GLOBAL NETWORK FOR TOBACCO FREE HEALTHCARE SERVICES

20.SEP.23 GLOBAL NETWORK CONFERENCE

Nicotine addiction: gambling with adolescence

VALENTINA BIANCHI GALDI, MD

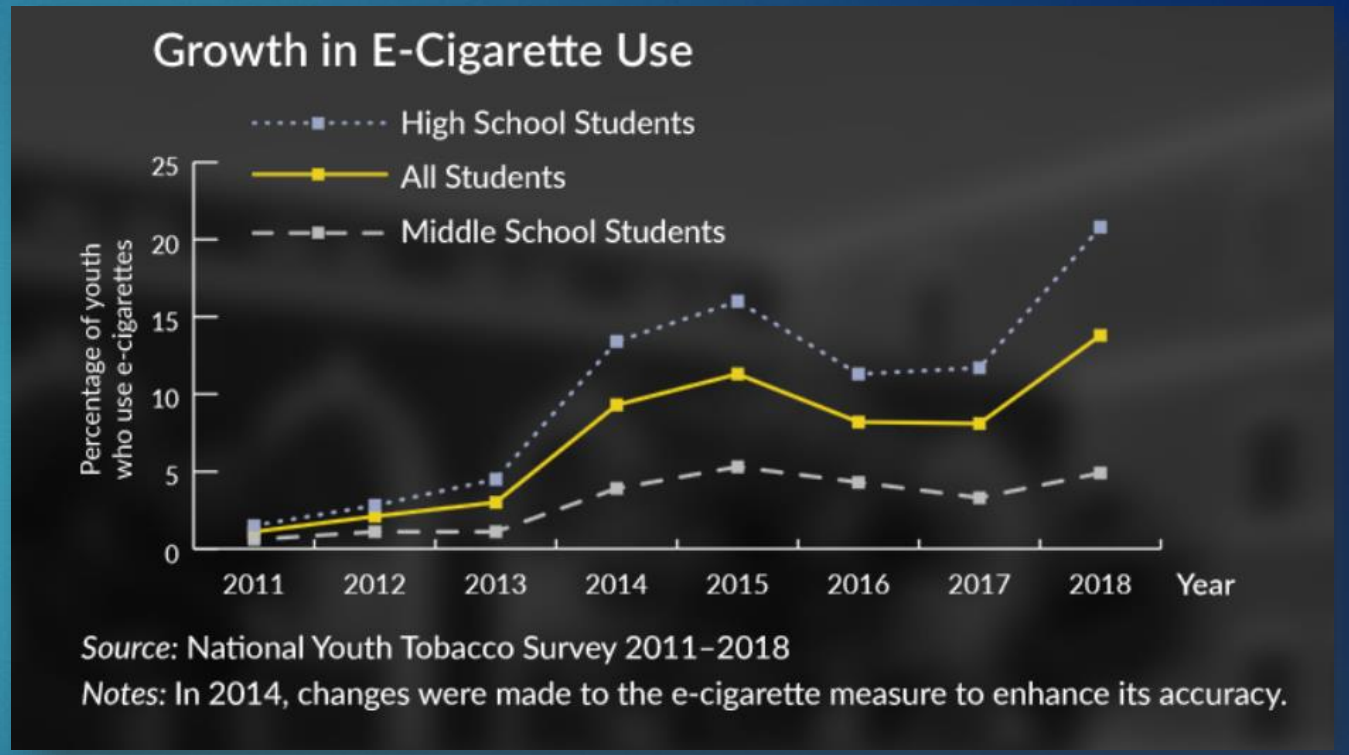
We have a big problem…

Surgeon General's Advisory on E-cigarette Use Among Youth

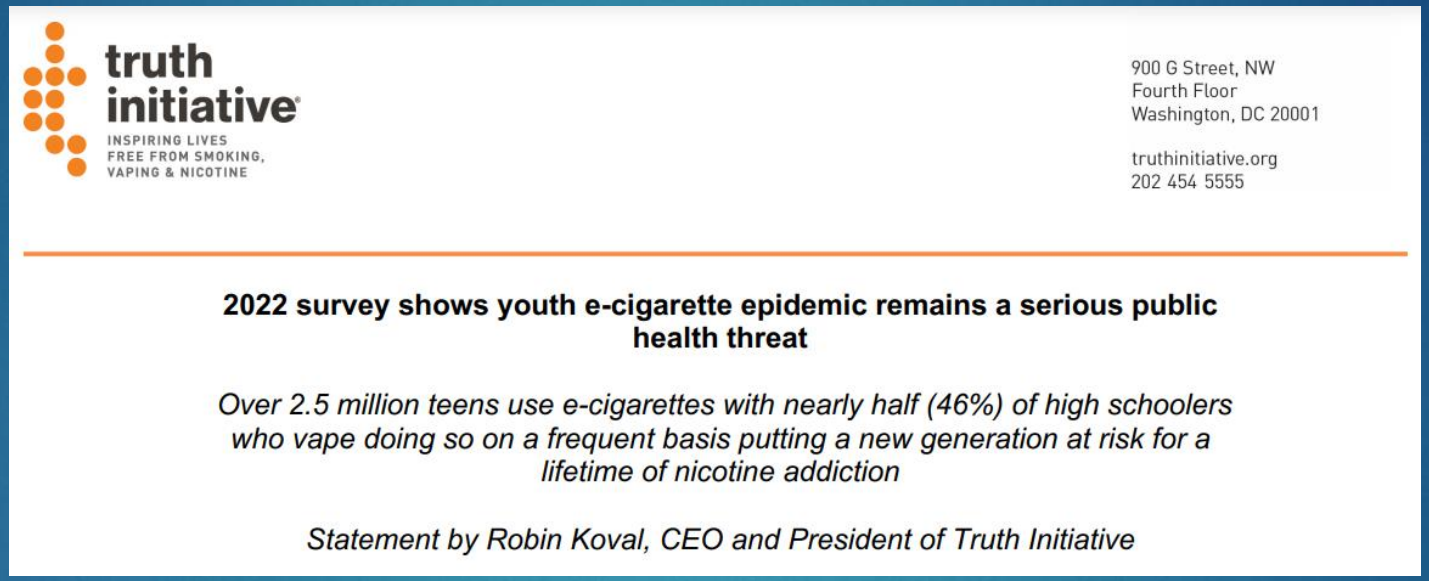
I, Surgeon General of the United States Public Health Service, VADM Jerome Adams, am emphasizing the importance of protecting our children from a lifetime of nicotine addiction and associated health risks by immediately addressing the epidemic of youth e-cigarette use. The recent surge in e-cigarette use among youth, which has been fueled by new types of e-cigarettes that have recently entered the market, is a cause for great concern. ***We must take action now to protect the health of our nation's young people.***

KNOW THE RISKS. TAKE ACTION. PROTECT OUR KIDS.

