did not perceive any non-existent health benefit. Then, Health Canada would need to devise an appropriate disclosure statement/warning ("It may taste like a cold remedy, but it's just as bad for you as other cigarettes."). Finally, polling or other means would be required to ensure that no false perceptions of the product developed after it was launched.

A further measure to consider is extending the principle of generic packaging to the cigarette itself, by mandating the use of plain cigarette paper and a standard filter colour. In the absence of such regulation, which might appear at the moment to be overkill, one could expect manufacturers to transfer brand colours and even images from the outside of the pack to the cigarette itself.

Brand-specific counter-advertising or brand suspensions

As mentioned earlier, lifestyle advertising for cigarette brands has only recently ended in Canada, through the exemption for sponsorship advertising up until October 1st, 2003. Brands that were heavily advertised up to that point (Player's, du Maurier, Export 'A',

Matinée) retain a 'lifestyle aura' that will probably stay with them for many years and, not surprisingly, such brands continue to dominate the starter market.

Criminal sanctions cannot be imposed retroactively, so the *Tobacco Act* cannot be used to charge companies for past actions — though, as mentioned earlier, other general-purpose legislation may apply. Be that as it may, if our underlying objective is to prevent autonomy theft, clearly there is a logical argument for directly tackling the continuing use of brands with 'lifestyle aura'. One approach would be to simply ban the sale of such brands until it could be shown that their 'lifestyle aura' had disintegrated. Another would be to require manufacturers to pay for brand-specific counter-advertising if they wished to continue selling such brands. A properly executed campaign to demonstrate, say, that Export 'A' is "the brand for immature, insecure losers" would no doubt destroy the lingering effects of several years of Extreme Sports advertisements.

Politically (and perhaps even legally), any such direct attack on brand-specific 'lifestyle aura' would of course be an extremely hard sell. Manufacturers would argue it was expropriation, harassment and a direct attack on smokers, with no obvious benefit to public health: "How can it be a crime to use a brand name today on cigarette packs, simply because we used the name in ads years ago? What's next, government ads mocking Ronald McDonald?"

3. Product modification

Under the *Tobacco Act*, the government can adopt regulations:

> establishing standards for tobacco products, including (i) prescribing the amounts of substances that may be contained in the product or its emissions, and (ii) prescribing substances that may not be added to tobacco products. (s. 7(a))

A complete discussion of the scientific issues surrounding product modification is beyond the scope of this paper; we will focus on how this power might be used to prevent 'autonomy theft leading to death'.

In the context of adversarial regulation, product standards are an area where the information advantage that manufacturers have over governments is especially problematic. Health Canada has the resources to suitably monitor and understand cigarette marketing strategies, even in the absence of any co-operation from the industry. But without access to the industry's R&D resources, it is unclear whether the department will ever have enough staff to uncover enough of the relevant complexities of product engineering, recipe books, and cigarette-smoker interactions to confidently regulate product content and emissions.

Keeping this practical problem in mind, let us examine at least four plausible approaches to product modification:

- Product changes that discourage uptake
- Product changes that render cigarettes less attractive to the general smoking population and/or that reduce barriers to quitting
- Product changes that reduce health risks for continuing smokers
- Rules to block product modifications that make the problem worse.

Product changes that discourage uptake

Smoking one's first cigarette is rarely a pleasant experience, though a minority of teenagers do immediately like the effects of nicotine.[30] Product modifications that make the first few cigarettes even more unpleasant could potentially play a role in reducing uptake — particularly if they did not reduce product acceptability for addicted smokers and thereby generate a black market for 'traditional' cigarettes.

An immediate difficulty is that proposed modifications would be impossible to test directly, without running afoul of the law and of research ethics — Health Canada could hardly hire a panel of 14-year-old non-smokers to try test cigarettes.

Even if an indirect testing system could be developed, Health Canada would still be faced with an unco-operative industry that would have strong incentives and plentiful resources to undermine the effectiveness of any mandated product modification. Forced to add a substance that (say) increased the nausea induced by first exposure to nicotine, manufacturers would be free to look for counteracting additives — subject only to Health Canada's ability to catch them in the act and ban such additives.

Product changes that render cigarettes less attractive to the general smoking population and/or reduce barriers to quitting

These could include things such as additives that make cigarettes taste unpleasant, shifts in smoke pH that reduce the proportion of nicotine available in free radical form, or various methods to make cigarettes a less reliable vehicle for nicotine dosing. For example, Health Canada could require that each pack contain cigarettes with widely different levels of filter ventilation, thus forcing addicted smokers to

30 DiFranza JR et al., "Initial symptoms of nicotine dependence in adolescents", *Tobacco Control,* 2000, **9:**313-319, note: "Several of our subjects seemed to describe a phenomenon akin to 'love at first sight', sensing immediately that nicotine had a powerful influence on them."

adjust their smoking behaviour even if they stick to a single brand.

Difficulties include both the possibility of black-market activity (if the mandated design change significantly reduced smoker acceptance) and the political or even legal acceptability of forcing smokers to accept increasingly unpleasant cigarettes.

Again, manufacturers would have a strong incentive to find technical ‘fixes’ to neutralize the required product modifications.

Product changes that reduce health risks for continuing smokers

In contrast, product changes that reduce health risks for addicted smokers without making it more likely that they will quit are clearly in the interest of cigarette companies, since such changes mean more customers (i.e. fewer dead smokers) and reduced liability risks. Moreover, if consumers can somehow be made aware of the risk reduction, this may reduce quitting, induce some ex-smokers to relapse, increase starting or cause smokers to increase their daily consumption, providing much more substantial gains in sales (and corresponding damage to public health). Finally, the first company to successfully market a new ‘risk-reduced’ product can grab substantial market share from competitors.

However, the fact that cigarette companies have been unable, after 50 years of extensive efforts, to come up with product modifications that substantially reduce health risks may provide some indication of the technical complexity of the task.

No doubt the failure of past R&D programmes on less-toxic cigarettes is in part attributable to the peculiar legal/marketing trap that manufacturers built for themselves by denying that existing cigarettes are in any way hazardous. It is difficult to launch a new brand of less hazardous cigarettes with the sales argument: “It hasn’t been proven that any of our brands cause any disease, but we do know that if any of them do, it’s less likely to be our newest brand, Extra-Safe.”

Nevertheless, various highly skilled scientists at different manufacturers have tried and failed to come up with ways to substantially reduce the carcinogenic and toxic properties of tobacco smoke; it is not at all clear that major gains are in reach, at least with respect to conventional cigarettes. The high number of carcinogens and toxic substances in tobacco smoke, the synergistic effects between some of these chemicals, and the large number of diseases caused by exposure to tobacco smoke all make efforts to produce “safer smoke” extremely complicated.

Beyond this technical challenge, there are at least three potential traps in any attempt to mandate product changes that reduce hazards:

- It takes several decades to have reliable epidemiological evidence as to whether or not a given design change actually benefited public health.

- Manufacturers' strong incentive to cheat, i.e. to claim or suggest that a particular product change reduced hazard levels when it actually does not, especially if by so doing they can gain some competitive advantage. This is, of course, what happened with 'low-tar' cigarettes in 1970s and 1980s.

- Product changes that reduce the risk to the individual smoker by a small percentage can actually *increase* the risk for the population as a whole, if they reduce the number of smokers who quit or induce relapse in some ex-smokers. Manufacturers' incentive to over-sell any risk reduction exacerbates this problem.

In short, risk reduction through mandated product modification is a very difficult challenge in the present context of adversarial regulation — though it might become an important tool at some time in the future, for dealing with a fundamentally restructured industry.

Rules to block product modifications that make the problem worse

Particularly as opportunities to launch new imagery-based brands become fewer and fewer, each manufacturer has a strong incentive to come up with product modifications that make cigarettes more addictive and more attractive to starters.

At the very least, it should be made an offence to implement such modifications; there would, of course, be a due diligence defence, but it would be up to manufacturers to demonstrate they had taken adequate steps to test for increased addictiveness / youth attractiveness and to monitor consumer reactions after a modified product was launched. For example, a spike in youth market share for a brand after a product modification would be an indication there was a problem that needed to be investigated.

It is conceivable that competition could make such a system virtually self-enforcing: manufacturers might begin to report violations by competitors. Of course, the offending manufacturer would argue that the concept of increased addictiveness / youth attractiveness was too vague and subjective as a basis for prosecution.

Conclusions with respect to Option I (Incremental change within the existing framework of adversarial regulation)

Given that the *Tobacco Act* is a relatively recent piece of legislation that is still before the courts, it is clear that regulatory changes in the coming years will be incremental in nature. It is difficult to argue that regulatory powers under the *Tobacco Act* are insufficient when the government has yet to use several of them.

Yet there are clearly serious limits to the progress that can still be achieved within the existing framework of adversarial regulation. Of the lengthy but incomplete list of regulatory options we have just seen, most either fall into the category of housekeeping measures (such as health warnings on permitted advertising) or intriguing but politically difficult ideas (such as brand-specific counter-advertising). There are only a few that might have significant impact and might also be politically feasible in the short to medium term. Two of the likeliest candidates are 1) regulations/legislation to restrict or prohibit tobacco product displays at retail, and 2) generic packaging.

Even these two measures will require enormous public education, research, legal and political effort to actually implement. Obstacles include:

- In the case of retail displays, the lobbying strength of retailers, who have an immediate financial interest to defend and who attract much more public sympathy than manufacturers.
- Public incomprehension and/or apathy. The relation between advertising and consumption is relatively easy to explain and credible to the casual observer; the impact of product displays and packaging is more subtle.
- For large manufacturers, generic packaging in particular is a serious threat. At present, one of the obstacles to 'trading down' — switching to a cheaper brand, usually produced by a small manufacturer — is the reluctance to be seen (and to see oneself) as smoking a 'loser' brand. With plain packaging, the badge function of mainstream brands would largely disappear, and with it, no doubt, a portion of the extraordinarily high profit margins that Imperial Tobacco in particular can now sustain.[31]

Even as these two multi-year pitched battles proceed, the Big Three will be busily trying to come up with new marketing tactics to circumvent *Tobacco Act*

31 In a November 2003 submission on the topic of cigarettes with reduced ignition propensity, "The Impact of a Reduced Ignition Propensity Standard on Canadian Cigarette Manufacturers: Industry Outreach Questionnaire", Imperial Tobacco provided a breakdown of its price structure, showing operating costs of $6.36 and profits before taxes of $6.88, out of a pre-tax wholesale price of $13.77 (the remainder being 'net interests').

restrictions. Some of these will take the form of 'extreme' interpretations of the Act, such as the recent effort to transform professional models decked out in brand colours into simple 'points of sale' (i.e. cigarette girls). Others will presumably involve 'underground' or 'viral' marketing techniques, backed by an increasingly sophisticated use of direct mail. Possibly manufacturers may even resort to 'hit and run' marketing — clearly illegal operations that escape sanctions simply because they are transitory.

