

Vaping amongst Young People: The Need for Repackaging of E-Cigarettes

Abstract

The detrimental effects of tobacco smoking continue to be on the rise in addition to being the leading cause of terminal illnesses and premature deaths. After the legislation in the United Kingdom (UK) prohibiting smoking in confined public places, there has been a decline in smoking in recent decades due to increased evidence of the harms of smoking to smokers and non-smokers alike. These adjustments have led to an increased stigmatization of smokers and “denormalisation” of smoking according to some public health practitioners in the UK. Despite these milestones, there has been a divergence of tobacco smoking with the emergence of electronic cigarettes in the UK. Consequently, tobacco use, and cigarette smoking are reducing, whilst an increasing market of various and complicated delivery systems under the umbrella of e-cigarettes are becoming prevalent with some young people. E-cigarettes can simply be defined as Electronic Nicotine Delivery Systems (ENDS) which imitates tobacco smoking without the actual burning of tobacco. These devices have been deceptively advertised/marketed as “less harmful” alternatives to traditional smoking of tobacco products. The e-liquid in e-cigarettes contains nicotine, humectant and other additives consisting of flavourings, colourants, or adulterants such as bacterial and fungal products. The introduction of e-cigarettes as a form of harm reduction has become popular in the UK. This is because e-cigarettes are considered to be less harmful than tobacco and as a result, less restrictive measures are put in place in the regulation of e-cigarettes as against tobacco. Evidence indicates that the vapor from e-cigarette contains some harmful substances although it is less when compared to tobacco cigarettes. There are, however, some salient risks to bear in mind, namely, that e-cigarettes could promote major nicotine addiction among children and young adults and eventual renormalization of smoking behaviours. Recently, the Prime Minister, Rushi Sunak announced that plans are being put in place to launch a notable new law to prevent children who turn 14 this year and younger from ever legally being sold cigarettes in England.

Keyword: Medicines and healthcare products regulatory agency • Electronic nicotine delivery system • Action for smoking on health • Flavours

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Introduction

He also set out the government's concerns about the worrying rise in vaping among children and announced a public consultation on plans to moderate the appeal and accessibility of vapes to adolescents. Expectedly, the government has gotten

over 12,000 responses on proposals to create first ‘smokefree generation’, just in less than halfway through the consultation period, thus showing how this has become a serious public health concern. According to the government, measures will also be put in place to prevent vapes being marketed at children to help curb the rapid rise of vaping

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amongst young people. The Prime minister suggested adult smokers trying to quit would still have access to alternatives like vapes under the proposals. This a very laudable step considering the alarming rate to which children and teenagers are vaping as the years goes by which has brought about a clarion call on the UK government from disturbed parents. This study will take a cursory look at the present legislation, its failure to address the current problem of adolescent vaping and recommend reforms that can be put in place to help the Prime minister's plan come to fruition.

Literature Review

The extant legislation and problem

Over the years, there has been a shift from smoking tobacco towards the vaping of e-cigarettes. The promotion of e-cigarettes was intended as a form of harm reduction strategy to reduce the number of tobacco smokers due to the high morbidity rate associated with tobacco smoking. However, Public Health England (PHE) notes that e-cigarettes are less harmful than tobacco but are not without some risks, and these risks warrant increased regulation which will be proposed here. PHE also recommends that smokers should change to vaping products to assist them in quitting smoking but that non-smokers should not take up vaping [1]. Many health professionals consider e-cigarettes as a vital tool in the fight against tobacco and PHE has continually endorsed this approach. The European Union Tobacco Products Directive (TPD) came into force on 19 May, 2014, while the Tobacco and Other Related Products Regulation 2016 (TRPR) implemented the TPD in full across the UK. The extant law guiding the use of e-cigarettes/vaping products in the UK is The Tobacco Products and Nicotine Inhaling Products (Amendment) (EU Exit) Regulations 2020 which amends The Tobacco and Other Related Products Regulation 2016 to enable tobacco and e-cigarette regulation to continue to function following UK's withdrawal from the European Union (EU). It is noteworthy that none of these regulations gives or makes provision on how e-cigarettes ought to be packaged, more so for the standardisation of e-cigarettes/vaping products. Before the introduction of the Tobacco Products Directive (TPD), the UK formerly regulated e-cigarettes as consumer products that were subject to present product safety regulations. A different approach, thought by the UK Government, was to regulate all nicotine-containing e-cigarettes as medicines. Although the UK Medicines and Healthcare Products Regulatory Agency (MHRA) set out plans in 2013 to implement this approach, they were overtaken by the introduction of the TPD [2].

