Smoking Cessation Leadership Center



University of California San Francisco

Tobacco Product Use and COVID-19: An Overview of the Science and Public Health Implications

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January 28, 2021

Moderator

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A National Center of Excellence for Tobacco-Free Recovery

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Disclosures

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- For technical assistance please contact (877) 509-3786 or <u>Jessica.Safier@ucsf.edu</u>.
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Today's Presenter

Brian King, PhD, MPH

Deputy Director for Research Translation, Office on Smoking and Health (OSH)

Centers for Disease Control and Prevention (CDC)





TOBACCO PRODUCT USE & COVID-19 An Overview of the Science and Public Health Practice Implications

BRIAN A. KING, PHD, MPH | DEPUTY DIRECTOR FOR RESEARCH TRANSLATION



Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

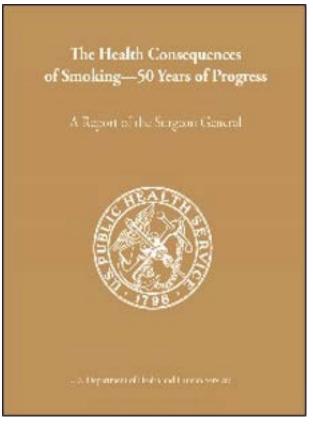
Office on Smoking and Health





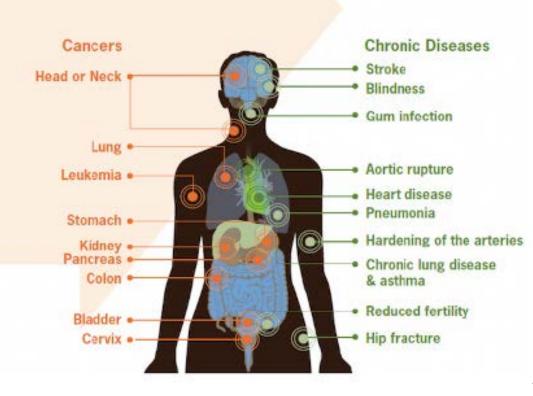


Cigarette Smoking Harms Nearly Every Organ of the Body



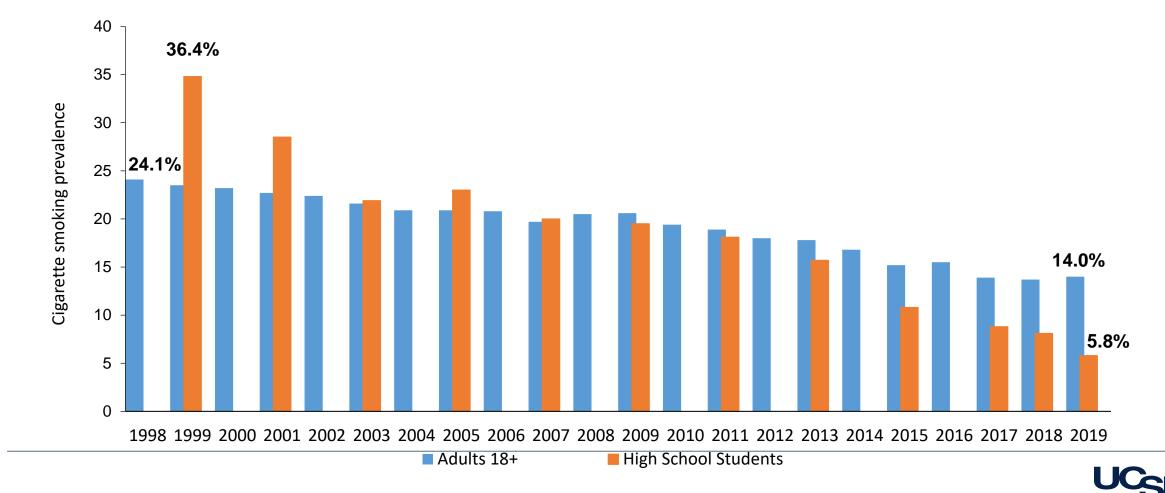
Risks from Smoking

Smoking can damage every part of the body



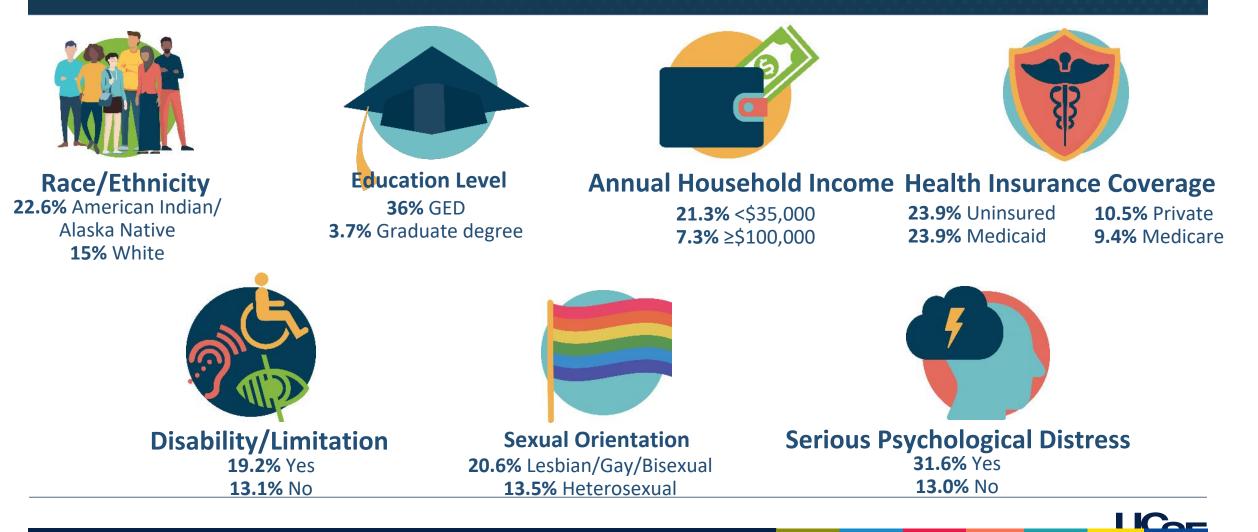
Source: U.S. DHHS. The health consequences of smoking–50 years of progress: a report of the Surgeon General. 2014.





Sources: 1) Creamer MR, et al. MMWR 2019; 68(45) 2) Gentzke AS, et al. MMWR 2019;68:157–164. 3) Cornelius ME, et al. MMWR 2020;69:1736–1742.