- E-cigarettes entered the U.S. marketplace around 2007, and since 2014, they have been the most commonly used tobacco product among U.S. youth.
- E-cigarette use among U.S. middle and high school students increased 900% during 2011-2015, before declining for the first time during 2015-2017.
- Current e-cigarette use increased 78% among high school students during the past year, from 11.7% in 2017 to 20.8% in 2018.
- In 2018, more than 3.6 million U.S. youth, including 1 in 5 high school students and 1 in 20 middle school students, currently use e-cigarettes.



https://e-cigarettes.surgeongeneral.gov/



truth initiative
INSPIRING LIVES FREE FROM SMOKING, VAPING & NICOTINE

900 G Street, NW
Fourth Floor
Washington, DC 20001

truthinitiative.org
202 454 5555

2022 survey shows youth e-cigarette epidemic remains a serious public health threat

Over 2.5 million teens use e-cigarettes with nearly half (46%) of high schoolers who vape doing so on a frequent basis putting a new generation at risk for a lifetime of nicotine addiction

Statement by Robin Koval, CEO and President of Truth Initiative

In 2022, youth prevalence of e-cigarette use is nearly four times that of adults, driven in large part by the broad availability and appeal of flavored products which are used by 84.9% of youth who vape, and the growing popularity of disposable products used by 55.3% of young e-cigarette users. The number of new product bar codes has more than tripled in less than a year, from nearly 500 in June 2021 to almost 1600 by March 2022.

Why do teens vape?

Les «nouveaux» produits du tabac: évolutions et conséquences

Luciano Ruggia

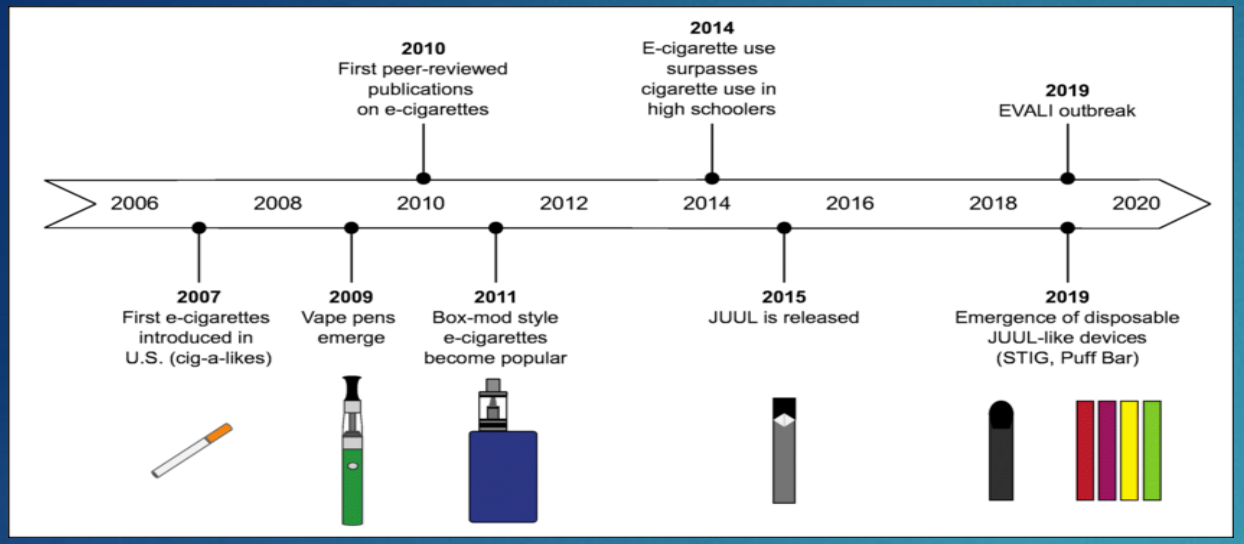
Directeur de l'Association suisse pour la prévention du tabagisme; chercheur associé auprès de l'ISPM à Berne; SSPH+ fellow

La nouvelle Loi sur les produits du tabac (LPTab), en discussion au Parlement, a pour objet de réguler tous les produits contenant du tabac et de la nicotine. A ce propos, relevons qu'en Suisse, les cigarettes électroniques (*electronic nicotine delivery systems* ou ENDS) ne sont soumises à aucune réglementation. En l'état actuel, la LPTab n'y changera quasiment rien et ne sera qu'un tigre de papier.

BULLETIN DES MÉDECINS SUISSES –2021;102(34):1076–1078

Sur cette photo se cachent quatre cigarettes électroniques: pouvez-vous les voir?

Centers for Disease Control and Prevention. E-Cigarette, or Vaping, Products Visual Dictionary. 2020. https://www.cdc.gov/tobacco/ basic_information/e-cigarettes/pdfs/ecigarette-or-vaping-products-visualdictionary-508.pdf.



Hickman E. Current E-Cigarette Research in the Context of Asthma. August 2020 Current Allergy and Asthma Reports 20(10). DOI:10.1007/s11882-020-00952-2

Nicotine & Tobacco Research, 2022, 421–424
https://doi.org/10.1093/ntr/ntab164
Commentary
Received June 1, 2021; Editorial Decision August 6, 2021; Accepted August 10, 2021

SRNT OXFORD

Commentary

Electronic Cigarette Terminology: Where Does One Generation End and the Next Begin?