Nevertheless, it is possible that within 15 to 20 years, Canada will be largely free of visible "inducements to use tobacco products", as the *Tobacco Act* calls them. Brands will be well on their way to losing their remaining lifestyle aura, and addicted smokers will be free to 'choose' their brands based on product characteristics, rather than extraneous brand imagery.

Three questions remain:

1) Is this (hypothetical) absence of visible inducements equivalent to the end of 'autonomy theft leading to death'? In other words, will we have succeeded in eliminating the reprehensible behaviour we set out to address?

2) In the event we have, how much impact will we have had on levels of tobacco-caused death?

3) Is there a quicker or more satisfactory approach?

Autonomy theft without visible inducements?

It has been a very long time since cocaine was advertised in Canada. Branding is absent from the cocaine market, in part because many intermediaries between the manufacturer and the final 'retailer' have both motive and opportunity to adulterate the product.

Despite the obvious difficulties faced by cocaine 'marketers', clearly the cocaine market is *not* free of autonomy theft. Pushers talk children into trying the product; they also actively undermine quit attempts by offering cocaine to recent quitters.

Now, let us try to imagine a cocaine market in which manufacturers, though still operating illegally and without the ability to advertise, *were* able to enforce trademarks and prevent adulteration (perhaps by having an army of pushers on salary, rather than on commission). Larger manufacturers would invest heavily in research and development to improve product 'quality' and thereby gain market

share. Desired characteristics would be:

- Gives a better 'high' — this might mean faster, more intense, or less likely to lead to paranoid episodes etc.
- Is more addictive, to keep customers coming back for more
- Is more attractive to first-time users.

In this scenario, it seems clear that the number of cocaine addicts — and the level of cocaine-related autonomy theft — would increase substantially.

The same incentives would exist for cigarette manufacturers in our hypothetical 'visible inducement-free' market. Indeed, the incentive to maximize addictiveness and pharmacological attractiveness to starters actually *increases* when other routes to marketing success, such as lifestyle advertising, are eliminated. (It is possible, of course, that competition would focus on reduced product hazard, though the same problems of technical feasibility mentioned earlier apply here also.)

Market fragmentation caused by the decline of lifestyle-based brands might counteract this problem somewhat — for example, if the Canadian market were split between 20 small producers and price competition increased, it is possible none of them would have the resources to conduct extensive R&D work, though affiliates of transnationals would have access to their parent companies' research.

The fact that cigarette manufacturing is legal, unlike cocaine production, may restrain future manufacturer behaviour somewhat — certainly any research and development programme explicitly aimed at increasing addictiveness would have to be done in great secrecy, in violation of the reporting requirements under *Tobacco Act* regulations and probably offshore, to avoid public outcry, lawsuits and perhaps even expropriation.

This constraint is not much comfort, however, for at least two reasons. First, we have already had decades during which manufacturers had both motive and opportunity to maximize addictiveness and attractiveness to starters; things may already be as bad as they can get on that score.

Second, even in the absence of corporate *intent* to maximize addictiveness, the normal process of taste-testing and competition between brands may have the same effect: the characteristics that make a drug product more addictive are frequently those that make the sensory experience of drug-taking more enjoyable. *Even without intentionally deceptive marketing and intent to addict, a competitive cigarette market may inherently tend to deprive (potential) smokers of their autonomy, with fatal consequences.*

In short, even if the *Tobacco Act* eventually results in the elimination of visible inducements to use tobacco — which is far from certain — and hence solve *part* of the problem of autonomy theft, a significant problem will remain.

The impact of an end to visible inducements

There is, of course, no way to accurately predict the extent to which cigarette consumption and tobacco-attributable deaths would go down as a result of a move to a cigarette market devoid of visible inducements to use tobacco.

However, it is worth noting statistics on the use of illegal drugs. Among Grade 7-12 students, at least in Ontario, cannabis outranks cigarettes for 'past year drug use', according to the most recent Ontario Student Drug Use Survey.[32] *Daily* use of cigarettes (14%) was much higher than daily use of cannabis (4%), no doubt reflecting the greater addictiveness and availability and perceived lower risk of cigarettes.

Past year use of the 'classic' addictive drugs was, in each case, below 10%:

- Cocaine at 4.8% (peak of 6.9% in Grade 11)
- Crack at 2.7% (peak of 3.6% in Grade 11)
- Heroin at 1.4% (peak of 1.5% in Grade 12)

It is difficult to draw conclusions about our hypothetical reformed cigarette market, because it is likely that risk perceptions would, by then, have shifted significantly from their present skewed state.[33] Moreover, cigarettes do not create visible impairment (which may or may not increase its attractiveness for potential starters); nicotine is probably a less pleasant drug for first-time users than heroin or cocaine.

Nevertheless, it seems unlikely that cigarette uptake would go to zero in an inducement-free market, and it is easy to imagine that uptake could be as high as 10%.

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32 Adlaf EM and Paglia A, *Drug Use Among Ontario Students, 1977-2003: Detailed OSDUS Findings*, Centre for Addiction and Mental Health, 2003. On-line at: http://www.camh.net/pdf/OSDUS03-drugdetail-final.pdf .

33 In the survey, students ranked "smoking 1 or 2 cigarettes daily" as less hazardous than:

- Regular marijuana use
- Trying ecstasy
- Trying cocaine
- Trying LSD
- Daily drinking.

An equally interesting subject for speculation is the effect that the absence of visible inducements would have on quit rates, and in particular on relapse. It is reasonable to assume that product displays are triggers for relapse in a significant minority of cases. Stripping cigarette brands of lifestyle aura may also slightly decrease the risk of relapse in some social situations (i.e. an evening in the bar). Given how frequently the average smoker makes a quit attempt, even a small decrease in the relapse rate can end up having a significant impact on overall prevalence. But given the strength of the addiction that underlies most smoking, it is unlikely that an end to promotional activity and to attractive packaging would cause a massive increase in the number of successful quits.

Is there a quicker and more satisfactory way to reduce/eliminate autonomy theft?

If we were dealing with a compulsive child rapist, we could and probably would attempt to stop him from committing further crimes by imposing restrictions (as parole conditions, for example): do not go near schools, do not hang out at shopping malls, do not talk to unaccompanied minors, do not go out at night, do not use chat rooms on the Internet, wear an electronic locator bracelet at all times and so on.

Such an approach would probably reduce the frequency of attacks on children, but it is almost certain we would also try two other measures: 1) put the pedophile in jail and 2) give him some kind of treatment to reduce his urge to rape children.

Large cigarette companies differ from our hypothetical pedophile in several important respects. First, their urge to commit autonomy theft leading to death is entirely rational, driven by the need to compete for market share to ensure long-term corporate survival. Second, they are corporations, not human beings; their motivational structures and ‘personality’ can be re-written at the stroke of a legislative pen. Third, they are much better equipped to fight attempts to submit them to compulsory ‘treatment’.

Still, it seems terribly short-sighted not to at least examine options for reducing the *incentives* to commit autonomy theft, rather than limiting ourselves to restrictions on the *means* available to promote addiction. This is the subject of the rest of this paper.

Structural reforms that take aim at the incentives to commit autonomy theft (Option II)

1. Fiscal and regulatory measures to reverse incentives to commit 'bad acts'

According to CTUMS data for the first half of 2003, smokers aged 15-19 account for just 4.6% of self-reported daily consumption, though this age group accounts for 8.2% of the total population 15 years or older.[34] Youth smoking thus accounts for an insignificant portion of *this year's* cigarette sales.

The problem is, of course, that today's youth smoker is likely in the market for several more decades (and that there are no other significant sources of new entries into the market). At present prices and costs, if she or he smokes 20 cigarettes per day for 40 years, this generates about $10,000 in operating profits for the manufacturer.[35] Indeed, at that rate, if they were all to stay in the market for four decades, a *single year's cohort* of new daily smokers is worth a startling $377 million in profits.

Even allowing for discounting of future profits, quitting, premature death and leakage to brand-switching, there is thus still a powerful incentive to make cigarette brands that are as attractive as possible to this group.

Accordingly, fairly drastic measures are required to give manufacturers an incentive to stay out of the youth market.

Suspension of youth brands

One way to reverse the incentives to build youth brands is to institute a brand licensing system that allows the government, for a suitable period, to prohibit the sale of a brand that becomes popular amongst youth smokers. For example, the top ten brands for a given year, by share of the underage market, could be prohibited for

34 Own calculations, based on Canadian Tobacco Use Monitoring Survey, Table 1, Smoking status and average number of cigarettes smoked per day, by age group and sex, age 15+ years, Canada, Wave 1, 2003. (Source data on-line at: http://www.hc-sc.gc.ca/hecs-sesc/tobacco/research/ctums/2003/01.html .) Self-reported consumption accounts for only about 56% of actual sales (in 2003 as a whole), suggesting a very high level of under-reporting — which may not be constant across age groups.

35 Based on Imperial Tobacco, op. cit., pre-tax profit of $6.88 per carton of 200 cigarettes.

two or three years — long enough for the new entries to permanently switch to new brands.

This system would not reduce the industry's *collective* incentive to promote youth smoking, but if it worked, it would largely eliminate each individual company's incentive to focus on youth for its long-term brand development. Of course, if Imperial Tobacco were able to maintain its dominant position in the *adult* market, it might be willing to market youth brands anyway, simply to maintain overall industry volume.

Even assuming the legal difficulties involved in such a scheme could be resolved, there are some obvious practical problems. Manufacturers could develop brand families containing numerous variants, claim that each variant was a separate entity and should therefore be off the 'hit list'. Or they might change brand names very slightly in mid-year in an effort to stay off the list. Or, confused by a rapidly expanding and constantly changing selection of available brands, consumers might begin relying solely on the manufacturer's name to make their choice of cigarettes.

If the scheme worked, the net result might be a segmented market: on the one hand, the bulk of the market, dominated by 'adult' brands sold in carefully controlled shops with elaborate age verification systems, and the rest of the market, full of flashy but fly-by-night brands, sold through the existing retail system.

Taxation of starter market share

Another approach is to impose a heavy tax on manufacturers, according to their share of the starter market. (In the United States, the 'lookback' provision proposed as part of the failed 'global settlement agreement' legislative package in the late 1990s contained a provision to this effect.) To be an effective deterrent, this tax would need to be very large indeed, probably a multiple of the $377 million per year figure cited earlier. Manufacturers would attempt to pass this tax on to smokers through price increases (which would reduce overall consumption); but this should trigger an automatic increase in the 'youth tax' (because the price hikes would also increase the projected future value of sales to new smokers). Price competition from small manufacturers producing 'generic' brands would also be a brake on price increases.

It is possible a tax of this sort would force manufacturers to set up a controlled distribution system — perhaps restricting sales to registered (adult) users. Unfortunately, this would probably generate an illegal secondary market for the re-sale of brand-name cigarettes to underage users, and heated arguments about

whether manufacturers should be liable for the popularity of their brands in this secondary market.

