What can and should be done? What will Tobacco Control 2.0 look like?

Clive Bates
Counterfactual Consulting
London, United Kingdom

Berlin 26 March 2025

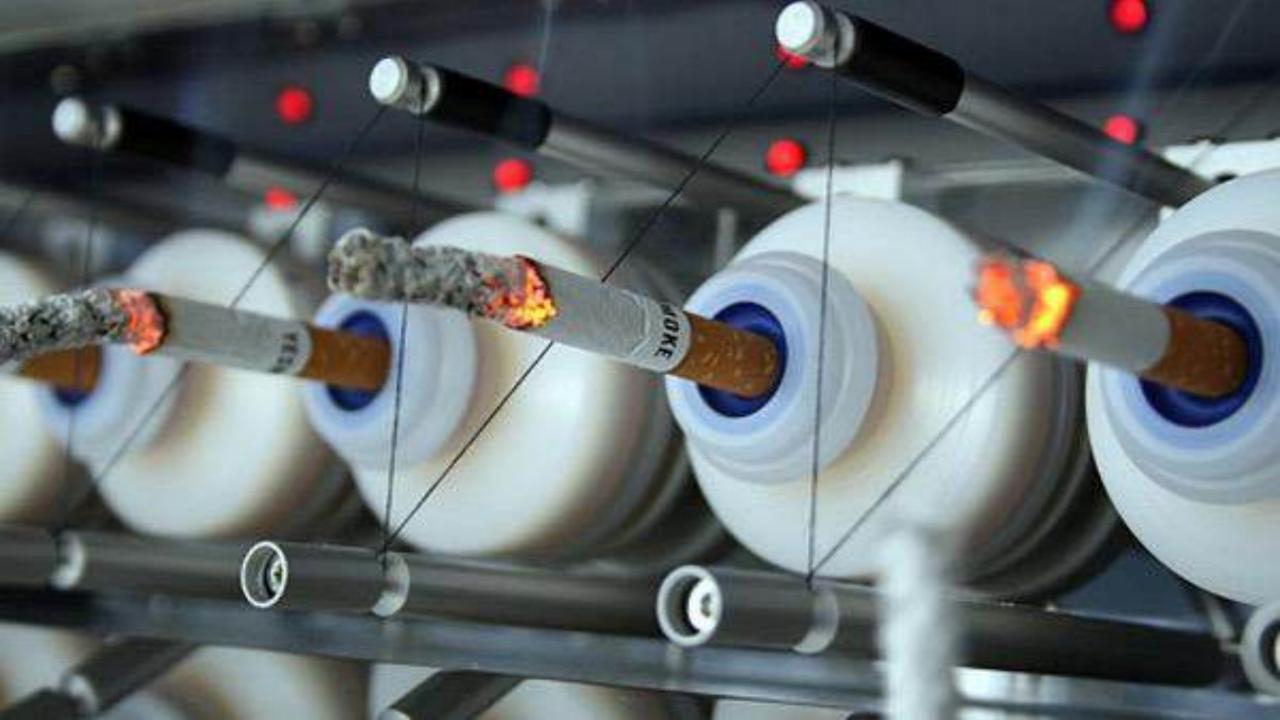
1997: a simpler time







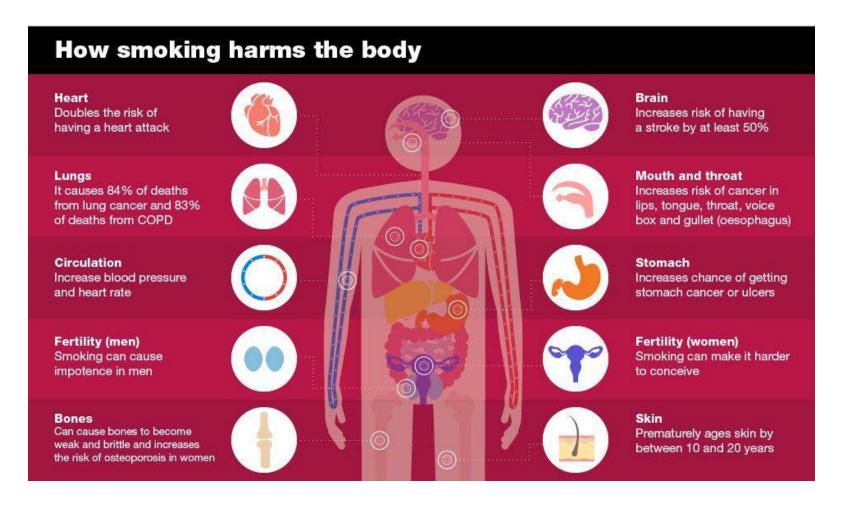








Well researched toll of harm from smoking...



Smoking prematurely kills around 8 million annually

...similar to COVID-19, but *every year*

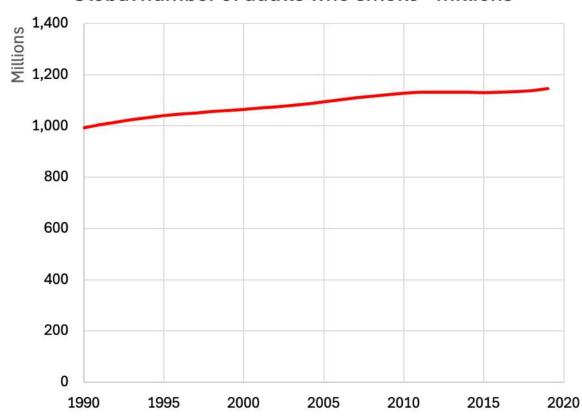
Harm is the currency of tobacco control



Prevalence and population trends

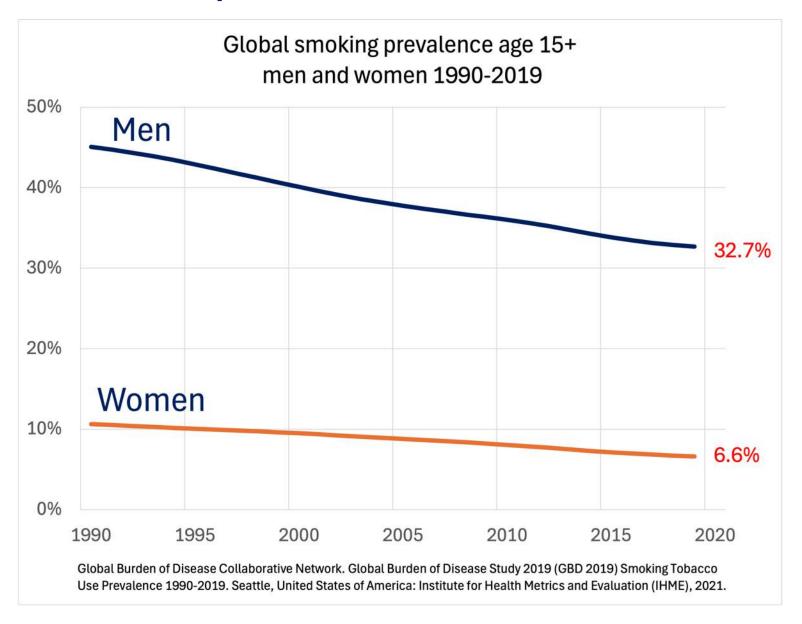


Global number of adults who smoke - millions

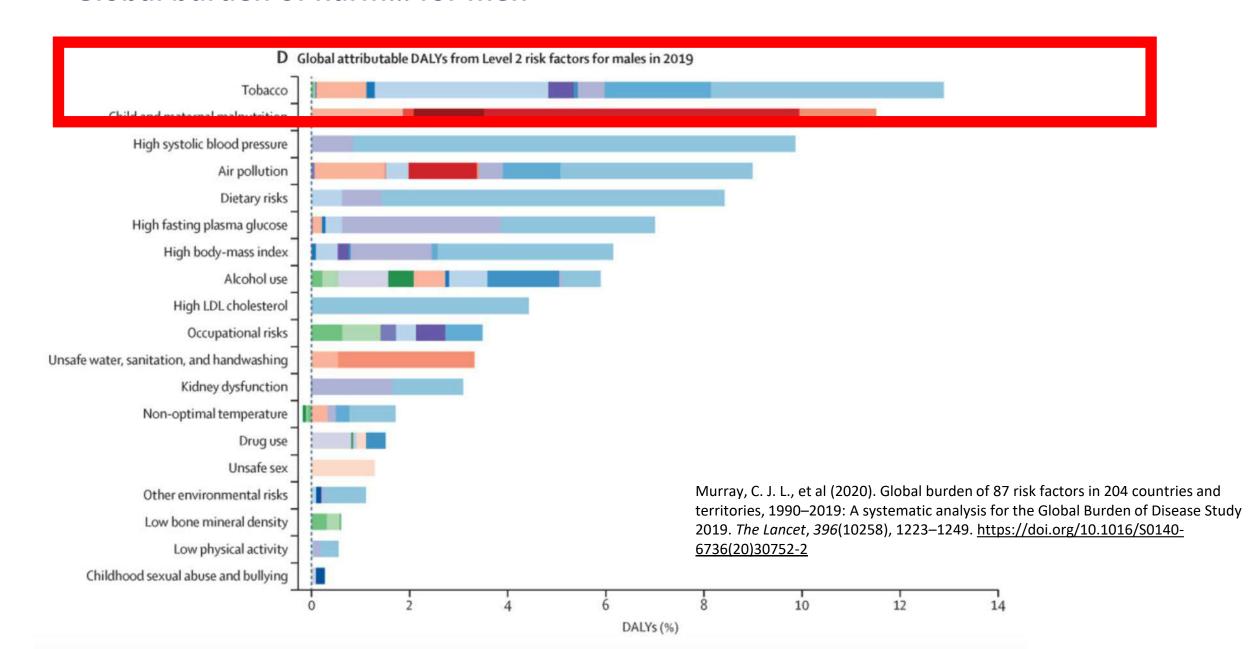


Global Burden of Disease Study 2019 (GBD 2019) Smoking Tobacco Use Prevalence 1990-2019

About five times as many men smoke as women



Global burden of harm... for men



Clarity of goals

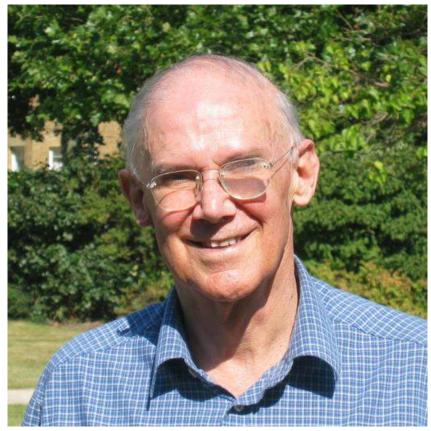
List of possible tobacco control goals

- Improve welfare and wellbeing
- Reduce harms (including policy-induced harms)
- Reduce serious disease
- Reduce smoking
- Reduce tobacco use
- Reduce nicotine use
- Reduce substance use
- Reduce secondhand exposure
- Protect children or vulnerable groups
- Secure anti-tobacco legislation
- Sue the bastards
- Destroy the tobacco industry
- Prestige, livelihood, travel, grants...



Understand nicotine

But harms are associated with the delivery system, not the drug



Professor Michael Russell 1932-2009

"People smoke for the nicotine but die from the tar".





Expert assessment (US E-cigarette Summit, 2024)



Neal Benowitz

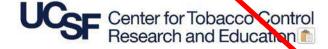
Professor of Medicine and Bioengineering & Therapeutic Sciences and Chief of the Division of Clinical Pharmacology at San Francisco General Hospital

Benefits of nicotine use

Medical

- Nicotine replacement medication
- · ? Ulcerative colitis
- · ? ADHD
- · ? Parkinson's disease
- ? Autoimmune diseases

Caveat: some perceived beneficial effects related to reversal of withdraw symptoms



Non-medical

- Pleasure
- Stimulation
- Cognitive enhancement
- Relaxation
- Mood modulation
- · Psychiatric benefit
- Enhanced athletic performance
- Weight control

Important caveat

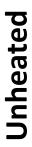
Pure nicotine based

Tobacco based

Heated aerosol











Evidence of relative safety

But harms are associated with the delivery system, not the drug



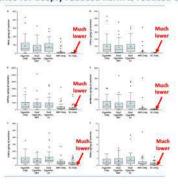
Professor Michael Russell 1932-2009

"People smoke for the nicotine but die from the tar".