Jenny E. Ozga PhD[1,*], Nicholas J. Felicione PhD[2,*], Ashley Douglas BS[3,4], Margaret Childers BS[3,4], Melissa D. Blank PhD[3,4]

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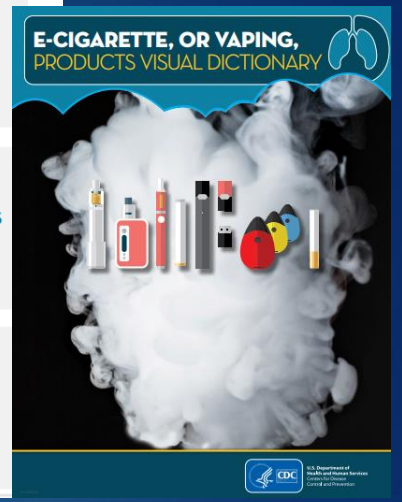
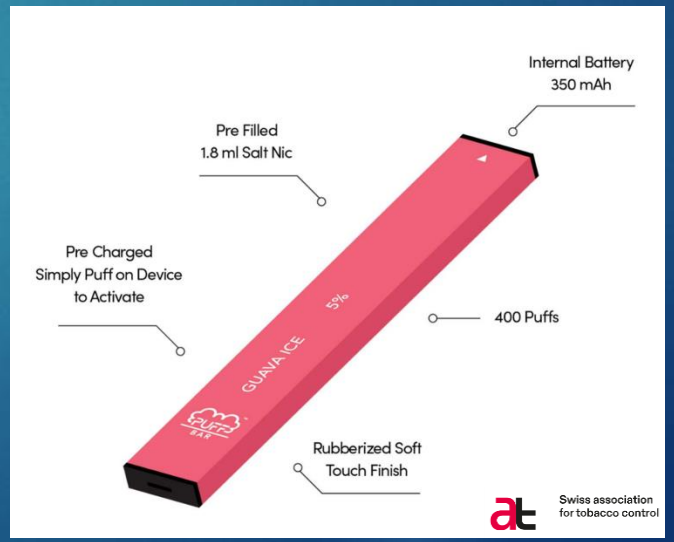
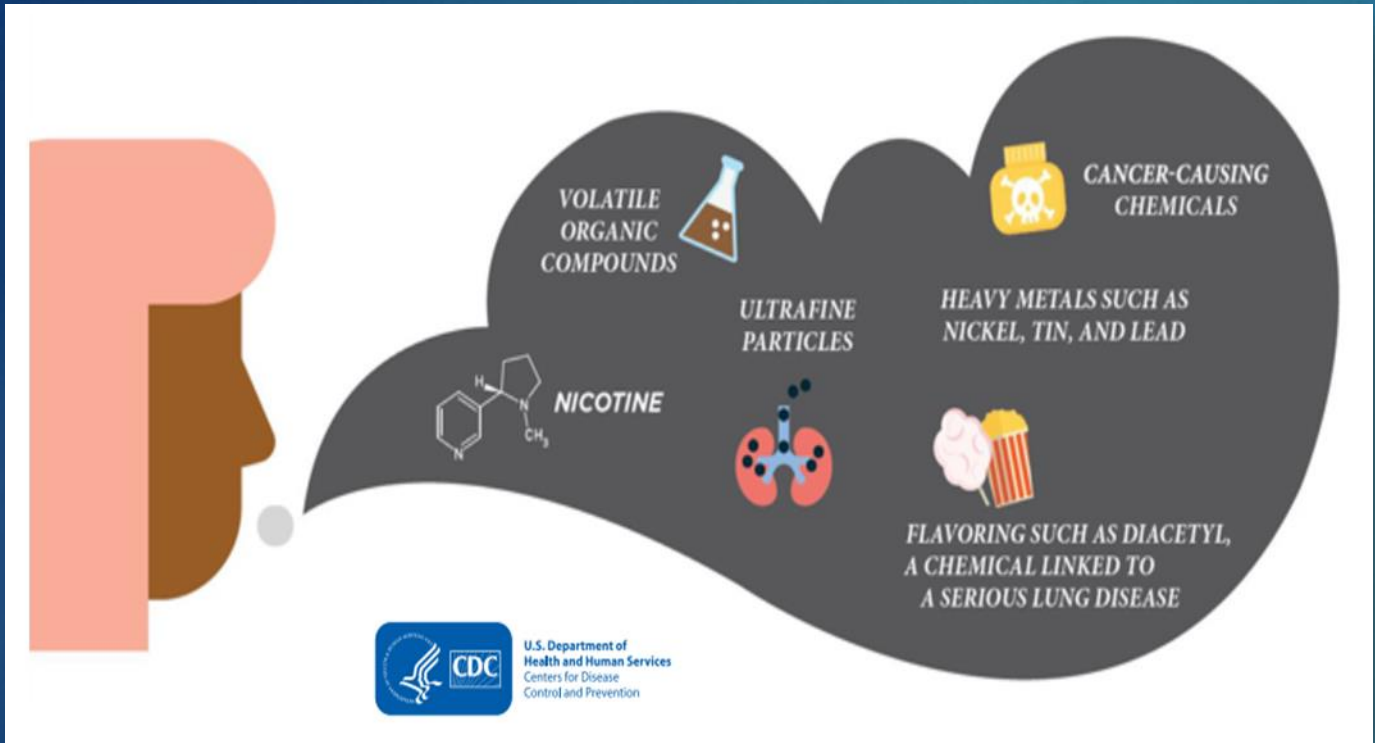