A further practical problem might be fly-by-night operations that stayed open long enough to manufacture cigarettes for the youth market but folded before paying the youth market tax — similar to what has occurred in the United States with small companies avoiding the payments that non-MSA signatories are supposed to make to the states. This could be solved by demanding payment upfront.

One policy issue with a tax on the starter market is whether the tax should be imposed on the basis of *age* or *entry into the market.* A tax based strictly on age might simply shift the problem of initiation/autonomy theft to an older age group — manufacturers might invest heavily in availability and visibility in student bars, for example. (Indeed, this is a trend that is already underway.)

Incentives to facilitate quitting

While it may be possible to design incentive systems that give manufacturers an incentive to avoid recruiting new customers, it is difficult to imagine a system that could give the industry as a whole an incentive to shed its existing customers as quickly as possible, desirable though that would be from a public health perspective. The sum necessary to do so directly would be roughly equivalent to the total value of the Canadian industry, since it would in essence involving 'buying out' all manufacturers.

The question, then, is whether some system could be implemented that would give individual companies an incentive to turn their brands into 'exit brands' — cigarettes that were simultaneously attractive to smokers of other brands, yet more likely to allow them to quit smoking entirely. For example, if it were possible to design an 'addictiveness index' for cigarettes, brands with low indexes could be allowed to advertise the fact and possibly be given more favourable tax treatment. But if such an index could be designed, there would be an equally strong or possibly stronger argument for imposing an across-the-board reduction in the addictiveness of all brands by way of regulation.

In the absence of such an addictiveness index, it is hard to see how one would measure the eligibility of brands for 'exit brand' incentives, short of a very complicated record-keeping system that allowed one to track the behaviour and brand choices of every individual smoker.

A less ambitious but perhaps more practical approach would be to impose some obligation on each manufacturer to pay for medical monitoring and cessation assistance for any of its customers that request it. This would be a largely symbolic move — equivalent to a tobacco tax increase coupled with increased spending on cessation services. It could be tweaked a little bit, for example by requiring each company to pay a hefty fine for each unsuccessful quit attempt by one of its customers, which would provide an incentive to make products less addictive and cessation assistance more effective. But unless manufacturers have some realistic way of competing for market share on the basis of diminished addictiveness, the level of fines necessary to produce a change in manufacturer behaviour would be so high as to amount to prohibition (on legal sale).

In short, and not surprisingly, there does not appear to be any practical way to give manufacturers an incentive to put themselves out of business so long as the market is left to competing, profit-seeking enterprises.

2. Reverse profit motive

If manufacturers actually lost money every time somebody bought cigarettes, this would clearly make them much more co-operative partners for tobacco-control measures of all types. In theory, this can be achieved quite simply via a monopoly licensing arrangement, similar to a military supply contract. Just as a company supplying the armed forces may have a contract to provide all meals for soldiers on a particular base, the sole licence holder for the Canadian cigarette market would receive a flat fee for meeting all consumer demand for cigarettes. All proceeds of sale would go to the government, but all costs would be borne by the manufacturer. Thus, a manufacturer that successfully reduced consumption would cut its costs and increase its profits.

To set the appropriate level for the flat fee, the government could organize a reverse auction every few years that would select the new licence holder. It might make sense to exclude the most recent licence holder from the next auction, to ensure the company would not choose a lower profit level now in return for a larger flat fee in the next cycle.

Smuggling control and pricing would clearly be two important issues in this scheme: somehow the licence holder would need to be held responsible if smuggling began to account for a significant part of the Canadian market, since otherwise the company would simply make its own products so unpalatable as to drive its customers to the black market. The licence holder would seek to push prices up as high as possible to reduce consumption, whereas governments might

wish to be more cautious.

There would doubtless be arguments about who should pay for specific tobacco-control measures. For example, the licence holder would wish to see counter-marketing that was as strong as possible — but would also have a strong incentive to make sure the government paid for it.

Assuming these details could be worked out, Canada would have a cigarette business run by a single licence holder whose entire profit margin would depend on how quickly cigarette consumption went down. Ideally, the government would wish to convince an existing cigarette multinational to bid for the contract, in order to benefit from their detailed knowledge of smoker behaviour, cigarette engineering and so on. In practice, given the international precedent the scheme would set, large tobacco companies would probably stay out of the bidding, and would clearly have an interest in encouraging smuggling into Canada, if only to cause the scheme to fail.

In the interests of reducing mortality as quickly as possible, it would be preferable that the licensing system also provide some incentive to market less hazardous products — in the absence of some 'reduced-hazard bonus', the licence holder would have no reason at all to pursue any such efforts. Indeed, it would probably be necessary to do most of the work on less hazardous products in the public sector, though at least the licence holder could be expected to co-operate.

Clearly implementing a monopoly licensing system of this type would pose a number of important challenges. First, existing manufacturers would argue that it amounted to expropriation of their factories and trademarks. In fact, the new licensee would be free to purchase both, though the only incentive to buy existing trademarks would be to counter the possibility of smuggling. (Indeed, the licensee could simply sub-contract to existing manufacturers, though it would seek to impose strict conditions to stop manufacturers from competing for market share.) Presumably the licensee would be happy to buy existing production facilities — if they were competitive with those in other countries, which is not terribly likely.

Second, it is not clear how smokers would react to a manufacturer that was systematically trying to discourage them from smoking. Governments may wish to discourage smoking, but they are also aware that smokers are (mostly) voters and must be treated accordingly; there would be no such constraint on a private company, which might try to harass its 'customers' into quitting. Clearly the government would end up having to regulate the supplier-customer relationship in some way.

Multiple licensees

One way of dealing with the perception of expropriation might be to license more than one manufacturer under a reverse profit scheme. Indeed, theoretically one could give all existing manufacturers a flat fee to continue supplying their existing brands, and set the fee in proportion to present market share.

Several problems would arise. First, it is probably easier to get somebody to switch away from your brand than to quit smoking; manufacturers might take to advertising their competitors' brands. Second, if licensees expected to continue as the supplier of a particular brand for the indefinite future, they might well opt for a smaller decline now to ensure a larger flat fee for the next cycle. Third, if there were multiple licensees, who would be held responsible for making products attractive enough (or distribution systems secure enough) to control the black market?

3. Direct control / nationalization

The apparently simplest option for eliminating the profit motive for committing autonomy theft is for the government to take direct control of the business of making, distributing and selling tobacco products. After all, we have public broadcasting, public electricity generation and distribution, a public monopoly on mail and a de facto monopoly on hospitals and other health services, to name just a few. Though a good case can be made that private enterprise, left to its own devices, yields problematic results in the fields of broadcasting, utilities and health care, it is not obvious that unfettered markets in these areas would come close to matching the tobacco market's remarkable deadliness.

There are several possible models for public control that we will explore in the coming pages. But there are a number of questions that need to be answered for all of them:

1. What is the advantage of public control, if any?
2. How does one ensure that public control actually benefits public health?
3. What does public control achieve that other measures wouldn't?
4. Given the legal and economic obstacles to nationalization, is it worth it?

Medicalized distribution model

The main argument generally advanced against prohibiting tobacco products outright is that it would cause addicted smokers to turn to the black market in large numbers and thus create an unmanageable public order problem. If this is the only

argument against prohibition, then it would seem logical to move to a system of controlled distribution, under which only those already addicted could legally be given tobacco products. Doctors would examine patients for tobacco dependence and prescribe tobacco products at an appropriate dosage to avoid withdrawal symptoms; cigarettes would be legally available only on doctor authorization.

There are numerous problems with such an arrangement, starting with the difficulty of convincing doctors to get involved, even indirectly, in providing access to a drug with a 50% long-term risk of killing the patient. Second, it would be difficult to avoid illegal re-sale of legally provided cigarettes (for example, by a smoker who had managed to quit), short of extremely invasive measures, such as those used for the distribution of heroin in those countries where it is available for addicts on prescription (i.e. providing a single dose for immediate consumption under direct supervision).

Third is the issue of whether such a system would actually prevent non-smokers and ex-smokers from obtaining cigarettes. If the bulk of smokers had access to a legal source of supply, it might be difficult for smugglers to turn a profit supplying the remaining market. However, the government would need to spend a good deal of money on enforcement to keep the black market in check.

Fourth is the general issue of civil liberties and the balance of (in-)convenience. Though it is true that, in the case of cigarettes, autonomy theft leading to death causes tens of thousands of deaths per year, putting 20% of the Canadian population under constant surveillance as potential cigarette traffickers and forcing them to submit to regular medical exams seems unacceptably invasive. Indeed, it would be contradictory to seek to protect potential smokers' autonomy through such drastic limits on the actions of existing smokers.

Finally, radically changing the last stage of the cigarette supply chain — retail distribution of cigarettes to individual smokers — seems like an inappropriate response to a problem of autonomy theft that is driven largely by the marketing strategies of manufacturers.

Controlled outlets — the 'liquor store' solution

Another option that is sometimes proposed is to restrict the sale of tobacco products to publicly owned, single-purpose outlets, along the lines of the liquor store monopoly that exists in most provinces. (Alternatively, a limited number of privately owned but strictly controlled private outlets could serve the same function.) It would certainly alter the dynamics of cigarette marketing if the

government could simply choose not to carry specific brands, in the same way as some provinces stopped carrying South African wines in the 1980s to protest apartheid.

However, the heavy lifestyle advertising for various hard liquor products that we now see on television is a good reminder that government control of the last link of the supply chain is not, in the absence of other measures, much of an obstacle to the marketing efforts of an aggressive manufacturer.

Substantially reducing the number of retail outlets clearly might, for the first time, make it possible to achieve a high enough rate of retailer compliance with the prohibition on sales to minors to actually have an impact on youth smoking rates. It would also mean that rather than having a large, disorganized group of retailers, all of whom are a little dependent on tobacco sales, we could have a smaller, unionized group of government employees whose jobs were entirely dependent on tobacco sales.[36] The public health benefit is unclear, unless other controls are also in place (see below).

Public distribution monopoly

In provinces with a liquor monopoly, this monopoly covers not just the retail level but also distribution. Distillers and wine-makers can sell only to the monopoly, which accordingly has a good deal of power over brand selection and pricing. In practice, at least in recent years, monopolies do not appear to have used this power to pursue objectives other than profit maximization and customer/voter satisfaction, with the possible exception of the promotion of local products (Ontario and BC wines) and an effort to nudge the market away from spirits and towards wine. For example, despite public concern about heavily advertised 'alco-pops' (such as alcoholic fruit drinks) targeted at teenagers, no Canadian liquor board has refused to carry such products. Meanwhile, monopolies plaster their stores with 'no sales to minors' signs that, in some cases, look eerily like tobacco industry campaigns.

