

SMOKE AND MIRRORS – SEEING THROUGH THE CLOUDED TOBACCO DEBATE

Existing controls on tobacco use can be very effectively supplemented to save more of the 6 million lives lost every year among the world's 1.3 billion smokers.

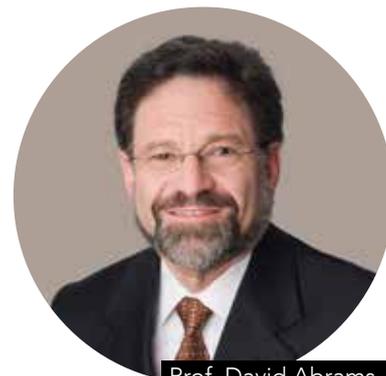
LEGALLY CONTROLLING WHERE you can buy cigarettes, who can buy them, what they cost, slapping dire health warnings on their packaging and disclosing their toxic constituents all have little or no impact on nicotine addicts, especially adults – according to two global experts.

Legal enforcement can help slowly change a country's smoking culture, turn down the tap of debut smokers who become addicted and save the economy billions of rands, but only when you add long-term pharmacological treatments and harm-reducing behavioural changes have you any chance of altering your hardened nicotine addicts' habit.

That's the over-riding message from a swathe of global scientific studies conducted by epidemiologists, public health experts, psychologists and oncologists consulted by *Healthcare Gazette* (HG), when speaking to several leading harm reduction experts. A marked divergence in views over the plethora of electric nicotine delivery devices (ENDS) and their efficacy in harm reduction, versus simply tightening, broadening and complying with stiff anti-tobacco legislation as the best way to reduce tobacco-induced morbidity and mortality emerged.

Executive Director of South Africa (SA)'s National Council against Smoking, Dr Yussuf Saloojee, says the lowest smoking rates are found in countries with the best tobacco control policies. He cites the tumbling smoking prevalence in SA since the government adopted comprehensive policies, and points to Canada, Australia and New Zealand as similar shining examples.

After decades of neglect, SA emerged in the 1990s as a global leader in the regulation of tobacco use, with the most recent 12-year study showing that for each R1 increase in the cigarette price, the risk of smoking initiation was reduced by between 1% and 2.8% for males. With local smoking-related deaths estimated at 45 000 annually, smoking among all learners declined from 23% (1999) to 16.9% (2011), a hefty 26.5% reduction. In spite of these gains, a full 17.6% of adults still smoke, with men having a three-times higher prevalence of smoking than women. Female prevalence is 7.3%. Overall smoking prevalence differs greatly by race: 40.1% of coloured people smoke, including 34.4% of coloured women (nearly five times the prevalence among all SA women). Of students in grades 8 - 11, a full 12.7% still smoke cigarettes, including 10.8% of girls. So tobacco controls – and critically, behaviour change – remain priorities for



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this country where legislative change is so far estimated to have saved 1.5 million lives and spared our economy R187.5 billion in costs. Per capita cigarette consumption decreased by 54% from 1999 to 2011.

According to locally schooled psychologist, Prof. David Abrams, of the Johns Hopkins Bloomberg School of Public Health and Adjunct Professor of Oncology at the Georgetown University Medical Center, smoking addiction in people with HIV and TB is the biggest cause of their premature deaths and poor quality of life. It hardly bears mention that SA is among those countries with the highest prevalence of HIV and TB, with the former driving the latter.

Abrams' colleague, Dr Derek Yach, a former executive director of Non-Communicable Diseases and Mental Health at the World Health Organization (WHO) and now chief health officer of Discovery Health's Vitality programme, is one of SA's anti-tobacco law pioneers and contributed heavily to SA's tobacco laws. He says while the call for "more of the same" like higher excise taxes will slow uptake in kids, it ignores rising concerns about their regressive impact on the poorer and more addicted smokers. It also ignores advances in the science of nicotine use, which suggests that half of all smokers may not respond to tax increases because of their need for nicotine. "In other words, a one-size fits all approach to tobacco control will not get us close to (the global target of) 5% prevalence," he asserts.