Russell MJ, Low-tar medium nicotine cigarettes: a new approach to safer smoking, BMJ 1976;1:1430-3

The strongest evidence for deeply reduced harm is reduced exposure



Royal College of Physicians - on relative risk



"Although it is not possible to precisely quantify the long-term health risks associated with e-cigarettes, 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".

US National Academies of Sciences, Engineering and Medicine



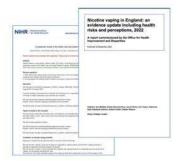
"While e-cigarettes are not without health risks, they are likely to be far less harmful than combustible tobacco cigarettes."

2023 review of biomarker studies



The biomarker levels of many tobaccorelated toxicants measured in biological samples collected from ENDS users did not differ significantly from non-users, except for nicotine metabolites and a small number of biomarkers of exposure to volatile organic compounds and tobacco-specific tobacco nitrosamines.

1,400-page assessment concludes very low risks compared to smoking

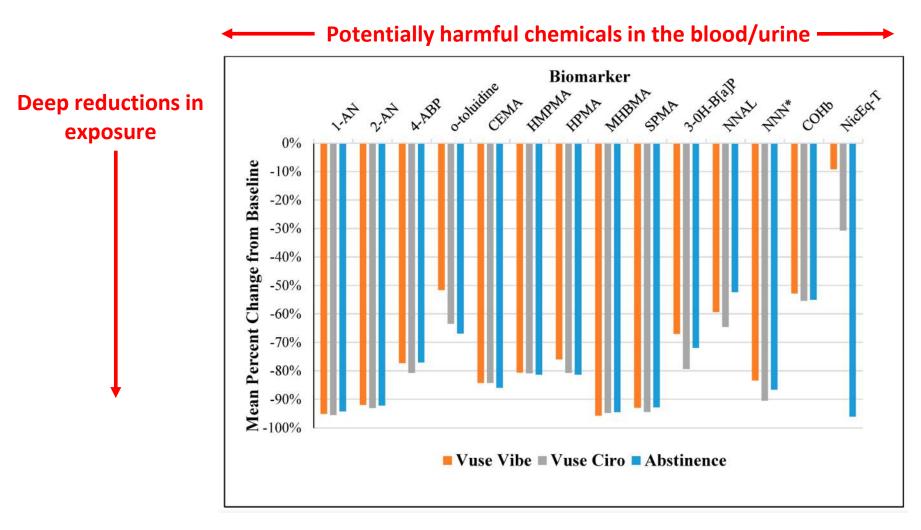


"...vaping poses only a small fraction of the risks of smoking"

McNeill, A, Simonavičius, E, Brose, LS, Taylor, E, East, K, Zulkova, E, Calder, R and Robson, D (2022). Nicotine vaping in England: an evidence update including health risks and perceptions, September 2022. A report commissioned by the Office for Health Improvement and Disparities. London: Office for Health improvement and Disparities.

Exposure biomarkers – deep reductions in toxicant exposure

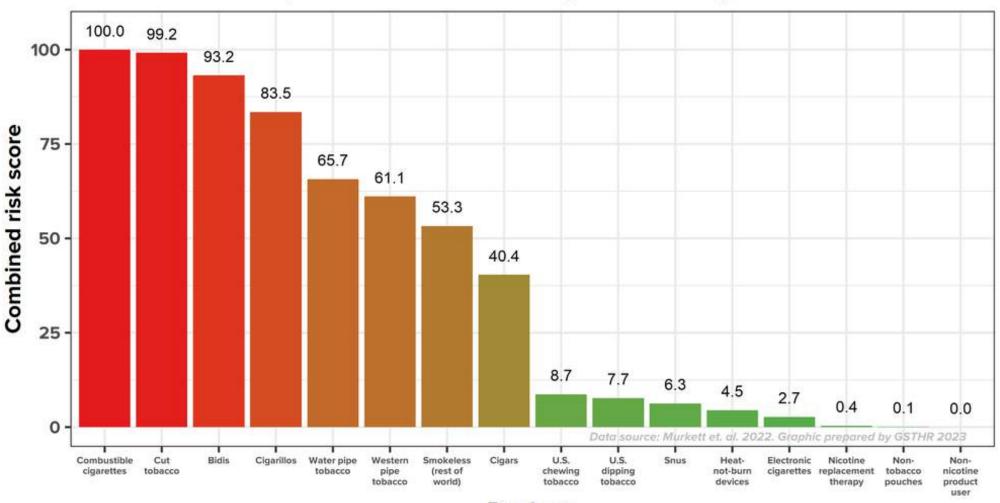
Smokers Switching to Vapes vs Abstinence



Kanobe, M. N., Nelson, P. R., Brown, B. G., Chen, P., Makena, P., Caraway, J. W., Prasad, G. L., & Round, E. K. (2023). Changes in Biomarkers of Exposure and Potential Harm in Smokers Switched to Vuse Vibe or Vuse Ciro Electronic Nicotine Delivery Systems. *Toxics*, 11(7), Article 7. https://doi.org/10.3390/toxics11070564

Rough estimates of relative harm

The relative risk spectrum of 15 nicotine product categories

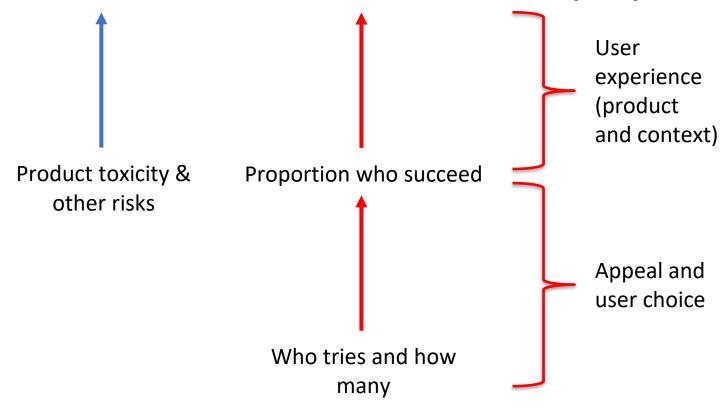


Products

Adapted with permission by Global Status of Tobacco Harm Reduction from Murkett, R., Rugh, M., & Ding, B. (2022). *Nicotine products relative risk assessment: An updated systematic review and meta-analysis* (9:1225). F1000Research. https://doi.org/10.12688/f1000research.26762.2

Tobacco harm reduction is not "smoking cessation medication"

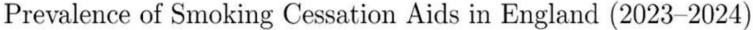
Harm reduction = Reduced risk x Number who switch (net)

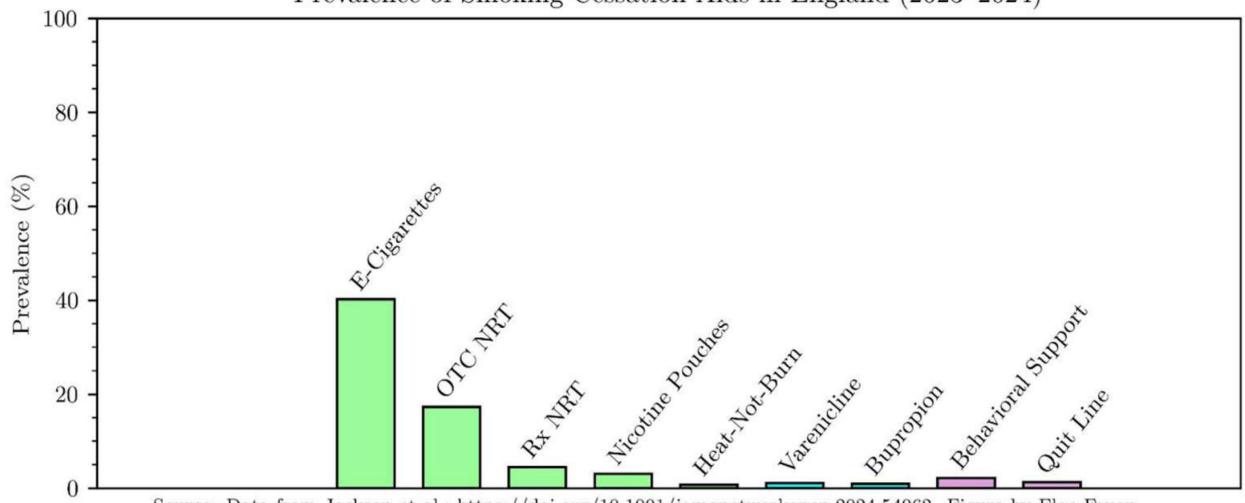


Captured neatly in NHS endorsement (with due caution)



Vapes – both popular and effective



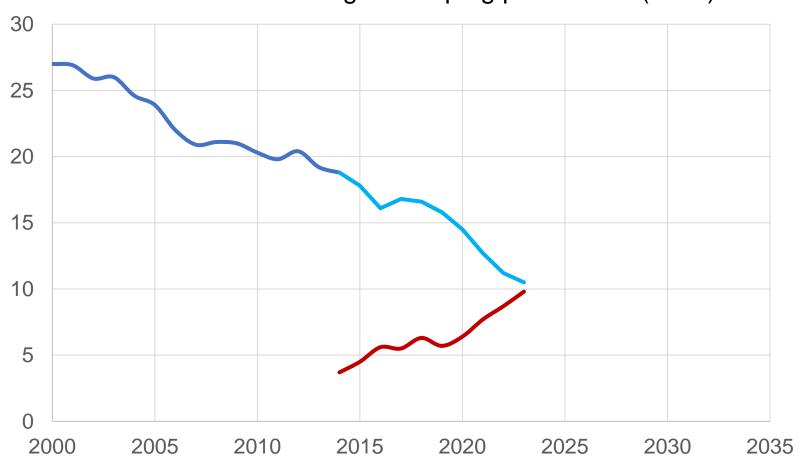


Source: Data from Jackson et al.; https://doi.org/10.1001/jamanetworkopen.2024.54962. Figure by Floe Foxon.