Current Cigarette Smoking Among U.S. Adults, 2018



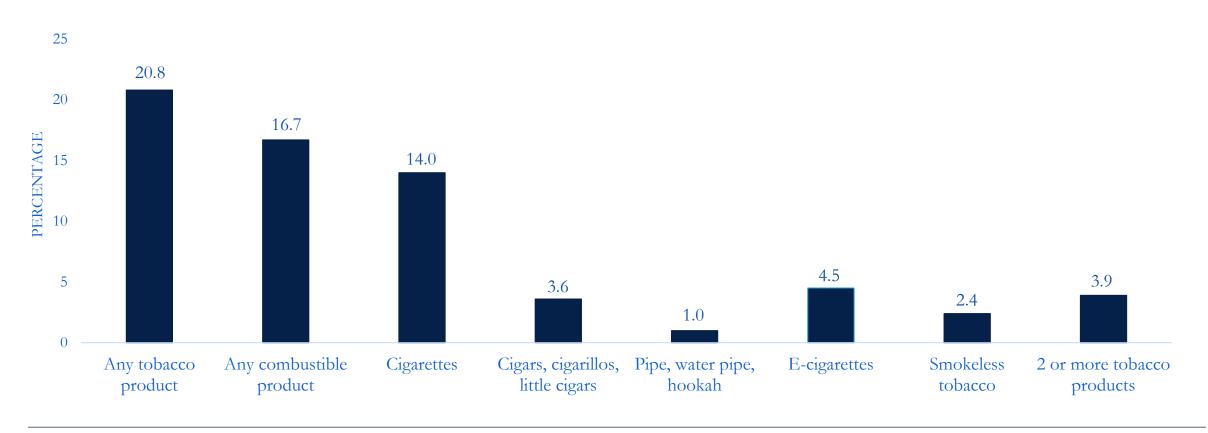
Source: Creamer MC et al. Tobacco Product Use and Cessation Indicators Among Adults – United States, 2018. MMWR 2019;68:1013-1019.

The Tobacco Product Landscape is Evolving





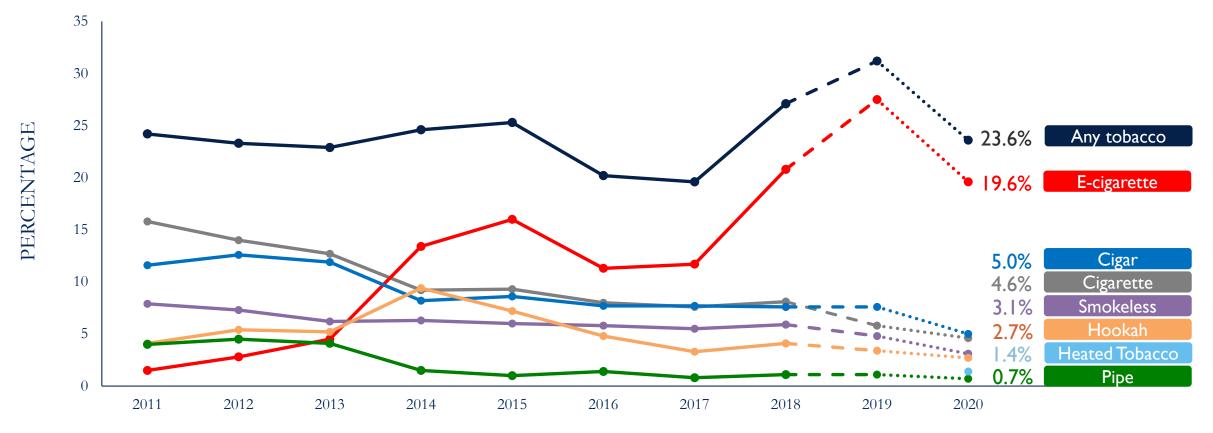
Tobacco Product Use among U.S. Adults, by Tobacco Product, 2019





Source: Cornelius ME, Wang TW, Jamal A, Loretan CG, Neff LJ. Tobacco Product Use Among Adults — United States, 2019. MMWR Morb Mortal Wkly Rep 2020;69:1736–1742.

Current Tobacco Product Use among High School Students – U.S. 2011– 2020

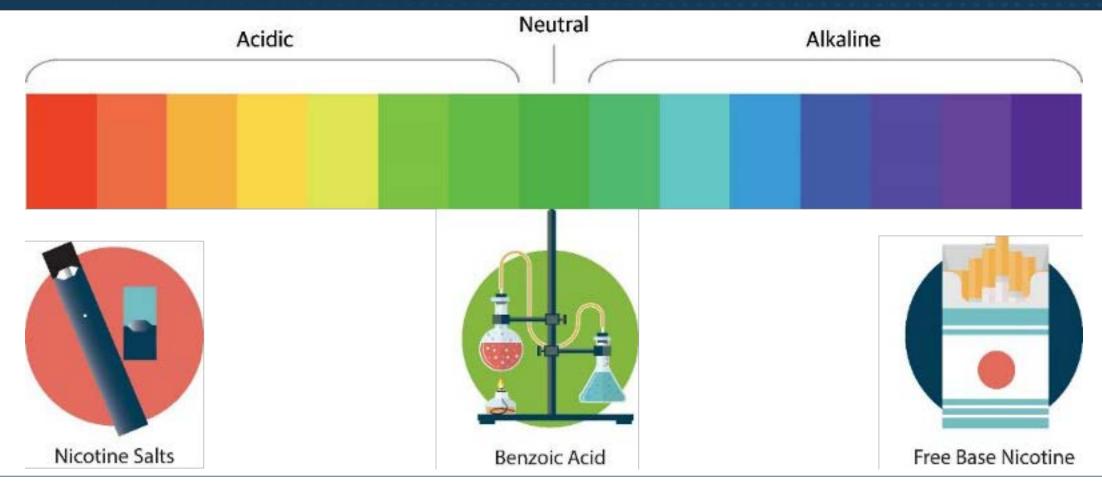


Notes: Dashed lines represent a change in the mode of survey administration beginning in 2019. Dotted line indicates that 2020 survey fielding time was truncated (January 16 – March 16) due to COVID-19.

In 2020, any tobacco product use was defined as past 30-day use of e-cigarettes, cigarettes, cigars, smokeless tobacco (chewing tobacco, snuff, or dip; snus; and dissolvable tobacco), hookah, pipe, bidis, or heated tobacco products.

Sources: National Youth Tobacco Survey. Gentzke AS, Wang TW, Jamal A, et al. Tobacco Product Use Among Middle and High School Students — United States, 2020. MMWR Morb Mortal Wkly Rep 2020;69:1881–188

Nicotine Salts vs. Free Base Nicotine





Short Report

Tobacco Prevention & Cessation

AFFILIATION

United Kingdom

1 Public Health Policy Evaluation

Unit, School of Public Health, Imperial College London, London,

The psychosocial impact of the COVID-19 pandemic on changes in smoking behavior: Evidence from a nationwide survey in the UK

Daniel Tzu-Hsuan Chen

ABSTRACT

INTRODUCTION The stress and anxiety during this unprecedented public health crisis may lead current smokers to increase tobacco use or former smokers to relapse. Thus, this study aims to provide epidemiological evidence of the changes in smoking behavior among British smokers in response to the COVID-19 pandemic and assess the impact of psychosocial factors on these behaviors.