Saloojee, on the other hand, cites economic research showing that low-income households now spend less of their income on tobacco because they are more price sensitive.

POLITICAL SLEDGE-HAMMER APPROACH IS COUNTER-PRODUCTIVE

The harm reduction lobby strongly disagrees with Saloojee and many politicians, including SA's health minister, Dr Aaron Motsoaledi, who would like to ban all alternative nicotine delivery devices (ANDS), a broader range than just e-cigarettes. There are an estimated 200 000 e-cigarette smokers alone in SA. Yach, Abrams and several other researchers

say that from a harm reduction perspective, banning ANDS is simply wrong-headed.

Citing global actuarial projections of one billion tobacco-related deaths by the turn of the next century (unless the Framework Convention on Tobacco Control (FCTC) signed by 180 countries, including SA, is complied with and tightened further), Yach believes e-cigarettes and other nicotine delivery devices such as vaping pipes and new 'heat-not-burn' products offer us a chance to reduce that total. "People smoke for nicotine but die from tar," he emphasises. Abrams cites last year's Public Health England (PHE) independent evidence review estimating e-cigarettes to be 95% less harmful than ordinary cigarettes. However, Prof. Charles Parry, director of the Alcohol, Tobacco and Other Drug Research Unit at the SA Medical Research Council, says this finding has not been properly unpacked by the media. It can be as much as 95% for some people, but is not an average; it is a maximum possible benefit for some individuals but was by no means the benefit that all e-cigarette users would derive, the average benefit being much lower. Abrams says Parry offers a "misleading misrepresentation" of the data which gave an average of the total population estimated benefits and would save millions of lives if everyone switched to complete e-cigarette use instead of cigarette use.

Saloojee says his main objection to ANDS is that even the newer devices don't deliver enough nicotine in a palatable way to satisfy smokers (delivering nicotine much slower than ordinary cigarettes), therefore ruling them out as cigarette replacements. He predicts addicts will use them in non-smoking areas, lighting up "properly" again where they legally can, thereby increasing their nicotine load. Abrams and Yach reject this, saying the new modular or tank systems can deliver as much nicotine as cigarettes (in experienced users), with respected studies showing them to induce a 27% quit rate and to be 2.7 times as likely to help a cigarette smoker quit, compared with one who did not use e-cigarettes.

Although conceding that higher-end e-cigarette brands are less toxic than ordinary cigarettes, Saloojee says the combination of



Dr Yussuf Saloojee

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multiple manufacturers and the absence of a regulatory authority controlling the purity of ENDS, means poisons like chromium, acrolein and formaldehyde will be found to varying extents in various products. As long as people continued to smoke even a few cigarettes a day, the risk of dying early remains excessive compared with never smoking.

Smoking 1 - 4 cigarettes a day carried a 60% excess risk of dying early and smoking 5 - 9 cigarettes a day doubled the risk of dying early. Saloojee concedes that if, for every person who uses e-cigarettes and complies with the highest regulatory standards, there is one fewer person smoking conventional cigarettes, “that would be good”. However, dual use was most common, and asking heavy smokers to switch to the exclusive use of e-cigarettes was like asking heavy drinkers to switch to non-alcoholic or low-alcohol beer. He advised ANDS advocates to help SA complete its unfinished traditional tobacco control policies, “instead of going off in search of Nirvana”.