Jackson, S. E., Brown, J., Buss, V., & Shahab, L. (2025). Prevalence of Popular Smoking Cessation Aids in England and Associations With Quit Success. *JAMA Network Open*, 8(1), e2454962. https://doi.org/10.1001/jamanetworkopen.2024.54962

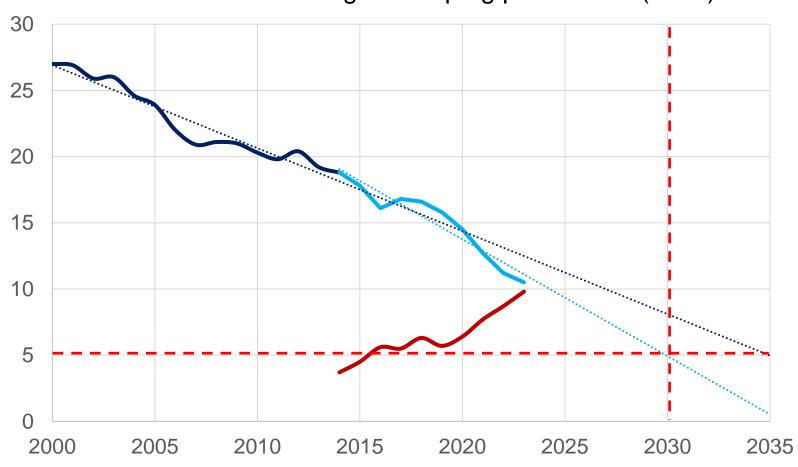
Vaping has accelerated the decline in smoking in Britain



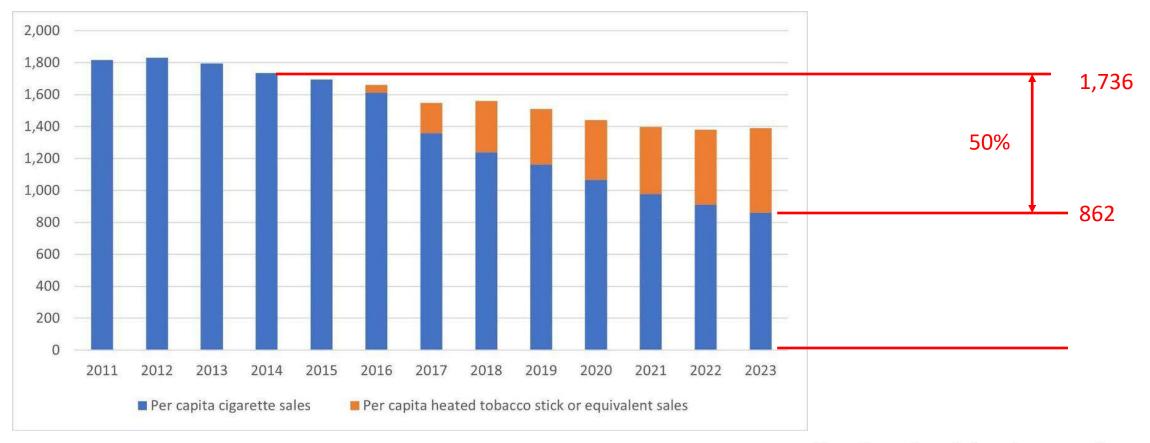


Vaping has accelerated the decline in smoking in Britain





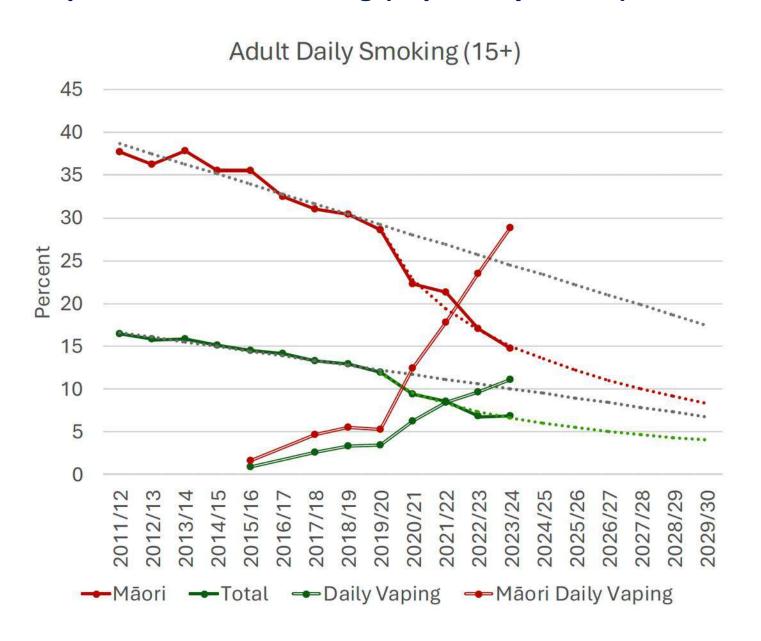
Japan: per capita cigarette volumes halved in 9 years



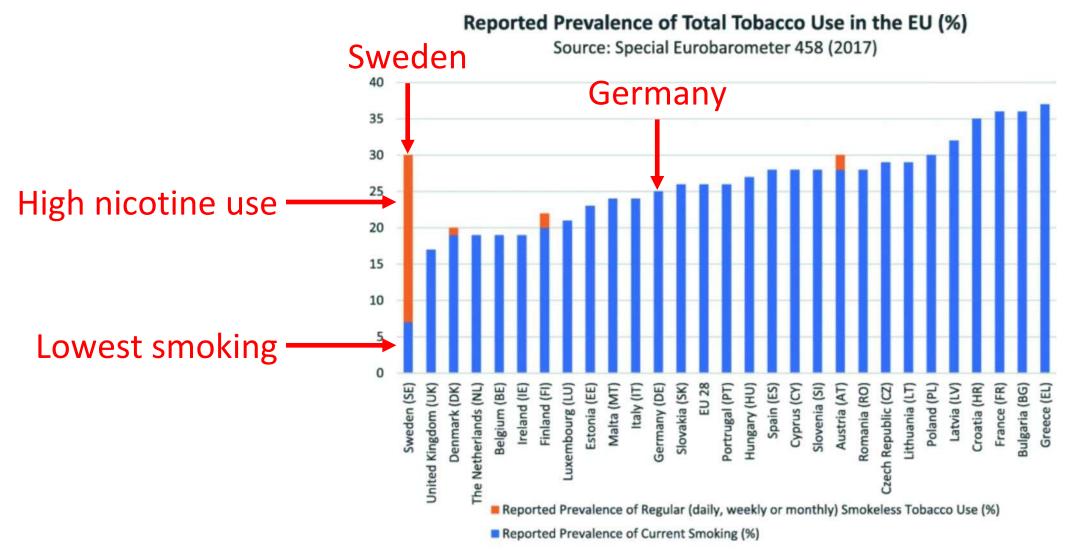
Transformation of the tobacco product market in Japan, 2011–2023

K Michael Cummings , ¹ Avery Roberson, ¹ David T Levy , ² Rafael Meza, ^{3,4} Kenneth E Warner , ⁵ Geoffrey T Fong, ^{6,7} Steve Shaowei Xu, ⁶ Shannon Gravely , ⁶ Bibha Dhungel , ^{8,9} Ron Borland , ^{8,10} Richard J O'Connor , ¹¹ Maciej Lukasz Goniewicz , ¹¹ David T Sweanor , ¹²

New Zealand: rapid decline in smoking (especially Māori)



Proof of concept: Sweden



Ramstrom, L. M. (2024). If there had been no snus in Sweden: The impact of snus on mortality attributable to smoking. *Harm Reduction Journal*, *21*(1), 176. https://doi.org/10.1186/s12954-024-01095-7

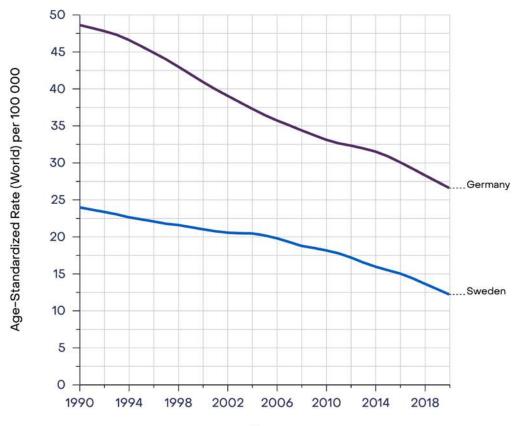
Germany vs Sweden cancer mortality

Lung cancer mortality (men)

Age-standardized rate (World) per 100 000, mortality, males

Lung Germany - Sweden

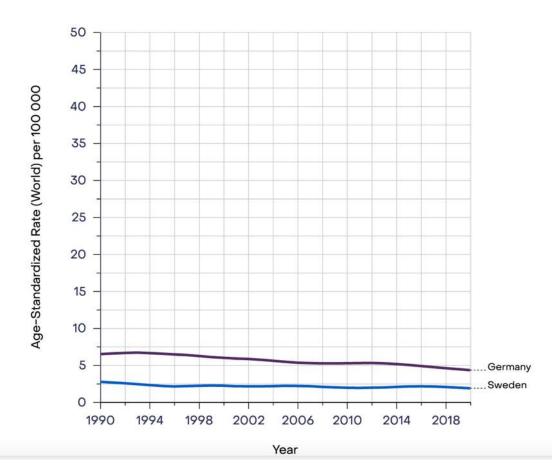
Germany - Sweden



Year

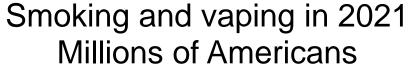
Lip, oral, and pharynx cancer mortality

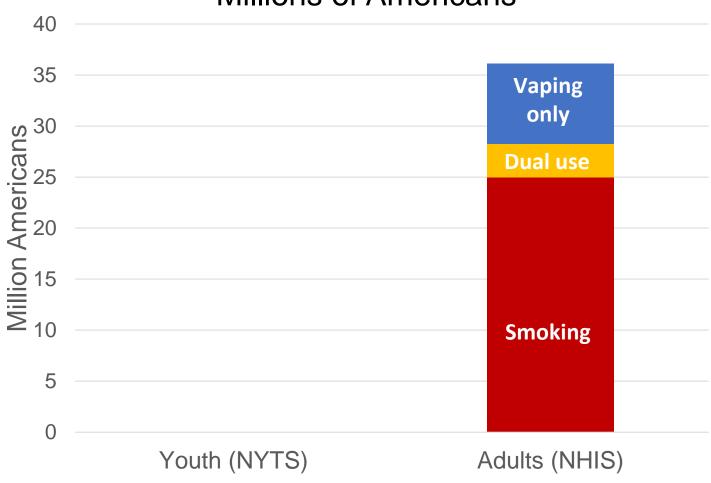
Age-standardized rate (World) per 100 000, mortality, males Lip, oral cavity and pharynx Germany - Sweden



Understand the critical population

The focus on youth ignores the main problem

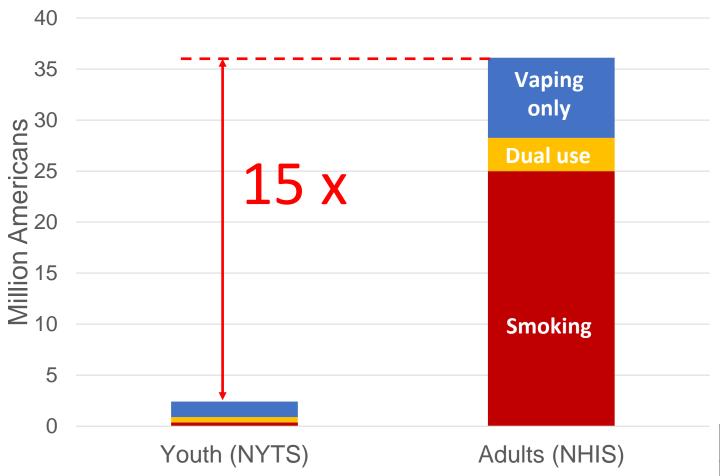




Source: National Youth Tobacco Survey (NYTS) 2021 data, National Health Interview Survey (NHIS) 2021 data. Graphic by Clive Bates. With thanks to Brad Rodu for data extraction and cross-

The focus on youth ignores the main problem

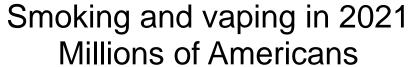
Smoking and vaping in 2021 Millions of Americans

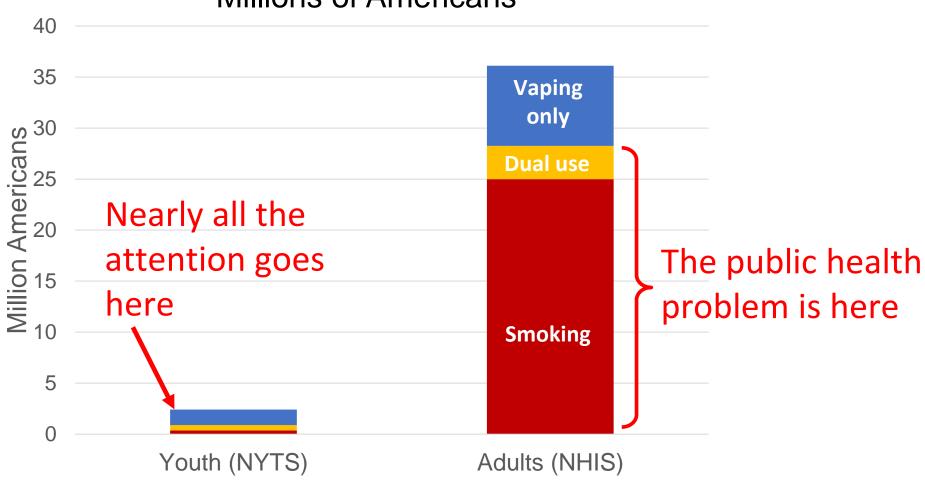


Source: National Youth Tobacco Survey (NYTS) 2021 data, National Health Interview Survey (NHIS) 2021 data. Graphic by Clive Bates. With thanks to Brad Rodu for data extraction and cross-

