PERCEPTIONS OF RELATIVE RISK OF E-CIGARETTES OVER TIME IN SIX COUNTRIES







MICHAEL J. PASKOW, MPH¹; NADA ADIBAH, MPH¹; SARAH RAJKUMAR, PHD¹; BRIAN E. ERKKILA, PHD¹

¹FOUNDATION FOR A SMOKE-FREE WORLD







BACKGROUND

Combustible tobacco cigarettes cause the deaths of half to two-thirds of continuing smokers. In the US alone, where adult smoking prevalence has fallen to about 14%, there are still more than 16 million people who suffer from smoking attributable diseases, and almost half a million lives are lost every year to smoking. While nicotine is primarily the cause of *addiction*, it is the tar from combusted tobacco that leads to associated morbidities and mortality.

Tobacco harm reduction (THR) products like electronic (e-) cigarettes deliver nicotine without combusting tobacco; US prevalence of current adult e-cigarette use is estimated at 3.2%. People's perceptions of the relative risks of e-cigarettes (compared to traditional combusted tobacco products) are significant influencers in their product use decisions, and especially for smokers to switch to such THR products. Recent research on public perceptions of THR products reveals burgeoning concerns and misinformation. National surveys in the US show prospective *increases* in those who perceive electronic nicotine delivery systems as equally or more harmful with *decreases* in those who perceive them as less harmful. Evidence-based communication is essential for helping to create a smoke-free world.

OBJECTIVES

- Assess changes in awareness of e-cigarettes between 2017 and 2019 in six countries.
- Determine the changing perceptions of relative harm between e-cigarettes and combusted cigarettes over two timepoints among combustible tobacco product users aware of e-cigarettes in six countries.
- Identify changes in perceived risks of e-cigarette use among combustible tobacco product users aware of e-cigarettes in six countries over two timepoints.

