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The Ethics of Policies for the Prevention of Tobacco Disease

Nigel Gray

From the Division of Epidemiology and Biostatistics, European Institute of Oncology, Milan, Italy

Correspondence to: Nigel Grey, Division of Epidemiology and Biostatistics, European Institute of Oncology, Via Ripamonti 435, IT-20141, Milan, Italy. Tel: +39 02 5748 9815. Fax: +39 02 5748 9813. E-mail: nigel@uicc.ch

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Public Health policy is widely assumed to be ethical. However, the field of tobacco control is extremely complex and opportunities to reduce the disastrous amount of harm caused by tobacco smoking involve taking calculated risks. These risks are avoided by doing nothing. However, doing nothing means accepting the status quo. More effective application of policies aimed at attaining abstinence from tobacco via prevention of initiation and promotion of cessation is needed. The development of other opportunities for harm reduction pose ethical challenges because they involve taking risks and thus may breach the basic ethics principle of doing no harm. These opportunities include consideration of regulating the smoke of tobacco products, of accepting more widespread use of Snus, the use of nicotine replacement therapy (NRT) in continual smokers, the acceptance of the concept of recreational addictive 'clean' nicotine, the regulation and acceptance of potential reduced exposure products (PREPs) and more widespread use of existing NRT. The experience with low tar cigarettes is presented as a cautionary tale.

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The ethical issues surrounding policies aimed at preventing tobacco use have been extensively, perhaps exhaustively, discussed over the past fifty years as the evidence inculpating tobacco use as a major cause of avoidable disease has been built. However, policies aimed specifically at reduction of tobacco-associated disease have a shorter history. There is ongoing tension between policies aimed at preventing the initiation of smoking and its cessation once started (with the ultimate target of achieving abstinence) and policies aimed at preventing or reducing tobacco-associated disease in ongoing smokers—often categorized as the process of harm reduction.

The Oxford Dictionary defines ethics as 'moral philosophy', while various thesauruses offer the following: 'decent, fair, good, honest, just, moral, noble, principled, righteous, upright, virtuous'. Harm reduction policies need to be consistent with the ethical demands placed on public health policymakers.

It is generally accepted that public health policy should first of all *Do No Harm.* Even this simple assertion needs qualifying, as tobacco-associated harm can be experienced at the level of the individual, of the population at large, by bystanders, or even by manufacturers' profits and government budgets.

THE ACHIEVEMENT OF ABSTINENCE

Abstinence is unarguably the best way to prevent tobacco-associated disease, and there are two quite separate pathways to this. Initiation of tobacco use is a psychosocial phenomenon, while cessation of tobacco use involves the conquering of an addiction.

PREVENTION OF INITIATION

The major factors involved in initiation are the pressure of promotion of tobacco by both overt and subtle means and the exemplary role of a large variety of admired groups, from friends, parents, siblings to pop stars and film stars. Money figures largely in this process as advertising costs much money, as does product placement in films. Countering this process has involved a persistent struggle by public health workers around the world, with varying degrees of success. There is no doubt that the abolition of all forms of tobacco promotion is both an essential policy objective and an infringement of the right of free commercial speech, but the balance of benefit is clear.

Despite comprehensive bans on promotion in countries such as Norway, Finland and Australia, the mere persistence of the right to market using a trademark sets up the

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simple act of one youth offering a cigarette from a glossy packet to another as a streetscape event not dissimilar to a formal advertisement. So generic packaging is now a policy objective that has substantial implications for tobacco marketers, who are in genuine competition. Nevertheless the ethical principle that the young should be protected as far as possible prevails. Even the willingness to own a tobacco promotional item (such as a hat or T-shirt) is a predictor of susceptibility to smoking initiation (1) and although prohibition of such items may seem draconian, it is actually essential.

Even successful battles to abolish tobacco promotion at the national level have limited effect, while international sports—particularly formula-one motor racing—are globally televised.

CESSATION OF SMOKING

Maintenance of tobacco use is strongly underpinned by tobacco addiction (2) and cessation is difficult, sometimes impossible, for the individual and generally under-supported by the health professions. Excellent guidelines are available for practitioners (3) but success rates are modest and most successful ex-smokers have made multiple attempts before achieving abstinence.

Downward pressures on smoking are applied, as a matter of policy, both directly and indirectly to smokers. Again, there is an ethical balancing of benefits. The smoke-free workplace restricts the smoker's rights, but supports those of the non-smoker, as well as assisting smokers in a decision to try and quit. Increased taxation may be regressive socially, but, again, it is an important incentive to quit and reduces smoking rates.

HARM REDUCTION

Harm reduction is an attempt to reduce continual smokers' exposure to tobacco risk, although it has a more complex definition: 'Lowers the tobacco-related mortality and morbidity even though use of that product may involve continued exposure to tobacco-related toxicants' (4). Given that there is a spectrum of risk attributable to all tobacco sources of nicotine, clearly certain changes in use-age patterns may reduce lifetime risk. However, this statement is subject to the corollary that absorption of tobacco toxicants depends on how the user uses the product concerned. Ethical dilemmas abound in this field, as policy, albeit well intentioned, can be subverted or mistaken and may result in harmful outcomes.