Millions	Youth (NYTS)	Adults (NHIS)
Vaping	1.53	7.8
Dual use	0.52	3.3
Smoking only	0.37	25.0
All smoking	0.89	28.3

The focus on youth ignores the main problem

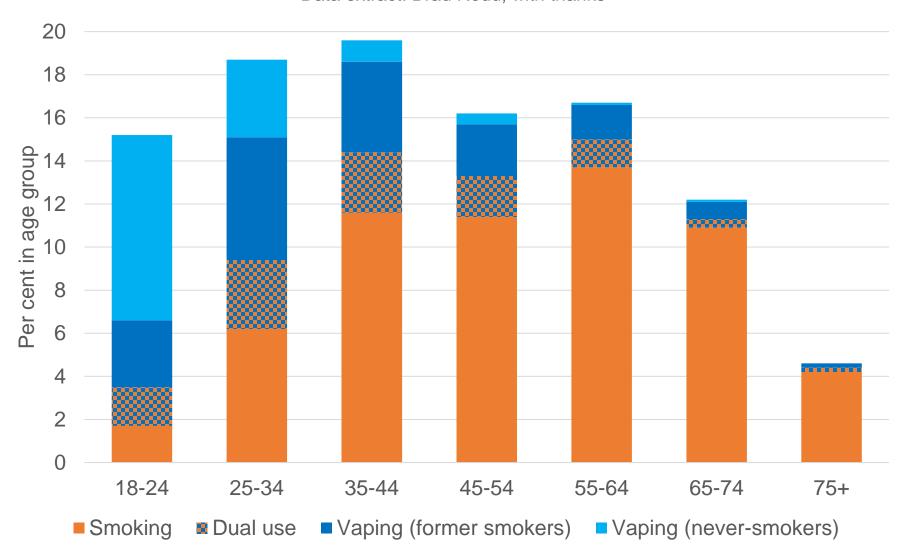




Source: National Youth Tobacco Survey (NYTS) 2021 data, National Health Interview Survey (NHIS) 2021 data. Graphic by Clive Bates. With thanks to Brad Rodu for data extraction and cross-

Stock and flow – changes from switching and vaping uptake

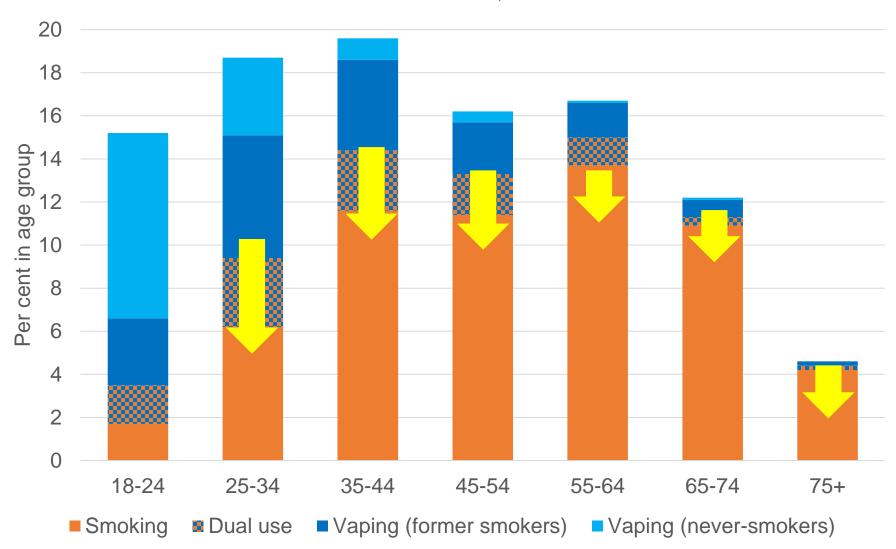
Adult Vaping and Smoking Status by Age Group
National Health Interview Survey, 2023
Data extract: Brad Rodu, with thanks



Stock – changes from switching

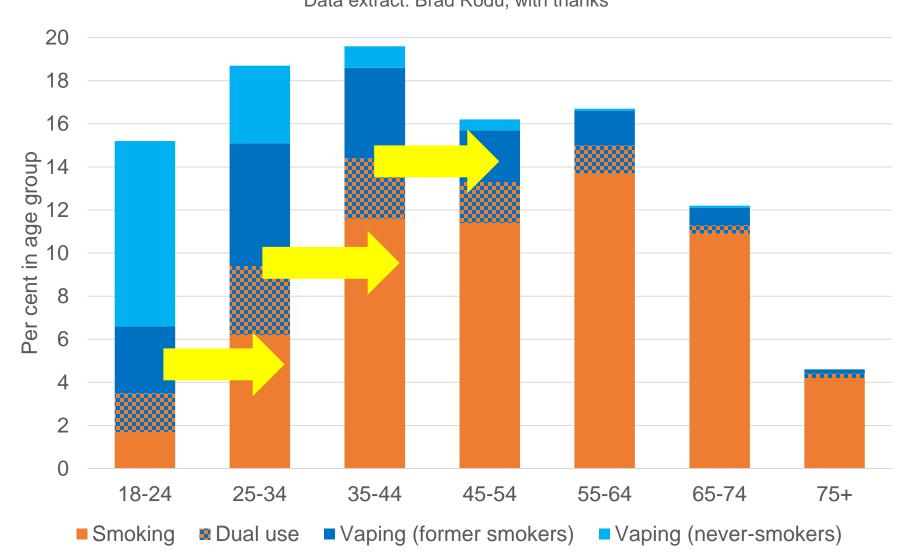
Adult Vaping and Smoking Status by Age Group

National Health Interview Survey, 2023 Data extract: Brad Rodu, with thanks



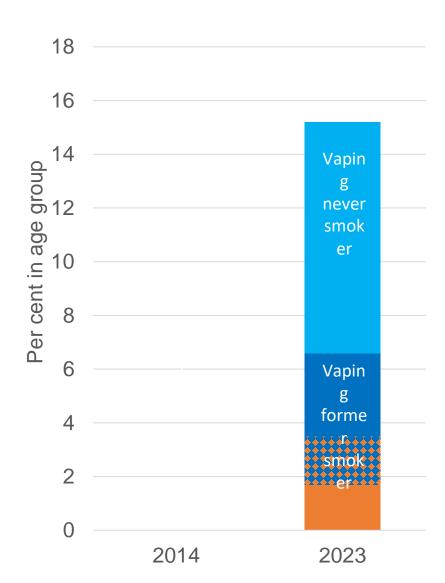
Flow – changes from initiation and ageing

Adult Vaping and Smoking Status by Age Group
National Health Interview Survey, 2023
Data extract: Brad Rodu, with thanks



Young adult uptake of nicotine 2014-23 United States

Smoking & vaping prevalence (%) Americans aged 18-24.
National Health Interview Survey, 2014-2022

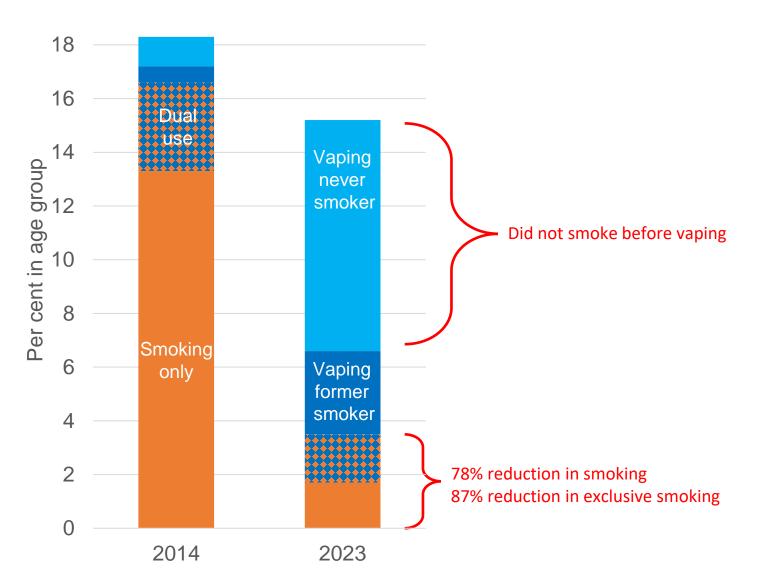


Data extraction Brad Rodu, Professor of Medicine, University of Louisville, U.S.

Graphics and annotations: Clive Bates

Young adult uptake of nicotine 2014-23 United States

Smoking & vaping prevalence (%) Americans aged 18-24.
National Health Interview Survey, 2014-2022



Over time, the demand for nicotine is far more robust and resilient than any particular way of taking it.

Data extraction Brad Rodu, Professor of Medicine, University of Louisville, U.S.

Graphics and annotations: Clive Bates

Is tobacco control losing control?

Predictions from 2019



E-cigarette Direct: Vape Predictions 2019: Expert Round Up from Scientists, Industry Leaders, Advocates & More

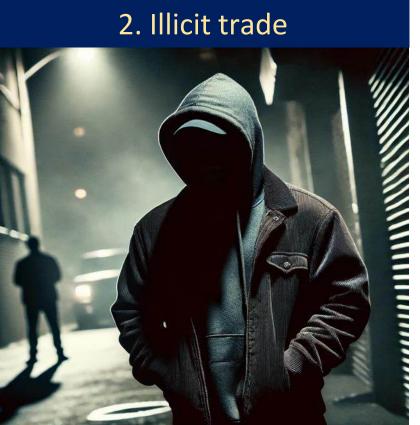
Two purposes of regulation

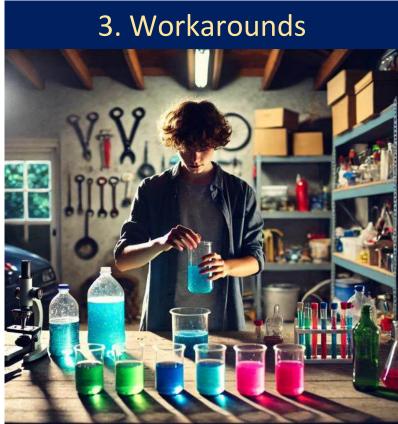
Consumer protection

Behaviour change

Unintended responses to behaviour change regulation

















SIGNAL



TELEGRAM























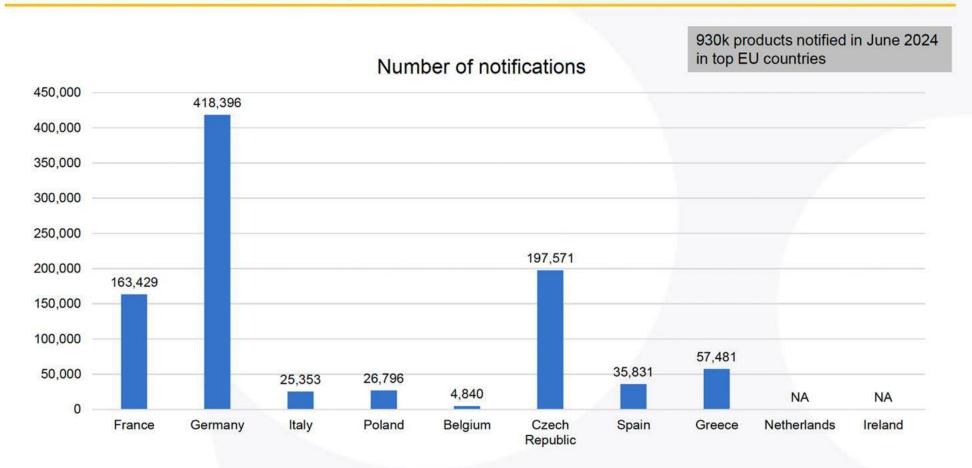
Ungovernable 1: high and rising diversity