Surveys on youth behaviour indicate that the existence of liquor boards is not preventing problem drinking amongst young people, though there is evidence of some impact on overall consumption. The Ontario Student Drug Use Survey finds that 15% of all students (Grades 7-12) report binge drinking two to three times in the month preceding the survey, which is similar to the level reporting daily

36 Cf. Pierre Godin's interesting history of unionism at the Société des alcools du Québec, *La révolte des traîneux de pieds: Histoire du Syndicat des employé-e-s de magasins et de bureaux de la SAQ (SEMB-SAQ)*, Les éditions du Boréal: 1991. Though his main interest is to demonstrate how the union improved the lot of SAQ employees, Godin also demonstrates how the union played a significant role in transforming the corporation into a rather effective alcohol marketing machine.

smoking of cigarettes (14%). The point here is not to criticize liquor board behaviour, merely to emphasize that the existence of a distribution monopoly does not, in itself, prevent manufacturers from aggressively promoting their products. Moreover, public control of a sector does not necessarily eliminate the profit motive; the annual reports of liquor boards are all about profits and customer satisfaction, with little more than a symbolic nod to 'social responsibility'.

Whatever the merits of this set-up for the alcohol market — which is dominated by recreational, non-addicted users — it would clearly not be appropriate for the tobacco market.

Ron Borland of the VicHealth Centre for Tobacco Control has suggested taking the monopoly idea one step farther, through the creation of what he refers to as a Tobacco Products Authority.[37] This Authority would have full control of brands, tobacco product engineering and composition; it would issue calls for tenders to give manufacturers the opportunity to bid for the right to supply products to a particular specification. On the retail side, the Authority would eliminate the incentive for retailers to promote sales by paying them a flat fee to supply a particular area, along the lines of the monopoly licensing scheme for manufacturers we discussed earlier.

If it functioned as it should, the Authority system would encourage manufacturers to look for ways to minimize the harm from their products, so as to make pitches to the Authority for future supply contracts. As sole customer for manufacturers, the Authority would be in a much better position to act rationally and demand mortality-reducing product improvements than individual, addicted consumers under the present system.

An interesting question is how to go about ensuring that the Authority, whose size and importance would depend on the continuing existence of a large number of tobacco users, did not gradually shift its focus to commercial success, along the lines of what has happened to Canadian liquor boards.

One obvious safeguard would be to ensure that the Authority itself was a non-profit entity, with all the revenues for government being generated by tobacco taxes.

Since the primary task of the Authority would be to work out the specifications for the next round of supply contracts, there is a danger that it might gradually be

37 Borland R, "A strategy for controlling the marketing of tobacco products: a regulated market model", *Tobacco Control*, 2003, **12**:374-382. Borland's colleague Jonathan Liberman suggests other models (involving licensing systems) may also be used to similar effect — see Liberman J, "Where to for tobacco regulation: time for new approaches?", *Drug and Alcohol Review*, 2003, **22:**461-469.

‘captured’ by the (non-monetary) interests of its scientific staff. For example, a bias might develop in favour of trying out complicated new approaches to product chemistry, rather than making simple improvements to counter-marketing efforts.

Ultimately, the best protection against such dangers is transparency and public scrutiny. The Authority’s clearly stated mandate would be to reduce death and disease from tobacco; it could be obliged to make all its research work and deliberations public, providing a brake on ‘mission creep’.

Conclusions with respect to Option II

If implemented successfully, several of the options discussed above would likely achieve a more rapid decline in tobacco-caused death than would occur under the incremental changes of Option I.

Heavy taxes on the starter market could largely eliminate organized efforts to induce people to start using tobacco; they would not necessarily do much for those who are already addicted, who will account for the bulk of tobacco deaths for several decades to come.

Both the flat-fee monopoly licensing arrangement and the 'strong' version of the distribution monopoly model — Borland's Tobacco Products Authority — promise significant progress both on reducing uptake of smoking and hastening exit. The Authority would likely be more successful at promoting harm minimization for continuing users, though it might also be more vulnerable to mission creep than a flat-fee monopoly with a single-minded concentration on reducing sales.

In all three cases, the obvious question is: How do we get there from here? What possible series of dramatic events might cause the government to envisage such dramatic interventions in the tobacco market, in particular given the long-term trend towards privatization of publicly owned enterprises?

Two scenarios come to mind, neither of them particularly plausible in the short term:

1. Under some circumstances, large manufacturers might decide to suddenly withdraw from the Canadian market. This might occur, for example, if civil suits against manufacturers were successful to the point where the residual value of the Canadian market to multinationals was less than their liability exposure. This appears unlikely at the moment, although governments could clearly increase the probability of this occurring by adopting legislation facilitating private or public cost recovery for tobacco-related damages.

2. An aggressive policy of 'de-branding' might lead to extreme fragmentation and declining attractiveness of the Canadian market for manufacturers, again leading transnationals to pull out.

In the present political climate, it seems unlikely the government would opt for a monopoly model simply because Canada 'hit the wall' in terms of consumption and

prevalence levels — though conceivably this might change if some other country tried a monopoly model first and achieved significant success with it.

Market-based solutions that might 'morph' the nicotine industry into a public health partnern (Option III)

One of the starting points of our analysis was the observation that it is virtually impossible to force cigarette manufacturers to abide by the spirit of the *Tobacco Act*, because the core of their business is a 'chemical extortion racket' that is guaranteed to kill a high percentage of their 'customers'. There is a heated debate, to which we now turn, as to whether we should devote *all* of our energy to dismantling the 'racket' (nicotine addiction) as quickly as possible, or whether we should also encourage the private sector to develop and sell products that supply nicotine without the toxic baggage found in cigarette smoke. In short, can and should we tolerate (or even encourage) a less lethal nicotine 'racket' than the cigarette-based one that now exists?

From a technical point of view, things are straightforward. Nicotine is the (main) pharmacologically active ingredient in cigarette smoke, but it is not the primary source of disease. Incomplete combustion of tobacco (or of any other vegetable matter) creates a dizzying array of chemicals, including carbon monoxide and a large number of carcinogens; but complete combustion (i.e. transformation into CO_2 and water) would destroy the purpose of smoking, since no nicotine would be transferred. Thus, any method of delivering nicotine that does not involve combustion should be far less risky than cigarettes.

An example that has recently caused a good deal of debate is *snus*.[38] Snus is a Swedish form of moist oral snuff that has particularly low levels of nitrosamines, the main carcinogens found in oral tobacco and likely the main cause of oral cancer amongst oral tobacco users. In Sweden, snus accounts for a large part of the overall tobacco market, and is actually more popular than cigarettes amongst Swedish men. There is no doubt that snus is addictive; there is also no doubt that Sweden has one of the lowest smoking prevalence rates in Europe, and per capita cigarette consumption rates that are well below Canada's. (Though it is worth noting that both prevalence and consumption peaked at much higher levels in Canada than in Sweden.[39])

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38 See in particular the December 2003 edition of the journal *Tobacco Control*, specifically: Foulds J et al., "Effect of smokeless tobacco (snus) on smoking and public health in Sweden", *Tobacco Control*, 2003, **12:**349-359; Tomar SL et al., "Declining smoking in Sweden: is Swedish Match getting the credit for Swedish tobacco control's efforts; and the vigorous debate on *Tobacco Control's* website between Foulds, Tomar and Clive Bates (http://tc.bmjjournals.com/cgi/eletters/12/4/368#112).

39 The percentage of the adult population that reports smoking daily is now similar in both countries, however. Comparisons between prevalence levels need to be made cautiously, because of differing survey methodologies, levels of under-reporting and demographic structures.

One possible interpretation of the Swedish data is that snus is an 'exit product' for cigarette users: though unable to quit nicotine, they are able to quit cigarettes, thereby greatly reducing their odds of dying from tobacco. Another interpretation is that snus keeps people in the nicotine market who might otherwise have quit entirely — or even attracts new nicotine users. All these nicotine users may at some point convert (back) to cigarettes, arguably a more efficient nicotine-delivery vehicle.

Beyond the scientific debate about whether the data support the 'exit', the 'addiction prolonging' or the 'gateway' hypothesis, there are some fundamental issues we must face if we wish to draw Canadian public policy conclusions from the Swedish experience:

1. Are we willing to accept autonomy theft without death as a legitimate commercial activity?

2. Are we willing to accept autonomy theft with a substantially reduced risk of death as a necessary evil in the present situation?

3. Would promoting products such as snus (or allowing them to be promoted) actually have a significant impact on cigarette use in Canada, and would would be the opportunity costs of pursuing such a strategy?

4. Would promoting products such as snus (or allowing them to be promoted) leave people confused about our primary message, i.e. that they should stop smoking as soon as possible?

Let us take the questions in order.

First, what are we to make of autonomy theft without associated risk of death? Even the physically harmless variety of autonomy theft is obnoxious. A $5-per-day habit is 'worth' $73,000 over a 40-year period, which the user of a risk-free nicotine product might, in the absence of addiction, spend on getting a university education or some other more useful purpose.

On the other hand, as a society we don't provide people with a particularly high level of protection against getting tricked into bad decisions that cost money but do not otherwise do damage to the purchaser. For example, we allow heavy lifestyle advertising for pricey SUVs whose off-road capabilities are of no value to the vast majority of purchasers. We allow travel agents to advertise sex and exotic adventure, while actually providing boredom on the beach. We even allow virtually unregulated use of caffeine, despite clear evidence that some people suffer withdrawal symptoms if their caffeine supply is interrupted. In short, for most things short of outright deception (by commission or omission), we apply the principle of *caveat emptor.*

Moreover, from a social perspective, the cost of providing a risk-free but addictive product free of charge to everybody who wanted it would be far less than the present social cost of tobacco-caused disease. If economic impact is the issue, we can simply socialize the cost.

Nevertheless, physiological addiction is a cause for concern even in the absence of damage to health. If somebody designed a 'perfect' drug, that had no health risks but created an unshakeable addiction for 100% of people after a single use, governments would think long and hard before allowing the drug to be manufactured and sold, and would presumably allow it only if the health benefits were clear. In short, autonomy theft (at least via physiological addiction) appears to merit some kind of regulatory attention, in and of itself.

