



International Tobacco Control
Policy Evaluation Project

European adult smokers' perceptions of the harmfulness of e-cigarettes relative to combustible cigarettes: Findings from the France and EUREST-PLUS ITC Surveys

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Presenter's disclosures



- Paid expert witness or consultant for governments defending their country's policies or regulations in litigation: Australia (plain packaging, WTO); Uruguay (labeling policies, bilateral investment treaty)
- Member, Scientific Advisory Board on Vaping Products, Health Canada (2017-2020)
- Member of the Expert Group for Article 9 (Regulation of the contents of tobacco products) and Article 10 (Regulation of tobacco product disclosures) of the WHO FCTC (2019)
- No funding or support from companies that manufacture tobacco or nicotine products.
- No funding from pharmaceutical companies

Background



- Smoked tobacco is the most dangerous form of tobacco consumption.
- Smoking cessation substantially reduces the risk for many adverse health effects.
- Most smokers want to quit smoking, and approved medical therapies significantly increase the chances of quitting (although still low % of success), but many smokers are unable to do so.
- The nicotine product landscape has diversified in recent years to include a variety of non-combustible products, notably e-cigarettes (ECs) and heated tobacco products (HTPs).

Harmfulness of ECs and importance of beliefs about their harmfulness



- Recent comprehensive reviews of the available scientific evidence by the National Academy of Sciences, Engineering, and Medicine (NASEM), Public Health England and the Royal College of Physicians concluded that although e-cigarettes contain harmful constituents, overall, they are less harmful than combustible cigarettes.
- Many studies have shown that harmfulness beliefs of ECs (and other tobacco and nicotine products) are associated both concurrently and prospectively with the likelihood of product use.
- A key determinant of smokers using ECs to quit is whether they perceive ECs to be less harmful than cigarettes.

Cochrane Review Update (Nov 17, 2022)

ECs for smoking cessation review



Cochrane Database of Systematic Reviews

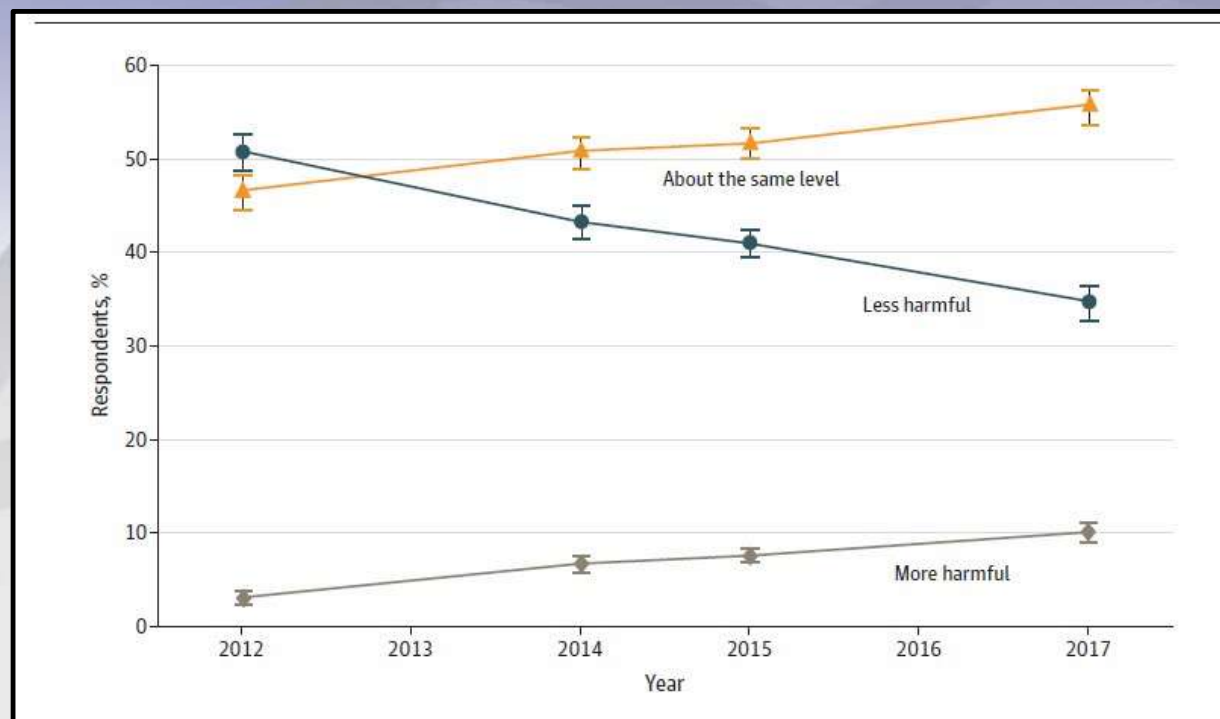
Electronic cigarettes for smoking cessation (Review)

