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Calisia World Conference on Family Health
Kalisz, Poland
9-10 June, 2019

Combating Youth E-Cigarette Use while Aiming at the Bull's Eye: The End of Combustible Tobacco Use

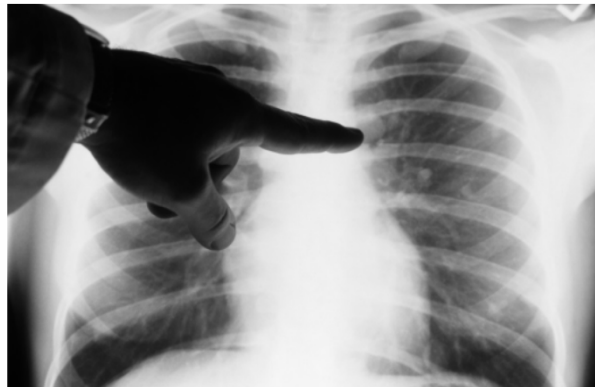
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U.S.A.



Fighting the Tobacco Epidemic: A Public Health Success Story

- From 1965 to 2012, lower smoking rates, propelled by tobacco control policy and clinical efforts, **saved 8 million lives in the United States**
- Average adult life expectancy increased by approximately 10 years, nearly one-third of which – about 3 years – resulted from lower smoking rates
- This highlights the importance of further reducing tobacco use, and especially combustible tobacco use (smoking), as part of our health promotion and disease prevention efforts

Source: Holford T., Meza R., Warner K., Meernik C., et al. (2014)
Tobacco Control and the Reduction in Smoking-Related Premature
Deaths in the United States, 1964-2012, JAMA;311:164-171.



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Smoking Rates have Fallen, Most Significantly among Youth

- **Adults (18 and over):** Smoking declined from 20.9% in 2005 to 15.5% in 2016, and to a historic low of 14.0% in 2017 (a 67% decline since 1965)
- **Youth (under 18):** Smoking among high school students plummeted from 15.8% in 2011 to 7.6% in 2016, but increased slightly to 8.1% in 2018 at the same time that *e-cigarette use jumped 78% among high school seniors to a prevalence rate of almost 21%*

Sources: Wang TW, Asman K, Gentzke AS, et al. Tobacco Product Use Among Adults – United States, 2017. *MMWR Morb Mortal Wkly Rep* 2018;67:1225-32. DOI: <http://dx.doi.org/10.15585/mmwr.mm6744a2>

²Wang TW, Gentzke A, Sharapova S, Cullen KA, Ambrose BK, Jamal A. Tobacco Product Use Among Middle and High School Students – United States, 2011-2017. *MMWR Morb Mortal Wkly Rep* 2018;67:629-33. DOI: <http://dx.doi.org/10.15585/mmwr.mm6722a3>



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**"I'm going to grow
a hundred
years old!"**

*...and possibly she may—for the amazing strides of
medical science have added years to life expectancy*

• It's a fact—a warm, wonderful
fact—that this five-year-old child,
or your own child, has a life ex-
pectancy almost a whole decade
longer than was her mother's, and
a good 15 to 20 years longer than
that of her grandmother. Not only

the expectation of a longer life, but
of a life by far healthier.

Thank medical science for that.
Thank your doctor and thousands
like him... making everybody...
that you and yours may enjoy a
longer, better life.



According to a recent Nationwide survey:

More Doctors smoke Camels
than any other cigarette!

NOT ONE but three outstanding independent re-
search organizations conducted this survey. And
they asked not just a few thousand, but 113,570, doc-
tors from coast to coast to name the cigarette they
themselves preferred to smoke.

Answers came in by the thousands... from general
physicians, diagnosticians, surgeons, men and women
specialists too. The most-named brand was Camel.

If you are not now smoking Camels, try them. Let
your "T-Test" tell you (see right).

© J. Amadio Tobacco Co., Winston-Salem, N. C.

CAMELS *Castles
Tobacco*



THE "T-TEST" TEST WILL TELL YOU

The "T-Test"—T for
taste and T for throat
—is your best proving
ground for any ciga-
rette. Only your taste
and throat can decide
which cigarette tastes
best to you... how it
affects your throat.



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But the Tobacco Epidemic is a Paradox: The Challenge Continues

- From 1965 to 2012, **cigarettes** killed more than **20 million Americans**, including **2.5 million nonsmokers** exposed to secondhand smoke, and more than **100,000 babies**
- Today **34.3 million adults** smoke cigarettes, and **16 million adults** live with a smoking-related disease (60% with COPD)
- At least **480,000 deaths** per year (**42,000** from secondhand smoke), and nearly **29% of all cancer deaths**
- Costs U.S. nearly **\$170 billion** in health care expenditures for adults and **\$156 billion** in lost productivity (including \$5.6 billion from secondhand smoke exposure), for **total economic impact of more than \$300 billion per year**



Sources: Centers for Disease Control and Prevention, Economic Trends in Tobacco,
https://www.cdc.gov/tobacco/data_statistics/fact_sheets/economics/econ_facts/index.htm.



