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Vaping helps quit smoking

Azhar Bilal, 45, a civil engineer, started smoking back in 1997. Young and energetic, Bilal was hooked to the habit as he started more than 20 cigarettes a day. This resulted in severe cough attacks. "I would have these attacks in the night," he told Alternative Research Initiative (ARI) in an interview on phone from Lahore. However, he continued to smoke combustible cigarettes. "I simply could not give up." He went to Dubai for a job but was unable to quit smoking.

According to estimates, there are 31 million tobacco users in Pakistan. Of them, 17m are cigarette smokers. The total cost of diseases and deaths caused by smoking in Pakistan was 3.85 billion dollars in 2019.

It was in 2020 when a friend introduced Bilal to vaping. This helped him to switching to e-cigarettes, a change that he says has worked for him.

According to a research study by ARI, for nearly two-thirds of the vapers (64.5%), friends are the first source of introduction to vaping. For 25.2% vapers, they came to know about vaping through social media.

After 23 years of smoking, Bilal found the switch to vaping a welcome change. "I found vaping less harmful and a possible solution to quit smoking," Bilal said. "Vaping helped me in giving up smoking." On his friend's advice, he decided to start vaping. "I decided to give vaping a try as a less harmful alternative." Pakistan has more than 450 vaping outlets in the upscale localities of major cities. E-cigarettes are legally imported but are being used without any regulations.

Bilal says he did not consult a doctor before switching to vaping. Normally vapers don't go to doctors for consultation before giving it a try. According to ARI study, 91% of vapers in Pakistan did not go to a doctor before deciding to shift to vaping from smoking.

The decision to switch to vaping worked for Bilal. He says he has not smoked a single combustible cigarette in the last three years.

"I have successfully overcome the coughing issue after giving up smoking and switching to e-cigarette." After switching, he has started to decrease the level of nicotine in his vaping. "My nicotine use has dropped from 25mg to 12mg. Now, I use 12mg of nicotine in an e-cigarette." Bilal recalls that before switching to vaping, he would smoke more than 20 cigarettes a day.

In Dubai, he spent AED 1200-1500 a month on smoking. When asked about the high prices of vaping devices and juices, he said it was in fact cheaper than smoking there. "I would spend AED 250 on vaping a month."

Now, in Pakistan, he spends Rs. 6000-7000 on vaping a month which he believes is economical. "I buy two bottles of vape juice for a month and a half worth Rs5600 which is cheaper than buying cigarettes. In Pakistan, vaping devices are expensive but in the long run, they prove to be cheaper because once you buy a device, then you will have only to buy juices." When asked about the negative effects, Bilal says he is clear vaping is not 100% risk free but less harmful than combustible smoking. He feels that vaping has led to an increased heart rate. "I reduced the nicotine level from 25 mg to 12 mg but I think the problem persists," Bilal said.

Currently there is no law in Pakistan on the level of nicotine in vaping. According to UK's National Health Services (NHS), nicotine is the addictive substance in cigarettes but is not the cause of major diseases as almost all of the harm from smoking arises from toxic chemicals in tobacco smoke.

Bilal thinks e-cigarettes are less harmful but addictive. Therefore, the government should sensibly regulate them and keep away the people under the age of 18 and non-smokers from its use. Vaping is helpful for the smokers who are unable to quit smoking, he thinks.

Switching to vaping reduces cancer risk

By Dr. Colin Mendelsohn

Smoking is the leading preventable cause of cancer. There is now compelling evidence that switching to vaping can substantially reduce the risk of cancer.

Cigarette smoke is deadly and contains at least 69 known carcinogens (cancer-causing chemicals), many in high doses.

Most carcinogens are broken down to other chemicals in the body, known as 'biomarkers'. The dose or level of a biomarker is what determines its cancer risk. This is the key principle of 'the dose makes the poison'.

By comparing the levels of cancer biomarkers from smoking and vaping we can compare the cancer risk from smoking versus vaping.

Most of the cancer biomarkers in smokers are not found in people who vape. Those that are present are at substantially reduced doses, mostly below the level of harm.

This has been confirmed in numerous research studies and reviews e.g., Holt 2023; Scherer 2022; Scherer 2022; Anic 2022; Taylor 2023; Soulet 2022; Hartmann-Boyce 2022; Smith 2020; Xia 2020; Goniewicz 2018; Dai 2022; Shahab 2017; Office of Health Improvement and Disparities 2022.

The two most potent carcinogens from smoking are TSNs and PAHs. Both are at very low or non-existent levels in vapour. PAHs are mostly produced from incomplete combustion (burning) of organic materials. There is no combustion in vaping. TSNs are mainly produced in the curing process for tobacco leaves and there is no tobacco in vapes. Rarely, trace amounts are detected as contaminants in e-liquids.