Hartmann-Boyce J, Lindson N, Butler AR, McRobbie H, Bullen C, Begh R, Theodoulou A, Notley C, Rigotti NA, Turner T, Fanshawe TR, Hajek P

Evaluated the effect of using e-cigarettes to help people who smoke achieve long-term smoking abstinence

- Included 78 studies, representing 22,052 participants, 40 RCTs
- Conclusions:
 - **High-certainty evidence** that ECs with nicotine increase quit rates compared to NRT
 - **Moderate-certainty evidence** that ECs with nicotine increase quit rates compared to ECs without nicotine.
 - Evidence comparing nicotine EC with usual care/no treatment also suggests benefit, but is less certain.

Changing perceptions of harmfulness of ECs in the US: prior to EVALI



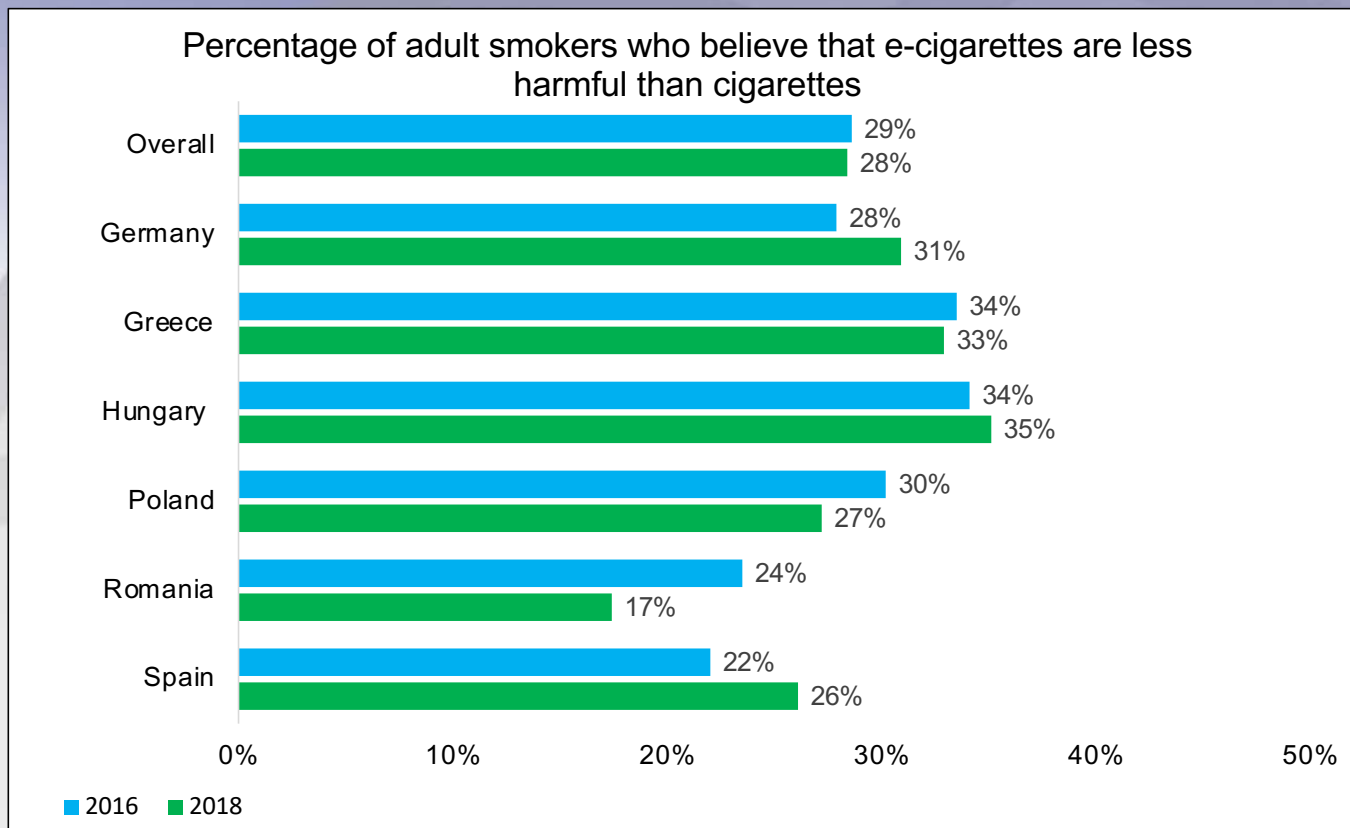
In the United States: significant changes in perceptions from 2012 to 2017:

- Less harmful: 51% to 34%
- About the same: 47% to 56%
- More harmful: 3% to 10%

Perceived Harm of Electronic Cigarettes Relative to Combustible Cigarettes in the Health Information National Trends Surveys

Huang et al., JAMA Netw Open, 2019. Changing perceptions of harm of e-cigarette vs cigarette use among US adults (current, former, non-smokers).

Perception of harmfulness of e-cigarettes among smokers in 6 EU countries (EUREST Plus/ITC): 2016 and 2018



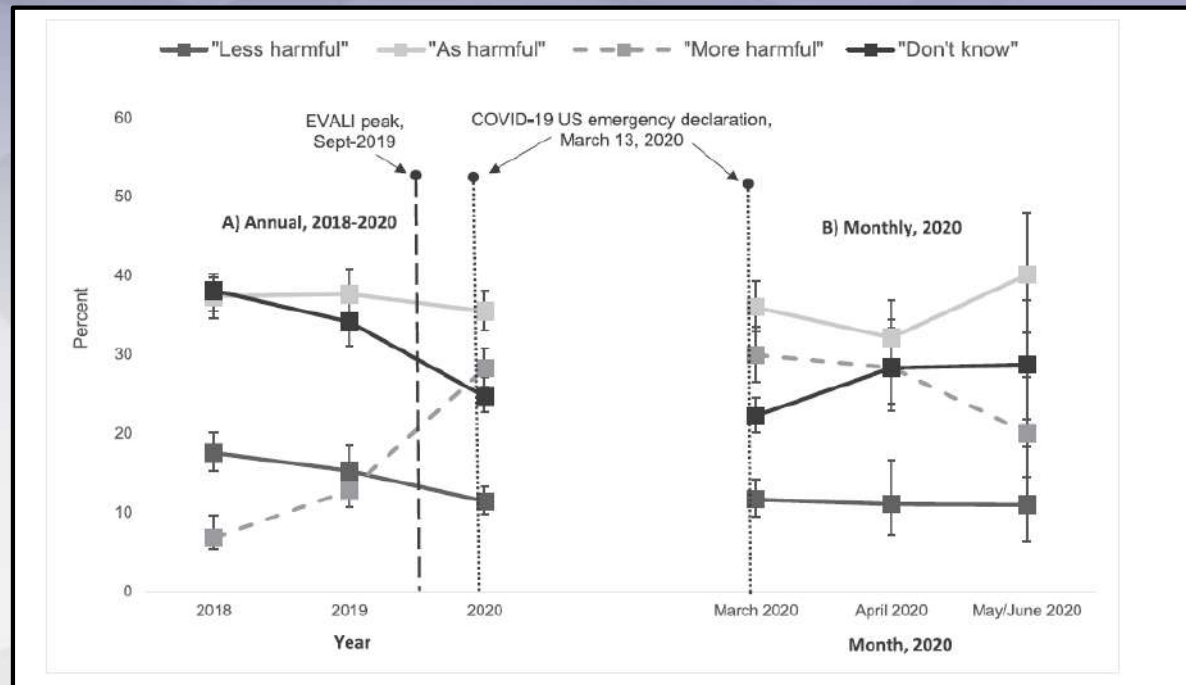
In 6 ITC EU countries:
• Less harmful =17-35%
2016-18, lower than in
the U.S. (35% in 2017)

Gravely et al., Eur J Public Health, 2020. European adult smokers' perceptions of the harmfulness of e-cigarettes relative to combustible cigarettes: cohort findings from the 2016 and 2018 EUREST-PLUS ITC Europe Surveys

Changing perceptions associated with EVALI

2019: Pre-EVALI (Summer)
2020: EVALI

- Less harmful: 34% to 24%
- More harmful: 12% to 28%



Trends in harm perceptions of E-cigarettes versus cigarettes, HINTS, U.S. adults aged ≥ 18 years. (A) Annual 2018–2020. (B) Monthly, 2020.