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Cigarette Smoking Still Kills More Americans than All of these Combined



AIDS



Car crashes



Heroin



Homicide/Suicide



Alcohol



Fires



Cocaine



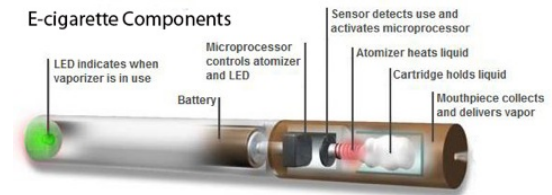
Opioids



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And the World of Tobacco is Changing

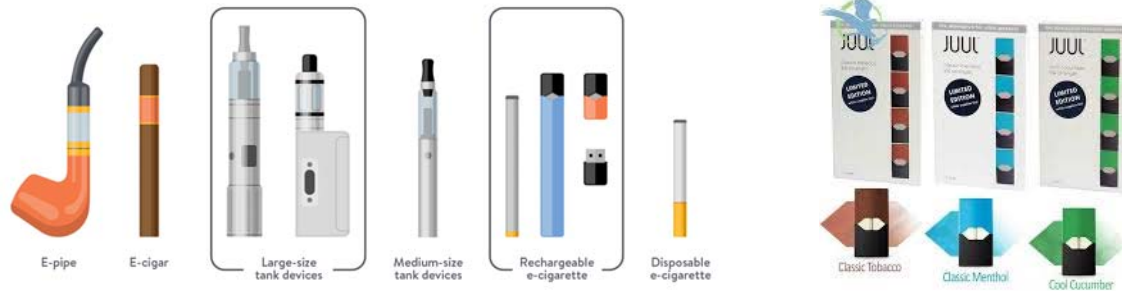
- Tobacco control is more complex than it used to be (and it wasn't simple)
- Electronic cigarettes (e-cigarettes) are used by millions, and many are “dual” using with combustible tobacco cigarettes
- But many people have been led to believe, incorrectly, that e-cigarettes are as harmful as combustible tobacco products



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“E-Cigarettes” are Many Things

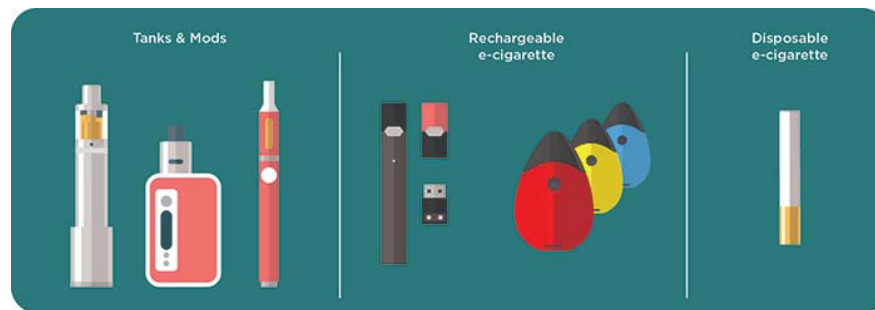
- E-cigarettes are devices that heat a liquid (“e-liquid” or “e-juice”) into an aerosol (“vapor”), that user inhales. “Vapor” may suggest harmless water vapor, but the aerosol is not water vapor. E-liquid often contains nicotine, plus flavorings and other additives, some of which raise potentially serious health concerns.
- E-cigarettes look like cigarettes, cigars, pipes, pens, USB flash drives (e.g., JUUL), and take many other forms.



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The Youth E-Cigarette Epidemic

- Far more kids use e-cigarettes than tobacco cigarettes
- Last year, e-cigarette use by teens jumped 78% and is now over 20% (compared to 2.8% for adults)
- But adult use is significant: the most recent data indicate that nearly 8 million adults use e-cigarettes, many of them concurrently with tobacco cigarettes (i.e., dual use)



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Opinions

We cannot let e-cigarettes become an on-ramp for teenage addiction



A man exhales smoke from an e-cigarette in Washington on Oct. 2. (Eva Hambach/AFP/Getty Images)

By **Alex M. Azar** and **Scott Gottlieb**
October 11 at 8:05 AM

- “On-ramp” = introducing youth to nicotine addiction
- “Off-ramp” = an option for adults to quit smoking/reduce harm



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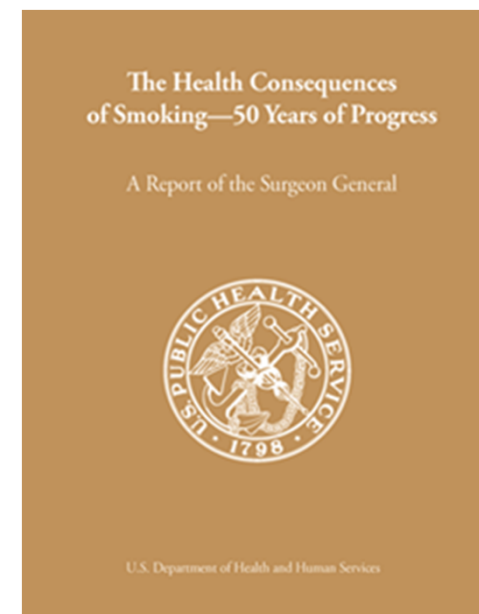
On Ramp vs. Off Ramp

- Azar & Gottlieb (October 11, 2018):
 - “It is crucial that e-cigarettes do not become an on-ramp for children to become addicted to nicotine. But at the same time, we believe e-cigarettes can be an important off-ramp for adults who are addicted to combustible cigarettes.”
 - Therein lies the challenge.