METHODS

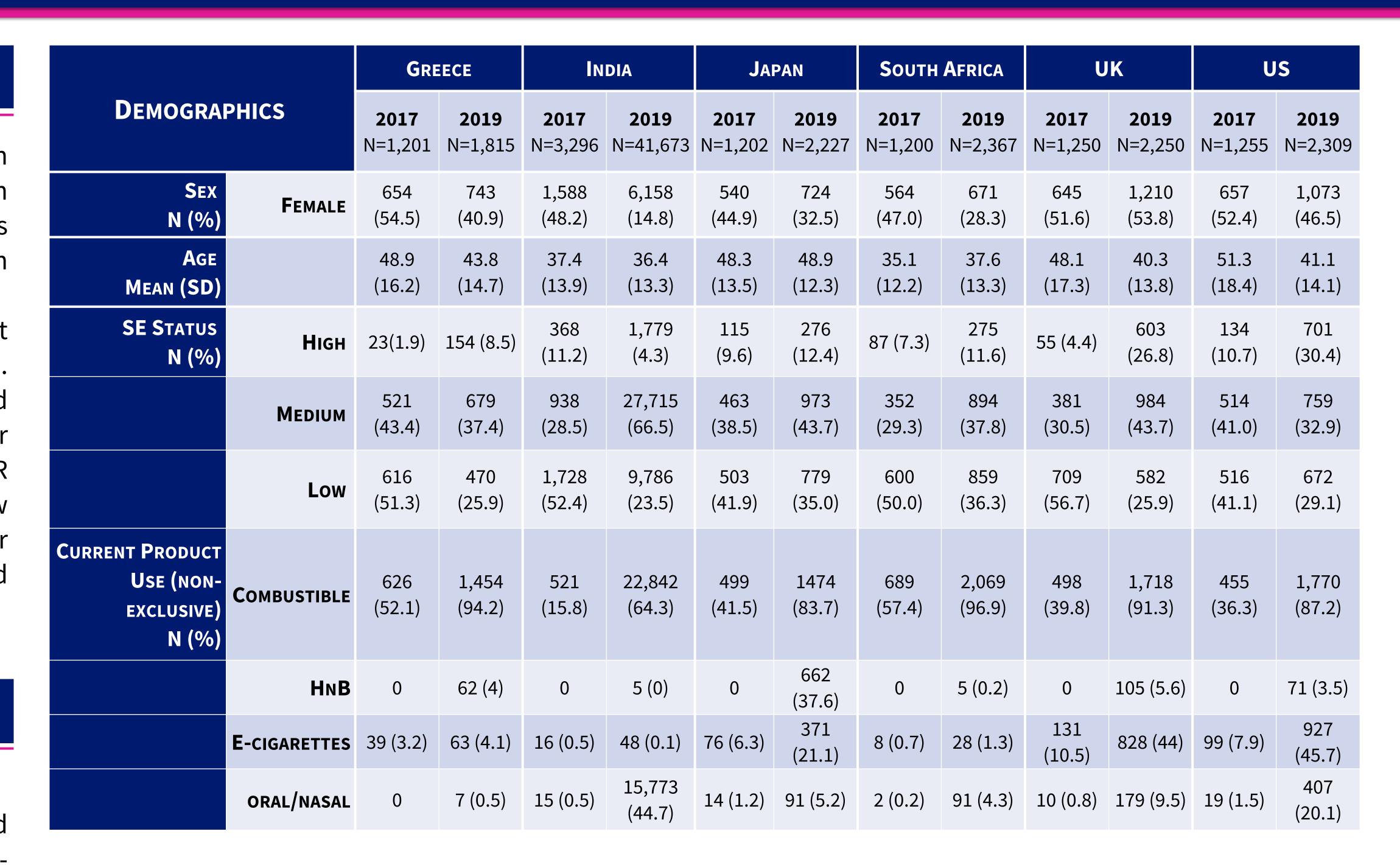
- Foundation for a Smoke-Free World commissioned surveys to understand the current landscape of smoking behavior, awareness and usage of alternative nicotine delivery systems and preferences.
- Topics included: smoking patterns and product use, social context, motivations to smoke, to quit, or to switch, and their perceptions of risks of products and substances.
- Among the six countries discussed here, in the US, UK, Japan surveys were conducted online, and those in South Africa, India, and Greece were administered face-to-face.

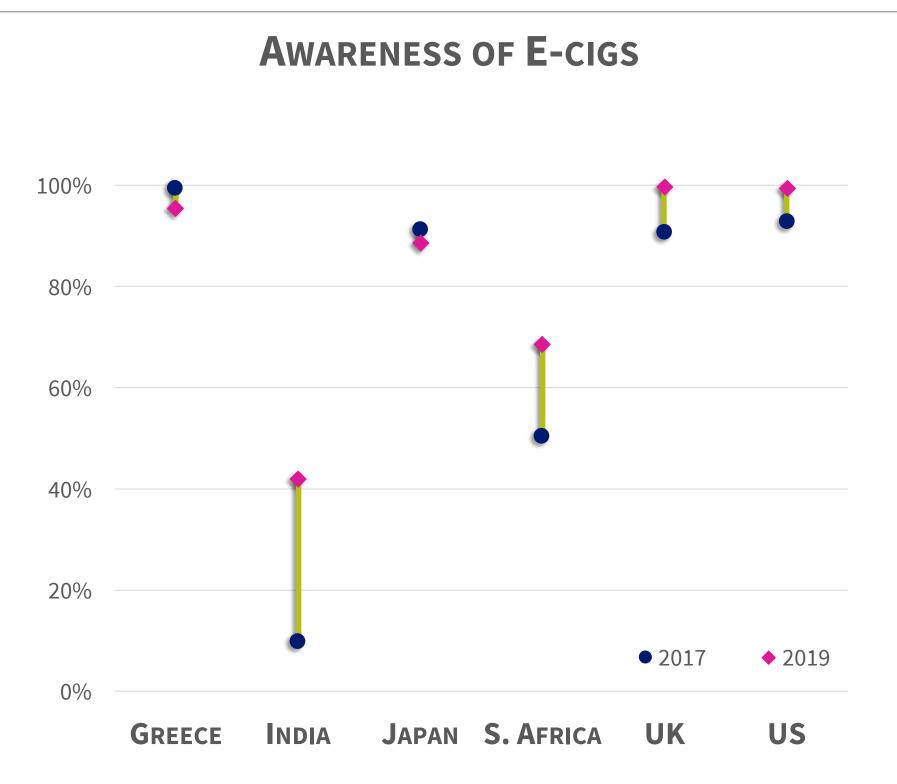
2017:

- Over 17,000 adult (18 years +) participants from 13 countries were surveyed.
- An additional sample of 200 smokers was added to each country to enable more robust analyses.
- "Any combustible product user" refers to any respondent using any of the following: boxed cigarettes, hand-rolled cigarettes, cigarillos, cigars, and pipes (exclusively or not and independent of use of other products).

2019:

- Over 54,000 adults (41,673 in India alone) from 7 countries were surveyed.
- Respondents were current tobacco/nicotine product users or people who had quit within the last 5 years.
- "Any combustible product user" refers to any respondent using any of the following: factory-made cigarettes, tubed cigarettes, rolled cigarettes, capsule/flavored cigarettes, cigars, cigarillos, water pipe, hookah, shisha, pipes, and bidis (exclusively or not, and independent of use of other products).

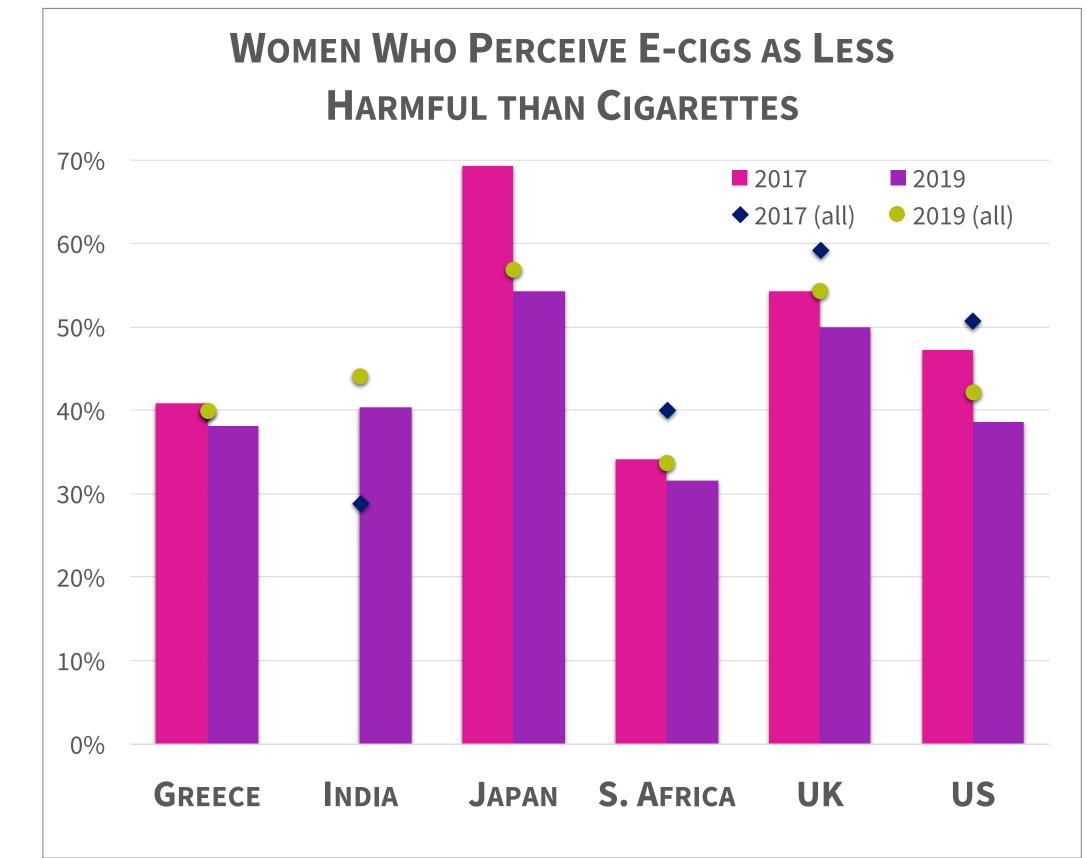




MEN WHO PERCEIVE E-CIGS AS LESS HARMFUL THAN CIGARETTES 80% 70% 60% 50% 40% 30% 2017 2019 2019 (all) 60% 50% GREECE INDIA JAPAN S. AFRICA UK US