ECigintelligence – nearly 1 million products notified in EU

Administrative: EU Notifications – top 10 markets by market value



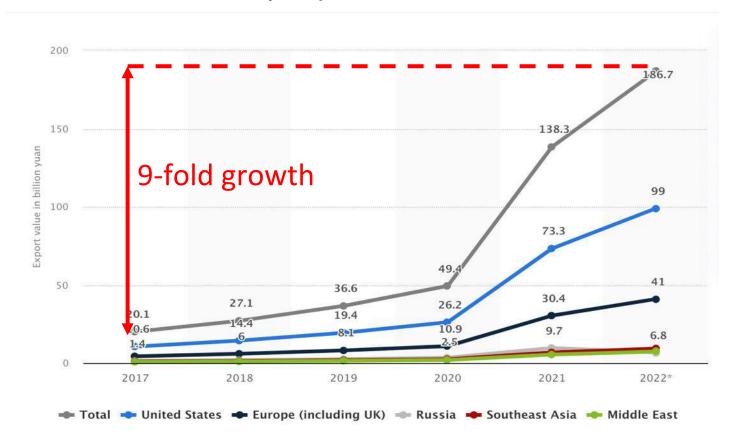


Note: latest lists of notified vaping products published: FR – June 2024, DE – May 2024, IT – Feb 2024, PL – Jan 2024, BE – Jun 2024 (positive list), CZ – June 2024, SP – June 2024 (positive list), GR – June 2024, NL – list not published, IR – list not published

Source: ECigIntelligence, 2024

China since 2017: massive manufacturer and exporter

Export value of electronic cigarettes from China from 2017 to 2022 by major destination





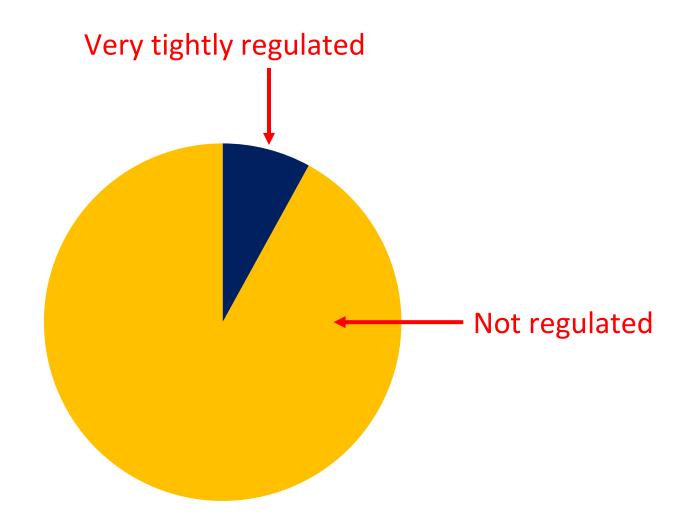
Chinese customs updated the e-cigarette export trade data for December 2024, showing total exports of about \$1.011 billion.

Show sou

Ungovernable 2: unregulated trade

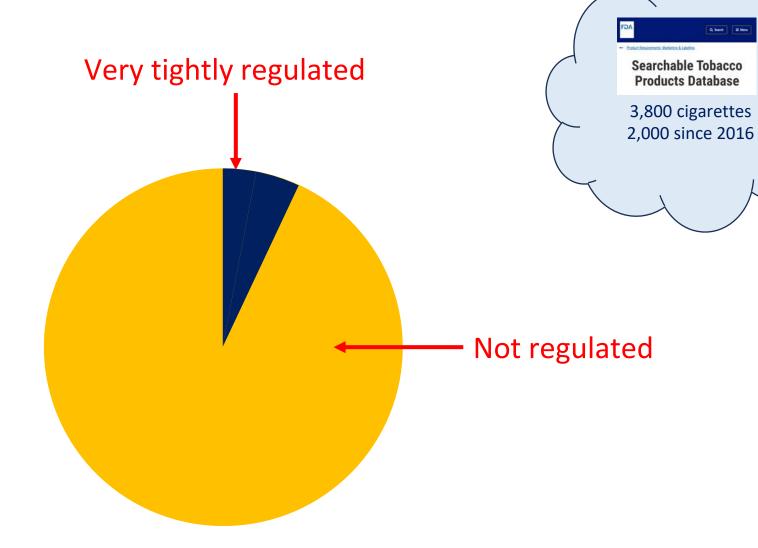
Australia's vape markets – lost regulatory control





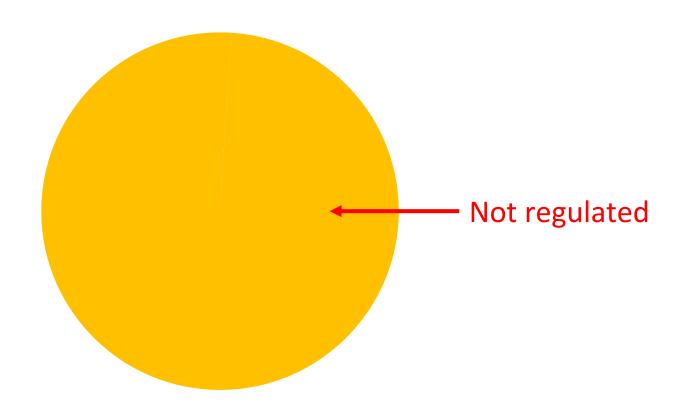
United States vape markets – lost regulatory control





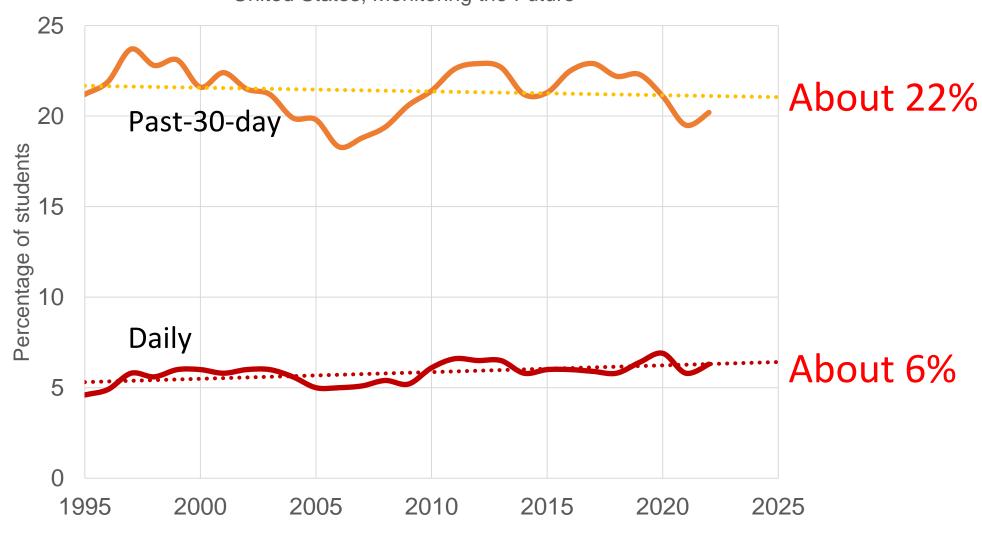
Brazil, India, etc etc vape markets – complete loss of regulatory control





Illegality is an impediment rather than a barrier

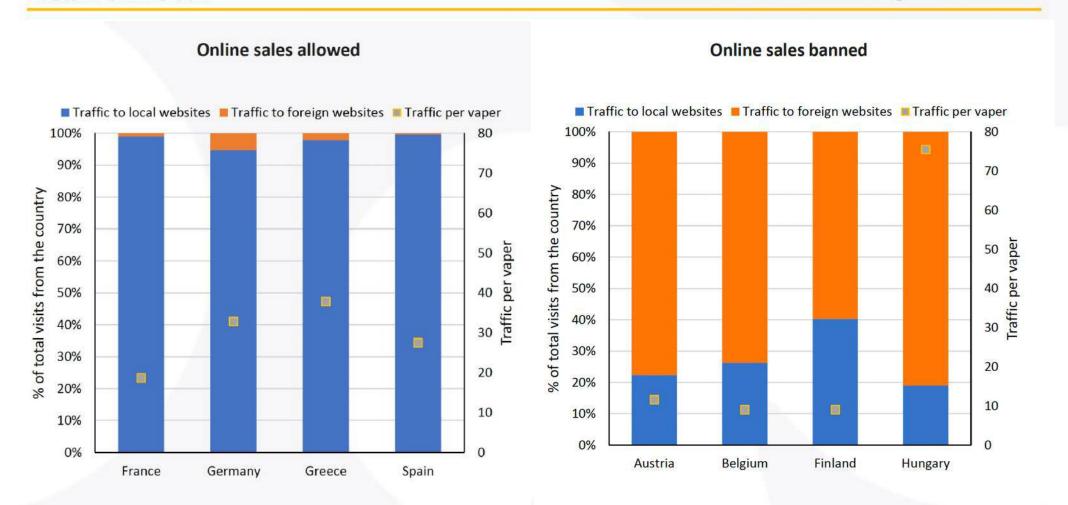




ECigintelligence: cross border sales

Retail: Online ban





Note: traffic based on total visits to online multi-brand specialist vape retailers; traffic per vaper is visits divided by number of regular adult vapers in each market according to ECigIntelligence database – July 2024

Source: ECigIntelligence methodology, Similarweb, 2024







What is a TEU?



Neo Panamax NPX | 2014-12,500 TEU

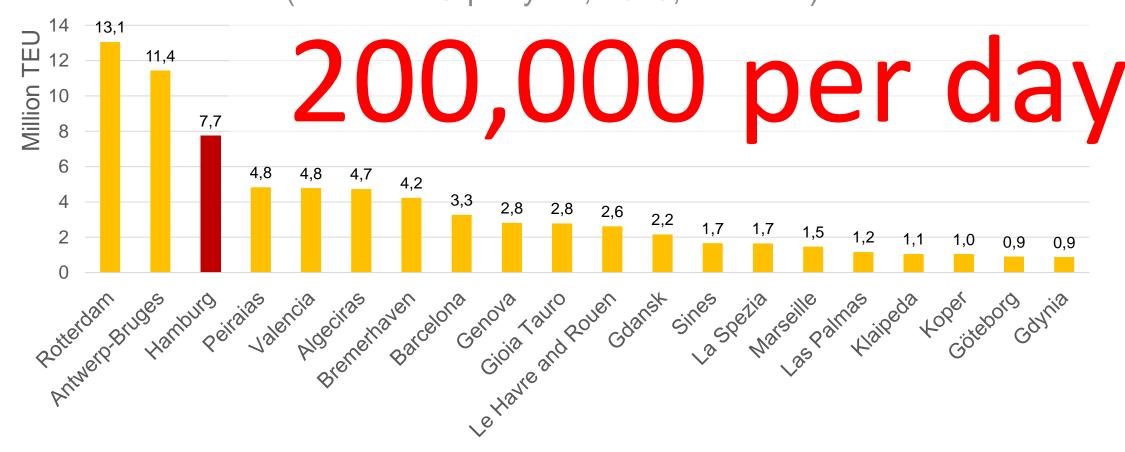
ULCS | 2013-18,000-21,000 TEU

MGX-24 | 2019-21,000-25,000 TEU



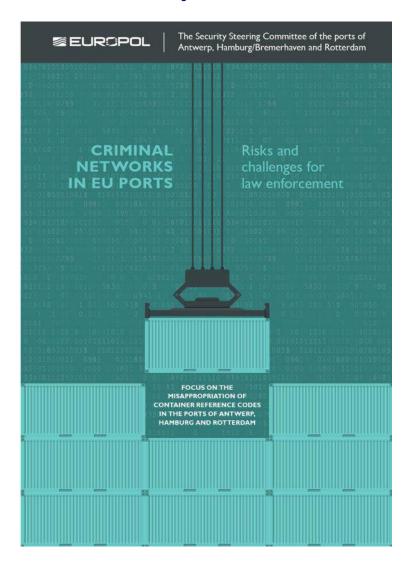
Massive container volumes pass through European ports

Top Twenty Container Ports in the European Union by Volume (million TEU per year, 2023, Eurostat)



Eurostat: Volume of containers handled in the top 20 EU main ports by loading status 2014-2023

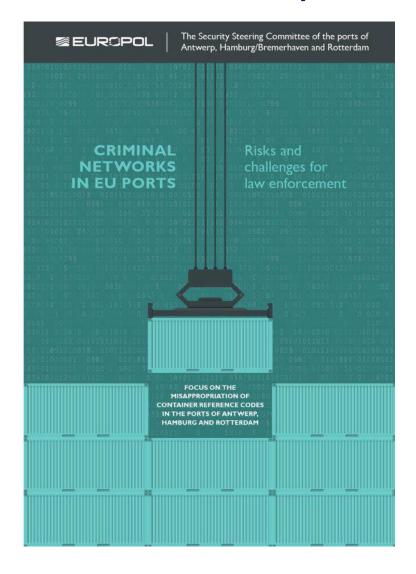
Minimal inspection



"The percentage of containers inspected is low: only ... 2 % overall."