In the case of the nicotine market, the issue of (almost) risk-free autonomy theft is not hypothetical. Nicotine may increase the risk of cardiovascular disease — but one of the foremost authorities on the topic, Neal Benowitz, concludes that it "is not a significant risk factor for cardiovascular events even in patients with coronary heart disease."[40] It has not been shown to be carcinogenic in animals. Nicotine probably does increase the risk of low birthweight and spontaneous abortion, though far less than tobacco smoke.[41]

Pharmaceutical companies have developed a series of nicotine products, from gums and patches to nasal sprays, lozenges and inhalers, that do not appear to add any extra risk to that inherent in (small) doses of nicotine. At present, most such products provide relatively slow uptake and low doses of nicotine, making them not particularly competitive with cigarettes.[42] But the first obstacle to developing a pharmaceutical-style nicotine product that provides higher dosage and quicker uptake is regulatory, not technical: the law in Canada and elsewhere distinguishes between nicotine in 'natural substances', i.e. tobacco (which can be sold on the open market, as long as the provisions of the *Tobacco Act* and related provincial laws are respected), and nicotine in 'non-natural' form, which is available on prescription or over-the-counter, depending on dosage and form, subject to detailed labelling requirements designed to prevent long-term use. For example, the only permitted indication for use for nicotine gum is "as a temporary aid to those who want to stop smoking cigarettes or break the cigarette habit, when used as part of a smoking cessation program."[43] The label must include the comments, "Do not use if you a non-smoker or occasional smoker", "For adults only. Not to be used by persons under 18 years of age" and "Do not smoke, use nicotine patches or any other form of nicotine while using nicotine gum." A manufacturer that succeeded in developing a pharmaceutical-style product that

40 Neal L. Benowitz, *Nicotine Safety and Toxicity.* New York: Oxford University Press, 1998, p. 187.

41 Ibid, p. 190

42 Cf. Stitzer ML and De Wit H, "Abuse Liability of Nicotine", in Benowitz NL, in *Nicotine Safety and Toxicity,* New York: Oxford University Press, 1998, p. 124, for nicotine uptake profiles for several pharmaceutical products compared to cigarettes.

43 Health Canada, Therapeutic Products Directorate, Labelling Standard: Nicotine Gum. On-line at www.hc-sc.gc.ca/hpfb-dgpsa/tpd-dpt/nicoting_e.html .

mimicked the nicotine uptake profile smokers achieve with cigarettes would likely have great difficulty obtaining approval, given the clear abuse liability.

The government could choose to allow 'pharmaceutical' nicotine products for long-term use, and even allow products with higher 'abuse liability', i.e. higher nicotine dosage and higher uptake; the result (depending on marketing rules) could be widespread autonomy theft *without* risk of death.

Things are a good deal more complicated with products whose use may cause *some* deaths, but clearly far fewer than the use of cigarettes. (We will assume for argument's sake that snus falls into this category, though some snus proponents argue there is no proven risk to snus use at all.) This is ethically tricky. On the one hand, it seems illogical and unconscionable to allow the unrestricted sale of one highly hazardous product (cigarettes) and prohibit a less hazardous potential substitute (snus), though this is the present situation in the European Union outside Sweden, and also in Australia. Indeed, as we shall explore below, even running campaigns about the health risks of snus and other forms of oral tobacco without providing information on the *relative* risk of these products compared to cigarettes is questionable, since the likely consequence is that some smokers who would otherwise have quit will not do so and will be killed as a result.

On the other hand, if one takes a purely utilitarian point of view that our only objective is to minimize the number of deaths, one could argue that governments should actively *lie* about the health risks of snus and the like — by claiming they are guaranteed to be absolutely risk-free. This would cause even more smokers to switch over, and if a tiny percentage of them went on to die of oral cancer or heart attack from their use of snus, the net impact would still be positive. At the very latest when some young people became addicted to nicotine by trying the new 'risk-free' wonder drug, the ethical problems of this 'little white lie' would become clear to everybody.

Clearly, then, there is a responsibility to be truthful and to avoid doing harm to 'bystanders' *even if that means accepting some otherwise avoidable deaths*. Ideally, everybody should be fully and truthfully informed about the risks, and the relative risks, of all nicotine delivery devices, and given help to quit nicotine entirely or shift as far down the hazard scale as possible. As we have seen, the decision to become addicted — or to remain addicted — is rarely, if ever, an informed choice; but there is no reason why addicts should not be able to make a rational, informed choice about which variety of the drug they wish to take.

Even if we can agree on this principle, the practical consequences are unclear. If we believe that most smokers can be convinced to switch to a snus-like product in, say, the next five years, adapting regulatory policies on labelling and advertising to make this possible might be a priority. Perhaps the government might even choose to put part of its mass media

money into the promotion of snus as an alternative to smoking. If, on the other hand, we decide there is no realistic prospect of snus/smokeless use growing much beyond its existing niche, then we may wish to keep our grand ethical principles in mind as we adopt future regulations and amend existing legislation, but our attention will be on other matters.

It is not possible to make any kind of firm prediction on the potential market share for snus-like products without considering in more detail the direction in which the overall nicotine market may be headed (which we will look at in the coming pages).

However, on ethical principles alone, we should be able to dispose of the concern about the need to keep our message ("All tobacco is bad, you must quit") as simple as possible. This would amount to a policy of suppressing information (in this case, about the *relative* risks of one category of product), equivalent to our earlier example of promoting lower-risk products as completely risk-free in order to hasten their adoption.

To use a provocative analogy: condom use does not *eliminate* the risk of transmitting HIV through sexual contact. Even with a condom, anal sex is clearly riskier than abstinence (because of the risk of condom rupture etc.). Yet when somebody suggests we should concentrate our public education on telling people 'all (anal) sex is bad', and avoid mentioning the possibility of risk reduction through condom use, most public health specialists dismiss them as dangerous religious fanatics. While the drive to consume nicotine is not hard-wired into humans in quite the same way as the drive to have sex, it is extremely strong amongst those who are addicted.

The worry about 'cycling' and manufacturers' motivations

Another frequently voiced concern about trying to make manufacturers of lower-risk nicotine products into public health allies is that such companies do not have any incentive to get people out of the nicotine market — nor even to get them off smoking. After all, the argument goes, the pharmaceutical industry actually makes more money if its customers relapse back to cigarette use at the end of their nicotine replacement therapy (NRT), then make a second quit attempt (with pharmaceutical aids) a few months or years later. Moreover, if no kids ever got addicted to cigarettes, the market for NRTs would eventually dry up. In this view, the ideal universe for NRT manufacturers is one in which a large portion of the population regularly cycles through cigarettes and NRT products, without ever breaking their addiction. The high relapse rate amongst smokers who quit with NRTs is sometimes seen as evidence of this. If 'the pharmas' really cared about smokers' health, wouldn't they make better products?

There is a rational core to these complaints: without nicotine addiction, there is not much market for nicotine products.[44] In an unregulated market where low-risk, 'pure nicotine' products competed with cigarettes, manufacturers from all product categories would presumably seek to recruit teenagers to try their products.

However, with respect to the high relapse rate from NRTs to smoking at present, it is worth repeating that the primary obstacle to having more effective pharmaceutical nicotine at present appears to be regulatory in nature, rather than a secret desire to live in symbiosis with the cigarette industry. A manufacturer who designed an NRT product that had the same pharmacological impact as cigarettes (dosage, uptake speed etc.) would almost certainly fail to make it through the drug regulatory process. Instead, the bias is towards slow-uptake, low-dosage products that take some of the edge off withdrawal symptoms but are nowhere close to being pharmacologically 'competitive' with cigarettes. And though there are no doubt people using NRTs for much longer than the indicated duration of use (in fact, off-label use of various kinds may represent an appreciable proportion of NRT sales), no manufacturer can risk getting caught encouraging such use; yet manufacturers can hardly be blamed for relapse that occurs after people have stopped using their products.

In the case of snus or other forms of smokeless tobacco, the issue of manufacturers 'growing' the total nicotine market rather than attracting smokers away from cigarettes is a more immediate concern. US Smokeless Tobacco Co. (UST), which is the dominant player in the (tiny) Canadian market for smokeless products, has a long history of competing with cigarette manufacturers for the youth market in its home country. In Canada, where promotional efforts at present are largely restricted to a few product displays in retail outlets, no effort has yet been made to position UST products as a way to leave cigarettes behind. Clearly, then, the fact that a company makes a tobacco product that is less harmful than cigarettes does not make it a lily-white charitable institution devoted only to public health.

That, however, is not the issue. The issue is whether we can design a regulatory environment in which it is to manufacturers' advantage to do things that happen to help public health. In the case of cigarette manufacturers, this requires some very fancy re-jigging of the cigarette market (see Option II of this paper). In the case of manufacturers of other nicotine products, much smaller adjustments may be necessary: autonomy theft leading to death is not their core business.

So long as cigarette manufacturers continue to generate a steady stream of new addicts, manufacturers of less harmful products will have a business strategy available to them that *is* in the public interest: getting addicts off cigarettes. Given the small share of the 'mature addict market' that NRTs and smokeless have in Canada at present, there is no reason why

44 With the possible exception, as mentioned earlier, of 'self-dosing' people seeking symptomatic relief from various disorders.

they should not be able to abide by a 'don't touch kids' rule.

Potential impact of inter-category competition on cigarette companies' strategies

It is easy to forget that cigarette companies would actually prefer their customers live long and healthy lives, if only so they could continue to buy more product. One of the tragedies of the tobacco epidemic is that cigarette manufacturers, having discovered in the 1940s and 1950s that their products were extremely dangerous, made no serious attempt to move their customers away from cigarettes and towards less hazardous products. If, in the 1970s, Imperial Tobacco had poured its advertising budget into promoting Player's Smokeless instead of Player's Light, many thousands of lives might have been saved. (Imperial Tobacco actually owned a smokeless tobacco company, National Tobacco, until 1986.)

The obstacles to this happening were numerous:

- From a marketing point of view, cigarettes are clearly a 'superior' product; outside of Sweden, it is hard to find an example of smokeless products successfully grabbing market share back from cigarettes.[45] Whether this is an issue of pharmacokinetics — the nicotine hit from cigarettes is faster than from smokeless — or the continuing perception that cigarettes are more 'hygienic' (no spitting, no direct contact with the insides of the mouth etc.), the consequence is clear: at least in Canada, smokeless (and probably also pharmaceutical-style products) probably has no hope competing against cigarettes *except* on health. So long as cigarette manufacturers flatly denied the health effects of cigarettes, there was no way they could have successfully moved their customers into the smokeless market.

- One impact of competing on health would have been to reduce the size of the overall nicotine market, with obvious financial consequences. The only way to make a switch to less-harmful products profitable would be to lure customers away from other manufacturers' brands. This would have completely disrupted the rather comfortable cartel in effect since the 1960s, which saw Canadian companies refrain from competing either on price or on health. The latter was even the subject of an explicit agreement between manufacturers.[46]

- Apart from advantages of incumbency such as economies of scale and established distributions networks, cigarette manufacturers' two advantages over

45 In other markets where smoked and smokeless products each have large shares — such as India or Bangladesh — the market tends to be segmented in some way, e.g., smokeless for women, cigarettes and other smoked products for men, or cigarettes for rich people and other products for the poor.

46 See form signed by Imperial Tobacco, dated Oct. 12, 1962, available on www.pmdocs.com at Bates number 2024994263.

prospective competitors who are not already in the market are: 1) brand equity and 2) technical knowledge about cigarettes, smoking behaviour and nicotine. It may be possible, given sufficient advertising, to transfer brand equity to a radically different product, such as smokeless, but it is certainly not a simple undertaking. Technical knowledge about nicotine is transferable, but obviously cigarette-specific knowledge is not.