METHODS A nationwide survey of a representative sample of 4075 UK respondents aged >16 years was conducted between 27 April and 24 May 2020 during the COVID-19 pandemic. Psychosocial and demographic variables between different smoking behavior groups were compared using Pearson's X² test and Cramer's V. RESULTS Among current smokers (n=329), one-quarter (25.2%, n=86) reported smoking more than usual, 50.9% (n=174) reported smoking the same amount, icacuk ORCID ID: https://orcid. and 20.2% (n=69) reported smoking less. Significant associations were observed between different smoking behavior groups and psychosocial factors. Pearson's X² KEYWORDS test revealed significant differences between different smoking behavior groups in their concerns about mental health (p<0.001), anxiety (p<0.001) and stress (p<0.001), state of low mood (p=0.012), in the Patient Health Questionnaire (PHQ) score (p=0.018) and ranking on the Cantril Ladder scale (p<0.001). Many respondents expressed that the pandemic had a more negative impact on their mental health and the impact was more pronounced among those who smoked more

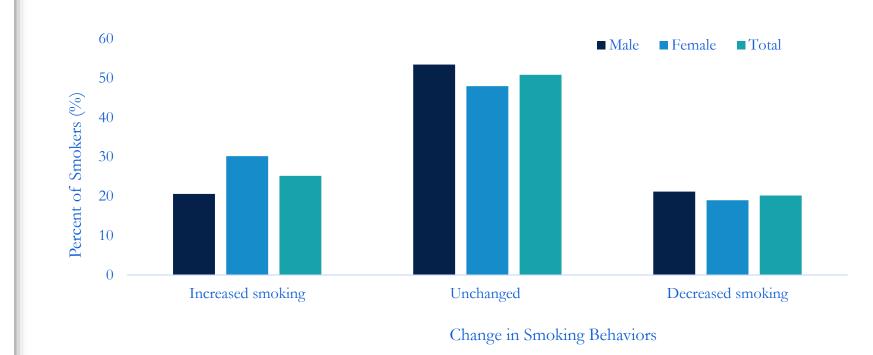
CONCLUSIONS Deterioration of mental health and psychosocial well-being were linked to increased smoking. Public health authorities should take proactive measures to provide mental healthcare and smoking cessation support as preventive measures to tackle the pandemic.

Tob. Prev. Cessation 2020;6(October):59

INTRODUCTION

mid May that the gradual relaxation of the restrictions The outbreak of the novel coronavirus disease-2019 was introduced. During this unprecedented crisis, (COVID-19) was declared a global pandemic by the recent studies have highlighted the psychological and WHO on 11 March 2020. Currently, Europe has behavioral effects of COVID-19, including widespread become the epicenter of the pandemic, and the UK mental disorders such as anxiety or depression², and has been one of the hardest hit countries. In reaction changes in tobacco use patterns³. Additionally, these to the pandemic, starting on 23 March 2020, the UK pandemic-induced adverse psychological outcomes government implemented social distancing measures, may increase the risk of addictive substance abuse and lockdowns, and restrictions on individual movements engaging in addictive behaviors⁴, further weakening to control the spread of the virus¹. It was not until the immune system and increasing vulnerability to

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smoking, tobacco, mental health, psychosocial, COVID-19, pandemics Received: 10 July 2020 Revised: 24 August 2020 Accepted: 27 August 2020

https://doi.org/10.18332/tpc/126976

Tobacco Use Behaviors During Covid-19: Ita

2020; volume 8:9124

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policies. Participants living in Italy were invited to complete an

online brief questionnaire. A questionnaire was prepared and uploaded in an online survey tool. They were asked to participate

regardless of their current smoking status and were divided in seven

subgroups. In total, 1825 participants were included in the analysis. Exclusive cigarette smokers; Dual users of cigarette and e-

Smoking behavior and psychological dynamics during COVID-19 social distancing and stay-at-home policies: A survey

Q

Pasquale Caponnetto,¹⁻³ Lucio Inguscio,⁴ Claudio Saitta,² Marilena Maglia,^{1,2} Francesca Benfatto,^{1,2} Riccardo Polosa^{1,2}

¹Centro per la Prevenzione e Cura del Tabagismo (CPCT), Azienda Ospedaliero-Universitaria "Policlinico-Vittorio Emanuele", University of Catania; ²Center of Excellence for the Acceleration of Harm Reduction (COEHAR), Department of Clinical and Experimental Hedicine, University of Catania; ³Department of Education, University of Catania; ⁴Department of Psychology, La Sapienzu University, Rome, Italy

Abstract

During the COVID-19 pandemic, about 60 million of Italians stayed at home. These circumstances may generate exceptional challenges, and strues for poople who negalarly use cigarettes, ecigarettes, basted tobacco products, dual users, former struckers and never smokers. There, we present results from a stayby that was amount a surveying smoking babaviour and psychological dynamics during the Italian COVID-19 see side distancing and strue-sh-home

orrespondence: Pascuale Caponnetto, Department of Clinical and Experimental Medicine, University of Catania, Italy. Fel: +39-095-378-1583. E-mail: p.caponnetto@u Key words: Smoking; vaping; electronic cigarette; vape shop; heated tobacco products; COVID-19. Acknowledgements: The authors would like to thank the Italian anticonserve regements: the authors would like to thank the Italian anti-smoking League (LIAF) and Dr. sa Valeria Nicolosi for premoting the survey and encouraging people to participate. No funding was received for this study. Contributions: The authors contributed equally. Conflict of interest: The authors declare no conflict of interest. Funding: None. Availability of data and materials: Study data are available within the text Ethios approval and consent to participate: All subjects gave their informed consent for inclusion before they participated in the study conducted in accordance with the Declantion of Helsinki, The study was conducted in accordance with the ethical standards established by the Italian National Psychological Association and approved by the local IERB. Received for publication: 2 May 2020. Accepted for publication: 20 May 2020. This work is licensed under a Creative Commons Attributio NonCommercial 4.0 International License (CC BY-NC 4.0). Copyright: the Author(s), 2020