Criminal Networks in EU ports: Risks and challenges for law enforcement: Joint report of Europol and the Security Steering Committee of the ports of Antwerp, Hamburg/Bremerhaven and Rotterdam, March 2023

Criminal networks operate in critical EU ports



The situation in the container ports of Antwerp, Hamburg and Rotterdam [...] clearly illustrates how criminal networks make use of vulnerabilities in the port environment to traffic illicit goods.

Using the immense volumes of commodities legally handled on a daily basis and the numerous public and private actors with access to the port and port-related data systems, criminal groups found a convenient way to 'safely' organise their trafficking operations.

Criminal Networks in EU ports: Risks and challenges for law enforcement: Joint report of Europol and the Security Steering Committee of the ports of Antwerp, Hamburg/Bremerhaven and Rotterdam, March 2023

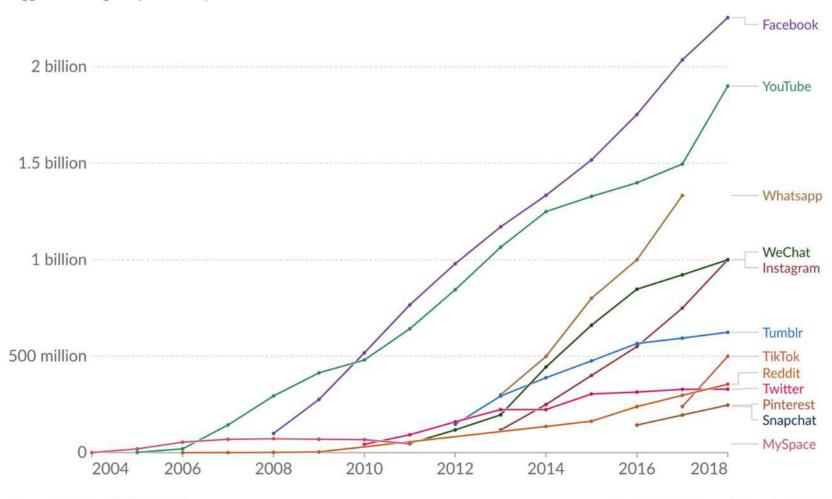
Ungovernable 3: new communications

The communications environment has radically changed

Number of people using social media platforms, 2004 to 2018



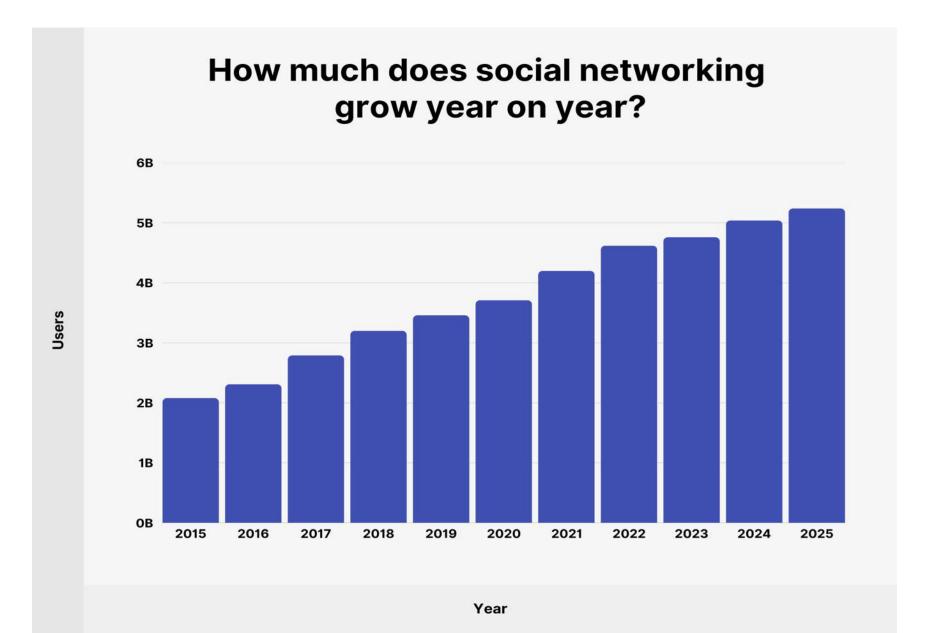
Estimates correspond to monthly active users (MAUs). Facebook, for example, measures MAUs as users that have logged in during the past 30 days. See source for more details.



Source: Statista and TNW (2019)

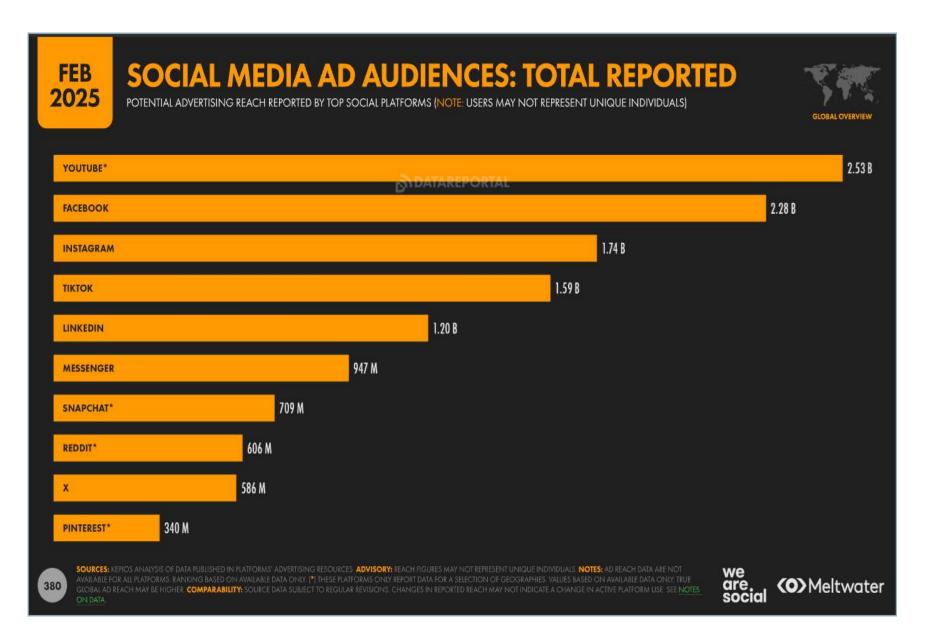
OurWorldInData.org/internet • CC BY

The communications environment has radically changed



As of April 2024, 62.6% of the world's population, or 5.07 billion people, use social media.

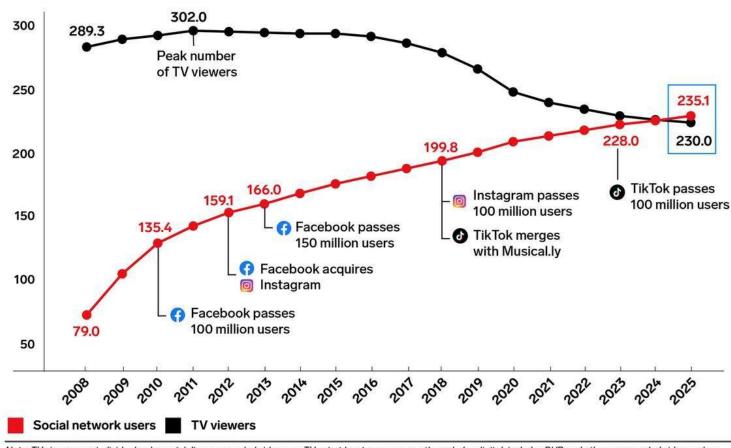
The communications environment has radically changed



As of April 2024, 62.6% of the world's population, or 5.07 billion people, use social media.

Social media outpacing TV

There Will Be More Social Network Users Than TV Viewers in the US by 2025 millions



Note: TV viewers are individuals who watch live or recorded video on a TV set at least once per month; excludes digital; includes DVR and other prerecorded video such as video downloaded from the internet but saved locally. Social network users are internet users of any age who use a social network via any device at least once per month. Source: eMarketer, May 2023

i350281 Insider Intelligence | eMarketer

New forms of commerce



10:59

Safely transport VAPE to UK

Hello,Sir or madam,

Good morning.

We can safely transport big puffs disposables from ShenZhen to United Kingdom, door to door.

You don't need offer us any UK information before delivery. We use our company name clear customs from European country, then we use truck ship to your UK warehouse.

We already safely shipped VAPE like this way for long time, never had issues.

Our unit price is 11usd/kg,welcome to ship your trial shipment with us.

Here is my contact:

Weichat/Whatsapp: +86 134 3367 0812 or

Skype:alice9007211

Best regards,

Alice

Shenzhen AUJOO international logistics.,LTD Address:Building A4, Xiashiwei First Industrial Zone,

We already safely shipped VAPE like this way for long time, never had issues.

Our unit price is 11usd/kg,welcome to ship your trial shipment with us.

Here is my contact:

Weichat/Whatsapp: +86 134 3367 0812 or

Skype:alice9007211

New forms of commerce





r/marketing • 4 mo. ago Annual-Ad-1786

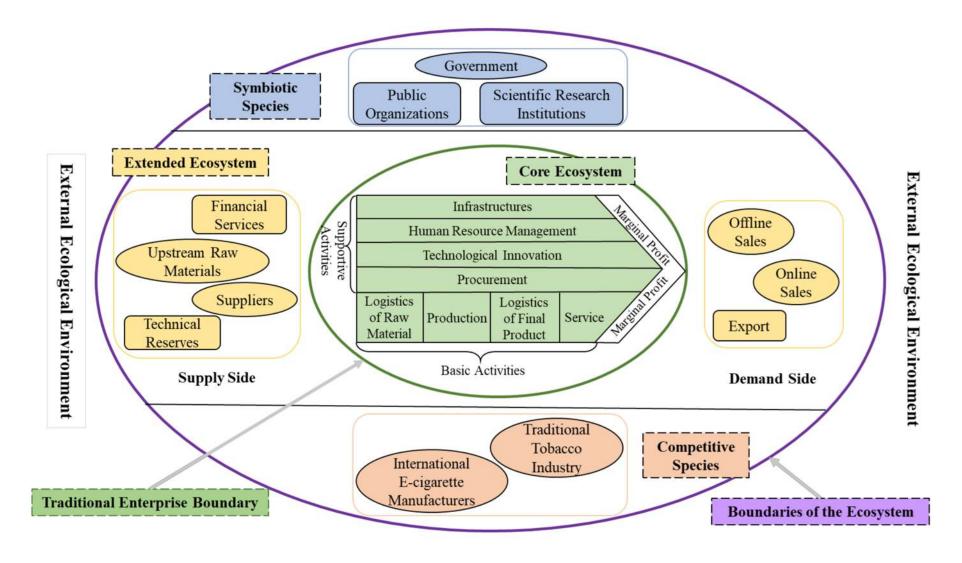
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How to promote telegram channel that offers disposable vapes for wholesale?

