AJPH AFTER FDA VAPING GUIDANCE

The Harm-Reduction Quandary of Reducing Adult Smoking While Dissuading Youth Initiation

See also Dasgupta and Fiala, p. 759, and the *AJPH* After FDA Vaping Guidance section, pp. 771–789.

There is confusion, misinformation, misdirection, and even outright deception crowding out balance, and perspective is paramount to understand the vaping issue. One can never get the right answer if the focus is only on youths or only on adults-both are surefire ways to create bad public policy and harm Americans. In fact, the Food and Drug Administration (FDA) is required to use a public health standard that considers the public health benefits or harms to the population as a whole.¹

It is wise to keep in mind that, fundamentally, we are talking about harm reduction, a common and well-accepted public health concept.² Harm reduction includes total abstinence as the ideal (stop using or, better still, never start). However, some will initiate use and be unable to stop. For them, using much less harmful products minimizes harm.^{2,3} If we are able to switch adult smokers to e-cigarettes, we could save lives-perhaps millions-while still recognizing that e-cigarettes are not totally harmless.^{1–3} We must recognize one extremely important unintended consequence: youth use of e-cigarettes. Nobody wants adolescents to become addicted to nicotine.

ADULTS AND HARM REDUCTION

Let's look at adults and harm reduction. Unlike in the United States, there is a consensus in the United Kingdom among academics, scientists, the medical community, and tobacco control groups. According to a Public Health England analysis, vaping e-cigarettes is dramatically less harmful than is smoking combustible cigarettes. The FDA has stated, "Nicotine, though not benign, is not directly responsible for the tobacco-caused cancer, lung disease and heart disease that kill hundreds of thousands of Americans,"1(p1112) Recent studies and comprehensive reviews confirm that there are far fewer carcinogens and toxins and at much lower levels measured in biomarkers taken from e-cigarette users.² Truth Initiative (a nonprofit tobacco control organization) has stated that e-cigarettes do not cause cancer. Common sense tells us the same thing-remove the smoke containing the toxic chemicals, and the harm is reduced drastically.

E-cigarettes are helping adult smokers move away from smoking, but they could do so much more if we could fully embrace harm reduction.² It is estimated that three million American current users of e-cigarettes have completely switched from cigarettes. As many as six million premature deaths could be averted if most smokers switched to e-cigarettes over the next 10 years.²

We have seen the lowest prevalence of adult smokers ever. A more rapid drop has coincided with the introduction of e-cigarettes, from 19.3% in 2010 to 13.7% in 2018. The harmreduction effect of noncombustibles is reflected worldwide with e-cigarettes in the United Kingdom and much of Europe and Canada, heat-not-burn products in Japan and South Korea, and snus in northern Europe. A recent study showed that e-cigarettes are twice as effective in adults quitting combustible cigarettes than is nicotine replacement therapy-the patch and gum.4 Thus the evidence is strong from new observational studies and randomized trials that e-cigarettes help smokers quit.2-4

ADOLESCENTS AND HARM REDUCTION

Nobody wants adolescents to start using or become addicted to nicotine, whether through combustibles or noncombustibles. Use of e-cigarettes by adolescents in America is too common. I have seen it firsthand talking to students in Iowa schools. However, the use, although very high, 27%, is significantly less than the use of cigarettes at its peak. In 1976, 39% of high school students had smoked cigarettes. Among adolescents, cigarette smoking has actually dropped faster than ever during the years that e-cigarette experimentation increased the most.⁵ The reality is that e-cigarettes may be displacing smoking rather than leading to smoking.^{2,3,5,6}

REGULATORY QUANDARY

We face a difficult regulatory quandary: how do we prevent youths from using e-cigarettes but encourage their use by adult smokers? We have done a great job reducing underage use of cigarettes—we know how to do that. The first choice should be implementing all the proven measures that affect youths exclusively: raising the legal age to 21 years at the state and federal

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This editorial was accepted March 26, 2020. doi: 10.2105/AJPH.2020.305688 levels, stronger enforcement, greater restrictions on marketing to youths, and targeted educational campaigns such as those of the FDA and Truth Initiative. (Remember that those worked in regard to youths and cigarettes.)