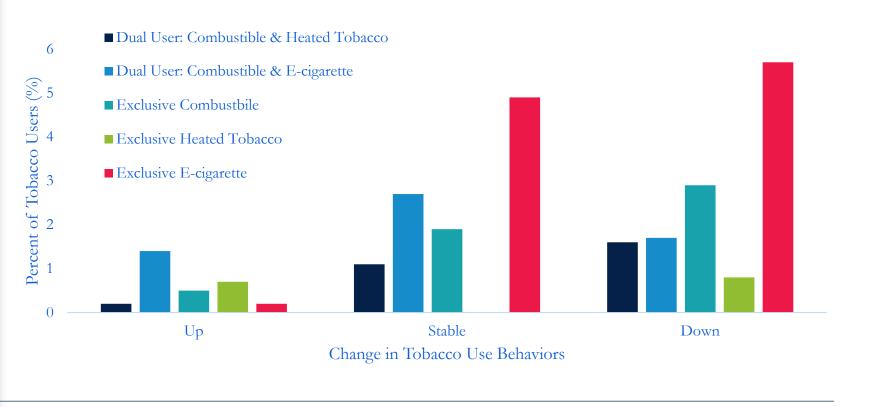
Licensee PA GEPrøss, Italy Health Psychology Research 2020; 8:9124 doi:10.4081/hpr.2020.9124

[page 68]

cigarettes; Dual users of cigarette and heated tobacco products; Former smokers; Exclusive users of e-cigarette; Exclusive users of heated tobacco products; never smoker. Dual users of cigarette and e-cigarette and exclusive cigarette smokers perceived that their daily consumption has slightly decreased. Exclusive cigarette smokers and exclusive e-cigarette users changed the way of purchasing products. Most exclusive cigarette smokers have considered quitting but most exclusive e-cigarette users have not considered stopping the use of e-cigarettes. In former smokers' group, about one third of participants declared thoughts about starting to smoke again and in never smokers' group few narticinants declared intention to start smoking. The COVID-19 era could be considered a "transition" phase and as such requires a search for a new balance. These changes in everyday habits can be a significant moment to use established and emerging strategies to create a definitive smoke-free world. Introduction On March 11, 2020, WHO declared Coronavirus (COVID-19) to be a pandemic. Italy was soon one of the most affected countries. From the patient 0 identified on 21 February, the peninsula has recorded new cases daily, which have also been followed by several deaths. To try to contain and manage the spread of the epidemiological emergency, Italy, later followed by many other countries, announced a lock-down. Domestic confinement and the closure of schools, restaurants, sports and recreational activities, shops and many offices were ordered, as well as important limitations in movements and social interactions, causing a huge change in the quality of life of the entire population (Matias et al., 2020). Some recent studies on the psychological and behavioral effects of confinement highlight the emergence in the population

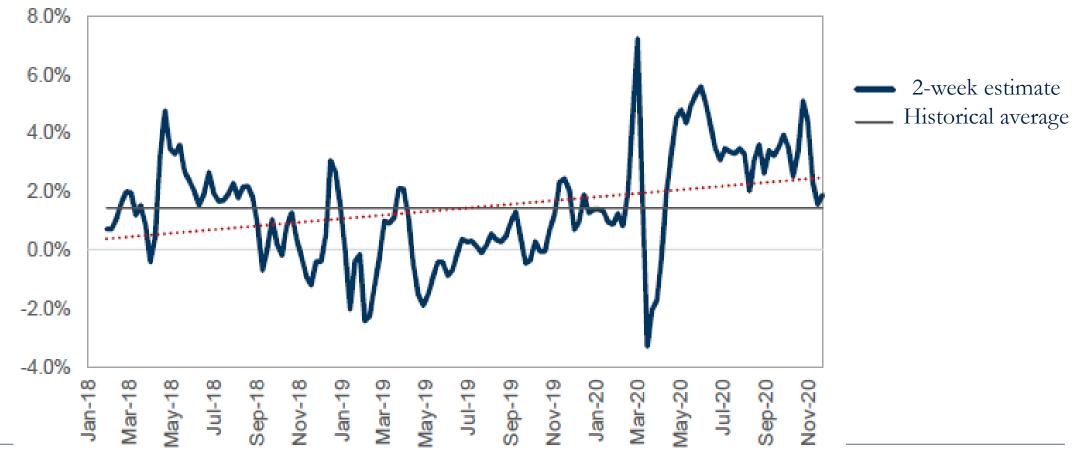
Jommens Attribution BIVNC 4.0). disturbances to dissociative symptems (Banerjee, 2000; Lima et al., 2020; Wang et al., 2020; The psychological effects of confinement seem to increase with each parsing day (Garcia-Alvares et al., 2020) and in particular this has been found in some groups of the populsion, such as hashlarce personnel (Bai et al., 2004; Maunder et al., 2003), or in vaherable people with previous

[Health Psychology Research 2020; 8:9124]



Source: Caponnetto P, Inguscio L, Saitta C, Maglia M, Benfatto F, Polosa R. Smoking behavior and psychological dynamics during COVID-19 social distancing and stay-at-home policies: A survey. Health Psychol Res. 2020;8(1):9124. Published 20

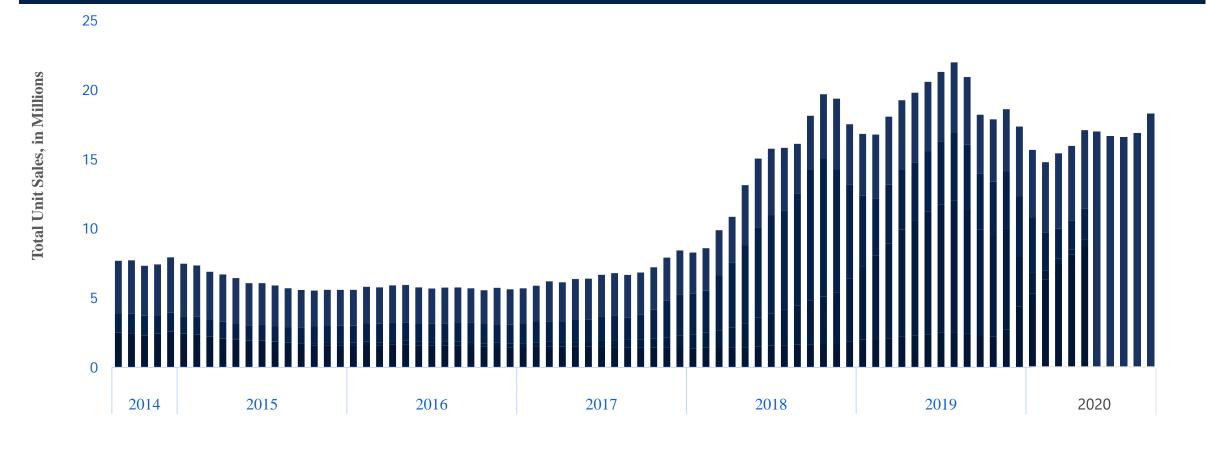
Trends in Total Nicotine Sales (\$) January 2018 – November 2020