The minimum age of sale for e-cigarettes (18 years) was introduced in England and Wales in October 2015, making it illegal to sell or purchase e-cigarettes containing nicotine to and on behalf of young people under the age of 18. Scotland implemented their own age of sale and proxy purchasing regulations in April 2017, and Northern Ireland in February 2022.

Medicines and Healthcare Products Regulatory Agency (MHRA) is an agency/regulator of medicines, medical devices and blood components for transfusion in the UK. The (MHRA) is the competent authority for the notification scheme for e-cigarettes and refill containers in the UK, and is accountable for executing the majority of provisions under part 6 of the (TRPR), as amended. Consumers and health practitioners can report side effects and safety concerns with e-cigarettes or refill containers to the MHRA by virtue of the Yellow Card reporting system. They alternatively can report products perceived to be defective or non-compliant with the local Trading Standards service or through their website.

Under the TRPR, manufacturers must notify the MHRA of their product before it can be supplied in the UK market. The MHRA only ensures that e-cigarettes are compliant with the TRPR. The General Product Safety Regulations 2005 regulates vaping products that do not contain nicotine, which is enforced by local authority trading standards. Also, medicinally licensed vaping products are not regulated by the TRPR and presently, there is no licensed product in the UK. However, in October 2021, MHRA published a guidance to provide information regarding the process and help speed up review times. Ever since 2012, the use of e-cigarettes/vaping products by young smokers, adult smokers and ex-smokers has steadily increased. Action for Smoking on Health (ASH) estimates that the proportion of the adult population using e-cigarettes has increased by 7%, amounting to 3.6 million people. However, the primary focus of this law reform is on children and adolescents/teenagers. Concerns have surfaced with the divergence of the tobacco market and development of vaping/Electronic Nicotine Delivery System (ENDS) products. The concerns relate to their potential appeal to young people; the risk of amplified nicotine dependence; their possibility to act as a "stepping stone" or "gateway" to tobacco cigarettes and other substances; their use in enclosed public places; the probable risks to passers-by from second hand inhalation; and the absence of manufacturing and retail regulation. According to UK public health policy professionals and the press, this debate has diverged around the relative benefits of e-cigarettes as a low harm means to smoking reduction or cessation

juxtaposed with the possible risks connected with their use, and as a gateway for “renormalisation” of smoking.

Globally, approaches to e-cigarettes differ, with some European countries classifying them as medicines and others including them in tobacco legislation banning promotion and sale to children. More than 40 countries have expanded their tobacco and e-cigarette ban to include use in enclosed public places and workplaces. The World Health Organisation (WHO) states that until exhaled vapour is proven not to be harmful to bystanders and reasonable evidence exists to that effect, that smoke-free policy enforcement should not be undermined. Although there is an absence of federal regulations in the US, however, 44 states have adopted their own e-cigarette regulations. Some countries (such as Brazil and Uruguay) have placed a ban on the sale and use of e-cigarettes entirely. In the UK, though not covered by existing tobacco legislation, e-cigarette use has been prohibited in many football stadia and public transport [3,4]. Globally, approaches to e-cigarettes differ, with some European countries classifying them as medicines and others including them in tobacco legislation banning promotion and sale to children. More than 40 countries have expanded their tobacco and e-cigarette ban to include use in enclosed public places and workplaces. The World Health Organisation (WHO) states that until exhaled vapour is proven not to be harmful to bystanders and reasonable evidence exists to that effect, that smoke-free policy enforcement should not be undermined. Although there is an absence of federal regulations in the US, however, 44 states have adopted their own e-cigarette regulation. Some countries (such as Brazil and Uruguay) have placed a ban on the sale and use of e-cigarettes entirely. In the UK, though not covered by existing tobacco legislation, e-cigarette use has been prohibited in many football stadia and public transport networks, both in transit and at stations. The Scottish government plans to place a restriction on e-cigarettes in hospitals and the Welsh government by virtue of their Public Health Wales Act 2017 has placed a ban on e-cigarettes in all enclosed public places. The scale of progress of the UK ENDS market is clear in the rising numbers of specialist e-cigarette providers both online and in mainstream shopping outlets in towns and cities across the country, as well as their sale by non-specialist retailers. Recent findings carried out by the Centre for Economics and Business Research (CEBR) on behalf of the UK Vaping Industry Association (UKVIA), found that the vaping sector grew by 23.4% from 2017 to 2021. E-liquids, which are the main contents of most vaporising e-cigarette devices, are available in a wide range of flavours, odours and nicotine strengths.