Yach, who worked for years with Saloojee, observed that it was Saloojee’s mentor in London, Michael Russell (ex University of Cape Town) who in the mid-1980s first highlighted the need to separate tar from nicotine and developed nicotine gum to do that. Since then, and especially over the last 5 years, billions of dollars of new research and development investments had transformed reduced-risk products to make their nicotine experience closer to cigarettes. While Saloojee

remains sceptical, Yach says trends across the US, Europe and the UK suggest that profound shifts are underway in tobacco companies, and are acknowledged as such by investors who followed tobacco stock. Companies were publically committing to making tobacco obsolete and safety and/or content norms were being developed and implemented. Abrams says studies of the major biomarkers of cancer or other chemicals in ANDS indicated substantially (9 - 450 times) lower levels compared with the smoke from cigarettes, cigars, hookah and other combustible tobacco products. Headline-grabbing studies on the high levels of formaldehyde in ENDS “completely exaggerated the harms under normal use”. Perhaps fundamentally important, especially for SA, the PHE study found that nearly half the population surveyed (44.8%) did not realise e-cigarettes were much less harmful than smoking, while there was *no* evidence to suggest that e-cigarettes acted as a route into smoking.

ENGLAND AND SWEDEN LEAD THE WAY

Some 30 years of surveillance and follow up found that the hugely popular Swedish low-nitrosamine “snus” (a moist powder tobacco product placed under the upper lip) actually led to less smoking among adolescents, not more, as was feared. Sweden had by far the lowest cancer rates in the European Union and death rates from all causes among Swedish men were about five times lower than among



END with re-fill bottles

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European men, thanks in part to snus, says Yach. As snus use increased, so smoking decreased. Snus was banned in all EU countries except Sweden (and Norway which isn't in the EU). In Finland the ban slowed down the drop in smoking. In Norway, by contrast, snus consumption among adults rose from 4% in 1985 to 28% in 2012 – while overall tobacco use fell by 20%. The scientists consulted argue that harm reduction via ENDS and other non-combustible products is no different to methadone replacement for heroin addicts, needle exchanges for injecting drug addicts, condom use for sexually active adolescents, seat belts for cars or crash helmets for motorcycles. Initial fears for all these modalities were that they would aggravate matters, but experience and hard science proved otherwise.

According to Abrams, 35% of smokers in the UK are using e-cigarettes to quit and 21% are using nicotine replacement therapy (NRT). Yach argues that governments have become addicted to tobacco excise tax and fear they will lose a valuable source of revenue. Saloojee rubbishes this, saying the economic costs of tobacco outweigh the gains in taxes and argues that government could tax e-cigarettes just as easily if they were concerned about revenue.

A GLOBAL CHESS GAME WITH VASTLY DIFFERENT MOTIVES

Yach says he “distrusted” every single counter chess move by tobacco

companies, adding that he felt hugely vindicated when a watershed enquiry, supported by the WHO, and the World Bank declared in 1999: “Evidence ... reveals that tobacco companies have operated for many years with the deliberate purpose of subverting the efforts of WHO to control tobacco use. The attempted subversion has been elaborate, well financed and usually invisible”. Yach argues that while we must be informed by history and unacceptable corporate behaviour, “we must not take our eye off the real goal: to reduce premature deaths”. And that is what the range of new reduced-risk products may well achieve, using market forces in ways public health cannot. We cannot rely on “trust” when it comes to the tobacco industry but should require independent verification of their words through measured deeds.

STAYING THE DISTANCE

Abrams says behavioural and pharmacological treatments are effective tobacco-use cessation options, but only if used as recommended for a sufficient length of time. He has another caveat: these interventions are expensive, not accessible, and unappealing to smokers. By contrast, ENDS were scalable, appealing and cost effective and therefore had potentially much greater impact by reaching and helping more smokers quit. ENDS were more widely available and appealing to smokers than conventional nicotine replacement therapies and in the UK were even starting to displace cigarette smoking. Research showed that intensive use of ENDS for a month or more was associated with a six times greater chance of cessation and a 20.4% quit rate. Yach says the prospect of a billion tobacco-related deaths before 2100 is a “dreadful prospect”.

“E-cigs and other nicotine-delivery devices such as vaping pipes offer us the chance to reduce that total. We need to keep that prize in mind and redouble our efforts to make up for 50 years of ignoring the simple reality that smoking kills and nicotine does not.” 🚬