Source: The Nielsen Company, Goldman Sachs Global Investment Research

Trends in E-cigarette Unit Sales–United States September 2014 – October 2020





Source: CDC Foundation. Monitoring U.S. E-Cigarette Sales: National Trends. Data Brief. October 2020. https://www.cdcfoundation.org/E-cigaretteSalesDataBrief?inline

1

Tobacco Product Landscape

2

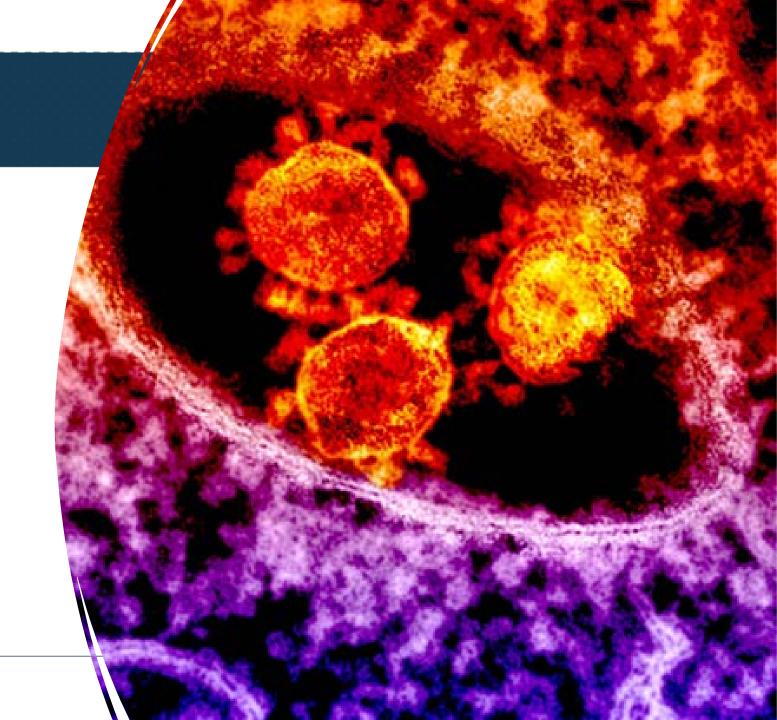
Tobacco Use & COVID-19

3 Public Health Implications

UCSF

Coronavirus Background

- Large family of viruses that cause respiratory illness
 - Belongs to *Coronaviridae* family
- First isolated in the 1960s
- Named for the crown-like spikes on surface
 - 4 subgroupings (alpha, beta, gamma, delta)
- Some can spread between animals and people (zoonotic)



Identified in Wuhan, China in Dec 2019 Caused by the virus SARS-CoV-2

- Early on, many patients were reported to have a link to a large seafood and live animal market
- Later patients did not have exposure to animal markets
 - Indicates person-to-person spread
- First US confirmed case: January 20, 2020



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Smoking and Immunosuppression

The evidence is sufficient to infer that:

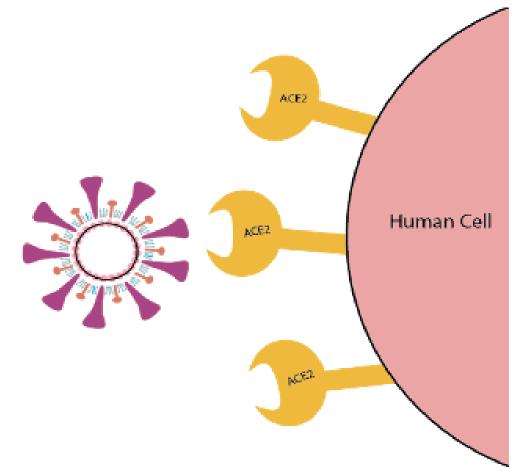
- Components of cigarette smoke impact components of the immune system. Some of these effects are immune-activating and others are immune-suppressive.
- Cigarette smoke compromises immune homeostasis and that altered immunity is associated with an increased risk for several disorders with an underlying immune diathesis.
- Cigarette smoking compromises the immune system and that altered immunity is associated with increased risk for pulmonary infections.





How Sars-cov-2 (The Virus that Causes COVID-19) Works

- SARS-CoV-2 infects humans by attaching to the ACE2 receptor in cells.
- Cigarette smokers have higher ACE2 gene expression and greater ACE2 receptor concentrations in their lungs than nonsmokers.



Smoking and other Novel Coronaviruses (SARS and MERS)

- There is inadequate evidence to conclude that cigarette smoking changes SARS-CoV-I (virus that causes SARS) infection risk.
- Research suggests that cigarette smoking increases MERS-CoV (virus that causes Middle East Respiratory Syndrome) infection risk.

SARS-CoV-1 is about 80% similar to SARS-CoV-2



MERS-CoV is about 50% similar to SARS-CoV-2





France to Test Nicotine Substitutes as

Bloomberg

Treatment for Covid-19 By Gaspard Sebag April 24, 2020 5:08 AM

World





Here's how to help people impacted by Covid-19



UP IN SMOKE France forced to restrict nicotine sales to stop stockpiling after study claimed smoking may stop coronavirus

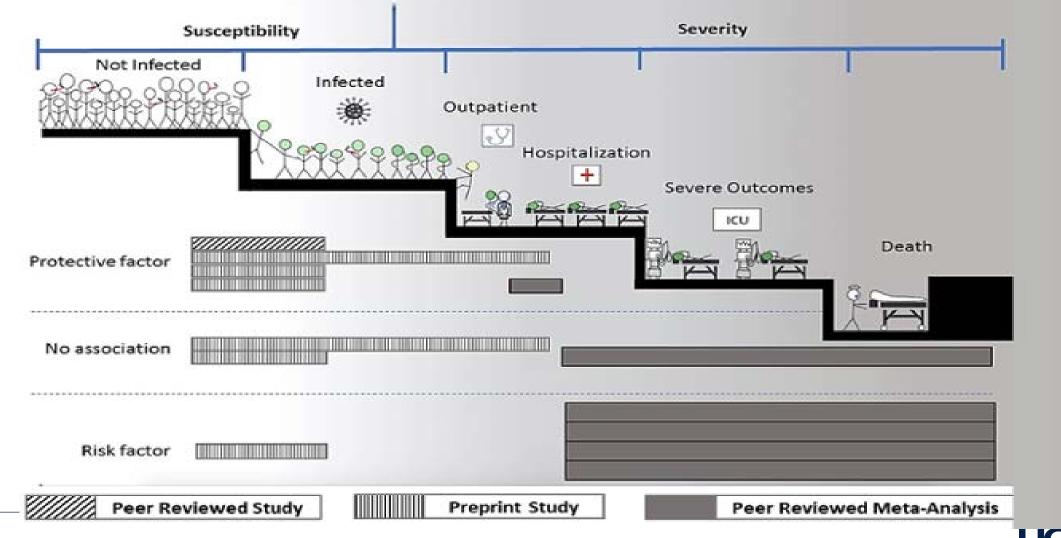
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Phases of COVID-19 Susceptibility and Severity Related to Smoking as Assessed in Existing Studies (as of August 2020)



Smoking and Risk of Sars-cov-2 Infection

The available scientific evidence is inadequate to infer an association between cigarette smoking and risk of testing positive for or becoming symptomatic with SARS-CoV-2 infection.