Bandi et al. Am J Prev Med, 2022. Relative harm perceptions of e-cigarettes versus cigarettes, U.S. adults, 2018–2020.

ITC France Survey



- ITC 2019 France Survey (Oct 31 to Dec 17, 2019)
- Computer Assisted Telephone Interview (CATI)
- N = 2,212 (1,679 Smokers + 533 Non-Smokers)
- Current study: examined perceptions of harmfulness of ECs compared to cigarettes in France and six European (EU) countries
- Cross-sectional analyses: Data were drawn from:
 - 2019 ITC France Survey (n=1573)
 - 2018 EUREST-PLUS Surveys conducted in 6 EU countries Germany, Greece, Hungary, Poland, Romania, and Spain (n=4023)

Methods

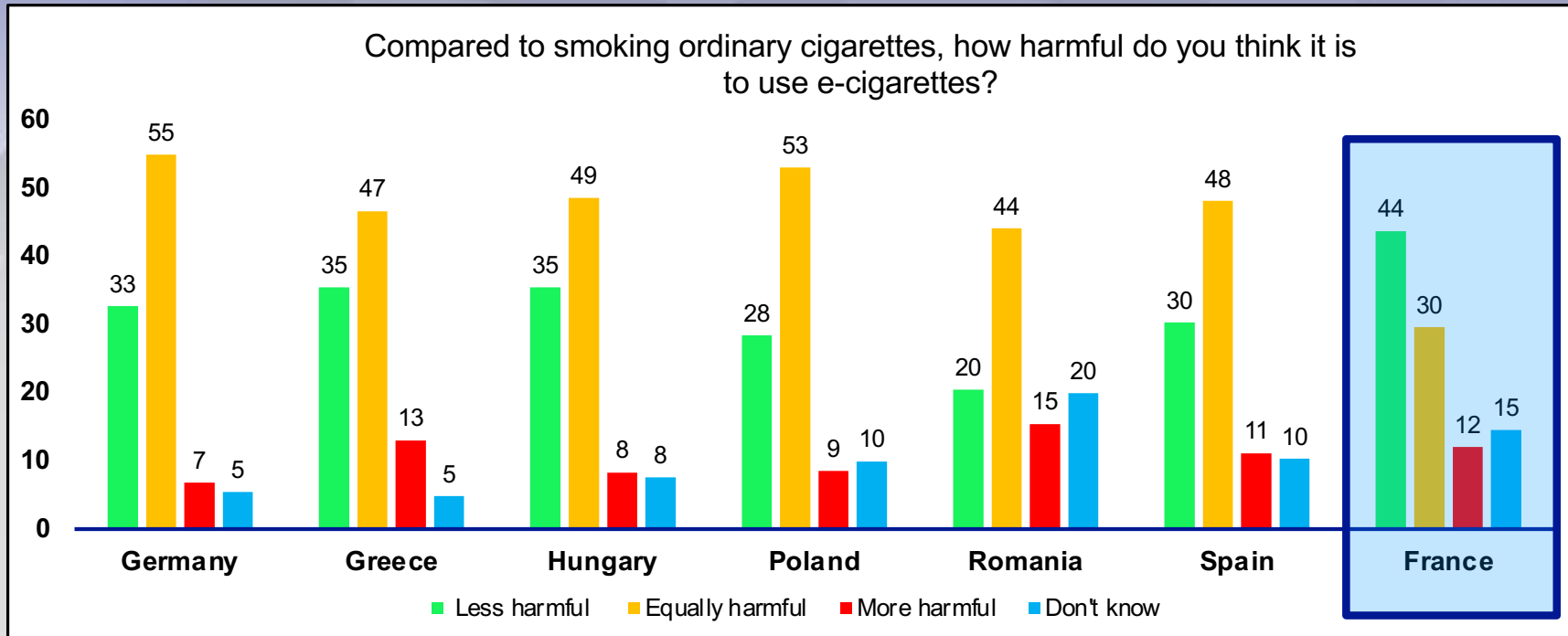


- Current adult (≥ 18 years) cigarette smokers (\geq monthly) who were aware of ECs were included.
 - Compared to smoking ordinary cigarettes, how harmful do you think it is to use e-cigarettes?