- Simple inertia clearly also played a role. Why change strategies, when your existing strategy is very profitable and risks appear manageable?

If cigarette companies faced significant competition from smokeless tobacco or pharmaceutical nicotine, this calculus would change. Presumably the first reaction of cigarette companies would be defensive — attempting to buy up and shut down makers of novel products, for example. They would likely launch new variants of 'health reassurance' cigarettes, along the lines of the 'light' and 'mild' deception.

But if all these tactics failed, cigarette companies might well decide to enter the smokeless or even the pharmaceutical market, possibly even with brand extensions using their cigarette trademarks. The primary objective might be to stifle the competition and bring errant smokers back to cigarettes — and that might even be the effect. But we shouldn't underestimate the tremendous advantage that non-combustion products would have in a 'transparent' market, in which users were properly informed of relative risks. Smokers' very high stated intentions to quit suggest they might well accept a pharmacologically somewhat 'inferior' product in return for a big reduction in health risks.

The extent to which non-combustion products can increase their share of the Canadian nicotine market almost certainly depends on how much effort we are willing to put into encouraging nicotine addicts to switch. It has been suggested that widespread snus use is an idiosyncrasy of Swedish culture that cannot be exported to other countries that do not have long-standing traditions of smokeless use. This is not particularly convincing: culture is malleable, as indeed the history of cigarette marketing shows to an extraordinary extent. Moreover, in the case of Sweden, snus went from being a declining, decidedly blue-collar product in 1970 to the majority nicotine product amongst Swedish men by the late 1990s; this 'cultural' shift occurred in the absence of any organized effort by health authorities to encourage Swedish smokers to switch to snus.

If the Canadian public health community decided it was worth doing, we would have many tools available to encourage a cultural shift in this country. For example, we could require a statement on cigarette packs: "If you can't quit, switch to smokeless tobacco and reduce your risk of death and disease by at least 95%[47]." We could encourage doctors to advise

47 Obviously such a statement would need to be true, which it may not be at present for some of the smokeless products allowed on the Canadian market.

smokers who had so far failed to quit to try smokeless instead. We could run information campaigns on the relative risk of oral cancer from cigarettes and from smokeless tobacco. We could tax products differentially, so that an equivalent dose of nicotine from cigarettes cost five or ten times as much as from a pharmaceutical product. We could oblige cigarette manufacturers to distribute free samples of non-combustion products with every pack they sold.

The issue, then, is not whether we *can* shift the Canadian nicotine market towards less hazardous products. The issue is whether the advantages of doing so are worth the problems that might flow from the steps necessary to cause the shift. Thus, we need to examine in more detail some of the tools we might want to use.

Incremental change and partial solutions

Before we examine policy options in detail, it is worth noting that a strategy of encouraging addicts to shift to less hazardous nicotine products is not an all-or-nothing deal. It need not replace existing demand-reduction strategies, nor other strategies to prevent autonomy theft, though of course there is always the risk that debate about harm reduction ends up diverting energies from other tasks.

Moreover, some aspects of a market-shifting strategy can be implemented incrementally — if just a small percentage of hard-core smokers switch to long-term use of pharmaceutical nicotine, for example, this may be a significant enough gain to be worth pursuing, though our main energies may be directed elsewhere. Indeed, there is already a *de facto* policy of progressively liberalizing rules for NRTs (move from prescription-only to over-the-counter status, wider distribution, faster approval of new products etc.), and the result is that there already are some long-term users of these products, despite the instructions on product inserts.

On the other hand, half-hearted implementation of some aspects of the strategy might make things worse rather than better; there is indeed the risk of creating a strengthened but still small ‘alternative products’ segment whose net effect is actually to increase cigarette consumption, because regulatory barriers still stop the alternative products from being fully competitive with cigarettes.

Possible measures to implement Option III

Allow/require/publicize relative risk messages

The first step in any effort to shift the market towards less harmful products is to ensure nicotine addicts are provided with more accurate information about the *relative* risks of the various options available to them. At present, little such information is available, and indeed existing regulations, no doubt unintentionally, make it difficult to do so or even contribute to false impressions of relative risks.

A startling example concerns use of nicotine products during pregnancy. Drugs regulators wrote the warning that is required on nicotine gum, which reads: "Do not use... [i]f you are pregnant or nursing a child. Avoid becoming pregnant while using nicotine gum. If you think you are pregnant, stop using nicotine gum at once and see your doctor."[48] This is sound advice, as far as it goes — the extent of the problems caused by fetal exposure to nicotine is not completely clear, but it is clearly not innocuous.

Cigarettes cause so many more diseases than nicotine gum that health warnings are spread over 16 different messages on the outside of the pack, and 16 more within the pack. As a result, only 1/16 of cigarette packs bear the outside message, "Cigarettes hurt babies. Tobacco use during pregnancy reduces the growth of babies during pregnancy. These smaller babies may not catch up in growth after birth and the risks of infant illness, disability and death are increased."[49] One of the 16 interior messages — presumably written by somebody with a background in health promotion — mentions that babies born to smoking mothers "are more likely to need hospital care" and that "the best solution is to stop smoking."

Though the (outside) cigarette message is more prominent than the message on nicotine gum — it is accompanied by a picture of a pregnant woman — one still has to wonder at the disparity between the two messages. Women are not told to "avoid becoming pregnant while using cigarettes". They are not told that if they discover they are pregnant, they should throw away all their cigarettes and immediately rush to the doctor's office; merely that "the best solution is to stop smoking." Yet the reality is that it is *much* worse for the fetus if the mother smokes during pregnancy than if she uses nicotine gum; the smoker who finds herself pregnant is in correspondingly greater need of immediate medical attention. And should the patient prove to be incapable of quitting, nicotine replacement therapy is

48 Health Canada, Therapeutic Products Directorate, "Labelling Standard: Nicotine Gum". On-line at: http://www.hc-sc.gc.ca/hpfb-dgpsa/tpd-dpt/nicoting_e.html .

49 See http://www.hc-sc.gc.ca/hecs-sesc/tobacco/legislation/warnings/labels/index.html .

almost certainly the lesser of two evils.[50]

It does not take too much imagination to picture a woman discovering that she is pregnant, throwing away her nicotine gum after reading the product insert, and relapsing back to smoking during the wait period to get a doctor's appointment. At the very least, the NRT package insert should warn women that it is *much* riskier to smoke than to chew nicotine gum. It would be advisable to give information on relative risks of fetal exposure on cigarettes also.

The approach could be more generally applied. For example, if numeracy levels in Canada were high enough, one could imagine a 'nutrition information' type box on the pack:

Risk of dying*:

From cigarettes 50%
From smokeless tobacco 0.1-5%
From nicotine gum/nicotine patch 0-0.1%
From quitting 0%

*Average, assuming 40 years of use
[figures for illustrative purposes only]

At present, advertising is allowed for over-the-counter nicotine products and for tobacco products, though under different regulatory régimes. Some kind of relative risk disclosure statement in advertising could easily be authorized and/or made obligatory, along the lines of the pack messages pictured above.

US television commercials for prescription drugs, with their ritualistic reciting of side-effects and warnings against a soothing visual backdrop and distracting imagery, demonstrate that mandatory disclosure statements probably count less than overall impression, especially in the case of TV advertising. (Which is permitted in Canada for over-the-counter nicotine products.) In the case of smokeless tobacco, what overall impression would we wish potential customers to be left with? How would we react, for example, to a print ad in an adult publication headlined, "Thompson's Tobacco Tablets: Low-risk, smoke-free, full-flavour tobacco satisfaction", that then went on to (accurately) summarize the state of scientific knowledge on the risks of cigarettes, smokeless tobacco,

50 For a thorough discussion on pregnancy, smoking cessation and NRTs, see http://www.mja.com.au/public/issues/175_06_170901/walsh/walsh.html .

nicotine gum and quitting? The *Tobacco Act* allows advertising "that provides factual information to the consumer about... a product and its characteristics" (s. 22(4)); does 'information about a product' cover competitive claims, such as 'low-risk', if backed up by accurately stated data?

Given the obvious potential for abuse, one option would be to allow competitive, risk comparison claims only if the manufacturer met standards for scientific justification, overall impression, accuracy, likely public health impact and, in particular, possible effect on non-users/young people. This would need to include ongoing monitoring of consumer perceptions after the product was launched.

Another option would be to disallow all competitive claims, but have the government undertake to systematically provide objective information on relative risk to all users. One can imagine the ad campaigns: "If you think you're too addicted to quit smoking, have you considered trying X or Y?" The tricky aspect of this is that the government would effectively end up endorsing particular products (or product categories), and the choice of which category to promote at any given time might well have a determining influence on products' commercial success. Manufacturers would lobby heavily for a particular slant to advertising/information, and might even offer to pick up the costs.

At a bare minimum, Health Canada might wish to re-consider the wording of the existing comparative warning on chewing tobacco and oral snuff, which reads: "This product is not a safe alternative to cigarettes." While factually true — chewing tobacco and snuff are not safe — this statement provides no indication that at least some varieties of snuff are vastly less dangerous than cigarettes — the equivalent of falling 1 metre rather than 10 or 20 metres.

Address cigarettes' historical advantage through taxation or other means

Cigarettes were heavily advertised — to the virtual exclusion of other nicotine products — from at least the time of the First World War until very recently. In an environment where advertising for all tobacco products is tightly restricted, and pharmaceutical nicotine products are subject to the elaborate set of rules that apply to all pharmaceuticals, this historical fact gives cigarettes a tremendous advantage — a monopoly on what is seen as 'normal' or 'possible' for nicotine addicts.

Of course, this could be addressed by giving products other than cigarettes a period of time (say five or ten years) during which they could engage in the sorts of deceptive lifestyle advertising that gave cigarette manufacturers their sterling reputation. Alternatively, some other measure is necessary to compensate for cigarettes' historical advantage.

One obvious means would be taxation. If cigarettes were taxed at higher rates than at present, smokeless products were taxed as other consumer products (i.e. GST and PST) and pharmaceutical nicotine was given away for free or at a subsidized price, and the reason for the disparity was explained, this would likely break the cigarette monopoly and shift many people down the harm scale. Moreover, the signal would be strongest for those with the lowest incomes — who are the least likely to respond to informational campaigns.

Another approach would be to force cigarette manufactures to include alternative products with each pack of cigarettes sold, in the same way that Microsoft has proposed bundling competitors' software with its operating systems to allay the concerns of European competition authorities. In the case of cigarettes, the 'bonus' products could come with a mandated brochure on relative risks. This would not be ideal from an environmental perspective — much of the alternative product would presumably get thrown away — but it might well stimulate cigarette manufacturers to attempt to transfer their brands to new product categories, and it would certainly ensure widespread access to other products.