The risks from aldehydes (e.g., formaldehyde) and metals are often exaggerated in the media. Aldehydes are produced at minimal levels under normal vaping conditions. Higher levels are only generated when devices are overheated in unrealistic laboratory tests.

Heavy metals. Under normal vaping conditions, metals in people who vape are below the levels known to cause harm. Metals are also not of concern to bystanders. Studies estimate a dramatic reduction in cancer risk.

All modelling studies predict that the risk of cancer from vaping will be substantially less than from smoking. Stephens estimated that the lifetime risk of cancer from vaping is 0.4% of the risk from smoking. Murkett estimated that the lifetime risk of cancer from vaping is 0.23% of the risk from smoking. Rodrigo estimated that the lifetime cancer risk from vaping a closed vape system is 0.9-1.4% that of smoking. Scungio estimated that the lifetime lung cancer risk from vaping is 50,000 times less than from smoking. Avino estimated that the lifetime lung cancer risk from second-hand vapour is 50,000 times less than from second-hand smoke. Everything has some risk expecting zero risk is unrealistic. There are risks associated with everything we do.

For example, an analysis of 53 studies found that for each alcoholic drink consumed per day, breast cancer risk increased by about seven percent. Women who had two to three alcoholic drinks per day had a 20 percent higher risk of breast cancer compared to non-drinkers.



There are 21 carcinogens in roasted coffee including benzene and formaldehyde. However, billions of people happily have a cup or more of coffee each day.

Leading UK cancer charity Cancer Research UK states, there is no good evidence that vaping causes cancer.

A review by 15 past Presidents of the prestigious Society for Research on Nicotine and Tobacco concluded, "There is little evidence that e-cigarettes pose significant cancer risk."

For smokers who are unable or unwilling to quit, switching completely to vaping will reduce your exposure to carcinogens and substantially lower your risk of developing cancer. The evidence is now crystal clear. Advice to the contrary from Australian health authorities and Cancer Councils is irresponsible, is not evidence-based and should be ignored. Don't be misled. If you are a smoker, switching to vaping could save your life.

<https://colinmendelsohn.com.au/cancer/?fbclid=IwAR21rXVaPDTsx-IhWgxVBsM4anNgD5KF5FPwrDfdKqbnN2LUzs-C-KnTKQPE>

[IhWgxVBsM4anNgD5KF5FPwrDfdKqbnN2LUzs-C-KnTKQPE](https://colinmendelsohn.com.au/cancer/?fbclid=IwAR21rXVaPDTsx-IhWgxVBsM4anNgD5KF5FPwrDfdKqbnN2LUzs-C-KnTKQPE)

Biomarkers pave way for safer alternatives

A new research paper is challenging a long-standing belief in the tobacco control community. For too long, potentially less harmful alternatives like e-cigarettes have been dismissed due to "lack of evidence." Now, researchers Derek Yach and Gerhard Scherer present a promising tool that could change this narrative: biomarkers.

"The reluctance to accept less harmful nicotine products, such as e-cigarettes, has always been rooted in the fear of the unknown and the desire for long-term evidence. Our research now showcases a robust method to bridge this knowledge gap sooner than previously imagined," said Derek Yach, one of the authors of the study.

"The future of public health depends on us embracing modern methodologies. Biomarkers offer a real-time snapshot of exposure levels, eliminating the traditional waiting period of 40-50 years to understand the effects of new products on our health," Gerhard Scherer, the research co-author commented.

A critically important application of this technology is in the life and health insurance industry.

"Insurers and their clients stand to gain by better quantifying and reducing smoking risk, using new technology such as biomarkers", remarked Derek Yach.

With over a billion people globally facing health risks due to combustible cigarette consumption and a staggering eight million deaths linked to such cigarettes annually, the urgency for safer alternatives cannot be understated. NGPs like e-cigarettes and heated tobacco products hint at a future with reduced harm from tobacco.

https://www.tobaccoharmreduction.net/article/biomarkers?utm_id=1&utm_source=t.co&utm_medium=social&utm_campaign=biomarkers&fbclid=IwAR1kNKt11YqF_XToVYya2sLwhsK67nO_1oGxNvrdr5OldX9NedPa3x40Kfs

Nicotine is not the devil, cigarettes are

By Dr. Jasjit Ahluwalia

Thirty years ago, as a young public health researcher and professor, I would begin my lectures by telling students that 480,000 Americans die from cigarette smoking every year, making it the leading cause of preventable death. Sadly, 30 years later, I still begin my talks with the same fact. In those 30 years, 15 million Americans have died unnecessarily from cigarette smoking. To change this trajectory, it is time for the FDA to embrace bold, new thinking, including offering smokers safer nicotine-containing alternatives.