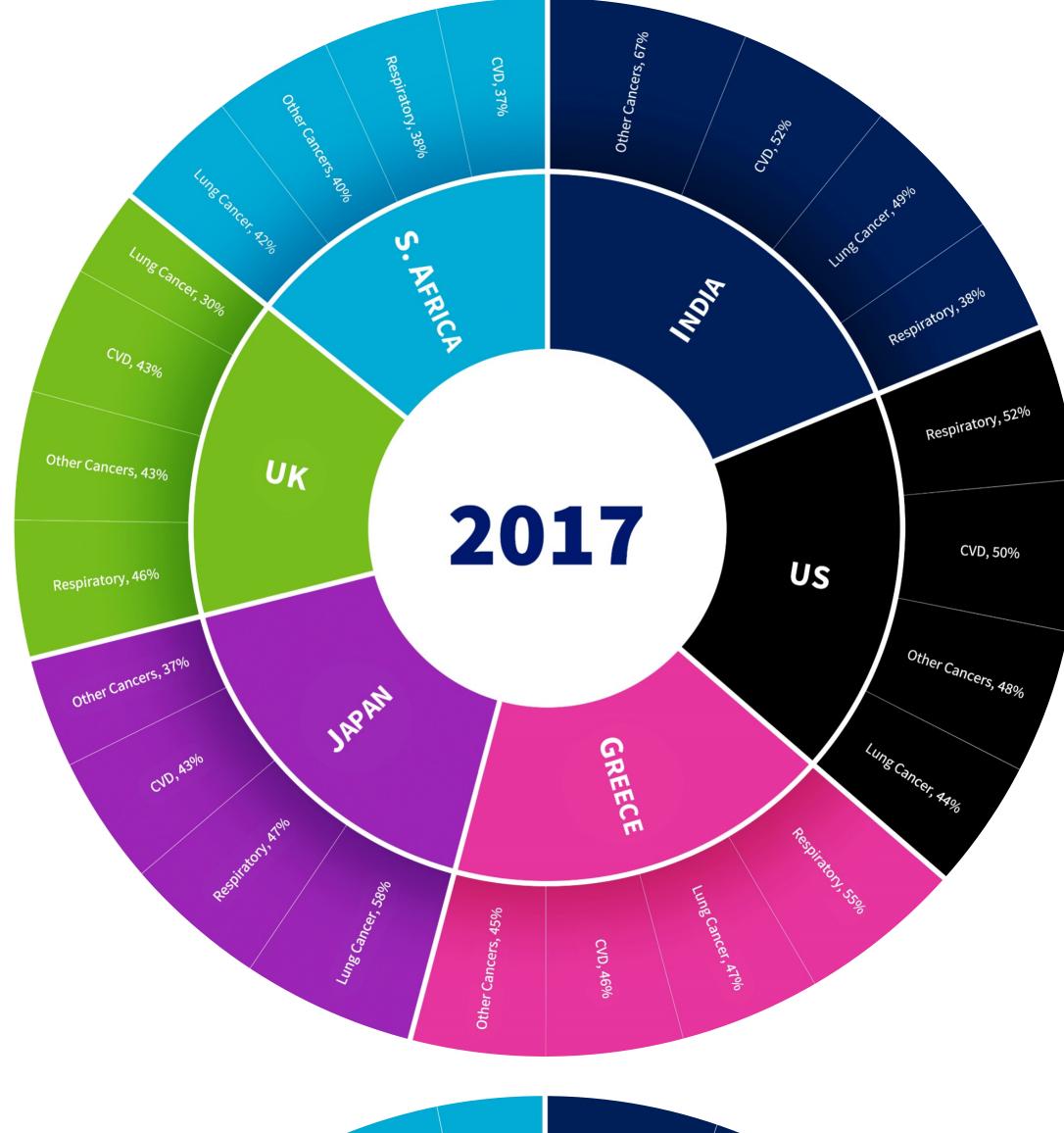
CONCLUSIONS

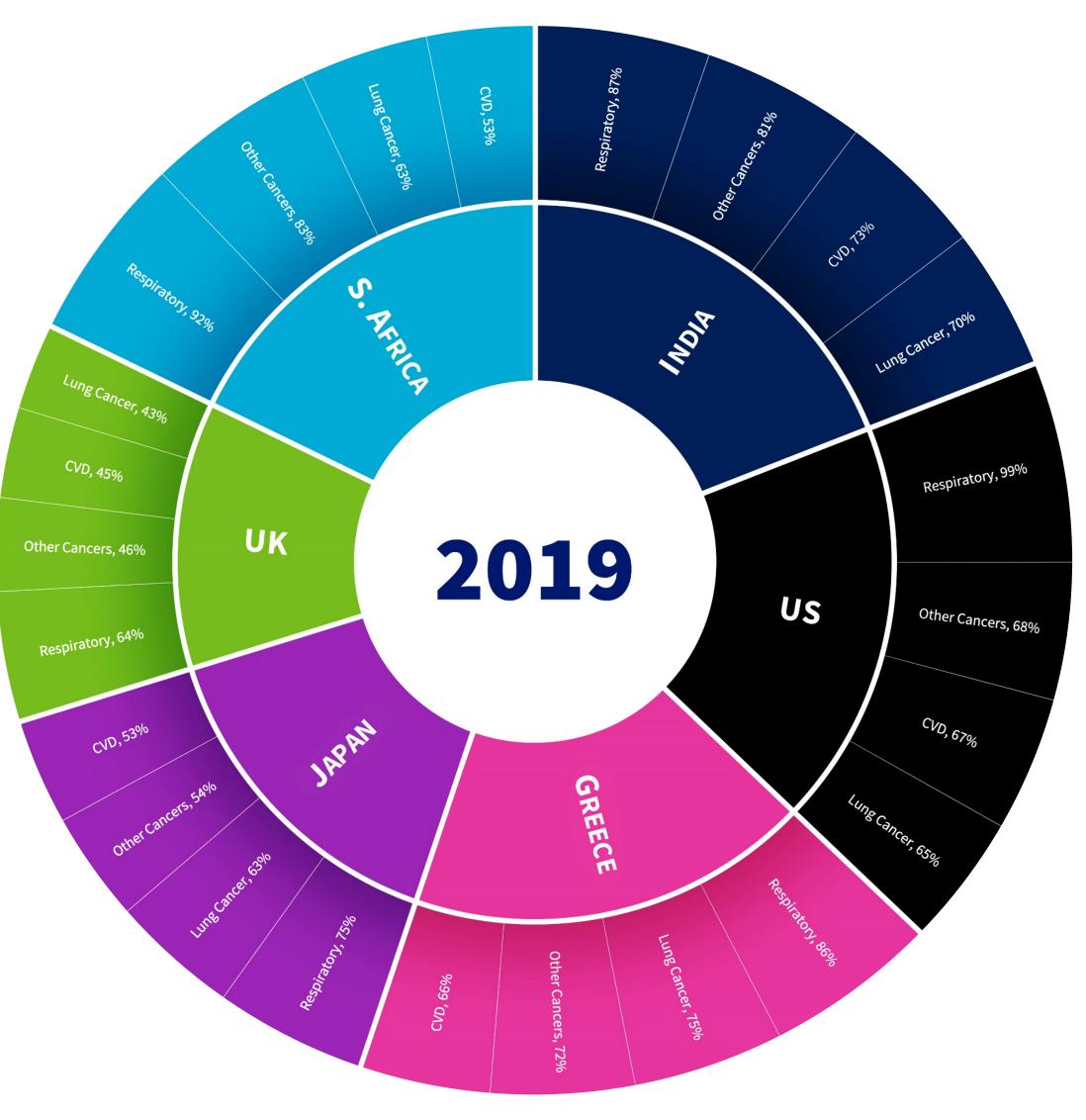
- Awareness of e-cigarettes was consistently high (>88%) except in India and South Africa.
- In Greece and the UK, rates of perceiving e-cigarettes as less harmful were generally consistent between the two timepoints. Rates decreased between 2017 and 2019 in Japan, South Africa, and the US, but increased in India.
- As of 2019, higher proportions of individuals generally believe that e-cigarettes cause respiratory conditions (including COPD, emphysema, tuberculosis, bronchitis, 'popcorn lung', and asthma) more so than they did cancers and cardiovascular disorders.