E-cigarettes can be purchased in a huge array of colours, flavours and designs to appeal to different consumers, ranging from low cost disposable products which are sold in discount shops and market stalls, through sophisticated vaporising systems costing in excess of £100 pounds sterling that can be customised in terms of design and delivery modes (such as variable voltage or wattage), and through personal “hacks” or “mods” (that is capable of altering resistance and change the vapour cloud). There are over 15,000 e-cigarette (vape) flavours alone, with many being youth-luring “candy flavours” e.g. chocolate, mint, bubble gum, berry blend, cotton candy, strawberry, and blue raspberry. This flavouring improves the taste but masks the severity of the health implications of these vaping products thereby creating the impression that vaping-flavoured products are less harmful than non-flavoured products and consequently leading to a rise in nicotine addiction. A study has indicated that e-cigarettes have a worse acute toxicity than tobacco and pose harmful effects particularly on young people such as neurodevelopmental problem, acute endothelial dysfunction, oxidative stress, symptoms of dependence, an increase in heart rate and that chemicals in e-cigarettes can cause DNA damage and mutagenesis. This is because e-cigarette contain nicotine, flavouring chemicals, and humectants, toxicants, ultrafine particles, and carcinogens which have been found to cause adverse health effects. In the UK, the use of e-cigarettes is mostly limited to current and ex-smokers. The usage among never smokers remains at a low level. Out of the 4.3 million current vapers, about 2.4 million are ex-smokers, 1.5 million are current smokers and 350,000 are never smokers. From 2013, the percentage of current electronic cigarette users who smoke tobacco has mostly fallen, whilst the proportion who are ex-smokers has increased. The most recent data from the ASH-Youth’s 2022 survey of 11- to 18-year-olds in the UK show that:

- 5.8% of 11–17-year-olds had tried vaping in 2022, compared to 11.2% in 2021 and 13.9% in 2020.
- 7.0% of 11–17-year-olds were current users in 2022, compared to 3.3% in 2021 and 4.1% in 2020.
- Children below 16 are the least likely to try e-cigarettes. 10.4% of 11–15-year-olds have tried vaping, compared to 29.1% of 16–17-year-olds.
- The usage among 11–17-year-olds who have never smoked remains low and experimental, whilst 7.5% of never smokers have tried an e-cigarette in 2022 only 1.7% report at least monthly use.

- Among 18-year-olds, 40.8% report having tried an e-cigarette. (It maybe be noted that in 2015, in England and Wales a Regulation was made prohibiting the sale of nicotine-inhaling products, including e-cigarettes, certain component parts and e-liquids that contain nicotine, save for medicines and medical devices, to people under eighteen).
- In 2022, the most frequently used product was a disposable vape (52.0% compared to 7.7% in 2021), with the most popular brands were Elf Bar and Geek Bar. The primary sources for purchasing or gaining access to cigarettes and e-cigarettes are stores and retail outlets. 51.9% of 11-17-year-olds get their cigarettes from shops and 46.5% get their e-cigarettes from shops.