It's almost impossible to comprehend that 15 million people have been lost over the past 30 years to cigarette smoking. To many of us, these people are nameless and faceless. In fact, the majority tend to be people of color, those from lower socioeconomic status, those with dual addictions and those with co-occurring mental health disorders. Those without a voice.

The historical Tobacco Control Act, passed in 2009, was supposed to be a tipping point and set the stage to save millions of lives. Unfortunately, it has not lived up to that promise. Many of the FDA's initiatives, like graphic warning labels, are stalled in courts. Other FDA proposals will likely take years to play out. The menthol ban has yet to occur, even though it was first considered in 2011. And while FDA has finally proposed a ban on menthol this year, that too will likely be delayed in the courts (though I think that will be a losing battle for the industry).

Another recent proposal by the FDA to establish a maximum nicotine level in cigarettes will likely not produce the results FDA wants. The concept here is to establish a cap on nicotine in cigarettes so that they are no longer addictive. This is not a new idea. Twenty-eight years ago, scientists proposed establishing a nicotine threshold for addiction. Since then, we have learned a lot more about nicotine and have conducted additional studies using reduced nicotine cigarettes. In fact, one company, 22nd Century, is test-marketing a reduced nicotine cigarette called VLN (very low nicotine).

To date, sales have been "modest." That is not surprising, as such low levels of nicotine will significantly alter a smoker's experience. If we accept that a smoker primarily uses cigarettes for nicotine, then it is hard to believe that smokers would buy a product that does not meet their needs. One might conclude that is good — they would then quit smoking cigarettes. Is it that simple? While I tend to think the tobacco industry often exaggerates the black-market

concept, in this case, I think it is a very real concern. And who would use these black-market products? People of color and lower socioeconomic populations. There would likely be a robust nicotine market that is not regulated, not taxed and possibly adulterated.

To make real and meaningful progress in addressing the tremendous toll of cigarette smoking, it's critical that the FDA authorize lower-risk nicotine products, such as e-cigarettes and nicotine pouches, alongside a portfolio of approved smoking cessation medications.

In 2017, Scott Gottlieb, the FDA Commissioner, along with Mitch Zeller, the director of the FDA's Center for Tobacco Products at the time, acknowledged the need for the FDA's approach to tobacco regulation to consider the continuum of risk for nicotine-containing products. For example, e-cigarettes (or vapes) and nicotine pouches are increasingly showing that they can help smokers quit. While these products are not safe, many believe they are significantly safer than combustible cigarettes.

Just as public health has embraced harm reduction concepts for opioids, alcohol and many other public health areas, we must embrace it for tobacco products too.

Sadly, while FDA acknowledged the importance of tobacco harm reduction, that does not seem to be the direction the agency is moving. Recently, the FDA issued market denial orders to JUUL, meaning the product must be removed from the market. Today, 3 million American smokers use JUUL. What message are we sending, that these 3 million Americans should smoke cigarettes? Switch to other e-cigarettes that may also receive the same market denial order a few months from now?

It may be hard for many to appreciate, but nicotine is not the devil; cigarettes are. And when nicotine is combined with cigarettes, it joins the devil. As renowned researcher Michael Russell famously said, "People smoke for the nicotine, but they die from the tar." I implore policymakers and the FDA to remember this.

To be the voice for vulnerable populations, and to truly embrace the concept of reducing harm, alternative nicotine products may be the game changer we have needed to save lives. Isn't that the story we want to tell the next generation of public health students 30 years from now?

https://www.washingtontimes.com/news/2022/jul/28/nicotine-is-not-the-devil-cigarettes-are/?fbclid=IwAR2-zaU7Vb2v5bKfTcJqSyaiH5i-FB_oHqADYpm84psYjkj1o9GtbKitMa4

E-cigarettes as substitute for smoking

The Royal College of Physicians' new report, 'Nicotine without smoke: tobacco harm reduction', has concluded that e-cigarettes are likely to be beneficial to UK public health. Smokers can therefore be reassured and encouraged to use them, and the public can be reassured that e-cigarettes are much safer than smoking.

Tobacco smoking is addictive and lethal with half of all lifelong smokers dying early, losing an average of about 3 months of life expectancy for every year smoked after the age of 35 (some 10 years of life in total). Although smoking prevalence in the UK has reduced to 18%, 8.7 million people

still smoke. Harm reduction provides an additional strategy to protect this group of smokers from disability and early death.

Since e-cigarettes became available in the UK in 2007, their use has been surrounded by medical and public controversy. This new 200-page report examines the science, public policy, regulation and ethics surrounding e-cigarettes and other non-tobacco sources of nicotine, and addresses these controversies and misunderstandings with conclusions based on the latest available evidence:

E-cigarettes are not a gateway to smoking – in the UK, use of

e-cigarettes is limited almost entirely to those who are already using, or have used, tobacco.

