TESTIMONY

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"Youth E-cigarette Vaping Epidemic"

Mr. Chairman and Members of the Committee:

Thank you for holding this important hearing on a topic of great concern to the nation's public health. I'm privileged to appear before you this morning to testify about the challenges we face regarding youth use of e-cigarettes and other tobacco products.

My name is Dr. Ray Niaura. I am a clinical psychologist, Professor of Social and Behavioral Sciences and Epidemiology, and Interim Chair of the Department of Epidemiology at the College of Global Public Health at New York University (NYU). I have spent my entire professional career engaged in research on understanding and treating tobacco dependence, and finding and testing ways to help smokers quit, including a vast array of behavioral and medical treatments such as nicotine replacement therapy (NRT) and other medications. Over the course of my career, I have also published over 370 peer-reviewed papers mostly on tobacco-related issues. I was President of the Society of Research on Nicotine and Tobacco, the largest scientific society dedicated to understanding use and impact of nicotine on individuals and society. I am also Deputy Editor of the scientific journal, *Nicotine and Tobacco Research*.

Prior to my appointment at NYU, I worked for 8 years at the Truth Initiative, formerly the American Legacy Foundation, a national 501 (c) (3) nonprofit public charity established out of the 1998 Master Settlement Agreement between 46 State Attorneys General and the U.S. tobacco industry. The organization has a respected history of producing public health initiatives proven to reduce tobacco use among young people and adults. Prior to that, I was Professor of Psychiatry and Human Behavior at the Alpert Medical School of Brown University for 25 years.

My testimony today will examine what has been described as the youth vaping epidemic and the role that e-cigarettes can play in our struggle to help smokers to quit smoking.

As a public health and tobacco use scientist I, too, share concerns about youth tobacco use, including vaping. For the record, I believe no youths should be using any tobacco or nicotine containing product, or any drug for that matter. We should do all we can to discourage youth use by providing appropriate education and counseling, and by making it difficult to purchase such products. I also believe that companies that manufacture and sell vaping products should do all they can to make sure that products are marketed only to adult smokers. I take comfort in the fact that marketing strategies and health claims will eventually be subject to the US Food and Drug Administration (FDA) review and approval.

During the Fall of 2018, the FDA, US Centers for Disease Control and Prevention (CDC) and other public health bodies expressed acute concern about youth vaping, when data from national surveys showed that there was an increase in the rate of youth vaping compared to the previous year (1). This prompted Dr. Scott Gottlieb, the FDA Commissioner at the time, to declare that youth vaping is now an epidemic (2).

The concern about youth vaping was reinforced by data coming from the National Youth Tobacco Survey (NYTS) in 2018. When the CDC eventually released the complete NYTS data to the public in the spring of this year (2019), my colleagues and I reviewed it ourselves for a more complete picture than that provided by the CDC and the FDA in the fall of 2018. We confirmed that past 30-day vaping indeed increased between 2017-2018.

E-cigarette use in youth (total population) 2017/2018



While an increase in use is of concern, we were relieved to see that our analysis showed that most adolescent vaping was occasional, and that most regular use was concentrated in adolescents who had already been smokers. We found that about three-quarters of vapers reported using other tobacco products, such as cigarettes. Most of the increase in vaping therefore was seen in youth who were <u>already</u> using other tobacco products.



We then looked at those youth who had never before used a tobacco product. Use in the never tobacco users was, thankfully, quite low. The vast majority – 91.4% – had not used an e-cigarette. For those who had used an e-cigarette, most of this use was very sparse, and likely experimental – they had only used e-cigarettes 1-2 days in the past month.