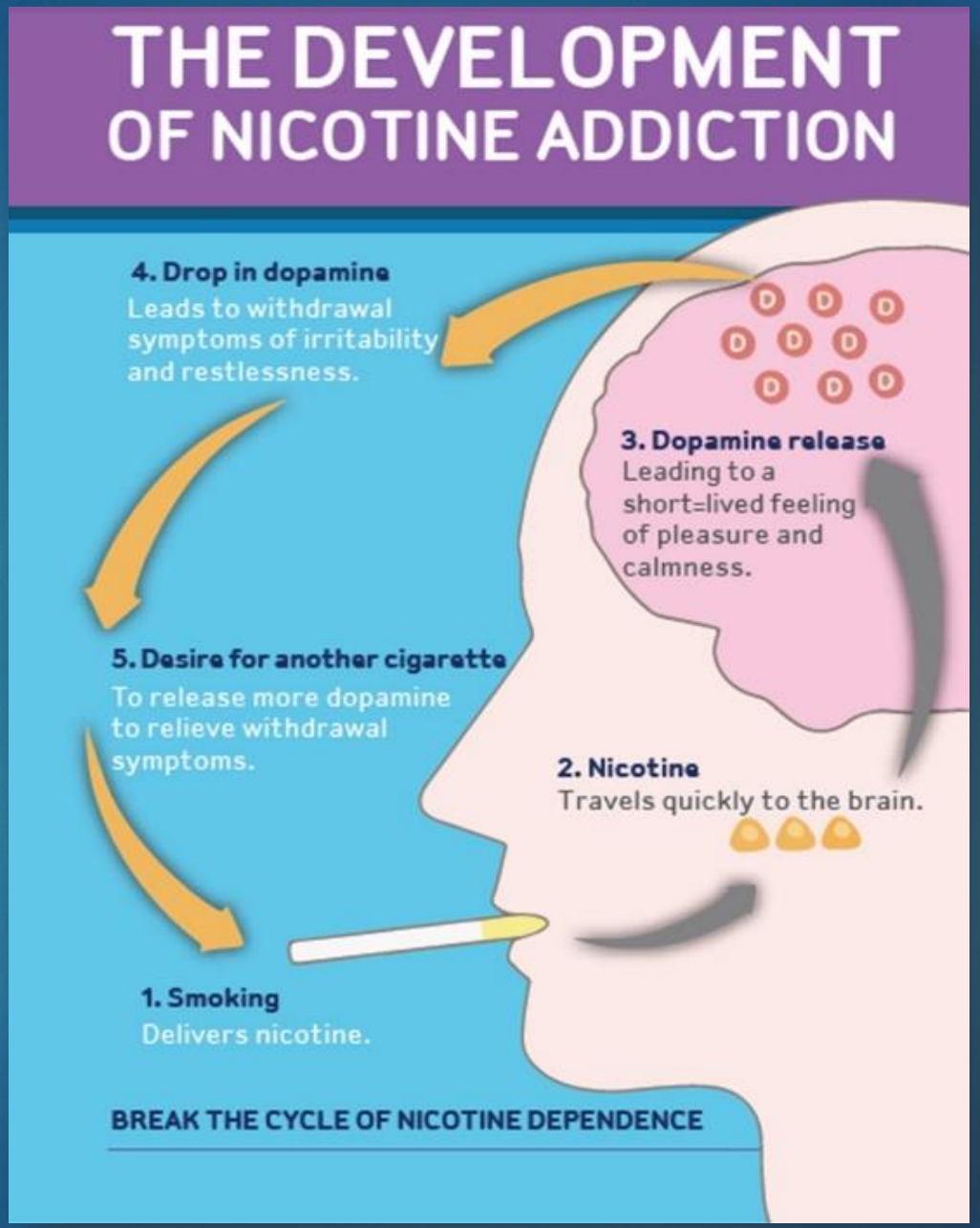


E-cig aerosol is not water vapor!



- The aerosol that users inhale and exhale from e-cigarettes can expose both themselves and bystanders to harmful substances.
- It is difficult for consumers to know what e-cigarette products contain. For example, some e-cigarettes marketed as containing zero percent nicotine have been found to contain nicotine.

U.S. Department of Health and Human Services. Smoking Cessation: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2020



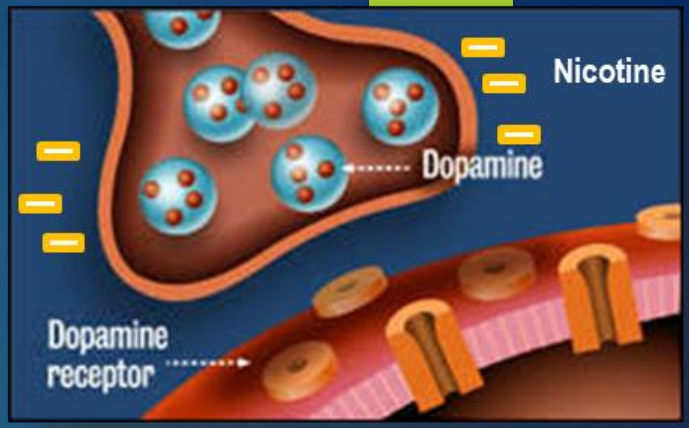


Image from kick-it.org.uk

Synthetic nicotine has arrived

Sven-Eric Jordt [1,2]

OPEN ACCESS

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ABSTRACT
The introduction of a new product line of the popular disposable electronic cigarette brand Puffbar, advertised as containing synthetic nicotine, has drawn attention to the increasing use of synthetic nicotine in marketed products and its uncertain regulatory status. A search of the Truth Tobacco Industry Documents revealed that the industry considered using synthetic nicotine already in the 1960s, efforts that were abandoned due to high costs and insufficient purity. Recent patents revealed renewed efforts to develop more efficient strategies for the synthesis of nicotine. Nicotine exists as two stereoisomers, *S*-nicotine and *R*-nicotine. While *S*-nicotine is the prevalent (>99%) form of nicotine in tobacco, a market-leading form of synthetic nicotine contains both stereoisomers at equal amounts, raising concerns about inaccurate labelling and the poorly understood health effects of *R*-nicotine. Other manufacturers, including a leading vendor of pharmaceutical grade nicotine, developed stereospecific strategies to

July 2020, ordering the company to stop sales due to lack of premarket authorisation.[6] However, while the main sales website (puffbar.com) stopped sales, other online vendors, convenience stores and gas stations continued to sell Puffbar-branded disposable E-cigarettes, suggesting that these products were continued to be manufactured or imported illegally, potentially from several sources.

Puffbar revealed the new product as a line of E-cigarettes, stating 'products are created with tobacco-free nicotine. Our nicotine-based products are crafted from a patented manufacturing process, not from tobacco' (figure 1A).[7] Products are marketed in 3 sizes and with 15 flavours, including a wide range of fruit, berry and candy flavours.

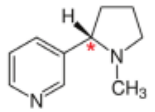
SYNTHETIC NICOTINE: CHEMISTRY AND MANUFACTURERS

Jordt S-E. Tob Control 2023;32:e113–e117

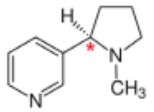
What this paper adds

⇒ In February 2021, the disposable electronic cigarette brand, Puffbar, started selling a new product line in the United States, advertised as containing synthetic nicotine.
⇒ Manufacturers claim that Food and Drug Administration (FDA) cannot regulate synthetic nicotine as a tobacco product, allowing them to skirt the costly premarket authorisation process. FDA may regulate synthetic nicotine as a drug instead.
⇒ Recent advances in nicotine synthesis enabled manufacturing at a sufficiently competitive prices, however, presence of the inactive *R*-nicotine variant in some marketed versions raises safety and mislabelling concerns. Chemical analytical approaches to differentiate tobacco-derived from synthetic nicotine need to be optimised.