“less harmful”; “equally harmful”; “more harmful”; “don’t know”
 - How do you think it would affect the health of a smoker if they quit smoking cigarettes and switched completely to e-cigarettes long-term:
“improve health”; “no effect”; “make health worse”; “don’t know”
- Multinomial weighted regression
 - Adjusted for: sex, age, smoking frequency (daily vs. non-daily), current EC use (yes vs. no)

Sample Characteristics of Smokers in the 7 Countries

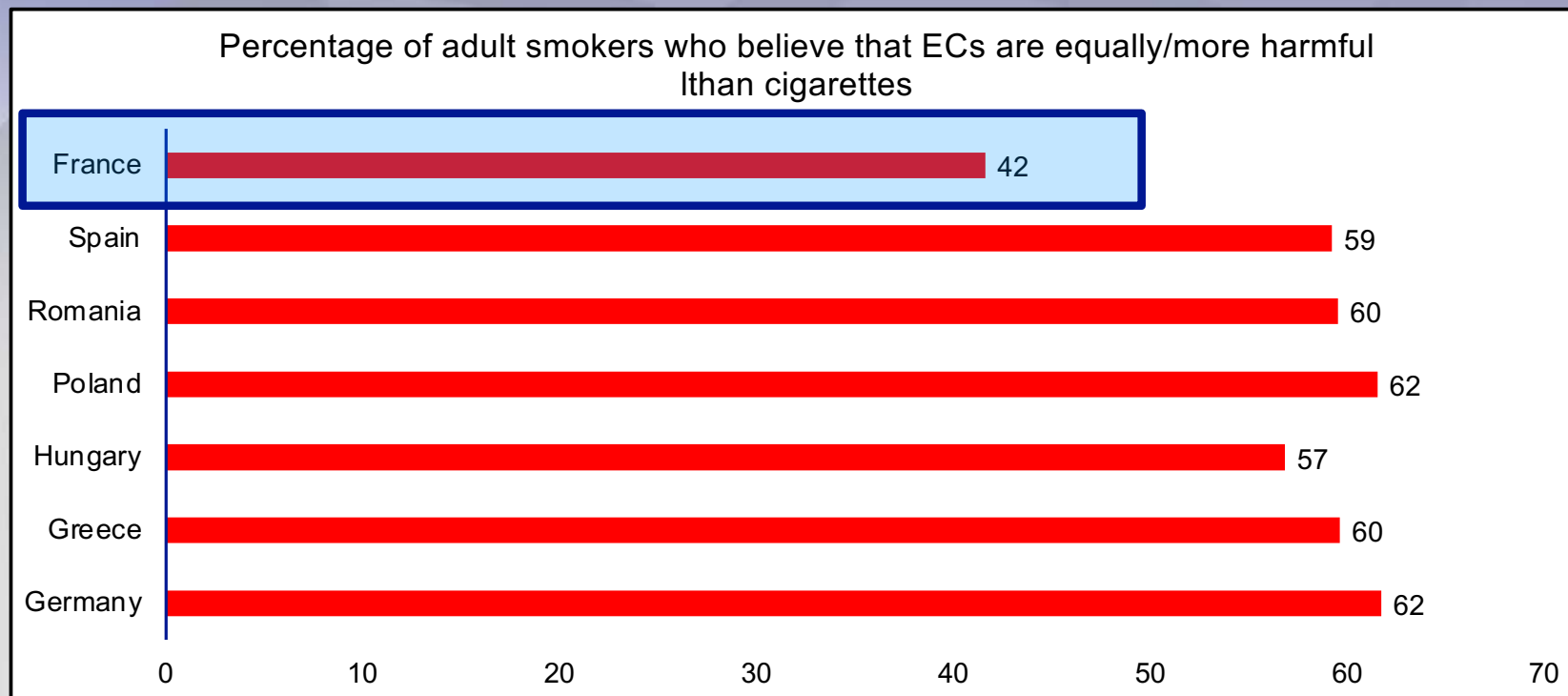
	France	Germany	Greece	Hungary	Poland	Romania	Spain
Sex							
Female	47.4	52.2	45.2	49.5	54.2	45.1	45.6
Age Group							
18-24	33.8	6.6	5.0	6.4	8.6	9.8	9.8
25-39	20.4	26.6	24.7	27.4	31.4	26.6	28.2
40-54	21.4	32.6	40.0	35.7	27.5	35.8	37.6
55+	24.5	34.2	30.3	30.5	32.4	27.8	24.4
Daily smoking	84.8	90.0	98.2	97.6	96.0	97.9	96.7
Aware of ECs	93.7	72.1	80.3	70.5	61.3	61.0	86.8

