Why “Youth Epidemic” Claims Are Misleading

Fact sheet accompanying GFN 2026 talk, June 4, 2026. Slides here.

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Disclosures: *I am an employee of Pinney Associates (PA) and consult to Juul Labs on tobacco harm reduction. I also serve as a scientific advisor for GFN. In the past 3 years, PA has consulted to Philip Morris International (PMI) solely on US regulatory pathways for non-combustible, non-tobacco, nicotine products. I have also individually consulted to the Center of Excellence for the Acceleration of Harm Reduction (CoEHAR) which received funding from the Global Action to End Smoking (GA). This work was not funded, commissioned, or overseen by any of my employers or clients.*

1. Youth vaping has declined in some countries after an initial peak and is accompanied by a decline in smoking.

- In the US, youth vaping has declined by >70% since the 2019 peak.[1,2]
- While use of *any* nicotine/tobacco product increased temporarily during this peak, it has since declined by more than two-thirds.[3]
- Similar trends in some other countries (Canada[4], New Zealand[5]), but also notable exceptions (e.g., UK, where the increase in vaping is currently larger than the decline in smoking[6]).
- However, in nearly all countries, uptake of vaping by youth was accompanied by declines in smoking[3,4,5,6] – the most lethal form of nicotine.
- → **“Epidemic” claims are based on the rise in vaping in isolation, without acknowledging the declines in smoking or subsequent vaping.**

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[1] Wang TW, Gentzke AS, Creamer MR, et al. Tobacco Product Use and Associated Factors Among Middle and High School Students — United States, 2019. MMWR Surveill Summ 2019;68(No. SS-12):1–22. DOI: http://dx.doi.org/10.15585/mmwr.ss6812a1

[2] Bover Manderski MT, Tomaino M, Torres Alvarez R, Meza R, Delnevo CD. Tobacco Product Use among Middle and High School Students — National Youth Tobacco Survey, United States, 2025. CRST-CAsToR Data Brief, 26 March 2026. Available at https://tobaccocrst.org/sites/default/files/2026-03/crst_castor_data-brief_nyts-2025_03.26.26-1.pdf

[3] Altria Client Services. Trends in Tobacco and Nicotine Product Use among Middle and High School Students – NYTS 2025 Update. 4 March 2026. Available at https://acrobat.adobe.com/id/urn:aaid:sc:EU:f3ae9a2e-0a71-4bb2-a7b5-bbe24127a443

[4] Hammond D, Reid JL, Rynard V, Burkhalter R. Provincial E-cigarette Flavour Policies and Vaping Behavior among Canadian Youth: Findings from the ITC Youth Tobacco and Vaping Survey. January 2026; University of Waterloo. Available at: https://davidhammond.ca/wp-content/uploads/2026/05/2026-ITC-Youth-Canada-Vaping-Flavours-Report-Hammond-et-al.pdf

[5] Action for Smokefree 2025 (ASH). ASH Year 10 Snapshot Survey 2025: Topline – Youth smoking and vaping. November 2025. Available from: http://ash.org.nz

[6] Action on Smoking and Health (ASH). Use of Vapes Among Young People in Great Britain. 2025. [For more ASH Fact Sheets, visit ash.org.uk/resources/publications/fact-sheets]

2. Youth vaping is similar or less common to what youth smoking was 20-30 years ago.

- In the US, past-month youth smoking peaked at 28.3% in 1997 according to MTF.[7]
    - This was 22.6% in 2000 just after the Master Settlement Agreement and declined to 12.8% just before the rise in vaping.[7]
    - Past-month smoking then declined to 4.2% in 2020.
    - In 2024 (most recent available figure aggregated across all grades), past-month smoking was 1.6%, and <0.5% of all youth smoked 10+ cigarettes/day.[7]
- When declines in smoking are pointed out, critics frame as vaping opposing or undermining the declines in smoking; but a 1-to-1 comparison of prevalence ignores the vastly different health risks.
- → **"Epidemic" claims do not hold up considering that nicotine/tobacco use used to be both much more prevalent and in a much more harmful form.**

3. Youth smoking has declined far more than we ever thought possible 15 years ago.

- Healthy People – a US CDC initiative – is informative with respect to what used to be considered an ideal goal for adult and youth tobacco use in 2020.[8]
- Healthy People 2020 targets were set in 2010 based on data from the Youth Risk Behavior Surveillance (YRBS) Survey.[8]
- Youth tobacco use was previously very stubborn, as evidenced by most targets having been set by retaining the 2010 targets (which had obviously not been successful).[8]
- The table below shows Healthy People 2020 targets for youth tobacco use:

Healthy People 2020 Leading Indicator	2009 Baseline	HP 2020 Target	YRBS 2019[a]	YRBS 2023[b]
TU-2.1: Reduce past-month use of any tobacco product	26.0%	21.0%	33.3%	17.9%
TU-2.2: Reduce past-month use of cigarettes	19.5%	16.0%	6.0%	3.5%
TU-2.3: Reduce past-month use of smokeless tobacco	8.9%	6.9%	3.8%	2.3%
TU-2.4: Reduce past-month use of cigars	14.0%	8.0%	5.7%	4.5%

[a] 2019 was the closest YRBS wave before 2020.