TFN



S-nicotine (50%)



R-nicotine (50%)

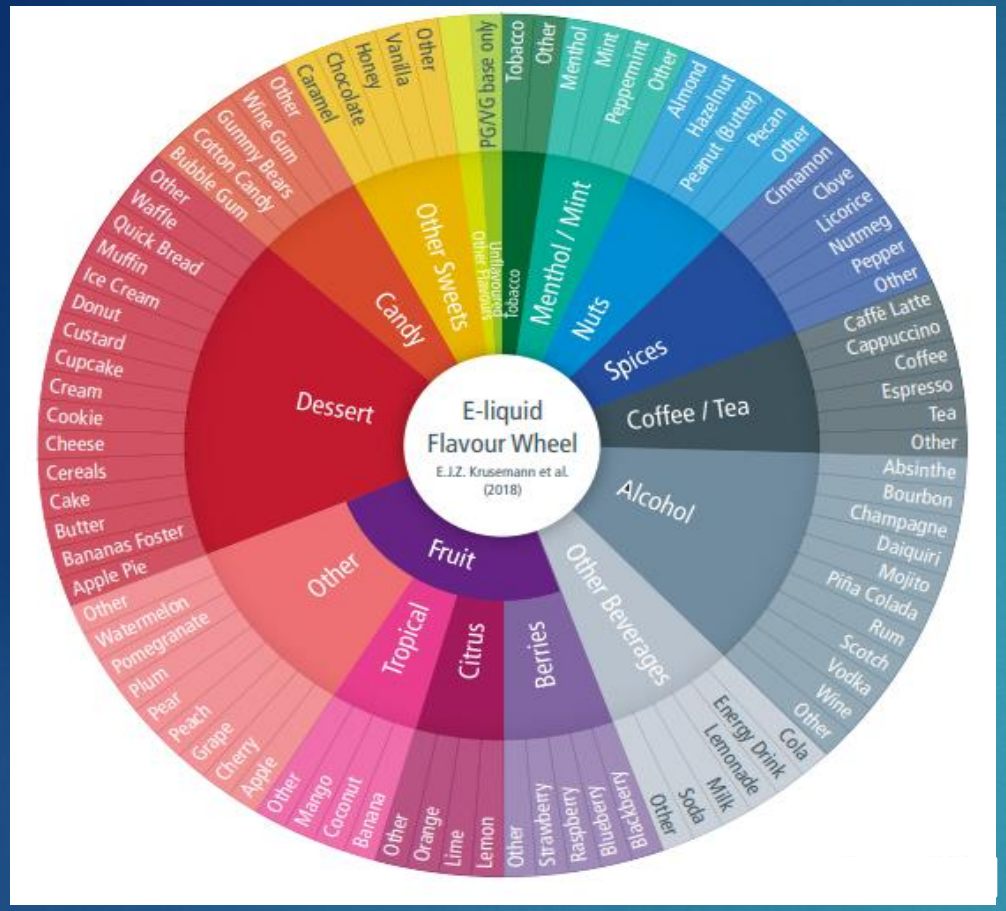
Figure 1 Products containing synthetic nicotine. (A) Puffbar line of electronic cigarettes containing synthetic nicotine, marketed since February 2021. (B) Next Generation Labs' description of synthetic nicotine. (C) 20ne nicotine pouches with warning label stating synthetic nicotine content, available for ordering on Amazon.com.

Factors which contribute to vaping product use among youth

- **Individual risk factors**
  - use by peers
  - curiosity
  - the desire to experiment
  - a perceived lack of harmful effects from vaping
  - history of tobacco product use
- **Leading environmental risks**
  - exposure to vaping-related marketing campaigns
  - easy access to vaping products at low cost
- **Regulatory approaches to reduce youth vaping**
  - restricting youth-directed advertising of vaping products
  - banning flavoured vaping products (except tobacco flavoured)
  - adopting a 20 mg/mL nicotine concentration limit
  - restricting the sale of products to adults
  - restricting the use of vaping products in public places.

Such regulation can impact youth vaping behaviours significantly.

Chadi et al. Paediatr Child Health 2021(6): 358-365



There are approximately 16 000 unique flavours available in some markets, many of them appealing to children. These flavours can mask the harshness of nicotine and play a role in a person's decision to try using ENDS for the first time. Flavours can make the use of the product more pleasurable, the inhalation of aerosols easier, and change the perceived risk associated with their use.

WHO REPORT ON THE GLOBAL TOBACCO EPIDEMIC, 2021

Addressing new and emerging products

Krüsemann EJ et al. An e-liquid flavor wheel: a shared vocabulary based on systematically reviewing e-liquid flavor classifications in literature. Nicotine and Tobacco Research. 2019;21(10):1310–1319

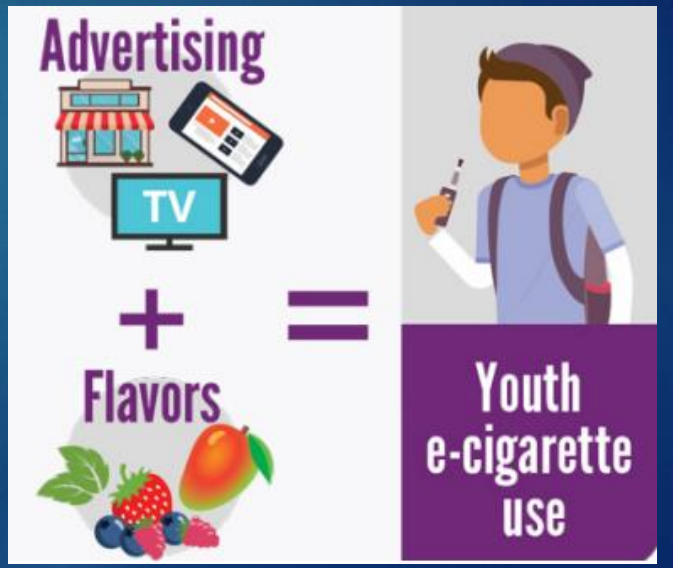
- In 2022, most youth who reported using e-cigarettes used **flavored varieties** (84.9%).
- Among middle and high school students who currently used any type of flavored e-cigarette in 2022, the most commonly used flavors were fruit (69.1%), candy, desserts, or other sweets (38.3%), mint (29.4%), and menthol (26.6%).
- Several states and communities have restricted the sale of flavored tobacco products, including menthol-flavored products.

Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults | CDC

- E-cigarettes are also advertised using the same themes and tactics that have been shown to increase youth initiation of other tobacco products, including cigarettes.
- In 2021, approximately 76% of students reported exposure to tobacco product marketing through traditional sources and approximately 74% of students who used social media had seen e-cigarette–related posts or content.
- Widespread advertising for e-cigarettes, including via media for which advertising for conventional tobacco products is prohibited (e.g., TV), and the lower costs of some e-cigarettes relative to regular cigarettes has contributed to use among youth.

[Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults | CDC]

Teenage YouTuber films himself taking as many puffs as possible within one minute.



truth initiative

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WHILE YOU WERE STREAMING 2022

Tobacco imagery continues to maintain a strong presence in popular movies, including those rated appropriate for youth.