It can be deduced from the data supplied that there has been an increase in the number of children and teenagers making use of e-cigarettes or vaping products. The crucial question is, what level of increase is expected to necessitate action to manage this public health issue? The alluring advertisements of e-cigarettes/vaping products and the assortment of flavours guarantee their attraction to and consumption by teenagers and children, especially those who have not been exposed to smoking. A study indicates that e-cigarette is a “gateway” towards tobacco smoking for young people [5,6]. That being the case, the production of e-cigarettes in fancy shapes, colors and designs to attract young people will further increase their likelihood of graduating into tobacco smoking. Drawing from these problems highlighted, there must be a grave sense of urgency to act from a regulatory perspective which will be enunciated in the next section.

Discussion

Proposals for reform

The proposals made in this regard is for the law regulating e-cigarettes to make adequate provisions on the repackaging of e-cigarettes/vaping products in terms of their designs, colors, and flavours. Also, regulations should add stringent provisions in terms of advertising and retail sale.

Designs: Most e-cigarettes are designed in the shape of a pen, ergo, making them attractive to school children and teenagers. Some vaping products are modelled in designs that come with bluetooth capability, with the facility to provide usage data (such as nicotine use, vapors emitted, cigarette equivalence), link to cell phones to make calls or listen to music and control the power output of the device through mobile phone apps. Other vaping products offer modifications such

as vapors-free systems, e-shisha (or shisha “pens”) and e-cigars. Sleek and sophisticated electronic cigarettes and fashion accessories’ have also entered the market with its design targeted at females. A vaping brand (VMR’s line Vapor Couture) consist of flavours (such as Rodeo Drive and Bombshell) and comes with corresponding accessories including a ‘sterling silver charm necklace’ and ‘leather smartphone/e-cig clutch’, these attractive fancy designs are mostly purchased by adolescents and young adults. In the extant law regulating the use of e-cigarettes in the UK, there is an absence of a provision that stipulates or limits the designs in which e-cigarettes ought to be manufactured. Hence, a provision should be inserted to set the basic design e-cigarettes/vaping products will take which does not have tendency to draw attraction to children and teenagers.

Colours: Children and teenagers are drawn to fanciful and colourful items and advertisements of vaping products have exploited this fact. An example can be drawn from a statement from a father who his asthmatic 16-year-old daughter began vaping during her senior school (GCSE) exams to help her get calm and is now vaping the equivalent of two packets of cigarettes per day. “According to the daughter, “[t] his one changes colour, and this one has a monkey on it. They’re so sick. This is truly an epidemic among our teenage children.” A Professor at King’s College London has backed ASH’s call for action regarding the packaging of e-cigarettes. In her statement she said “The chief medical officer should take note of this research and urge the government to take powers to regulate e-cigarette packaging. The widely available child-centred packaging of e-liquids, which includes brightly coloured cartoon characters and sweet names such as ‘gummy bears’, ‘cherry cola’ and ‘bubblegum’ is unnecessary, egregious and must be stopped.”. E-cigarettes produced in attractive colours, tends to draw children e.g., yellow, pink, green, etc. A provision in the law banning the production of e-cigarettes in fanciful colours should be inserted or a provision stating that e-cigarettes shall be produced in sober colors.

Flavours: The high-level appeal of e-cigarettes to adolescents is the accessibility of a wide array of e-liquid flavours. Specifically, sweet and fruity flavours are welcomed by young users. As expected, flavour descriptions play a vital role in the promotion of e-cigarettes online. In line with this, studies have shown that flavour-related advertisements are enticing to adolescents/children, and generate increased curiosity in, purchasing and use of e-cigarettes. Since vast range of flavored e-liquids is appealing to vulnerable consumer groups (eg, adolescents and

young adults), there is a clear need for regulation. The chief medical officer of England, Prof Dame Sally Davies, in an interview with Civil Service World expressed her concerns regarding the use of e-cigarettes by children and asked rhetorically: “Is this a ticking time bomb? Will they turn out to have long-term consequences?” It is no news that many vaping products are manufactured to mimic the taste of trendy sweet brands, desserts and tropical fruits, there are concerns that flavours are encouraging teenagers to try vaping, a claim which has been outrightly rebutted by some public health professionals. Emerging evidence also suggests that chemical reactions created by the addition of some flavours are harmful to human health [7]. For the purpose of reform, it is submitted that the production of e-cigarettes in various attractive flavours should be restricted to fewer flavours. This will ensure that while presenting e-cigarettes as a better alternative to tobacco the limited number of flavors may likely quench the appetite of children and teenagers who are often thrilled by variety.