The spectrum of harm

- The wartime cigarette
- Today's cigarette
- Cigars and Bidis
- Chewing tobacco and like products
- Potential reduced exposure products (PREPs)
- Snus: an oral form of snuff used in Sweden
- Addictive 'clean' nicotine
- Nicotine replacement therapy (NRT)

The proviso that use-age patterns are crucial is exemplified by the observation that cigar smokers who smoke, but do not inhale, five cigars daily have approximately one-quarter of the lung cancer risk of a cigarette smoker of 20 cigarettes per day. However, the 5-per-day cigar smoker who inhales moderately runs a similar risk to that of the 20-per-day cigarette smoker (5).

The low tar experience

The experience with the low tar cigarette (6) exemplifies the dilemmas facing policymakers dealing with an industry that deliberately chooses to subvert the ethical and carefully thought-through objectives of the policymakers of the 1960s. Reducing tar was logically expected to reduce total particulate smoke dose and therefore carcinogen dose. However, the introduction of ventilated filters and other design features aimed at reducing the machine-measured smoke dose, but not the actual dose to the smokers' lungs, resulted in an outcome with little or no mortality benefit (7). However, there were other unexpected consequences, resulting from qualitative changes to the cigarette, that led to more efficient nicotine absorption, increased inhalation and smaller droplet size, a cigarette that is easier to smoke and to learn to smoke, a relative and absolute increase in the risk of adenocarcinoma, the use of misleading descriptors such as 'light' and 'mild' and, finally, a decrease in quitting (8). There does seem to have been some benefit from the reduction in Benz(a)pyrene which probably underlies the relative decline in the incidence of squamous cell carcinoma of the lung.

In the light of the low tar experience, we should take note of the thesaurus analogue of ethics—*right.* There do, however, remain some opportunities for harm reduction that require careful consideration and, in some cases, urgent action. A central feature of all of these is the necessity for regulatory change so that the design of tobacco products is subject to the same supervision as that of pharmaceutical drugs.

OPPORTUNITIES FOR HARM REDUCTION

The 'regulated' cigarette

There is no doubt that the modern cigarette is unnecessarily carcinogenic and could be improved by the establishment of upper limits for specified carcinogens and toxins (9). This requires change in the law but is urgent. It will not produce a safe cigarette (and probably does little or nothing for heart disease) but it should produce something less danger-

ous than the current model. There is no doubt that this change would be ethical, and right, but proof of benefit may take many years to come. This same process should be applied to all tobacco products.

Snus

Controversial but interesting is the experience in Sweden with its use of low-nitrosamine snuff (10) which is used by over one-fifth of men (but few women). It demonstrates that nicotine seekers will use a non-inhaled source of nicotine and that it is associated with, among Swedish men at least, one of the lowest smoking rates in the world. Snus is not legal in the European Union.

Use of NRT in continuing smokers

Clinical prescribing of NRT in persistent smokers is arguable but likely to lead to dose reduction and perhaps some reduction in risk. The practice is not widespread and is probably a specialist approach to high-risk individuals.

New nicotine delivery devices—PREPs

These are nicotine delivery devices, test marketed in the US but not widely accepted, which use heated rather than burned tobacco. PREPs are likely to lead to a reduced risk but should be subject to the same regulations proposed here for cigarettes.

Recreational addictive 'clean' nicotine

This product, which does not exist at present, is defined as a nicotine source devoid of toxicants, but providing the rapid absorption (and hence 'fix') of the cigarette. As such, it could be competitive with the cigarette and, should it be acceptable to nicotine seekers, might result in fewer continual smokers. It would be, in effect, an addictive and competitive form of NRT. 'Clean nicotine' should be as available as the cigarette and preferably as cheap. The risk that it might become a gateway drug for smoking is recognized but accepted on the grounds that recreational nicotine in the form of tobacco is available everywhere and that an alternative should be offered. This concept poses a dilemma for those regulating pharmaceuticals that are not mandated to approve addictive drugs. Hence a political decision is needed before such a product is likely to be produced by the pharmaceutical industry.

Nicotine replacement therapy (NRT)

This is a valuable asset for aspirant non-smokers, works better if supported by counseling, is currently available in non-addictive forms only and should be used much more widely than it is.

CONCLUSION

There are significant opportunities for harm reduction. Some of these involve taking risks, and consequently expose policymakers to the possibility of NOT being right. Some of these risks are worth taking on the basis of the probability that they will do a variable (possibly large) amount of good, and little harm, and are therefore ethically appropriate. However, harm reduction has its skeptics, and the public health establishment has not given these (in some cases unresolved) issues, the attention they deserve.

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