- Some studies have reported that smoking protects against infection.
 - However, these studies have limitations.
- One study found smoking increased the likelihood of a positive test result for SARS-CoV-2 infection.





UP REGULATION



cholinergic system and the nicotinic acetylcholine receptor α7-nAChR.

DOWN REGULATION

- Anti-inflammatory effect of nicotine
- A blunted immune response in smokers that reduces risk of a cytokine storm
- Increased nitric oxide in the respiratory tract that may inhibit SARS-CoV-2 replication and entry into cells



Groups at Higher Risk for Severe Illness

Older Adults

Adults with the following medical conditions

Chronic kidney disease

- COPD (chronic obstructive pulmonary disease)
- Down Syndrome
- Heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies
- Immunocompromised state from solid organ transplant
- Obesity (body mass index [BMI] of 30 to <40)</p>
- Severe Obesity (BMI 40 or higher)
- Pregnancy
- Sickle cell disease
- Smoking





Smoking and Severity of Covid-19 Illness

After considering the design, limitations, and quality of existing studies, the available scientific evidence largely indicates that smoking increases the risk of severe illness among patients with COVID-19.

- Among six published meta-analyses, a total of 24 primary studies were assessed:
 - Four found smoking was a risk factor (covered 20 studies).
 - One found no association (covered 5 studies).
 - One found smoking was protective (covered 13 studies).

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New Jersey opening up COVID-19 vaccine to smokers

By Gabrielle Fonrouge

January 13, 2021 | 6:50pm | Updated

Implications for People at Risk of Severe Illness



New Jersey smokers are next in line for the COVID-19 vaccine. Shutterstock







Check for updates

ORIGINAL RESEARCH

Electronic-Cigarette Use Alters Nasal Mucosal Immune Response to Live-attenuated Influenza Virus A Clinical Trial

A Meghan E. Rebuli^{1,2,3}, Elen Glista-Baker², Jessica R. Hoffman⁴, Parker F. Duffney¹, Carole Robinette², Adam M. Speen¹, Erica A. Pawlak², Radhika Dhingra^{5,6}, Terry L. Noah^{2,3}, and Ilona Jaspers^{1,2,3,6}

¹Curjoulum in Toxicology and Environmental Medicine, ²Center for Environmental Medicine, Asthma and Lung Bology, and "Department of Pedatrics, School of Medicine, "CurricyLum for the Environment and Ecology, College of Arts and Sciences, "Institute to Environmental Health Solutions, and "Department of Environmental Sciences and Engineering, Gillings School of Sciences, "Institute to Environmental Health Solutions, and "Department of Environmental Sciences and Engineering, Gillings School of Sciences, "Institute to Environmental Health Sciences" (Science Science), "Science Sciences, Sciences, Sciences, and Sciences, Test Sciences, and Sciences, Test Sciences, and Sciences, Test Sciences, Sci Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

ORCID IDs: 0000-0003-1918-2257 (M.E.R.); 0000-0001-8728-0305 (I.J.)

Abstract

Inhalation of tobacco smoke has been linked to increased risk of viral infection, such as influenza. Inhalation of electronic-cigarette e-cigarette users, mostly resulting in decreased expression. The top (e-cigarette) aerosol has also recently been linked to immune suppression within the respiratory tract, specifically the nasal mucosa. We propose that changes in the nasal mucosal immune MR1, NT5E, and HRAS. Similarly, LAIV-induced cytokine levels in response modify antiviral host-defense responses in e-cigarette users. nasal epithelial-lining fluid differed among the three groups, Nonsmokers, cigarette smokers, and e-cigarette users were including decreased antiviral host-defense mediators (IFNy, IL6, and inoculated with live-attenuated influenza virus (LAIV) to safely II.12p40). We also detected that sex interacted with tobacco-product examine the innate immune response to influenza infection. Before exposure to modify LAIV-induced immune-gene expression. Our and after LAIV inoculation, we collected nasal epithelial-lining fluid, results demonstrate that e-cigarette use altered nasal LAIV-induced nasal lavage fluid, nasal-scrape biopsy specimens, urine, and blood. immune responses, including gene expression, cytokine and Endpoints examined include cytokines and chemokines, influenza- chemokine release, and LAIV-specific IgAlevels. Together, these data specific IgA, immune-gene expression, and markers of viral load. suggest that e-cigarette use induces changes in the nasal mucosa that Statistical analysis included primary comparisons of cigarette and e-cigarette groups with nonsmokers, as well as secondary analysis of defense function. demographic factors as potential modifiers. Markers of viral load did not differ among the three groups. Nasal-lavage-fluid anti-IAIV IgA Clinical trial registered with www.clinicaltrials.gov (NCT 02019745). levels increased in nonsmokers after LAIV inoculation but did not increase in e-cigarette users and cigarette smokers. IAIV-induced Keywords: e-cigarette; virus; influenza; respiratory; immuno

gene-expression changes in nasal biopsy specimens differed in cigarette smokers and e-cigarette users as compared with nonsmokers, with a greater number of genes changed in downregulated genes in cigarette smokers were SMPD3, NOS2A, and KLRB1, and the top downregulated genes in e-cigarette users were are consistent with the potential for altered respiratory antiviral host-

(Received in original form May 1, 2020; accepted in final form October 23, 2020)

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Supported by the National Heart, Lung, and Blood Institute, and the National Institute of Environmental Health Sciences grants P50HL12010004 and T32ES007/2834 (LJ), and a Leon and Bertha Goldberg Postdoctoral Fellowship. Research reported in this publication was in part supported by the U.S. National institutes of Health and the U.S. Food and Drug Administration Center for Tobacco Products. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the U.S. Food and Drug Administration.

Author Contributions: T.L.N. and I.J. conceptualized and designed the study. M.E.R., E.G.-B., C.R., A.M.S., and EA.P. acquired the samples. M.E.R., J.R.H. PED. AMS. and RD analyzed the samples and data MER. PED. AMS. RD. and LI interpreted the findings MER drafted the manuscript MER. E.G.-B., J.R.H., P.F.D., C.R., AM.S., E.A.P., R.D., T.L.N., and I.J. revised the manuscript critically for intellectual content, gave final approval of the version to be published, and agree to be accountable for all aspects of the work.