Tobacco *Smoke*: The Chief Killer

- Cigarette smoking accounts for as much as **98% of all tobacco-related deaths**
- Thus, as urged by the U.S. Surgeon General, we need to **eliminate combustible (burned) tobacco use** – including “dual” use with other tobacco products – to substantially reduce cancer and other diseases
- It’s complicated, and we don’t yet have all the information (including long-term effects of e-cigarette use), but we must help consumers understand the known **relative risk** of combustible tobacco use vs. other forms of tobacco use



Douglas CE, Henson R, Drope J, Wender RC. The American Cancer Society public health statement on eliminating combustible tobacco use in the United States. *CA Cancer J Clin.* 2018 Jul;68(4):240-245. <https://onlinelibrary.wiley.com/doi/full/10.3322/caac.21455>.



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“The Dirty Dozen” (of 70 carcinogens)

Acetone (*solvent and paint stripper*)

Ammonia (*poisonous gas and toilet bowl cleaner*)

Arsenic (*potent ant poison*)

Benzene (*poisonous toxin*)

Butane (*flammable chemical in lighter fluid*)

Cadmium (*carcinogenic chemical in batteries; lung & intestinal irritant*)

Carbon monoxide (*poisonous gas in auto exhaust*)

Formaldehyde (*dead frogs love it*)

Hydrogen cyanide (*deadly ingredient in rat poison*)

Methanol (*jet engine and rocket fuel*)

Polonium-210 (*radioactive element and spy-killer*)

Toluene (*poisonous industrial solvent*)



“Without nicotine ... there would be no smoking. ... No one has ever become a cigarette smoker by smoking cigarettes without nicotine.”

Source: William L. Dunn, Ph.D., chief of the Behavioral Research Group at Philip Morris, “Motives and Incentives in Cigarette Smoking,” paper presented at secret tobacco industry conference sponsored by Council for Tobacco Research on St. Martin, N.A., 1972, quoted at http://www.sourcewatch.org/index.php/William_L._Dunn,_Jr. See also Campaign for Tobacco-Free Kids, Tobacco Company Quotes: Nicotine as a Drug, <https://www.tobaccofreekids.org/research/factsheets/pdf/0009.pdf>.



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TOBACCO INDUSTRY CORRECTIVE STATEMENTS

NICOTINE AND ADDICTION

▶ | 🔊 0:02 / 1:31



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An Important Tool: Regulation by Food and Drug Administration (FDA)



- The Family Smoking Prevention and Tobacco Control Act became law in 2009
- Effective regulation is a key to accelerating the end of smoking, address e-cigarettes, etc.
- But *poor* regulation could hinder progress, and it is difficult getting strong regulation



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The FDA's Dramatic New Approach

- Recognizing a *continuum of risk* for tobacco products
 - Cigarettes are at one extreme (MAJOR KILLER)
 - Nicotine-containing cessation medications (gum, patch, inhaler, lozenge) are at the opposite extreme (“SAFE AND EFFECTIVE”)
 - E-cigarettes are in between (NOT 100% SAFE, BUT LESS HARMFUL THAN CIGARETTES)
 - Less evidence for heated tobacco products (e.g., IQOS), but may be less harmful than cigarettes but more harmful than e-cigarettes
- Requiring manufacturers to reduce nicotine in cigarettes to *non-addictive* levels



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Selected Resources from ACS

- Douglas CE, et al. The American Cancer Society Public Health Statement on Eliminating Combustible Tobacco Use in the United States. CA Cancer J. Clin. 2018 Jul;68(4):240-245.
<https://onlinelibrary.wiley.com/doi/full/10.3322/caac.21455>.
- American Cancer Society Position Statement on Electronic Cigarettes.
<https://www.cancer.org/healthy/stay-away-from-tobacco/e-cigarette-position-statement.html>.
- What Do We Know About E-cigarettes? <https://www.cancer.org/cancer/cancer-causes/tobacco-and-cancer/e-cigarettes.html>.
- Gapstur SM, et al. A Cancer Journal for Clinicians: A Blueprint for the Primary Prevention of Cancer: Targeting Established, Modifiable Risk Factors, CA Cancer J. Clin. 2018;68:446–470.
<https://onlinelibrary.wiley.com/doi/epdf/10.3322/caac.21496>.



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