[b] 2023 is the most recently-available wave of YRBS.

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[7] Monitoring the Future study, data tables and figures: https://monitoringthefuture.org/results/data-access/tables-and-figures/ and data dashboards: https://monitoringthefuture.org/data/

[8] Healthy People 2020 goals are getting harder to find, as the official CDC pages have been replaced by Healthy People 2030. I've downloaded a copy of the 2020 tobacco use objectives and have put it here.

- → **"Epidemic" claims ignore that previously-stubborn youth smoking rates have declined far beyond what we thought possible before the uptake of vaping.**

4. The majority of youth e-cigarette use is transient and experimental.

- Comparing rates of lifetime use vs. past-month use vs. frequent use can inform about the degree of youth use that is persistent or escalating vs. transient and experimental.
- In NYTS 2024[9,10] (most recent year with official publications):

Product	Lifetime use	Past-month use	Est.[a] ratio of current:lifetime use
Any tobacco product	19.0%	8.1%	42%
E-cigarettes	14.0%	5.9%	42%
Cigarettes	5.8%	1.4%	24%
Cigars	3.9%	1.2%	31%
Nicotine pouches	3.5%	1.8%	51%

[a] *Estimated by dividing prevalence of past-month use by prevalence of lifetime use; may be inexact as this approximation does not incorporate individual-level survey weights.*

- At least half of ever-use was experimentation that did not persist at the time of the survey.
- Even within past-month use, less than half was frequent use (defined as using on 20+ days out of the past 30):
    - For e-cigarettes, 38.8% of the 8.1% of youth who currently used.[10]
    - For nicotine pouches, 29% of the 1.8% of youth who currently used.[10]
- This is supported by a longitudinal study showing that ~60% of youth who initiated vaping near the 2019 peak had reduced or stopped e-cigarette use 2 years later.[11]
- → **The majority of youth use is transient and experimental, which has negligible health and addiction risks in and of itself.**

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[9] Jamal A, Park-Lee E, Birdsey J, et al. Tobacco Product Use Among Middle and High School Students — National Youth Tobacco Survey, United States, 2024. MMWR Morb Mortal Wkly Rep 2024;73:917–924. DOI: http://dx.doi.org/10.15585/mmwr.mm7341a2

[10] Park-Lee E, Jamal A, Cowan H, et al. *Notes from the Field:* E-Cigarette and Nicotine Pouch Use Among Middle and High School Students — United States, 2024. MMWR Morb Mortal Wkly Rep 2024;73:774–778. DOI: http://dx.doi.org/10.15585/mmwr.mm7335a3

[11] Kim S, Selya A. Persistence of youth use of electronic nicotine delivery systems in the population assessment of tobacco and health, 2017-2021. Substance Use & Misuse. 2025 Nov 10;60(13):1969-75. https://doi.org/10.1080/10826084.2025.2525380

5. Dynamics resemble other cases of a population shift from one product to another

- "No population has dispensed with one form of tobacco without replacing it by another" – Michael Russell
- Norway shifted away from combustible tobacco to snus starting in the mid-2000's; dynamics are similar in showing rising snus use accompanied by falling smoking rates, all while the overall rate of nicotine product use slightly declined.[12]
    - These shifts were more pronounced in younger age groups.[13]
- Similar patterns in the US: slight decline in overall nicotine product use, and underlying this are drastic reductions in smoking and uptake of e-cigarettes.[14]
- Similar dynamics are also underway in Norway and Sweden from snus to pouches.[15]
- In all cases, the shifts (both to vaping and away from smoking) show strong age patterning, where younger age groups are adopting new products and older age groups maintain more stable behavior.
- → **The rise in vaping combined with a fall in smoking, especially among younger age groups, is more consistent with a population shift away from cigarettes rather than vaping *opposing* the gains.**

[12] Lund KE, Vedøy TF. A conceptual framework for assessing the public health effects from snus and novel non-combustible nicotine products. Nordic Studies on Alcohol and Drugs. 2021 Dec;38(6):586-604. https://doi.org/10.1177/14550725211021248

[13] Lund KE, McNeill A. Patterns of dual use of snus and cigarettes in a mature snus market. nicotine & tobacco research. 2013 Mar 1;15(3):678-84. https://doi.org/10.1093/ntr/nts185

[14] Sanford BT, Brownstein NC, Baker NL, Palmer AM, Smith TT, Rojewski AM, Toll BA. Shift from smoking cigarettes to vaping nicotine in young adults. JAMA internal medicine. 2024 Jan;184(1):106-8. https://doi.org/10.1001/jamainternmed.2023.5239

[15] Murphy MA, Henenberg D, Reese L. Cross-sectional study on oral nicotine product sales trends in Scandinavia from 2018 to 2025. JMIR Public Health and Surveillance. 2026 Feb 13;12:e85490. https://doi.org/10.2196/85490