Correspondence and requests for reprints should be addressed to liona Jaspers, Ph.D., 116 Marning Drive, Campus Box 7325, Chapel Hill, NC 27599-7310. E-mail: Iona_jaspers@med.unc.edu

This article has a related editorial.

This article has a data supplement, which is accessible from this issue's table of contents at www.atsjournals.org

Am J Respir Cell Mol Biol Vol 64, Iss 1, pp 126–137, Jan 2021 Copyright © 2021 by the American Thoracic Society Originally Published in Press as DOI: 10.1165/mmh.2020-0.164OC on October 23, 2020. internet address: www.atsjournals.org

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American Journal of Respiratory Cell and Molecular Biology Volume 64 Number 1 | January 2021

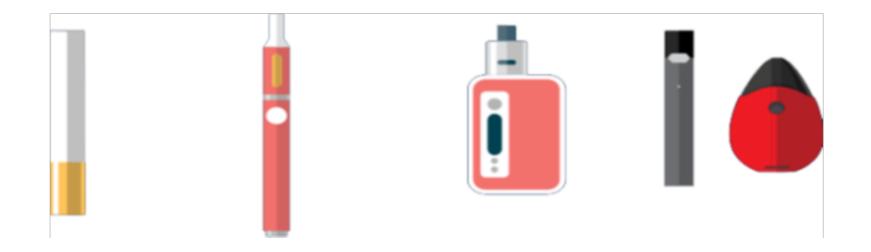
- E-cigarette use is associated with significant suppression of defense responses in the context of experimental respiratory viral infections.
- E-cigarette use is associated with different effects on markers of mucosal immune responses as compared with smoking cigarettes.



E-cigarette, or Vaping, Products

The available scientific evidence is presently inadequate to infer an association between e-cigarette use and SARS-CoV-2 infection or severity of COVID-19.

1st Generation 2nd Generation 3rd Generation 4th Generation





Original article

Association Between Youth Smoking, Electronic Cigarette Use, and Coronavirus Disease 2019

Shivani Mathur Gaiha, Ph.D.⁴, Jing Cheng, Ph.D.^b, and Bonnie Halpern-Felsher, Ph.D.^{4,*} ⁴Division of Molecom Medicine, Dependence of Pedictrice, Despired Ordennia, Pale Alea, Colfornia ⁴Division of Molecom Medicine, Dependence of Pedictrice, Despired Ordennia, San Province, San Province, Colfornia

Article history: Beceived June 12, 2020: Accepted July 1, 2020 Keywords: Tobacco; Smoking: Electronic elgarette; COVID; Lung; Coronavirus; Communicable elisease; Infectious disease; Fandemic

E-cigarette Use and Covid-19

	Ever-use of inhaled tobacco and			Past 30-day use of inhaled tobacco and		
	COVID-19-related symptoms (n = 4,043)	COVID-19 test (n = 4,048)	COVID-19–positive diagnosis (n = 4,048)	COVID-19-related symptoms (n = 4,043)	COVID-19 test (n = 4,048)	COVID-19–positive diagnosis (n = 4,048)
	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)
Inhaled tobacco products						
Cigarettes only	1.40 (.83, 2.38)	3.94 (1.43, 10.86)	2,32 (.34, 15,86)	1.15 (.58, 2.27)	1.16 (.64, 2.12)	1.53 (.29, 8.14)
E-cigarettes only	1.18 (.80, 1.73)	3.25 (1.77, 5.94)	5.05 (1.82, 13.96)	1.43 (.84, 2.43)	2.55 (1.33, 4.87)	1.91 (.77, 4.73)
Dual use	1.36 (.90, 2.04)	3,58 (1,96, 6,54)	6.97 (1.98, 24.55)	4.69 (3.07, 7.16)	9.16 (5.43, 15.47)	6.84 (2.40, 19.55)
Never used	Ref	Ref	Ref	Ref	Ref	Ref

Limitations: Cross-sectional; self-reported data; most youth cases are asymptomatic so most cases likely not fully captured; did not assess disease severity; lack of adjustment for some potential confounders.





Secondhand Smoke and Immunosuppression



- Chronic secondhand smoke exposure worsens pulmonary inflammation and compromises ability to combat chronic and acute respiratory infections.
- Secondhand smoke potently impairs the ability to induce robust immune responses against a key pathogen-specific vaccine antigen.
- Secondhand smoke exposure has the potential to induce a variety of defects in the host akin to those induced by exposure to mainstream tobacco smoke and may play a role in the pathophysiology of various diseases, including human respiratory disorders.

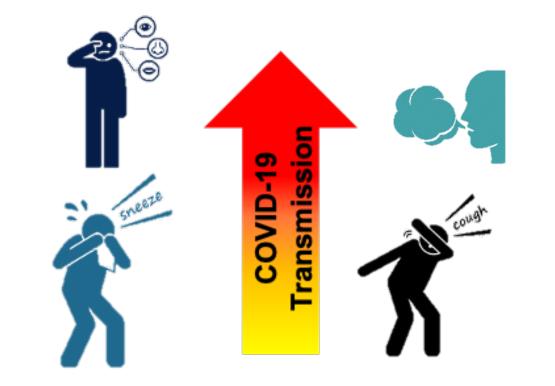


Secondhand Smoke / Aerosol and COVID-19

The available scientific evidence is presently inadequate to infer an association between secondhand smoke exposure or secondhand aerosol exposure and SARS-CoV-2 infection or severity of COVID-19.

However, we know:

- COVID-19 is a respiratory disease.
- Transmission risk increases when people engage in behaviors that increase the likelihood of transferring respiratory droplets.
- Transmission risk increases when people engage in activities that increase the likelihood of touching their faces or mouths.