Perceived Risk of E-cigarettes

Among Combustible Product Users who are Aware





REFERENC

- Dai H, Leventhal AM. Prevalence of e-Cigarette Use among Adults in the United States, 2014-2018. JAMA J Am Med Assoc. 2019;322(18):1824-1827. doi:10.1001/jama.2019.15331
- Nyman AL, Huang J, Weaver SR, Eriksen MP. Perceived Comparative Harm of Cigarettes and Electronic Nicotine
- Delivery Systems. JAMA Netw open. 2019;2(11):e1915680. doi:10.1001/jamanetworkopen.2019.15680 Simmons VN, Quinn GP, Harrell PT, et al. E-cigarette use in adults: A qualitative study of users' perceptions and
- future use intentions. Addict Res Theory. 2016;24(4):313-321. doi:10.3109/16066359.2016.1139700
- Majeed BA, Weaver SR, Gregory KR, et al. Changing Perceptions of Harm of E-Cigarettes Among U.S. Adults, 2012–2015. Am J Prev Med. 2017;52(3):331-338. doi:10.1016/j.amepre.2016.08.039
 Brose LS, Brown J, Hitchman SC, McNeill A. Perceived relative harm of electronic cigarettes over time and impact
- on subsequent use. A survey with 1-year and 2-year follow-ups. *Drug Alcohol Depend*. 2015;157:106-111. doi:10.1016/j.drugalcdep.2015.10.014

 Huang J, Feng B, Weaver SR, Pechacek TF, Slovic P, Eriksen MP. Changing Perceptions of Harm of e-Cigarette vs
- Cigarette Use Among Adults in 2 US National Surveys From 2012 to 2017. *JAMA Netw Open*. 2019;2(3):e191047 doi:10.1001/jamanetworkopen.2019.1047 Persoskie A, O'Brien EK, Poonai K. Perceived Relative Harm of Using E-Cigarettes Predicts Future Product Switching

 Persoskie A, O'Brien EK, Poonai K. Perceived Relative Harm of Using E-Cigarettes Predicts Future Product Switching Among U.S. Adult Cigarette and E-Cigarette Dual Users. Addiction. 2019:1-23. doi:10.1111/add.14730

THIS STUDY WAS FUNDED EXCLUSIVELY BY: THE FOUNDATION FOR A SMOKE-FREE WORLD.

SMOKEFREEWORLD.ORG

FOUNDATION FOR A SMOKE-FREE WORLD