February 2023 | WHILE YOU WERE STREAMING 2022

WHILE

red in:

+2B

YouTube views of **top 2021 Billboard** song music videos

2x more

to 2020, including:

12.8%

These signs of progress must continue and become part of permanent policies and other actions to reduce youth exposure.

- It is also becoming more common for adolescents and young adults who use cannabis recreationally to employ a vaping device containing cannabis.
- Among youth who reported vaping, the majority (87%) used liquids containing nicotine.
- ***Nicotine*** is a particularly addictive substance due to its rapid onset and intense stimulation of reward pathways in the brain. ***THC***, a liposoluble substance, triggers the brain's reward circuitry in a similar but slower, more prolonged manner .
- Although their short-term effects are different, both nicotine and THC have been shown to impact brain development and increase risk for problematic use of both licit and illicit substances. In fact, vaping has been independently associated with increasing risk for future tobacco and cannabis use regardless of past exposure to traditional cigarettes.

Chadi et al. Paediatr Child Health 2021(6): 358-365

Harms associated with vaping

- Pulmonary and cardiovascular risks
- Chronic cough
- Bronchitis
- Asthma exacerbation
- Decreased exercise tolerance

Because vaping products are relatively new, their carcinogenic risks over the longer term compared with other tobacco or cannabis products are unknown. However, several studies have raised concerns about vaping as a long-term risk factor for poor cardiovascular health

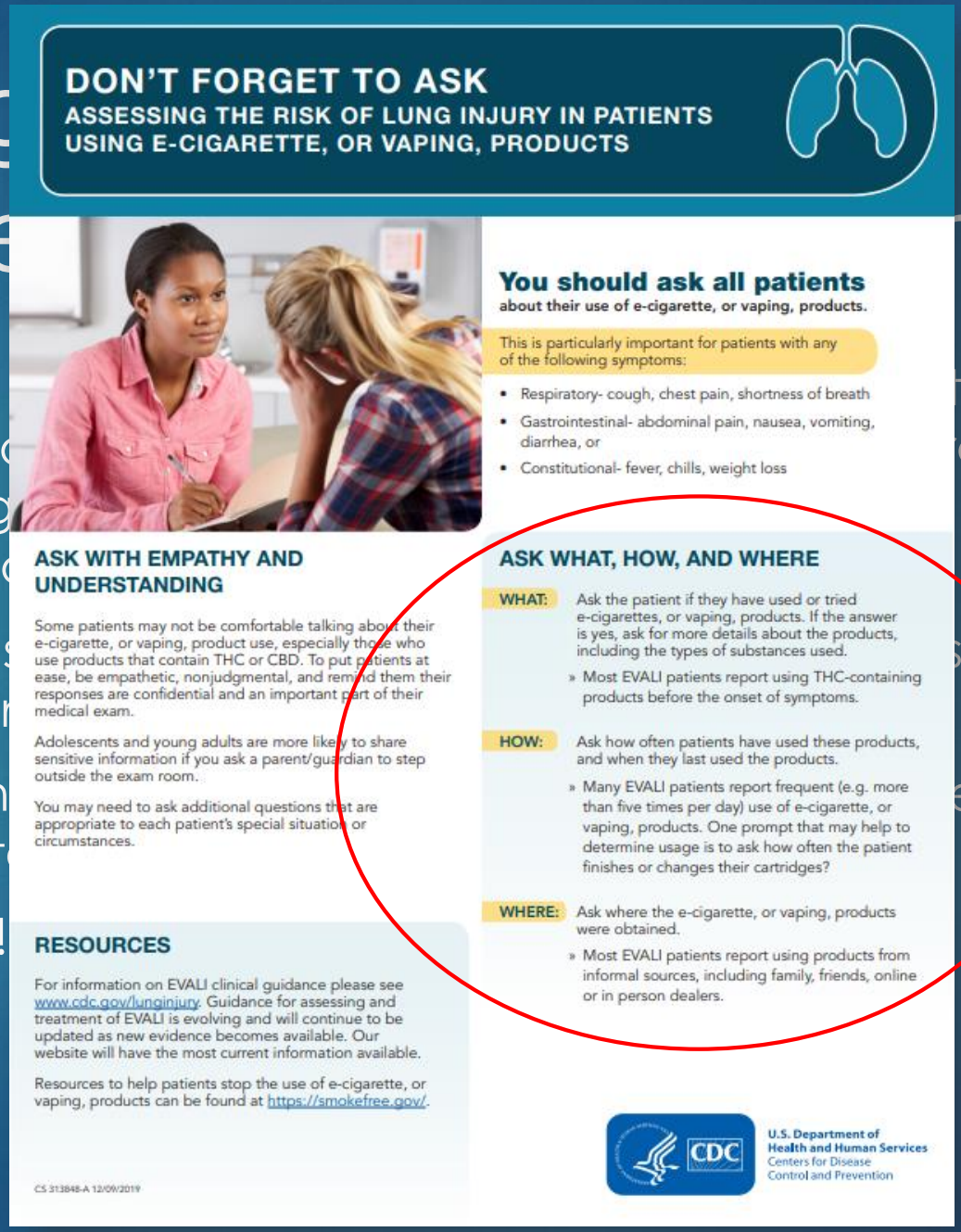
Chadi et al. Paediatr Child Health 2021(6): 358-365

EVALI (e-cigarette, or vaping, product use-associated lung injury

- Between August 2019 and March 2020, nearly 3000 cases of vaping product use-associated lung injury (VALI) were reported in Canada and the United States, of which approximately 15% were in youth under the age of 18.
- National and state data from patient reports and product sample testing show tetrahydrocannabinol (THC)-containing e-cigarette, or vaping, products, particularly from informal sources like friends, family, or in-person or online dealers, are linked to most EVALI cases and play a major role in the outbreak.
- Vitamin E acetate is strongly linked to the EVALI outbreak. Vitamin E acetate has been found in product samples tested by FDA and state laboratories and in patient lung fluid samples tested by CDC from geographically diverse states. Vitamin E acetate has not been found in the lung fluid of people that do not have EVALI.
- Evidence is not sufficient to rule out the contribution of other chemicals of concern, including chemicals in either THC or non-THC products, in some of the reported EVALI cases.
- EVALI remains a diagnosis of exclusion because, at present, no specific test or marker exists for its diagnosis, and evaluation should be guided by clinical judgment. Rapid recognition of EVALI patients by healthcare providers is critical to reduce severe outcomes.