A variant of this approach would be to mandate the inclusion of redeemable coupons in each cigarette pack. These could be traded in for alternative products, at the original point of sale or in specially designated outlets. Indeed, the coupons could even be exchanged for cessation services (to the extent these are not already covered by medicare). The trade-in rate could be set to reflect the relative hazard of different products, so that (say) one dose of nicotine in smokeless tobacco form would 'cost' the same as three doses of a cleaner product.

One possible advantage of this type of system is that it would encourage considerable discussion of alternative products between nicotine addicts. Long-term users of a smokeless product, for example, would end up asking their smoker friends for their unused coupons, inevitably provoking discussions about how they found the product. A possible disadvantage, of course, would be the virtual destruction of any kind of 'normal' sales channels for products other than cigarettes.

It should also be noted that both the 'piggyback' and the coupon systems are similar in effect to differential taxation: their main effect is to adjust the relative cost of different products. The educational value of the 'gimmick' might or might not be worth the administrative effort involved in implementing such systems.

Guaranteed or differential access

Cigarettes are by far the most accessible nicotine product at present. Virtually anybody (except, in five provinces, pharmacies) can sell them; they are displayed alongside chocolate bars, disposable cameras and other such items in convenience stores,

supermarkets, corner stores, bars etc. Pharmaceutical products are generally sold only in pharmacies, next to cold remedies and pain killers. This disparity has both practical and psychological consequences.

On the practical side, cigarettes are much more likely to be the object of impulse purchases, both because of wider availability and because of positioning — people who are looking for cold remedies or pain killers are much less likely to make an impulse purchase of a nearby item than somebody who drops by the corner store for a litre of milk or a newspaper. Though drugstore chains have increasingly blurred the line between pharmacies and corner stores, NRTs are rarely displayed in the 'impulse purchase' section near the front of drugstores.

On the psychological side, people think very differently about pills and medicine than about chewing gum and other typical corner store items. Some will worry about some rare side-effect of acetylsalicylic acid (ASA) while happily chomping on some high-fat, high-sugar pseudo-chocolate product that, statistically, is much more likely to do them harm. Moreover, they go in to the pharmacy looking for something to make them healthier, prettier, new and improved — in short, to make *worthy* purchases. Other types of stores are utilitarian and/or places for self-indulgence. In short, the respective environments in which cigarettes and pharmaceutical nicotine is sold positively discourage nicotine addicts from thinking about relative risks. Smokeless tobacco doesn't suffer from this particular disadvantage — to the extent it is sold at all in Canada, it is sold through the same channels as cigarettes, though hardly in a way that encourages risk comparisons.

In theory, the pharmacy environment seems more appropriate for all nicotine products, particularly if all products are sold by trained pharmacists who provide verbal reminders of relative risk. ("You sure you want cigarettes? Have you tried this gum here? It's a lot safer.") In practice, many pharmacists consider it contrary to professional ethics to sell tobacco products; many other retailers would raise a tremendous fuss if they were deprived of the right to sell cigarettes.

A more radical approach, which would antagonize *all* retailers, would be to move sales of all products to special 'nicotine stores', which would help educate people about what exactly they are buying and why.

Perhaps more realistic would be to require all retailers to stock alternative products if they wished to also sell cigarettes. This would presumably require a fairly elaborate enforcement system, at the beginning, to ensure retailers actually stocked fresh, palatable product and made it available to customers. (In this scenario, only pharmacists would be annoyed.)

In the event this 'must-stock' provision was combined with a ban on cigarette displays, alternative products would have *greater* visibility than cigarettes, and presumably a leg-up

in taking market share away from cigarette manufacturers.

At a bare minimum, it seems logical that wherever cigarettes can legally be sold, the sale of safer nicotine products should also be allowed. The reality is that this is already the case for most products, in theory (the exception being prescription-only products), but that few supermarkets or convenience stores have taken to stocking nicotine patches or gum and few will until these products have much larger market shares.

One possible problem with any proposal that seeks to reduce cigarettes' monopoly power by providing more market access for other products is that it could be misconstrued as government promotion of nicotine addiction. A further problem, particularly if pharmaceutical nicotine products are authorized for long-term use, is that the one option whose overall visibility would likely *decrease* is outright quitting, for which there would be no manufacturer lobbying. There is no simple solution to this problem, beyond political will to invest heavily in promoting cessation. Conceivably, all nicotine products could be subject to a dedicated cessation tax to fund mass media campaigns and cessation programming, though this would require the Department of Finance to overcome its objections to dedicated taxes.

Product standards

As mentioned earlier, the complex nature of tobacco smoke, cigarette engineering and smoker-cigarette interaction makes it extremely difficult to develop meaningful product standards for cigarettes, at least in the context of adversarial regulation. However, for most types of non-combustion products, performance standards of various types should be comparatively easy to develop. Even in the case of a smokeless tobacco product with numerous additives, the chemistry should be simpler to analyse than is tobacco smoke, whose chemical composition changes rapidly as it enters the human body (because of the temperature drop) and depends to no small extent on smoker behaviour (even at equal puff volumes, a short, intense puff will not have the same composition as a long, less intense puff, for example). It would be a straightforward matter to set upper limits on the levels of nitrosamines in smokeless tobacco. Since, at least for some products, nitrosamines continue to form after smokeless tobacco leaves the factory, it would make sense to set limits for nitrosamines in products tested at retail, or to mandate storage conditions. (Refrigeration slows formation of nitrosamines in many products.)

As manufacturers of minority products trying to break an existing monopoly, makers of pharmaceutical nicotine and smokeless products have a strong interest in getting a government 'seal of approval' in the form of product safety standards. They would presumably fight standards that were very expensive to meet. But given that fear of nicotine seems to be a major obstacle to the sale of NRT products, and fear of oral cancer is the

overwhelming obstacle to higher smokeless sales, manufacturers also have a considerable incentive to co-operate.

One can imagine the ad copy: "Our competitors make a product that creates so many different cancer-causing chemicals when burned that Health Canada has given up trying to make it safer. Our product, in contrast, is carefully tested to ensure it meets rigorous government safety standards."

Also, there is no reason product standards for non-combustion products should be limited to direct safety issues. Nicotine dosage and speed of uptake should both be far easier to measure with such products than with cigarettes, and labelling standards could be developed accordingly. At least in theory, this might allow a smoker to take a 'nicotine tapering' approach to cessation, moving (say) first from cigarettes to a high-dosage, rapid-uptake inhaler, than gradually down the scale to lower and lower doses at slower uptake rates. Dosage and speed of uptake are critical elements that determine whether a drug is addictive.

There is nothing in law to stop Health Canada from immediately developing product standards under the *Tobacco Act* for non-pharmaceutical nicotine products. However, governments are reluctant to put resources into developing standards for products that have a very small market share, particularly when the cost-benefit ratio does not appear to be favourable — in Canada, the number of people who die from oral cancer caused by smokeless tobacco, for example, could be as low as 1/500th to 1/50,000th of the number who die from cigarette-caused diseases[51]. It would require an explicit plan to move an appreciable proportion of nicotine addicts over to smokeless to justify the regulatory effort — or, of course, an effort by smokeless manufacturers to move into the Canadian market in a big way, particularly if they attempted to do so on the basis of health claims. Should the market share of smokeless tobacco begin to grow and product standards not be adopted, there is a danger we would see an influx of product with very high nitrosamine levels, e.g. from India.

Changing the status of pharmaceutical nicotine

In the United States, we have seen the launch of a number of 'pseudo-pharmaceutical' nicotine products, such as Star Scientific's Ariva tobacco lozenges. These are legally classified as tobacco products, but are deliberately packaged to look like pharmaceuticals

51 Based on CTUMS 1999 data on smokeless tobacco use (1% of males), and the Royal College of Physicians estimate that "non-combustible tobacco is of the order of 10-1,000 times less hazardous than smoking, depending on the product" (see Royal College of Physicians of London, *Protecting smokers, saving lives*, 2002, p. 5.), smokeless tobacco kills between 1 and 100 Canadians per year. This is necessarily an imprecise calculation, since little is known about patterns of use in Canada, the respective demographics of the cigarette and smokeless markets, and many other relevant factors.

— in the case of Ariva, in the type of bubble packs typically used for prescription drugs.[52] There is no legal obstacle to selling such products in Canada, though the *Tobacco Act* does create several obstacles for successful marketing (and the products have yet to catch on even in the United States).

Pseudo-pharmaceuticals have a number of competitive advantages over pharmaceutical nicotine products. First, there are no legally mandated indications of use for pseudo-pharmaceuticals — no requirement to tell users that there's a time limit on how long they should use the product and so on. Second, there is no dosage limit. Third, there is no requirement to get permission to sell new varieties of product, as there is for pharmaceuticals. Fourth, there are no rules at all on additives, even additives that may clearly boost addictiveness or disease risk.

This marketing freedom is a double-edged sword, since it also means that pseudo-pharmaceuticals have no (implicit) guarantee of safety from Health Canada, and would need to include the mandatory health warnings, notably about oral cancer. Nevertheless, a heavily promoted Ariva-like product could potentially wipe out most of the market for pharmaceutical nicotine, and the radical difference in regulatory treatment for similar-looking products would be certain to lead to protracted fights between manufacturers in the two categories.

There are at least four ways to deal with this problem:

1. Liberalize indications of use and advertising rules and speed up the approval process for new pharmaceutical nicotine products.

2. Classify non-combustion tobacco products as pharmaceuticals.

3. Create a new category, nicotine products, to regulate all nicotine products except combustion-based products.

4. Put all nicotine products under a modified *Tobacco Act* régime, which might usefully be re-named the *Nicotine Products Act*.

Each of these options creates different types of problems.

Attempts to loosen the rules for pharmaceutical nicotine products would likely be perceived as the 'thin edge of the wedge' for a broader agenda involving all pharmaceutical products (direct-to-consumer advertising for prescription drugs, etc.) — and might well be used in this manner by manufacturers.

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52 US health groups unsuccessfully petitioned the FDA to have Ariva classified as a drug.

Classifying non-combustion tobacco products as pharmaceuticals would, under existing rules, amount to a ban, both on safety grounds and because of abuse liability.

A new regulatory category for non-combustion products of any kind would have the advantage of clarity — 'bad' nicotine under the *Tobacco Act*, 'good' or at least 'much less bad' nicotine under some other piece of legislation. In the long term, the potential for regulatory capture seems particularly high in this scenario, though this is perhaps an issue one could worry about later. A more immediate concern might be cigarette manufacturers' attempts to enter this segment with 'pseudo-cigarette' products — such as R.J. Reynolds' Eclipse — that primarily heat rather than burn tobacco, but are packaged to look like cigarettes.