Advertisement: Children and adolescents (young people) are the most vulnerable group to initiate use of e-cigarettes. The introduction of the e-cigarette, perceptions about the harmlessness of the product, a wide variety of designs, colors, flavors (fruit, chocolate, bubble gum, gummy bear, etc.), and peer-influence are just a few examples of factors promoting the e-cigarette popularity among youths. The most troubling concern related to e-cigarette use by adolescents are mass marketing promotions and easy access to the product. Currently, the most popular medium of advertising is online which is easily accessible to young people and most e-cigarette companies capitalise on this. A typical example can be seen with a popular Chinese-owned vaping giant (Elf Bar) that has seen the use of its products by under-18s gaining popularity in the UK, and promoted by social influencers, who in various cases allege to be compensated for the promotions and benefit from free products. Most of the videos showing influencers vaping on camera are not age restricted and not always clearly marked as ads. Several of these have attracted hundreds of thousands of views on the video app TikTok, which is used by half of 8–11-year-olds and three-quarters of 16 to 17-year-olds. Also, a concerned mother shared her story in a newspaper stating that her son “was 14 when he purchased his first vape. Engrossed in videos of YouTubers making “ghost puffs” with the vapour, he decided he wanted to try it for himself.” Studies have revealed that young people who are exposed to Advertisement: Children and adolescents (young people) are the most vulnerable group to initiate use of e-cigarettes. The introduction of the e-cigarette, perceptions about the harmlessness

of the product, a wide variety of designs, colors, flavors (fruit, chocolate, bubble gum, gummy bear, etc.), and peer-influence are just a few examples of factors promoting the e-cigarette popularity among youths. The most troubling concern related to e-cigarette use by adolescents are mass marketing promotions and easy access to the product. Currently, the most popular medium of advertising is online which is easily accessible to young people and most e-cigarette companies capitalise on this. A typical example can be seen with a popular Chinese-owned vaping giant (Elf Bar) that has seen the use of its products by under-18s gaining popularity in the UK, and promoted by social influencers, who in various cases allege to be compensated for the promotions and benefit from free products. Most of the videos showing influencers vaping on camera are not age restricted and not always clearly marked as ads [8]. Several of these have attracted hundreds of thousands of views on the video app TikTok, which is used by half of 8–11-year-olds and three-quarters of 16 to 17-year-olds. Also, a concerned mother shared her story in a newspaper stating that her son “was 14 when he purchased his first vape. Engrossed in videos of YouTubers making “ghost puffs” with the vapour, he decided he wanted to try it for himself.” Studies have revealed that young people who are exposed to advertisements are more likely to use e-cigarettes. The advertising of e-cigarettes in the UK is regulated by virtue of Article 20(5) of the revised EU Tobacco Products Directive (2014/40/ EU) (TPD), which subsequently was transferred into UK law by the Tobacco and Related Products Regulations (TRPR) 2016. The TPD barred the advertising of nicotine-containing e-cigarettes (except licensed as medicines) in channels with probable cross-border impact with TV, radio, newspapers, magazines, and sponsorship. Online advertising was also prohibited, although the regulations left scope for marketers to retain websites containing verifiable information about e-cigarette products. The intention of the UK government in application of the TPD and the new TRPR was to strike a balance between encouraging current smokers to shift from tobacco to e-cigarettes, and protecting never smokers, particularly children, from viewing the products as appealing. In the UK, the TRPR requirements for e-cigarette advertising were set out in 2017 and are enforced by the Committee of Advertising Practice (CAP)—a self-regulatory body of organizations representing advertising, direct marketing, media businesses, and sales promotion endorsed and administered by the independent Advertising Standards Authority (ASA). These rules can be seen in section 22 of the ASA CAP Code. It is recommended for the purpose of reform, that stricter regulation of advertising and promotion particularly

the online medium be put in place as children and adolescents are most likely to be influenced in this era of social media use.