The quandary comes from measures that dissuade both youths and adults roughly equally —such as complete bans on all e-cigarettes, complete bans on all flavors, or limiting nicotine concentrations in liquid. The Warner and Mendez study⁶ and others indicate that measures that discourage both youths and adults equally produce net public health harm.^{2,3,6} That is because there are 34 million adult smokers involved and we are comparing death with addiction.

I see one of the biggest barriers to encouraging smokers to switch is the almost unanimous misunderstanding of nicotine and the dramatic harm difference between cigarettes and e-cigarettes. One of my greatest priorities as attorney general is consumer protection. In that role, I believe I have learned a lot about deception. In my opinion, deception is all too common in the anti–e-cigarette, anti–harmreduction campaign. Three of the most common deceptions center on the following:

- 1. Overstating the harm in ecigarettes;
- Claiming that e-cigarettes are a gateway to combustibles for adolescents; and
- Denying that adults are switching from combustibles to e-cigarettes in substantial numbers.

The deceptions take many forms, some of them of the classic consumer protection type. Sometimes trace amounts of chemicals—believed to not be harmful at that level—are found, and it is promoted that they or

nicotine alone cause cancer, or "popcorn lung." Things are said that are literally true but in context and effect strongly imply a falsehood. For example, critics say e-cigarettes are not harmless but do it in a way that strongly implies that they are much more harmful than they are. A journal recently retracted a study that claimed that heart attacks were caused by e-cigarettes among people who had the heart attacks before using e-cigarettes.⁷ Those engaged in deception also cherry-pick numbers and omit material facts.²

"Let 17 million Americans die. . . . I don't care."

At a program on e-cigarettes, a friend of mine, when confronted by the question of how to balance the interests of kids and adults, said that we should just ignore adults. I thought about this. He was saying that 34 million Americans-half of whom will die early if they don't quit-don't matter to him. The 34 million adult smokers are about 14% of the adult population and are, of course, spread across the country. But they are disproportionately low to middle income, not college educated, live in the South and Midwest, and struggle in other health and economic ways. Ignoring those people is not my conception of the United States. Ignoring Americans like these and looking down on them is tearing at the fabric of our democracy. And my political party, the Democratic Party, is paying a terrible price for doing or being perceived to be doing this. AJPH

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CONFLICTS OF INTEREST

The author has no conflicts of interest to declare.

REFERENCES

1. Gottlieb S, Zeller M. A nicotinefocused framework for public health. *N Engl J Med.* 2017;377(12):1111–1114.

2. Fairchild A, Healton C, Curran J, Abrams D, Bayer R. Evidence, alarm, and

the debate over e-cigarettes. *Science*. 2019; 366(6471):1318–1320.

3. Abrams D, Glasser A, Villanti A, et al. Managing nicotine without smoke to save lives now: evidence for harm minimization. *Prev Med.* 2018;117:89–97.

4. Hajek P, Phillips-Waller A, Przulj D, et al. A randomized trial of e-cigarettes versus nicotine-replacement therapy. *N Engl J Med.* 2019;380(7):629–637.

5. Levy DT, Warner KE, Cummings KM, et al. Examining the relationship of vaping to smoking initiation among US youth and young adults: a reality check. *Tob Control.* 2019;28(6):629–635.

6. Warner KE, Mendez D. E-cigarettes: comparing the possible risks of increasing smoking initiation with the potential benefits of increasing smoking cessation. *Nicotine Tob Res.* 2019;21(1):41–47.

7. O'Donnell J. A study claimed vaping doubles risk for heart attacks. It's been retracted for being "unreliable." 2020. Available at: https://eu.usatoday.com/ story/news/health/2020/02/20/nyuscientists-others-call-taxpayer-fundeducsf-vaping-study-probe/4805323002. Accessed March 27, 2020.