E-cigarettes do not result in normalization of smoking – there is no evidence that either nicotine replacement therapy (NRT) or e-cigarette use has resulted in renormalization of smoking. None of these products has to date attracted significant use among adult never-smokers, or demonstrated evidence of significant gateway progression into smoking among young people.

E-cigarettes and quitting smoking - among smokers, e-cigarette use is likely to lead to quit attempts that would not otherwise have happened, and in a proportion of these to successful cessation. In this way, e-cigarettes can act as a gateway from smoking.

E-cigarettes and long-term harm - the possibility of some harm from long-term e-cigarette use cannot be dismissed due to inhalation of the ingredients other than nicotine, but is likely to be very small, and substantially smaller than that arising from tobacco smoking. With appropriate product standards to minimize exposure to the other ingredients, it should be possible to reduce risks of physical health still further. Although it is not possible to estimate the long-term health risks associated with e-cigarettes precisely, the available data suggest that they are unlikely to exceed 5% of those associated with smoked tobacco products, and may well be substantially lower than this figure.

The report acknowledges the need for proportionate regulation, but suggests that regulation should not be allowed significantly to inhibit the development and use of harm-reduction products by smokers. A regulatory strategy should take a balanced approach in seeking to ensure

product safety, enable and encourage smokers to use the product instead of tobacco, and detect and prevent effects that counter the overall goals of tobacco control policy.

Professor John Britton, chair of the RCP's Tobacco Advisory Group, said: The growing use of electronic cigarettes as a substitute for tobacco smoking has been a topic of great controversy, with much speculation over their potential risks and benefits. This report lays to rest almost all of the concerns over these products, and concludes that, with sensible regulation, electronic cigarettes have the potential to make a major contribution towards preventing the premature death, disease and social inequalities in health that smoking currently causes in the UK.

Smokers should be reassured that these products can help them quit all tobacco use forever.

RCP president Professor Jane Dacre said: Since the RCP's first report on tobacco, Smoking and health, in 1962, we have argued consistently for more and better policies and services to prevent people from taking up smoking, and help existing smokers to quit. This new report builds on that work and concludes that, for all the potential risks involved, harm reduction has huge potential to prevent death and disability from tobacco use, and to hasten our progress to a tobacco-free society.

With careful management and proportionate regulation, harm reduction provides an opportunity to improve the lives of millions of people. It is an opportunity that, with care, we should take.

<https://www.rcplondon.ac.uk/news/promote-e-cigarettes-widely-substitute-smoking-says-new-rfp-report>

Sensibly regulate safer smoking alternatives

ISLAMABAD: As scientific evidence is pointing towards efficacy of safer smoking alternatives, Pakistan needs to sensibly regulate them to reduce combustible smoking prevalence in the country.

"A new study by the researchers at Queen Mary University of London suggests that vaping does not act as a gateway into smoking," said Arshad Ali Syed, Project Lead of Alternative Research Initiative (ARI). He added that the developed countries were actively working on solution to end combustible smoking. He said Pakistan should thoroughly and closely review scientific developments on the tobacco harm reduction front and adopt them keeping in view the local context.

The research of the Queen Mary University of London outlines tentative evidence that products such as e-cigarettes may speed up the demise of smoking.

This is the most comprehensive study to date investigating whether e-cigarettes are a gateway into or out of smoking finds that, at the population level, there is no sign that e-cigarettes and other alternative nicotine delivery products promote smoking.

"This study addresses the concerns that access to low-risk

alternative tobacco products may promote smoking," Arshad said and added that in Pakistan an estimated 31 million people use tobacco in any form. "Of them, 17 million are cigarette smokers."

Safer smoking alternatives such as e-cigarettes and nicotine pouches are legally imported in Pakistan, though there is a regulatory vacuum regarding their use. There are nearly 450 outlets of safer smoking alternatives in Pakistan's major cities. Most of these outlets are in Karachi, Lahore, Islamabad and Rawalpindi.

For a smoke-free Pakistan

- Pakistan should understand the concept of tobacco harm reduction
- Make THR part of all policies and initiatives on tobacco control
- Effective smoking cessation services should be provided as a human right
- Smokers' views should be heard and incorporated in policy on tobacco control.

Established in 2018, ARI is an initiative aimed at filling gaps in research and advocacy on ending combustible smoking in a generation. Supported by the Foundation for A Smoke-Free World (FSFW), ARI established the Pakistan Alliance for Nicotine and Tobacco Harm Reduction (PANTHR) in 2019 to promote innovative solutions for smoking cessation.

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