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Burden of outdated public health policies in Slovakia and Czechia:

...is there a way out?

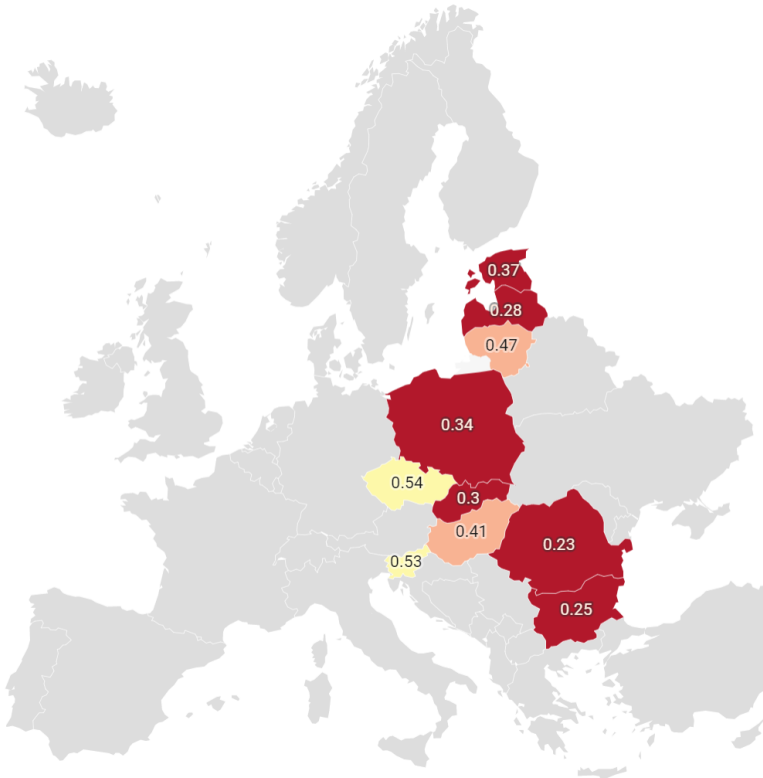
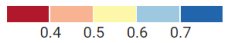
Wroclaw, 30.11.2022



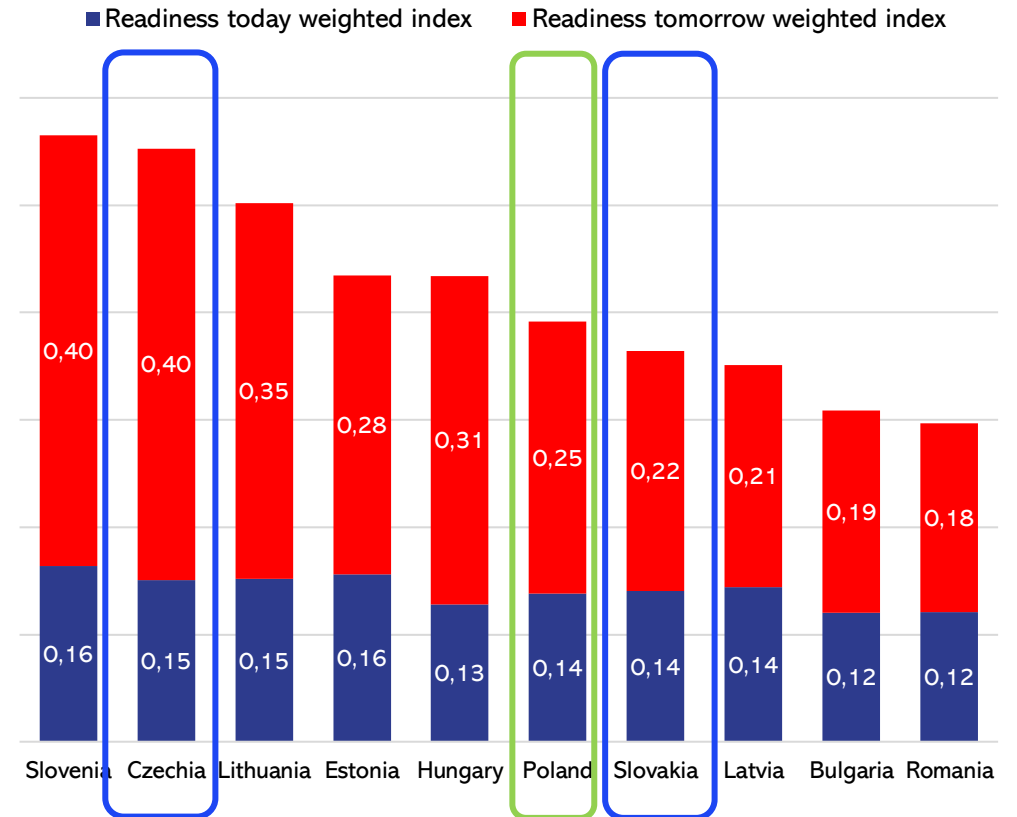
The pandemic highlighted the "fragility" of health systems...