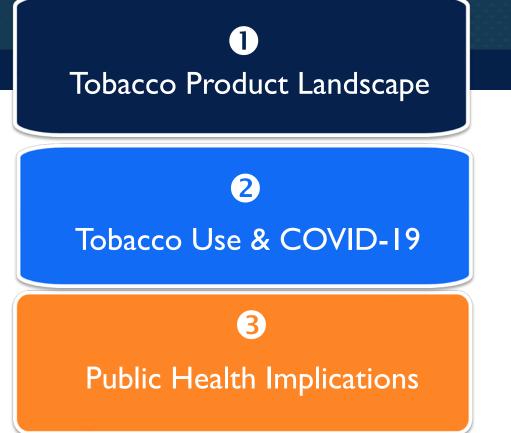




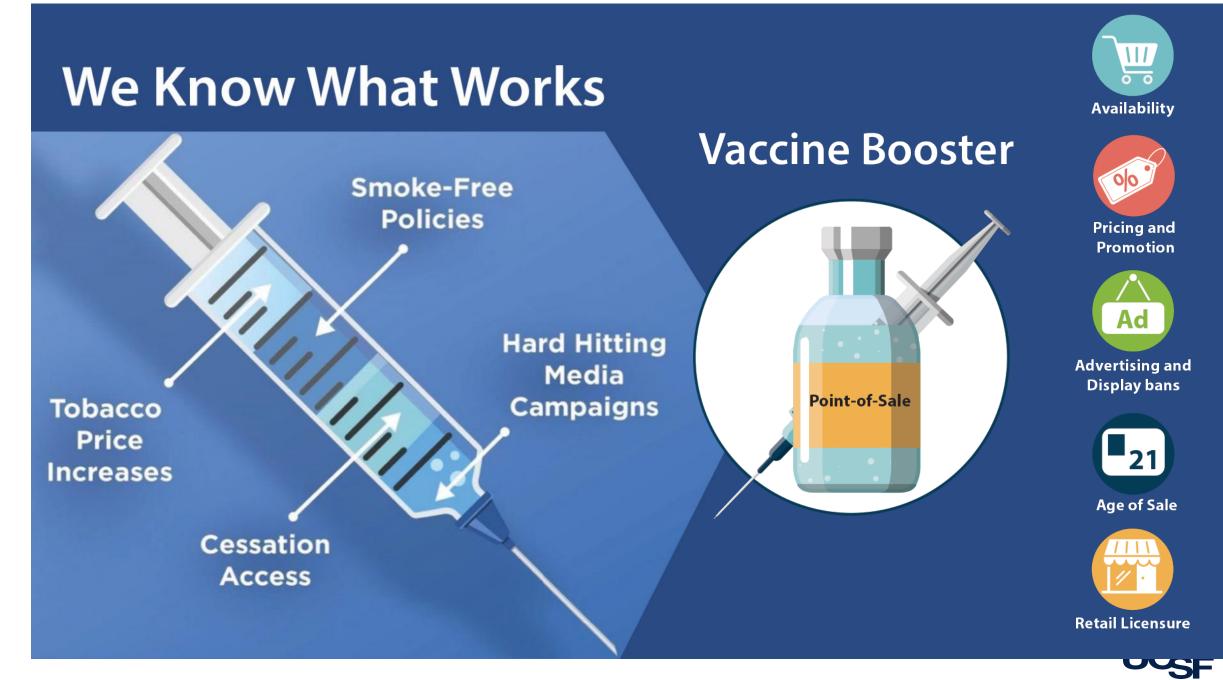
As of August 13, 2020, more than 160 tribal and privately owned casinos reopened smoke-free, including those in 27 states.



Source: US. Department of Health and Humans Services. The Health Consequence of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. 2006; American Nonsmokers' Rights Foundation. 2020.







Source: King BA, Graffunder C. The Tobacco Control Vaccine: a population-based framework for preventing tobacco-related disease and death. Tobacco Control 2018;27:123-124. Kong AY, King B. Tob Control: 2020.

Tobacco and COVID-19: Public Health Implications

• Public health messaging can:

- Communicate that cigarette smoking increases the severity of illness among COVID-19 patients.
- Ensure studies that suggest smoking protects against SARS-CoV-2 infection are not misinterpreted as a reason to use tobacco or nicotine products.

• Regardless of any association with COVID-19:

- The adverse health effects of smoking are well-documented and irrefutable. Now is a better time than ever to quit.
- Smoking harms nearly every organ of the body, and quitting smoking is beneficial at any age.
- Clean air free of both secondhand smoke and aerosol remains the standard to protect health.





COVID-19 Related Smoking Risks in Public Health Messaging

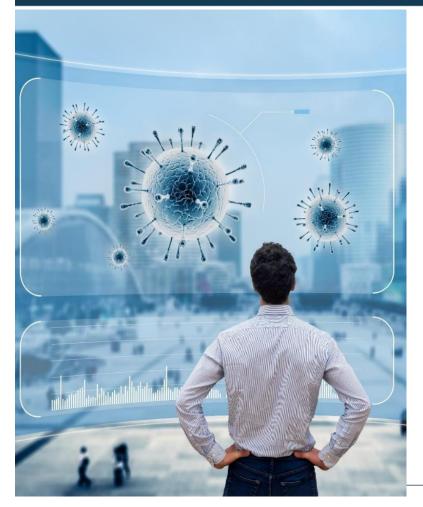
CDC 🤣 @CDCgov · May 1

Smoking damages your heart. This increases your risk of being hospitalized for COVID-19. #smoking bit.ly/2KF6nGC

Smoking damages your heart. This increases your risk of being hospitalized for COVID-19.

- Smoking messages with traditional or COVID-19 harms had higher perceived effectiveness for discouraging smoking than control messages but including both had no benefit beyond either alone.
- Findings offer preliminary support for using COVID-19-related smoking risks in public health communication efforts.
- Three different COVID-19 harms (infection, hospitalization, and death) all had similar impact to traditional harms, indicating that public health entities have many viable options for messaging.

Key Takeaway



Smoking harms nearly every organ of the human body and has been shown to compromise the immune system.

Cigarette smoking increases disease severity among patients with COVID-19. Relationship with SARS-CoV-2 infection is uncertain.

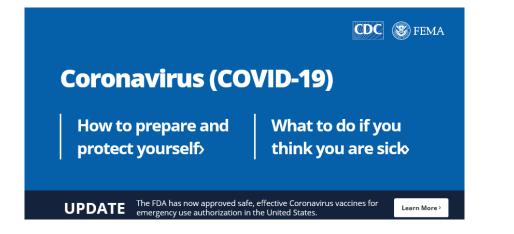
• Evidence is uncertain whether e-cigarette use is associated with risk of SARS-CoV-2 infection or severity of COVID-19.

Evidence is uncertain whether secondhand smoke/aerosol exposure is associated with risk of SARS-CoV-2 infection or severity of COVID-19.

•We know what works. But it is critical that tobacco control research, policy, and practice is modernized to keep pace with the changing tobacco product landscape and urgent public health threats such as COVID-19.

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HOW TO QUIT SMOKING

FEDERAL RESOURCES

CDC RESOURCES

www.cdc.gov/quit

https://www.coronavirus.gov/

https://www.cdc.gov/COVID19



The findings and conclusions in this presentation are those of the presenter and do not necessarily reflect the official position of the U.S. Centers for Disease Control and Prevention.



• Submit questions via the 'Ask a Question' box







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- For technical assistance please contact (877) 509-3786 or <u>Jessica.Safier@ucsf.edu</u>.
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SCLC's next live webinar, "Unboxing IQOS: History, risk perceptions, and clinical implications", with, Pam Ling, MD, MPH and Minji Kim, PhD, at the University of California at San Francisco

- · Wednesday, February 10, 2021, 1-2 pm EST
- Registration is open now on our website!





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