Relative harmfulness beliefs: ECs compared to cigs



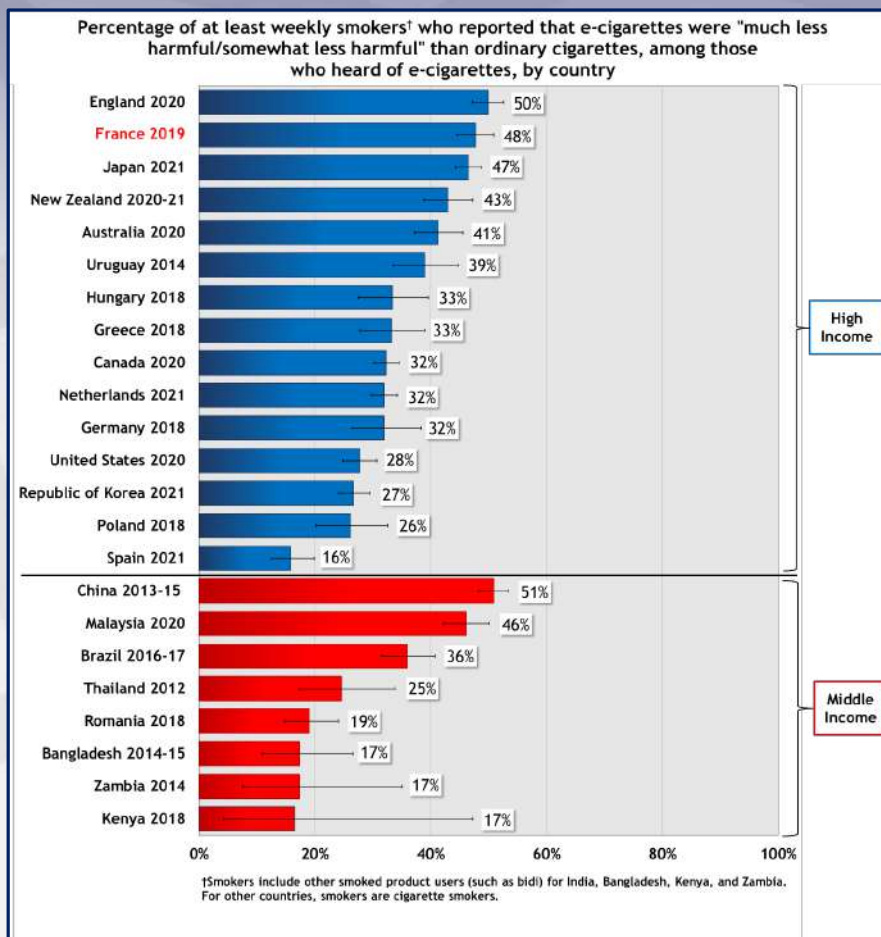
- The belief that ECs are less harmful than cigarettes was highest in France (44%), followed by Greece and Hungary (35%), Spain (30%), Germany (33%), Poland (29%) and Romania (20%)