I'm diving into the world of Telegram channels, specifically one that offers wholesale disposable vapes. I'm eager to learn from your experiences and insights on effective strategies to promote and market such a channel. Whether it's utilizing social media, engaging with communities, or employing unique promotional tactics, I'm all ears. What has worked best for you in terms of gaining visibility and attracting the right audience?

Ungovernable 4: Innovation

Shenzhen e-cigarette innovation eco-system



Xu, Y., Song, X., Li, X., Wang, Z., & Zhang, Y. (2022). Research on the Ecological Deconstruction of E-Cigarette Industrial Clusters in Shenzhen, China, and a Niche Analysis of Related Enterprises. *Sustainability*, 14(9), Article 9. https://doi.org/10.3390/su14095606

Innovation: or "exploiting loopholes"?



Elfbar: Vape firm claims it will survive UK disposable ban

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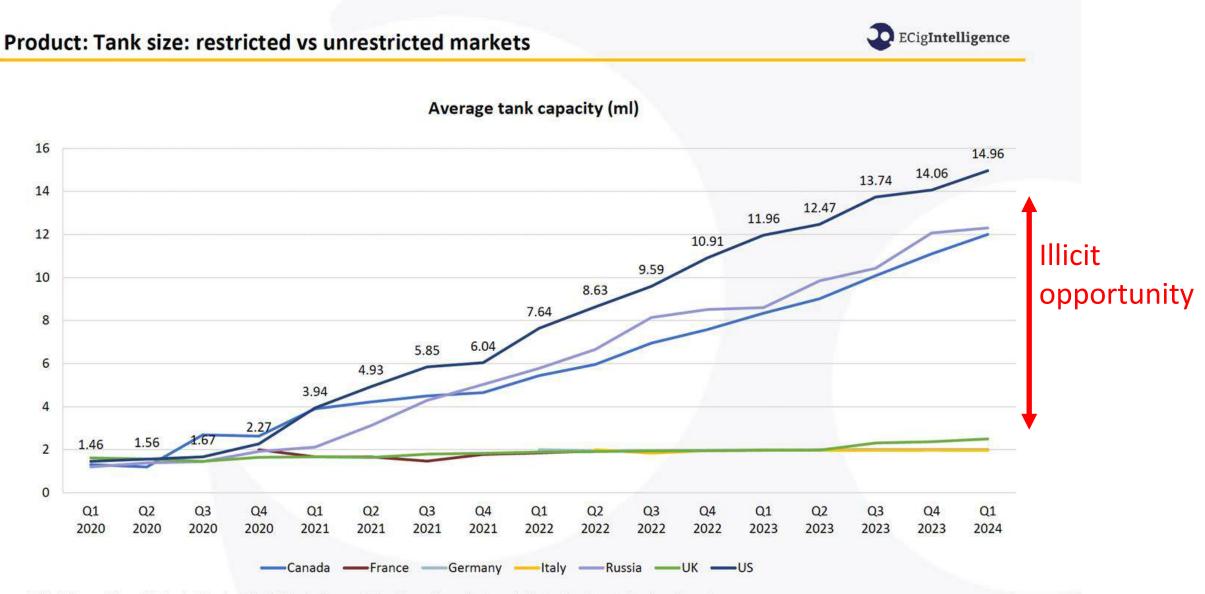
3 21 April



By Ben KingBusiness reporter, BBC News

The company behind two of the UK's most popular vape brands says new reusable versions leave it "well-equipped" to deal with the upcoming ban on disposables, despite concerns over producers exploiting "loopholes".

Regulation drives illicit trade – the EU 2ml tank size limit

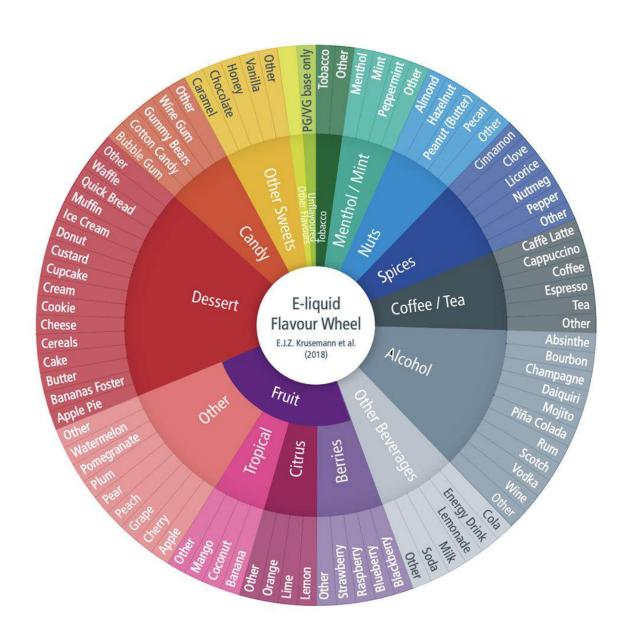


Source: ECigIntelligence Disposable Product Tracker, May 2024; nicotine-containing disposable products carried by top 5 online retailers in each country

Innovation: "Big Puff" vapes



Flavours are integral to vape appeal



A moment of candour about banning flavours



Ban of e-liquids other than tobacco flavour

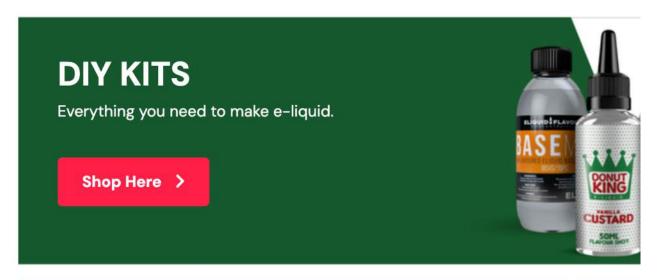
- Per January 1st 2023
- Possible unintended consequences?
 - DIY flavouring addition
 - less attractive as smoking cessation tool
 - decreased ENDS use
 - increased cigarette use
 - increased use of illicit markets

Flavours and flavourings in e-cigarettes

3/

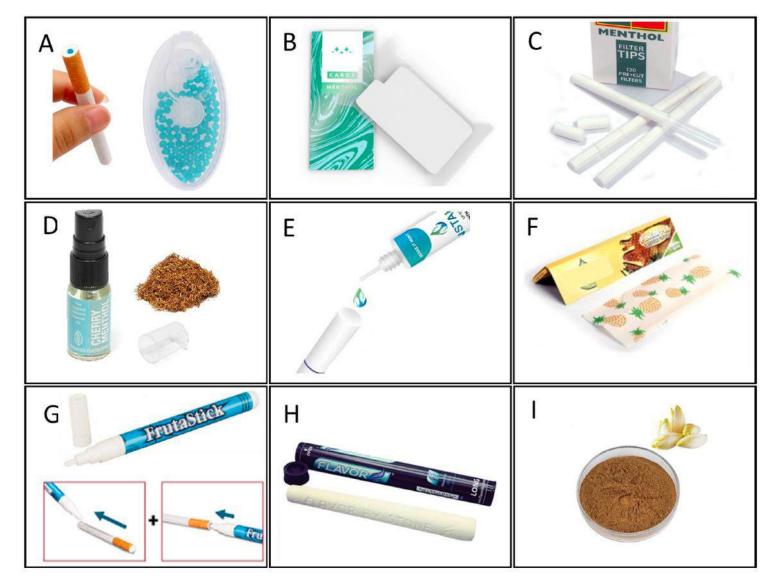
Innovation: Do It Yourself

E Liquid Flavour Concentrates





Innovation: flavour accessories



Havermans, A., Pauwels, C. G. G. M., Hart, I. M. E. B.-'t, Fayokun, R., Nierop, L. E. van, Hellmich, I. M., & Talhout, R. (2024). Across the world availability of flavour accessories for tobacco products. *Tobacco Control*. https://doi.org/10.1136/tc-2023-058255

Evidence of unintended consequences – flavour bans

- "We find a trade-off of 15 additional cigarettes for every 1 less 0.7 mL ENDS pod sold due to ENDS flavor restrictions". Friedman et al. (2023)
- "Our findings suggest that statewide comprehensive flavor bans may have generated an unintended consequence by encouraging substitution towards traditional smoking in some populations. Saffer et al. (2024)
- "... we find that the adoption of an ENDS flavor restriction reduces frequent and everyday youth ENDS use by 1.2 to 2.5 percentage points. [...]. However, we also detect evidence of an unintended effect of ENDS flavor restrictions that is especially clear among 18-20-year-olds: inducing substitution to combustible cigarette smoking" Cotti et al. (2024)

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Evidence of unintended consequences – flavour bans

- "We find a trade-off of 15 additional cigarettes for every 1 less 0.7 mL ENDS pod sold due to ENDS flavor restrictions". Friedman et al. (2023)
- "Our findings suggest that statewide comprehensive flavor bans may have generated an unintended consequence by encouraging substitution towards traditional smoking in some populations. Saffer et al. (2024)
- "... we find that the adoption of an ENDS flavor restriction reduces frequent and everyday youth ENDS use by 1.2 to 2.5 percentage points. [...]. However, we also detect evidence of an unintended effect of ENDS flavor restrictions that is especially clear among 18-20-year-olds: inducing substitution to combustible cigarette smoking" Cotti et al. (2024)

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Tobacco control 2.0 – a system view

Four regulatory philosophies

Prohibitions





Like cigarettes

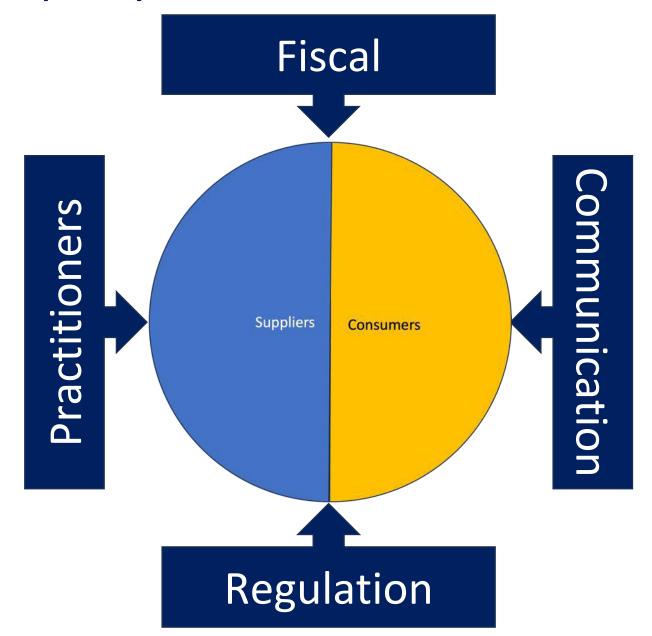
Pharmaceutical



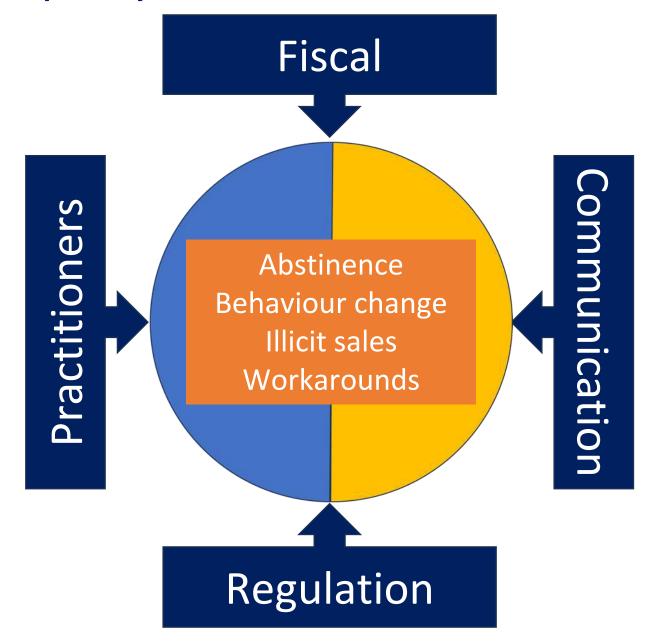


Risk proportionate

A complex adaptive system



A complex adaptive system – interactions drive behaviour change



Tobacco Control 2.0

Accepting the limits of control

Tobacco Control 2.0

1. Rethink nicotine and focus on harm

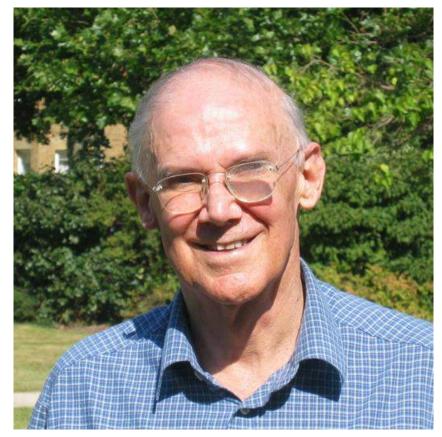
Socially acceptable psychoactive substances







Nicotine as a recreational drug



Professor Michael Russell 1932-2009

There is no compelling objection to the recreational and even addictive use of nicotine provided it is not shown to be physically, psychologically, or socially harmful to the user or to others.