EVALI (e-cig
product use
njury

- Influenza cannot be
  toms, clinical features at presentation (medico
  atory illness in a patient with a history of e-cig
  be caused by influenza viruses, other respirato
- Ask about recent us
  in a confidential and nonjudgmental manr
- If product use is con
  e.g., THC, nicotine) and where they were obt
- Don't forget TO ASK!!



DON'T FORGET TO ASK
ASSESSING THE RISK OF LUNG INJURY IN PATIENTS USING E-CIGARETTE, OR VAPING, PRODUCTS

You should ask all patients
about their use of e-cigarette, or vaping, products.

This is particularly important for patients with any of the following symptoms:

- Respiratory- cough, chest pain, shortness of breath
- Gastrointestinal- abdominal pain, nausea, vomiting, diarrhea, or
- Constitutional- fever, chills, weight loss

ASK WITH EMPATHY AND UNDERSTANDING

Some patients may not be comfortable talking about their e-cigarette, or vaping, product use, especially those who use products that contain THC or CBD. To put patients at ease, be empathetic, nonjudgmental, and remind them their responses are confidential and an important part of their medical exam.

Adolescents and young adults are more likely to share sensitive information if you ask a parent/guardian to step outside the exam room.

You may need to ask additional questions that are appropriate to each patient's special situation or circumstances.

ASK WHAT, HOW, AND WHERE

WHAT: Ask the patient if they have used or tried e-cigarettes, or vaping, products. If the answer is yes, ask for more details about the products, including the types of substances used.

» Most EVALI patients report using THC-containing products before the onset of symptoms.

HOW: Ask how often patients have used these products, and when they last used the products.

» Many EVALI patients report frequent (e.g. more than five times per day) use of e-cigarette, or vaping, products. One prompt that may help to determine usage is to ask how often the patient finishes or changes their cartridges?

WHERE: Ask where the e-cigarette, or vaping, products were obtained.

» Most EVALI patients report using products from informal sources, including family, friends, online or in person dealers.

RESOURCES

For information on EVALI clinical guidance please see www.cdc.gov/lunginjury. Guidance for assessing and treatment of EVALI is evolving and will continue to be updated as new evidence becomes available. Our website will have the most current information available.

Resources to help patients stop the use of e-cigarette, or vaping, products can be found at https://smokefree.gov/.

CS 313848-A 12/09/2019

CDC
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Consuming high amounts of nicotine when vaping, sometimes called **"dosing"**, can lead to **nicotine toxicity**, a syndrome characterized by:

- intense abdominal pain
- nausea
- vomiting
- palpitations
- hand tremors
- headaches
- difficulty concentrating
- and, in severe cases, seizures and arrhythmia

Similarly, **high potency cannabis products** can lead to adverse, acute mental health effects such as:

- paranoia
- psychotic symptoms

The development of **nicotine or THC dependence** through repeated vaping can cause **withdrawal symptoms** when a youth tries to quit or cannot access vaping products, in particular:

- intense cravings
- irritability
- nervousness
- depressed mood
- headaches
- insomnia.

Chadi et al. Paediatr Child Health 2021(6): 358-365

Prevention

EDUCATE, INFORM, ASK, DISCUSS, TALK, MAKE LAWS

A local initiative to protect the teens

EDUCATION TO HEALTH IN YOUNG ATHLETES

atinformation

Association suisse pour la prévention du tabagisme

AT Newsletter – Estate 2019

L'interdiction de vente du snus a été levée

Le 27 mai 2019, le Tribunal fédéral a accepté le recours d'une société commercialisant des produits du tabac et levé l'interdiction de vente du snus, car la loi sur les denrées alimentaires ne contient pas la base légale requise.

Explication: en 1991, les Chambres fédérales ont transmis au Conseil fédéral un postulat portant sur l'interdiction de vente du snus. Le Conseil fédéral a ensuite interdit la vente du snus et son importation destinée à la vente en adaptant en conséquence l'ordonnance sur le tabac, qui repose sur la loi sur les denrées alimentaires et est «annexée» à cette dernière.

Dans le cadre de la révision de la loi sur les denrées alimentaires de 2011/2014, il a été décidé de retirer de la loi sur les denrées alimentaires toutes les réglementations concernant les produits du tabac et de les intégrer dans la nouvelle loi sur les produits du tabac. Cela n'a cependant toujours pas été fait, malgré l'urgence induite par la révision sur les denrées alimentaires. Actuellement, les produits du tabac sont réglementés dans un article transitoire de la loi sur les denrées alimentaires, ce qui signifie qu'ils sont toujours considérés comme des «denrées d'agrément». C'est sur cette base que s'appuie la décision du Tribunal fédéral.

Deux éléments sont à retenir de la genèse de la décision du tribunal. Premièrement, l'interdiction de vente du snus, aujourd'hui levée, ne repose pas sur une décision du Conseil fédéral prise sans concertation préalable, mais sur une demande du Parlement. Deuxièmement, les réglementations sur les produits du tabac sont en suspens depuis cinq ans alors qu'elles auraient dû être intégrées depuis longtemps dans la nouvelle loi sur les produits du tabac.

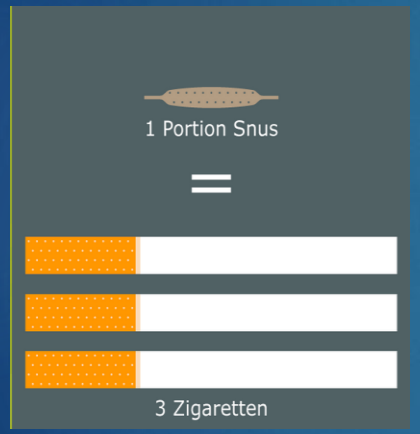
La Norvège comme mauvais exemple

La vente de snus est interdite partout en Europe, sauf en Norvège et en Suède. Le potentiel de diffusion du tabac oral est très visible en Norvège. Près d'un cinquième de la population norvégienne utilise le tabac oral, notamment les 16-34 ans, c'est-à-dire les adolescents et les jeunes adultes. Contrairement à d'autres pays, de nombreuses femmes consomment également du snus (en 2017, 21% des hommes et 17% des femmes ont avoué une consommation quotidienne). Pourtant, il y a encore 10 ans, la consommation chez les femmes était marginale (environ 5%). Une importante campagne publicitaire en faveur du snus et ciblant les femmes a toutefois été lancée dans l'intervalle.