E-cigarette use in youth (never smokers) 2015/2018

Despite what is commonly reported in the media, cigarettes remain the most addictive and by far the most harmful form of tobacco. The major concern with youth vaping is that it could lead to cigarette smoking, dependence, and eventually adverse health consequences. Our own research with youth and young adults has shown that, while there is a small association between vaping and subsequent smoking (after two or more years), the risk is substantially greater if youth start smoking with a cigarette compared to a vapor product (3,4). Even the small observed association between vaping and smoking does not mean that vaping *causes* teens to smoke. It likely means that the same teens who are predisposed to vaping – who experiment with new things, maybe especially if adults disapprove - are the ones who are also predisposed to smoke. This is consistent with the good news in the NYTS data that cigarette smoking among youth is at record low levels, even with an uptick in vaping. This is what matters most.

What I just described presents a more complicated picture than does the over-simplified headlines describing a youth vaping epidemic. There is not, at this time, a clear or easy answer for youth vaping, just as there has not been an easy or complete answer for youth smoking. But it is essential that public health officials act very carefully and deliberately to ensure that whatever actions are taken by the government will produce the desired effects (reducing youth use of tobacco products) and will not have undesirable, unintended consequences for

Americans' health, such as depriving cigarette smokers of a safer alternative to cigarette smoking.

The potential for e-cigarettes to help adult smokers stop smoking is a crucial point in the discussion of e-cigarettes. Evidence has been accumulating showing that adult smokers who use e-cigarettes can quit smoking regular cigarettes. A study published in the New England Journal of Medicine this year (5) demonstrated that smokers who used e-cigarettes were twice as likely to quit smoking as compared to those who used nicotine replacement therapy (NRT), including nicotine patches, gums and lozenges. This was a randomized clinical trial which is considered to be the gold standard of clinical evidence.

Just last week, a survey study reported that smokers who switched to e-cigarettes and used them every day were significantly more likely to quit smoking compared to smokers who did not switch to e-cigarettes (6). These results come from the Population Assessment of Tobacco and Health (PATH) study, by far the strongest study we have of tobacco use, funded by the FDA and the National Institutes of Health (NIH). PATH is a nationally representative study, which means these results generalize to the entire population of adult smokers in the USA. We have projected that replacing tobacco cigarettes with e-cigarettes in the US will result in 6.6 million fewer premature deaths over 10-years (7).

These results are especially important because we know that, despite their effectiveness, smokers don't often use quit methods such as NRT or other medications (8,9). E-cigarettes, as they stand now, are a consumer product that is proving to be very popular with smokers. And e-cigarettes are far safer than cigarettes, as acknowledged by such bodies as our own National Academies of Science, Engineering and Medicine (10), the United Kingdom's Public Health Service, their equivalent of the CDC (11), and results from the PATH Study (12). We should be encouraging smokers to use any and all methods to quit smoking, including e-cigarettes.

Quitting smoking is the number one health priority for cigarette smokers, and we need to use all the tools available to us to reduce this burden, which prematurely claims the lives of over half a million Americans every year. Currently, about 38 million adults in the US smoke cigarettes. If this isn't an epidemic and public health priority, I don't know what is.

We all need to think about ways of responsibly making sure that adult smokers have access to all tools for getting away from cigarettes, including switching to e-cigarettes. With proper, prudent, and risk proportionate regulation, e-cigarette products can accelerate declines in smoking and dramatically improve the health of the nation's citizens, and literally save millions of lives (13,14). If we don't get this right, we will have blown an opportunity of a lifetime. Millions of lifetimes.

In closing, I want to note that this year represents the 50th year anniversary of the moon landing celebrated just last weekend, which was a remarkable tribute to the unmatched motivation and the triumph of American know-how and ingenuity. Today, we face another challenge – protecting our youth from smoking-related disability while at the same time saving

smokers lives and preventing unnecessary suffering. This shouldn't be seen as a tradeoff. We can do both. All that's required is the motivation and know-how which we must undeniably possess.

CITATIONS

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(2) <u>https://www.fda.gov/news-events/press-announcements/fda-takes-new-steps-address-epidemic-youth-e-cigarette-use-including-historic-action-against-more</u>

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