Underage sales: Despite the law that has been enacted, prohibiting the sale of e-cigarettes/vaping products to people under the age of 18, the purchasing of e-cigarettes by young people who are underage is still on the rise in the UK. Physical retail sources such as vape shops, and convenience stores are the most common purchasing location for underage e-cigarette users, next to online sources. Several reports have been made that some retail shops do not ask or conduct an age verification exercise before selling vapes to teenagers in the UK. A parent in her interview with *The Guardian* complained of how her son started vaping at 14, stating that “[h]e buys them easily from the local shop, but no one seems to care because it’s not tobacco. Meanwhile loads of kids are getting hooked on nicotine and the cigarette industry has a fresh pool of customers.” It is pertinent for retailers to understand how they are expected to comply with UK laws on e-cigarette. In order to limit this to a reasonable extent, it is recommended that a provision be inserted in the law making it mandatory for retail shops to conduct age verification check on anyone looking under 25 years old [9].

In implementing these reforms, an example can be distinctively drawn from how the standard packaging regulation was fully implemented in the UK in May 2017 for factory-made cigarettes and roll-your-own/hand-rolling tobacco. The manufacturing of cigarettes in Colourful, glamorous, and stylish packs were expressly prohibited by The Standardised Packaging of Tobacco Products Regulations 2015. A Study has shown that standard/plain packaging reduces the appeal of tobacco products to children and helps explain the certainties of smoking by increasing the use of graphic health warnings. More punitive measures such as imprisonment or fines on any person who is guilty of the offence should be put in place to serve as a deterrent against non-compliance with the law. Heavier taxing on disposable vapes which are the most popular type of vapes for children should be imposed. Also, better funding for enforcement using MHRA e-cigarette notification fees which was introduced for producers and importers of e-cigarettes for MHRA to cover the costs of processing the notifications and undertaking the post marketing vigilance work. The success of the implementation of this reform will be dependent on the cooperation between the government and law enforcement agencies to help make sure that the producers and sellers of e-cigarettes comply with the statutory regulations put in place.

Justification for the proposal

Smoking is and has been a public health concern in the UK. The government has stated its goal of going “smoke-free” by 2030 in England. In Scotland, the target is 2034, whilst no date is set yet in respect of Northern Ireland and Wales. Practically, “smoke-free” involves reaching 5% average adult smoking prevalence. The Government acknowledges that this target will be “extremely challenging” to attain. The use of e-cigarettes amongst adolescents is on the steady rise in the United Kingdom and this is because of the packaging style in conjunction with the fact that they believe e-cigarettes are less harmful than tobacco. Studies have shown that the trends in the use of e-cigarette among 11-18-year-olds in UK have risen significantly in the past 12 months, with the percentage of 11-15-year-olds and 16-17-year-olds currently using e-cigarettes in 2022, nearly or more than doubling since 2021 to 4.0% and 14.1%, respectively.

In view of the likely dangers of e-cigarettes on adolescent health and development, it is necessary to understand why many youths are vaping. The UK Action on Smoking and Health survey disclosed that the most popular reason for 11-17-year-old smokers to use e-cigarettes was because they loved the flavours (20.8%) and over half (56%) of youths reported being aware of e-cigarette promotion, most frequently in shops or online. Drawing from this data, the use of flavours, promotion, branding among many other methods, are key drivers for the increase in the vaping of e-cigarettes among children and teenagers. The e-cigarette industry has long been known to use deceptive marketing and advertising to target certain populations, particularly young people. It has been established that marketing and promotional activities by tobacco companies increase youth and young adult tobacco initiation and usage. Scientific evidence on the health outcomes of long-term e-cigarette use is scant and presently inconclusive. However, PHE have recognised that there are dangers and doubts regarding the use of e-cigarettes and could not be called “safe,” although, continues to maintain risks offset benefits. Report of the UK Royal College of Physicians (RCP) acknowledges that “e-In view of the likely dangers of e-cigarettes on adolescent health and development, it is necessary to understand why many youths are vaping. The UK Action on Smoking and Health survey disclosed that the most popular reason for 11-17-year-old smokers to use e-cigarettes was because they loved the flavours (20.8%) and over half (56%) of youths reported being aware of e-cigarette promotion, most frequently in shops or online. Drawing from this data, the use of flavours, promotion,