Finally, a unified régime for all nicotine products, from nicotine gum all the way to cigarettes, is logically the most appealing but would probably not be feasible in the near future: pharmaceutical companies would likely object to being lumped in with tobacco products manufacturers, and might even decide to leave the market entirely to avoid damage to the reputation of their non-NRT business.

In practice, then, we may well see some combination of the above — a period of NRT liberalization under the existing regulatory structure, followed by skirmishes about pseudo-pharmaceuticals etc.

The central point for regulators, policy-makers and tobacco control advocates is that we need to get into the habit of looking at the entire nicotine market as a whole, rather than see each segment in isolation.

Obstacles to a market-based approach

Unwillingness to compete

Tobacco control advocates are often impressed (usually unfavourably) by the high visibility of pharmaceutical companies at tobacco control conferences. Fancy displays, special breakfast and lunchtime sessions, invitation-only cocktail hours and the like create the impression that NRTs are big business and manufacturers see immense potential in competing for a larger share of the nicotine dollar. In fact, at least for large pharmaceutical companies, nicotine products are a relatively uninteresting, low-margin business. Pfizer's Consumer Health division (which includes NRTs) sold US$3 billion worth of product in 2003; its Human Pharmaceuticals business, led by Lipitor and Viagra, accounted for almost US$40 billion in sales.[53] The aspects of NRT marketing that are most distressing to

53 See Pfizer Inc., 2003 Performance Report. On-line at http://www.pfizer.com/are/investors_releases/2004pr/mn_2004_0122.cfm .

tobacco control advocates — the attempt to influence discussions through strategic sponsorships of speakers and events etc. — are the marketing tools that pharmaceutical companies have developed over the years to influence their primary customers, i.e. prescribing doctors.

None of this signifies that Big Pharma is interested in competing head-to-head with Big Tobacco. Aggressively going after the market for long-term nicotine products would make for very poor PR at present.

Smaller companies that concentrate solely on nicotine products might be willing to take more risks in this regard, but are also more vulnerable to cigarette company efforts to buy them up and shut them down, or otherwise co-opt them.

Suspicion of corporate motives

The cigarette epidemic is set to kill a startling 1 billion people around the world in the coming century.[54] It came about because of the horrible confluence of a standardizable, highly addictive product and the profit motive. The tobacco industry systematically attempted to corrupt the scientific process so as to cover up the harmfulness of its products; it used all the tools of mass marketing to associate cigarettes with vitality, health, fun, pleasure and adventure. Not only has it acted against numerous ethical principles, it has also systematically engaged in various types of illegal behaviour, such as consumer fraud and smuggling.

Not surprisingly, then, there is a widespread feeling in the tobacco control community that the tobacco industry is corrupted in its very essence, and that a drug as powerful as nicotine cannot possibly be entrusted to private interests without disaster ensuing. As we saw with the 'light' and 'mild' fraud, when a tobacco company comes to you saying they want to do something for public health, it is almost certainly too good to be true.

Moral outrage is no substitute for analysis. However, clearly markets for addictive drugs require extensive safeguards to protect consumers and potential consumers from autonomy theft. The tobacco control community — and the wider public health community — are unlikely to accept a market-based approach to reducing cigarette use unless we can figure out what these safeguards would look like and how they can be implemented.

Concerns about blurring the lines

One of the defining features of the present framework of adversarial regulation is clarity:

54 Estimate by Robert Proctor, quoted in *Bulletin of the World Health Organization,* 2002, **80**(1):80.

virtually anything the tobacco industry proposes is good for their bottom line and bad for public health; the job of 'our side' is to push things that are good for public health, which are invariably bad for their bottom line. Though it has taken several decades of trench warfare to get there, the tobacco control community in Canada has been relatively successful in turning tobacco companies into pariahs, at least in the political domain: few politicians now wish to be seen to be defending the interests of Imperial Tobacco, and tobacco companies rate extremely low in public evaluations of credibility. It is worth remembering, though, that this was a hard-fought battle, and that it is only quite recently, for example, that accepting tobacco money to do medical research began to be widely seen as problematic.

Any approach to reforming the nicotine market that leaves a substantial place for profit-making corporations will inevitably muddy the situation: the tobacco control community could easily find itself defending part of the tobacco industry against another part, or asking for more marketing of nicotine products rather than less. Moreover, since it is unlikely that all members of the tobacco control community will share the same evaluation of particular regulatory issues or products, we could easily see public debates that feature tobacco companies and health organizations in both camps.

A period of protracted infighting in the tobacco control community that allowed the cigarette industry to make a political comeback would be a very bad thing indeed for public health. But our first loyalty must be to the interests of the millions of Canadians who are addicted to nicotine and at high risk of dying as a result; harmonious relations between public health organizations are not an end onto themselves.

Zero tolerance for nicotine

Not that many centuries ago, nicotine was unknown to most of humanity; tobacco use was restricted to a few million people in the Americas. Clearly humans do not *need* nicotine, in any absolute sense. Given the misery the drug has created, it is tempting indeed to dream of turning back the tobacco clock to the pre-Columbian era. (Not that that would help in Canada, where tobacco use is much older.)

There are probably few people working in tobacco control who imagine that the problem of tobacco will be gone in our lifetimes. However, many clearly do believe that our ultimate objective must be to rid the world of tobacco, even if this turns out to be an impossible task to ever complete. In the same way, the pacifist would not stop advocating against war, even if he or she expects there will never be a completely peaceful world.

If nicotine itself killed its users in large numbers, or left them impaired in ways that made them a threat to themselves or others, there might be an argument for pursuing tobacco

eradication as our ultimate goal. We have no such evidence at present. On the other hand, we have a good deal of historical evidence that it is extremely difficult to 'uninvent' a recreational drug once it is in common usage. Generally, the drugs that have come and gone have been replaced by 'superior' drugs. For example, the 19th century drug laudanum (an opium solution) was widely and legally sold as a remedy for all sorts of ailments; it disappeared from common usage, but opiates most certainly did not.[55]

Logically, even somebody who believes that taking nicotine is inherently immoral should be willing to accept that there are other priorities we need to deal with first, namely the extremely high death rate of cigarette users. But 'tobacco-free' has been part of our vocabulary for so long now that it will remain an obstacle to the use of substitute products for many years to come.

55 Cf. Hodgson B, *In the Arms of Morpheus: The Tragic History of Laudanum, Morphine, and Patent Medicine*, Vancouver: Greystone Books, 2001.

Conclusions on Option III

In the classical economist's theory of markets, unhampered markets provide the ideal way to aggregate the desires of many people and allocate resources as efficiently as possible. Cigarettes provide an interesting challenge to market theory: they are consumed overwhelmingly by non-sovereign consumers (i.e. addicted smokers); the market is definitely not meeting their overriding desire, the desire to quit.

Market-based options to advance tobacco control start from the premise that it is possible to separate the thing consumers are trying to flee (a very high risk of dying) from the thing they need/want/can't do without, i.e. nicotine. This opens up the possibility of a massive swing in the market, away from cigarettes, that would provide short-term health gains unlike anything we have achieved to date in tobacco control. The swing would be driven in large part by the commercial interests of some players, harnessed by regulation: cigarettes would be superseded by other, less hazardous products. At the end of this process, if it worked, we would still have a market that is far from classical theory: a 'chemical extortion racket', but for strictly financial stakes rather than for lives.

A frequent left-wing criticism of consumerism is that capitalism has an extraordinary ability to generate a product 'solution' to virtually any human desire (and, if necessary, to generate awareness of the 'desire' where none existed). From this point of view, it is ironic that we started this discussion with an analysis of autonomy theft, and in Option III 'commodify' the problem as one of lack of product options, as if autonomy were nothing more than the freedom to choose between products. Certainly there is little evidence that smokers consciously 'want' nicotine but don't want the carcinogens in tobacco smoke; in fact, they generally believe nicotine itself is one of the most hazardous substances in cigarettes.

Though we clearly need to stay alert to markets' bias against non-commodity solutions, the prospect of unleashing Schumpeter's forces of 'creative destruction' on the cigarette business is a tempting one. In the last three decades, as we have been slowly wrestling the cigarette cartel from more than seven million down to about five million smokers, electric typewriters, slide rules, record players and a host of other well-entrenched products have been wiped out by competing products whose existence people could barely imagine in 1970. As the only widely sold consumer product that is bought primarily by unwilling customers, cigarettes seem like a prime target for rapid obsolescence.

Unlike the 'direct control' approaches discussed under Option II, market-based approaches do not directly challenge the economic orthodoxy of the last quarter-century, and may therefore be easier to sell to decision-makers. If properly regulated, markets are likely the

best way to trigger rapid product innovation.

On the other hand, market-based approaches do directly challenge important elements of tobacco control orthodoxy, as well as the more general ‘Just say no’ approach on drug policy. They are therefore unlikely to become whole-hearted public policy in the short term. Moreover, markets can easily ‘get stuck’ — as the example of the cigarette market shows, theoretically ‘free’ markets can morph into extremely destructive cartels, and vigilance and exceptionally well-designed safeguards are needed to ensure competition serves the public interest.

Final comments

Major regulatory changes almost always happen in response to a perceived crisis. With 47,000 Canadians dying every year from tobacco and no realistic prospect of the number coming down to acceptable levels any time soon, we are *objectively* in a state of permanent crisis, but the *perception* of crisis is largely absent. Even for those working in tobacco control, the status quo of adversarial regulation and incremental change has its advantages: the comfort of doing socially useful work, developing and implementing evidence-based measures within an established intellectual framework.

The crisis will come, at some point. It may come because incremental changes eventually throw the cigarette market into chaos, as de-branding causes ever greater market fragmentation. It may come because a few makers of alternative products aggressively set out to provoke a crisis.

Alternatively, it may come because we will eventually run out of new interventions that actually have any measurable impact on consumption and prevalence. After a few years of ineffectual work, pressure will build to cut budgets. At that point, the tobacco control community will either have to come up with a new strategy, or face a rollback. Cigarette manufacturers, still structurally intact and still reliant on the same essential strategy of 'autonomy theft causing death', could even re-gain lost ground in public opinion, policy and overall market size.

Finally, a crisis may come about because the tobacco control community itself successfully provokes one, by regularly pointing out the problems with the status quo, by coming up with well-developed alternative plans and by supporting small changes that nudge the nicotine market closer to the crisis point.

There are at least three challenges for the tobacco control community:

The first is to achieve consensus that we are unlikely to ever achieve a nicotine-free world — and that there is not even a clear moral or philosophical basis for pursuing such an objective. *Our task is to put an end to nicotine-based autonomy theft leading to death.*

The second is to achieve a shared understanding of what makes the nicotine industry tick — and to accept that we have both the power and responsibility to 'make it tick' differently.

The third is to face up to the reality that our choice of strategies for dealing with the nicotine industry is inextricably bound up with broader issues of economic philosophy. We will not be able to duck such issues for very long, though they no doubt divide individuals and organizations, and have a strong influence on the political saleability of different strategies.

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