GLOBSEC readiness index 2021:

Readiness index tomorrow 2021

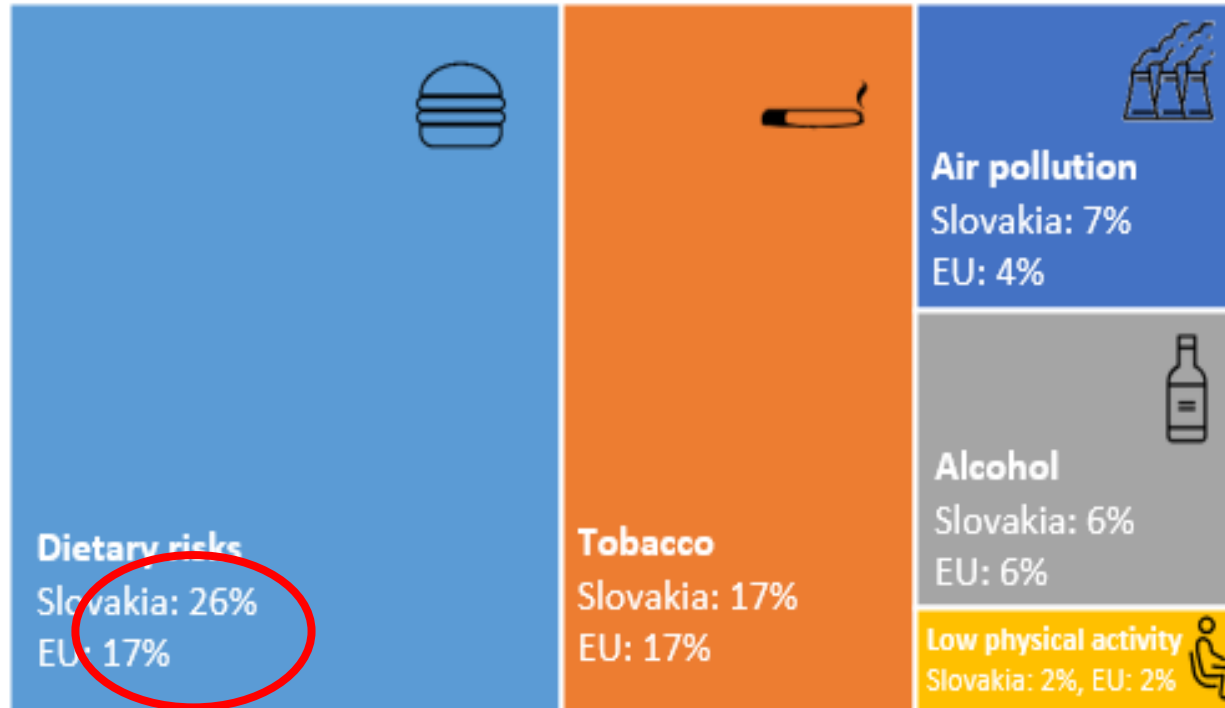


Overall results for CEE members for 2021





Behavioral / environmental factors affect more than 50% of deaths



Source: IHME (2020), Global Health Data Exchange (estimates for 2019).