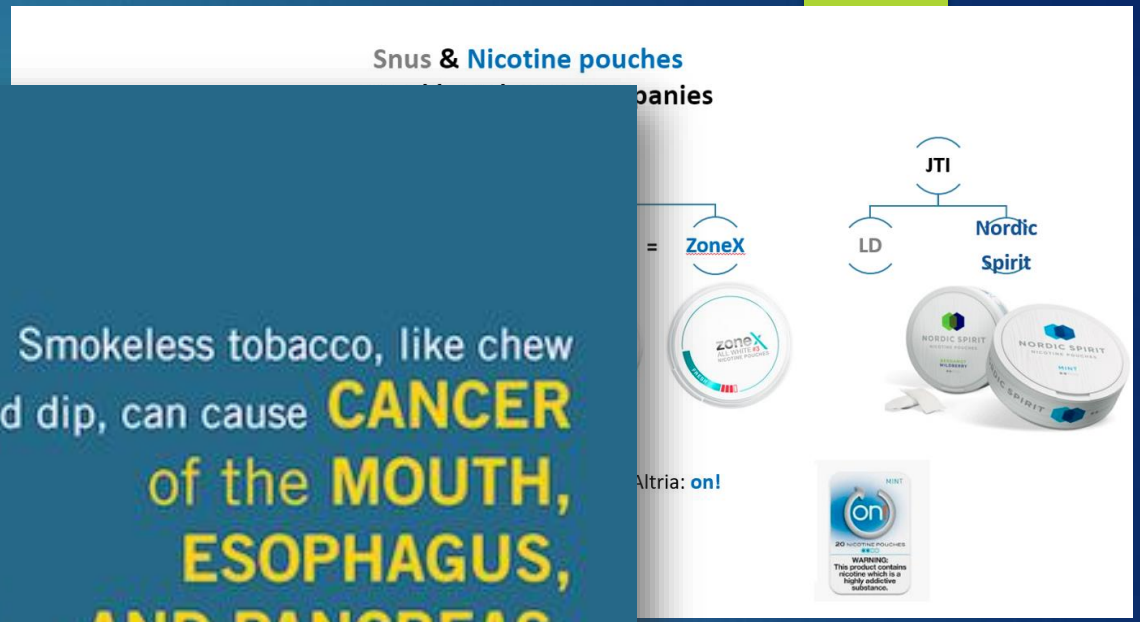
Les risques du snus sur la santé

Un grand nombre de consommatrices et consommateurs sous-estiment les risques du snus sur leur santé. La muqueuse buccale est très sensible au tabac et aux autres substances contenues dans le snus. Une rétraction irréversible de la gencive peut apparaître aux zones de contact. Dans le pire des cas, les changements au niveau de la muqueuse peuvent évoluer en grave cancer de la cavité buccale. La consommation de snus accroît en outre le risque de décès par infarctus. Chez les femmes enceintes, le risque de fausse couche et d'accouchement prématuré augmente également.

Snus & nicotine pouches



Swiss Olympic «Cool and Clean»



Health Education for Young Athletes

Pilot Project (Authors: *V. Bianchi Galdi, MD* and *F. Conne, Pro-Coach and Olympic Ice Hockey Player)*

- Hockey Club Lugano: start 2018 – ongoing
- Hockey Cantonal Selection U13 and U14 (spin-off project on snus and nutrition): since 2020 - ongoing
- Lugano, Canton Ticino, Switzerland

U13

- Smoke I
- Nutrition I
- Alcohol I
- Drugs I

U15

- Smoke II
- Nutrition II
- Alcohol II
- Drugs II

U17

- Smoke III
- Nutrition and Supplements III
- Alcohol III
- Drugs III
- Doping and WADA Procedures

Health Education for Young Athletes

- The interventions, carried out in person, are proportionate in terms of time, topic and method to the age of the children. Depending on the number of kids inside the category, some lessons were repeated to have groups of max. 30 guys
- The kids stay in the same category for about two years, so for those who attended the lesson the previous year there will be an interactive lesson with any news and discussion on the topic, leaving the new entrants to attend the full lesson
- At the end of the lesson, brochures are distributed which better explain the main points covered and which may have a practical value (e.g. in nutrition: food pyramid, portions, how to read food labels, etc.)
- Since 2018 we have carried out 52 lessons (on average 13/year) and we met 430 kids

Ticino Cantonal Selection 2019

Comunicato stampa
Consiglio di Stato
28 aprile 2023

Dal 1° giugno vietata la vendita di sigarette elettroniche ai minorenni

Nella sua seduta settimanale, il Consiglio di Stato ha stabilito l'entrata in vigore delle modifiche della Legge sulla promozione della salute e il coordinamento sanitario (Legge sanitaria, LSan), adeguando anche il relativo regolamento di applicazione. I nuovi prodotti vengono così equiparati ai tradizionali prodotti del tabacco. Il cambiamento sarà accompagnato da una campagna di sensibilizzazione.

In Ticino, from 1 June 2023 the distribution and sale of electronic cigarettes (e-cigs) and similar products to young people under the age of 18 and their consumption in closed places accessible to the public is prohibited. These bans apply to products with and without nicotine.

At present (May 2023), e-cigarettes fall within the food sector and are considered as objects of use: therefore at the level of federal legislation, there are still no legal requirements to prevent minors from buying e-cigarettes, nor there are advertising restrictions. Furthermore, e-cigs are outside the scope of the Federal Law on Protection against Passive Smoking. After an initial bill sent back by Parliament to the Federal Council, the Federal Chambers adopted the new Federal Law on Tobacco Products and Electronic Cigarettes. The federal law and ordinance are expected to come into force in 2024.

In the meantime, in addition to Ticino, other Cantons have adopted a cantonal ban on sales and/or restrictions on advertising with the aim of raising awareness and strengthening the adoption of conscious behavior that respects others.

http://www.ti.ch/fumaresvapare

Smoking teens: how to approach them?

HOW HEALTHCARE PROVIDERS CAN HELP THEM

Be informed, learn about all the new devices and the ways of consuming tobacco and/or nicotine!

How to help adolescents quit smoking

- Paediatric health care providers (HCPs) should address the risks of vaping with all the adolescents they see
- Show the teen is addicted to nicotine:
  - Hooked on Nicotine Checklist (tailored for e-cigarettes or traditional tobacco products)
  - E-Cigarette Dependence Scale
  - Modified Version of the Fagerstrom Tolerance Questionnaire (mFTQ)
- Counselling adolescent smokers
- Intervening during the adolescent's health care provider visit
- Counselling parents during the pediatric visit
- Tobacco use medication for adolescents

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