% believing that ECs are equally or more harmful

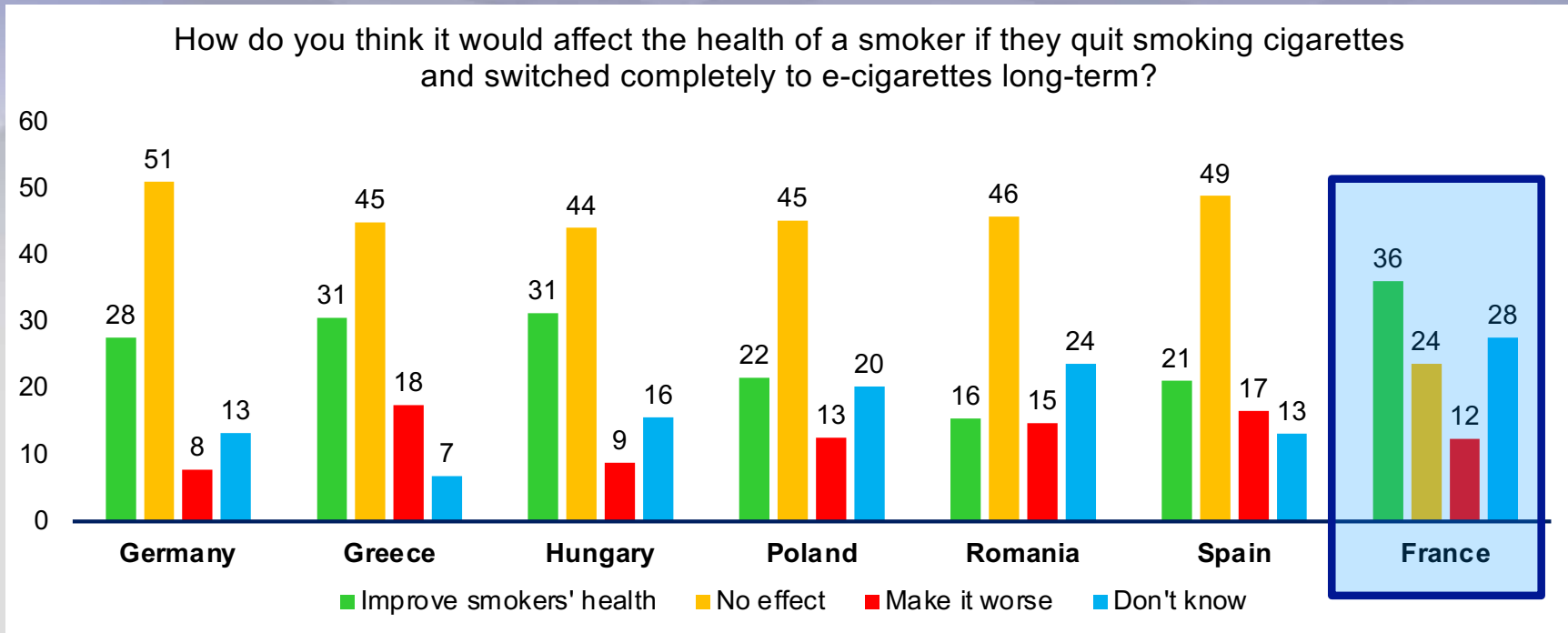


The majority of smokers in 6 of the 7 EU countries believe that ECs are at least as harmful as cigarettes, being highest in Germany and Poland (62%) and lowest in France, but still high (42%)

% believing ECs are less harmful in 23 ITC countries: 15 high-income and 8 low/middle-income



Results



- Nearly half of smokers believe that there would be no effect (except France at 36%); 1/2 to 2/3 believe that there would be no effect or that switching completely to vaping would actually **worsen** health (except France: 36%)
- Belief that completely switching from cigs to ECs improves health: highest in France (36%) lowest in Romania (16%)

Conclusions



- Although the long-term risks of ECs are not known, multiple reviews (e.g., US NASEM, PHE/OHID, Cochrane) have concluded that ECs expose users to fewer toxicants than cigarette smoking.
- The majority of smokers in 6 of the 7 EU countries, except for France, believed that ECs are as harmful as or more harmful than cigarettes.
- About half of smokers in 6 countries believe that **completely switching** from cigarettes to ECs would have **no effect** on health; 6-18% believe that switching completely from smoking to vaping would **worsen** their health. (12% in France)
- Many studies have shown a significant relationship between perceptions of harm and use of ECs. Thus, smokers who believe that ECs are as harmful or more harmful than cigarettes will be less likely to try to use or sustain use of ECs to quit smoking.
- Communication affects harmfulness perceptions (e.g., EVALI)

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