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circumstances, for example, under greater power conditions available on various wattage devices. E-Cigarette usage is also associated with mild or low-risk acute harmful events from cardiovascular or pulmonary system. Research findings also indicates that e-cigarettes can be a source of secondary exposure to nicotine due to high popularity of e-cigarettes has generated over the years and lack of product regulation, thus are prone to misuse. The e-liquids may contain nicotine in high concentrations, thus the misuse of the product may pose a potential danger resulting to accidental nicotine poisoning. A study indicates that nicotine dependence affects the areas of the brain that control management function, memory, and mood, and nicotine has been shown to have neurodevelopmental effects in children with prenatal cigarette exposure. It was also concluded that there is possibility that nicotine can cause tumor, but the evidence suggests it is doubtful to increase the incidence of cancers. The (MHRA) have received 231 reports of 618 adverse reactions believed to be associated with nicotine containing vaping products through its yellow card scheme between 20 May, 2016 (implementation of TRPR) and 5 January, 2021. Each report represents a person for whom more than one adverse reaction could have been reported however the report is not sufficient proof that the reaction was instigated by a vaping product, just that the reporter might have thought it probable. The MHRA reported that 3 fatalities (death) have taken place in the UK which was linked with vaping products since 20 May 2016, one of which seemed to meet the criteria for ‘e-cigarette, or vaping product, use-associated lung injury’ (EVALI). The function of human lungs is to breathe clean air, not to “reduce levels of toxins and carcinogens”, and the human body is not supposed to be reliant on addictive drugs. Findings have indicated that acute toxicity of e-cigarettes is greater than that of tobacco. Thus it is not rational for a person to state that e-cigarettes are safe especially as it relates to children and adolescents. E-cigarettes are considered less detrimental than combustible cigarettes, and although the evidence has not been made final, they are recognised by public health institutions as an operational tool to curb smoking. Nonetheless, figures on the safety and the long-term health impacts of e-cigarettes on human health seems to be mystifying. Evidence hints that vaping can reduce lung function, compound the risk of respiratory infections, and exacerbate existing lung conditions, such as pneumonia, bronchitis and asthma. Predictably, there is paucity of data regarding the short-term and long-term effects of e-cigarette usage and nicotine amongst young adults. The International CEO of Phillip

Morris wrote in a publication: “To be clear, smoke-free alternatives are not risk-free and should never be used by youth or non-smokers. To be clear, the commercialisation of smoke-free alternatives cannot come at the expense of youth or people who don’t smoke. Responsible marketing also plays a vital role: Tobacco and e-cigarette manufacturers should market their products only to adults who smoke or use smoke-free products”. Looking at the risks and harmful effects of e-cigarettes and the current high rate of vaping among children and adolescents, it is believed that the reforms suggested will help to ameliorate this public health issue.

Conclusion

This commentary has enunciated the significant rise in the use of e-cigarette/vaping products among children and teenagers in the UK with the aid of available data on the subject. This work finds that the packaging and design of e-cigarettes are produced in a way to attract younger individuals, especially children, and teenagers. It is acknowledged that e-cigarettes are

promoted in preference to tobacco as a form of harm reduction strategy because e-cigarettes are believed to be less harmful than tobacco. However, this does not presuppose that it does not pose any substantial harm. To help solve this problem, this work has made recommendations for a law regulating e-cigarettes to make provisions for standard packaging of e-cigarette/vaping products in terms of design, colour and flavour to be less attractive to children and teenagers. Also, stringent laws to regulate the advertising/marketing of vaping products online to children and young adults. Adequate age verification checks should be done by retail shops before selling e-cigarettes to a person. Vaping products have been shown to be harmful to the body and only best suited as an alternative to chronic tobacco smokers who are unlikely to quit. Therefore, their promotion and production in attractive forms which is appealing to young people is overreaching. There is an urgent need to reform the extant legislation on vaping products to be produced in a form that will be less attractive to children and teenagers.

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