The Lancet, 1991

Words of wisdom about smoking and harm (from an unlikely source)

"The challenge to me is not to eliminate smoking, but the death and disease from smoking,"

"That should be the end goal. If you had a product that addicted 45 million people and killed none of them, I would take that deal. Then you'd have coffee!



Matthew L Myers, Former
President, Campaign for TobaccoFree Kids

Extract from: Joe Nocera, If It's Good for Philip Morris, Can It Also Be Good for Public Health? New York Times Magazine,

Tobacco control 2.0

2. Keep the market legal





2. Keep the market legal



'Weak' vape laws allowing kids to interact with organised criminals, damning new report reveals

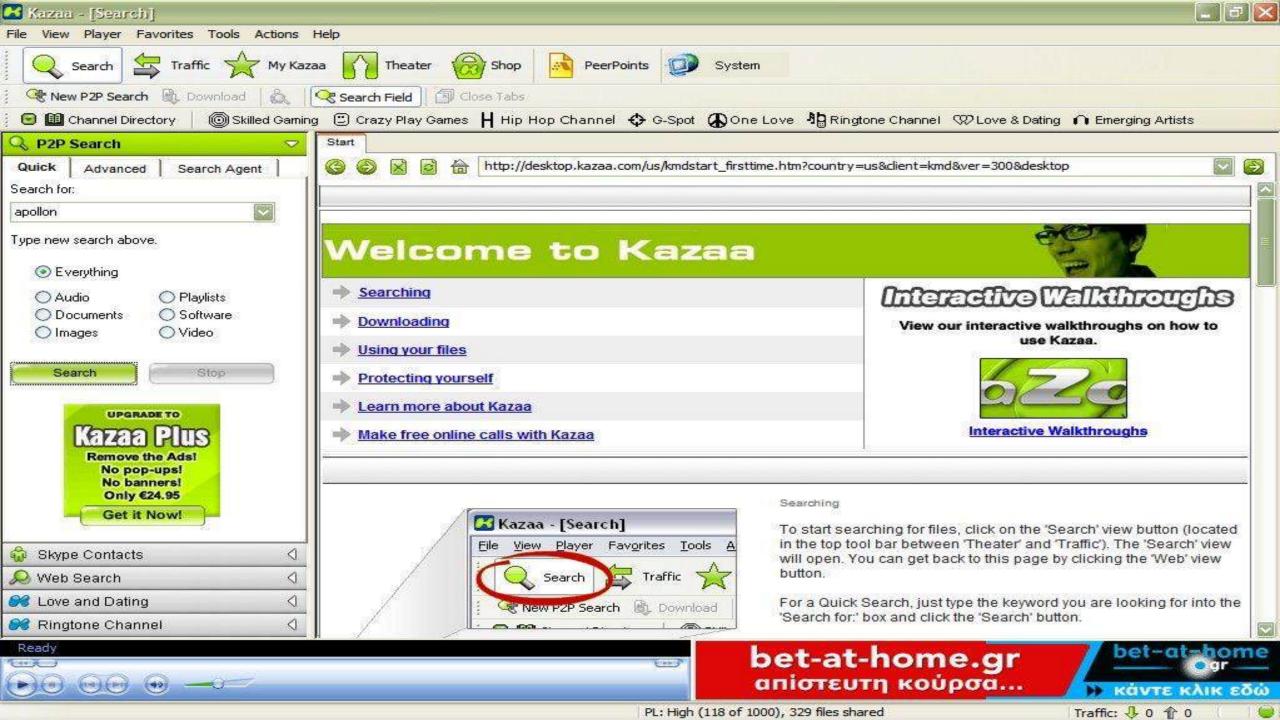
There are fears the nation's "weak" vape laws are allowing school-aged children to meet with organised crime drug runners in car park cash deals as Australia's vape crisis is laid bare.





New data from the AACS shows there are major concerns over Australia's vaping crisis. Picture: NCA Newswire / Gaye Gerard

There are major fears the "weak" regulations surrounding the sale of vapes are allowing children to personally meet with organised crime drug runners.









Tobacco control 2.0

3. Work through consent, not coercion

Not (just) what works, but what's right



Lund, K. E., & Saebo, G. (2024). Challenges in legitimizing further measures against smoking in jurisdictions with robust infrastructure for tobacco control: How far can the authorities allow themselves to go? *Harm Reduction Journal*, *21*(1), 33. https://doi.org/10.1186/s12954-024-00951-w

Tobacco control 1.0

- Protective (paternalist)
- Punitive
- Coercive
- Stigmatising

Tobacco control 2.0

- Autonomy
- Informed consent
- Respect
- Empathy

Tobacco control 2.0

4. Regulate for users not non-users

A coherent risk-based regulatory system covering all nicotine products

Measure	Cigarettes, hand-rolling tobacco and other combustibles
Taxation	Relatively high taxes
Advertising	Prohibit other than within trade
Warnings	Graphic warnings depicting disease
Public places	Legally mandated controls
Plain packaging	Yes
Ingredients	Control reward-enhancing additives
Age restrictions	No sales to under-21s
Internet sales	Banned
Product standards	Control risks and reduce appeal

Regulatory/fiscal agenda for transition

Measure	Cigarettes, hand-rolling tobacco and other combustibles	Vaping, heated tobacco smokeless and oral nicotine
Taxation	Relatively high taxes	Low or zero tax (sales tax only)
Advertising	Prohibit other than within trade	Control themes and placement
Warnings	Graphic warnings depicting disease	Messages encouraging switching
Public places	Legally mandated controls	Up to the discretion of the owner
Plain packaging	Yes	No
Ingredients	Control reward-enhancing additives	Blacklist material health hazards
Age restrictions	No sales to under-21s	No sales to under-18s
Internet sales	Banned	Permitted with age controls
Product standards	Control risks and reduce appeal	Control risks

Tobacco control 2.0

5. Address concerns about youth



Protecting youth

1. A realistic model of youth risk behaviours

1. Lawful market

1. Age-secure retailing

1. Responsible marketing, including branding and flavour descriptors

1. Truthfulness

Tobacco control 2.0

6. Be realists and proud

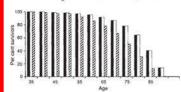
SCIENTIFIC CORRESPONDENCE

Charles H. Spruck III*,

Mirella Gonzalez-Zulueta* Atsuko Shibata, Anne R. Simoneau. Ming-Fong Lin, Felicidad Gonzales,

Tobacco-related mortality

sumed as chewing tobacco or moist snuff, smokeless-tobacco on life expectancy may



Survival rates for 35-year-old individuals: smokers (hatched bars), non-users of tobacco (black bars) and smokelesstobacco users (open bars).

which also satisfies a smoker's nicotine with fatal consequences. We suggest that recommence smoking, and because it poses a health hazard. But the only consequential hazard from smokeless tobacco use known so far is oral cavity cancer2. In India, use of smokeless tobacco (although usually combined with betel leaf, areca nut, and/or slaked lime) is a major risk factor for oral cancer. Yet in the United States, its use has only a small risk3. Even prolonged use of the newer smokeless tobacco products may have a low absolute risk, which would not comprise a meaningful objection to smokeless tobacco substitution for the inveterate smoker.

We estimated the life expectancy of 35-year-old white males with three pat-terms of tobacco user non-users cicarcette 242-244 (1971). terns of tobacco use: non-users, cigarette 242-244 (1971)
6 McGurt, W. F. & Wray, A. NC/Monogr. 2. NIH publ. no smokers and smokeless-tobacco users.

For non-users and smokers, we used the mortality rates from the American Cancer Society's second cancer prevention study of smoking and mortality among more than one million Americans4.

We employed standard methods to determine the attributable risk for oral cancer among smokeless-tobacco users5. A relative risk of 8 (oral cancer risk among users relative to that among non-users) was used to estimate the excess oral cancer mortality in this group. We applied the excess risk equally at all ages after 35 years, even though oral cancer generally occurs in users over age 70 (ref. 6).

The results indicate that the average remaining life expectancy of a 35-year-old smokeless-tobacco user is 45.92 years. only 0.04 year less than that of a non-user (see figure). This 15-day reduction in life expectancy is in sharp contrast to the 7.8 years lost by smokers. Thus, both the 35-year-old non-user of tobacco and the smokeless-tobacco user will live on aver-SIR - Despite widespread knowledge of age to be 80.9 years of age compared with the health risks of cigarette smoking, 73.1 years for the smoker. Only 67 per many smokers cannot quit because they cent of smokers will be alive at age 70 are addicted to nicotine. B. R. has prop- compared with more than 87 per cent of osed earlier1 that inveterate smokers smokeless-tobacco users and non-users of switch to oral smokeless tobacco, con- tobacco. Although the effect of

> at first seem surprising, the absolute risk of developing oral cancer from its use i small, the disease is not uniformly fatal, and this type of tobacco use is not associated with the other causes of smoking-related deaths.

Experience of the past 30 years in the United Kingdom and the United States shows that, despite substantial reductions in smoking uptake and continuation rates, many people remain addicted to nicotine, often

addiction. This strategy has not been abstinence is not the only approach to pursued as a public-health measure be-reducing tobacco-related mortality: for cause of concern that smokeless tobacco smokers addicted to nicotine who would might cause some people to start or to not otherwise stop, a permanent switch to smokeless tobacco could be an acceptable alternative to quitting.

Brad Rodu

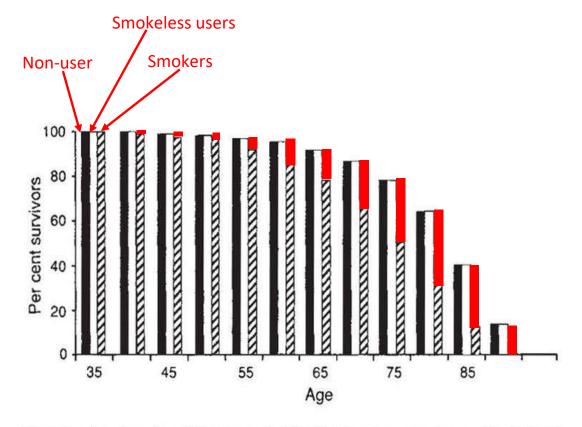
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 Garfinkel, L. NCI Monogrs. 67, NiH publ. no. 85-2713, 49-52 (1985).
- 93-3461-91-95/1993

Electrostatic sense in rattlesnakes

NATURE - VOL 370 - 21 JULY 1994



Survival rates for 35-year-old individuals: smokers (hatched bars), non-users of tobacco (black bars) and smokelesstobacco users (open bars).

Tobacco control 2.0

- 1. Rethink nicotine
- 2. Keep the market legal
- 3. Work through consent, not coercion
- 4. Regulate mainly for consumer protection
- 5. Address concerns about youth
- 6. Be a realists and be proud