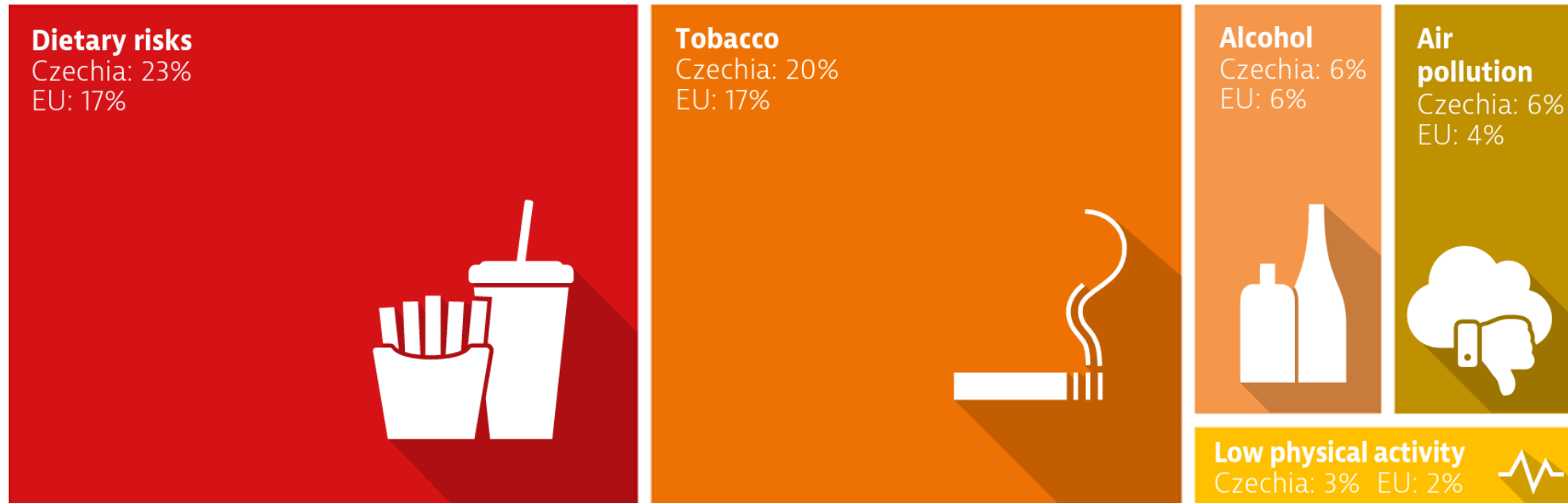
About **half of all deaths** in Slovakia in 2019 can be attributed to risk factors of behavior, such as:

dietary risks, tobacco smoking, alcohol consumption or low physical activity.

If Slovakia reached the average, we would avert about 4,000 deaths



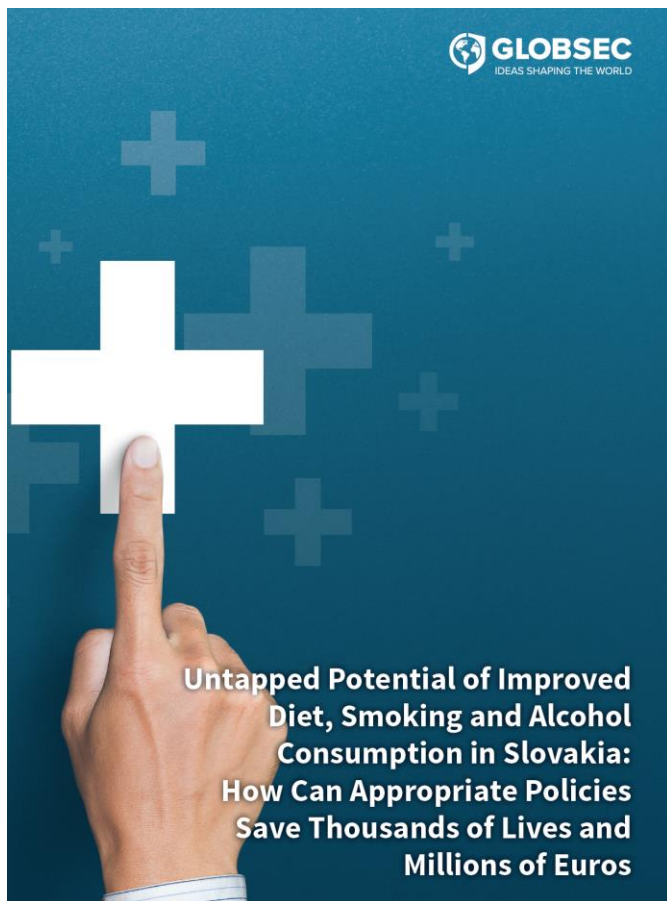
...and Czechia is not very different



Source: IHME (2020), Global Health Data Exchange (estimates for 2019).



Hence, we prepared a study that analyzed key factors for both Czechia and Slovakia...



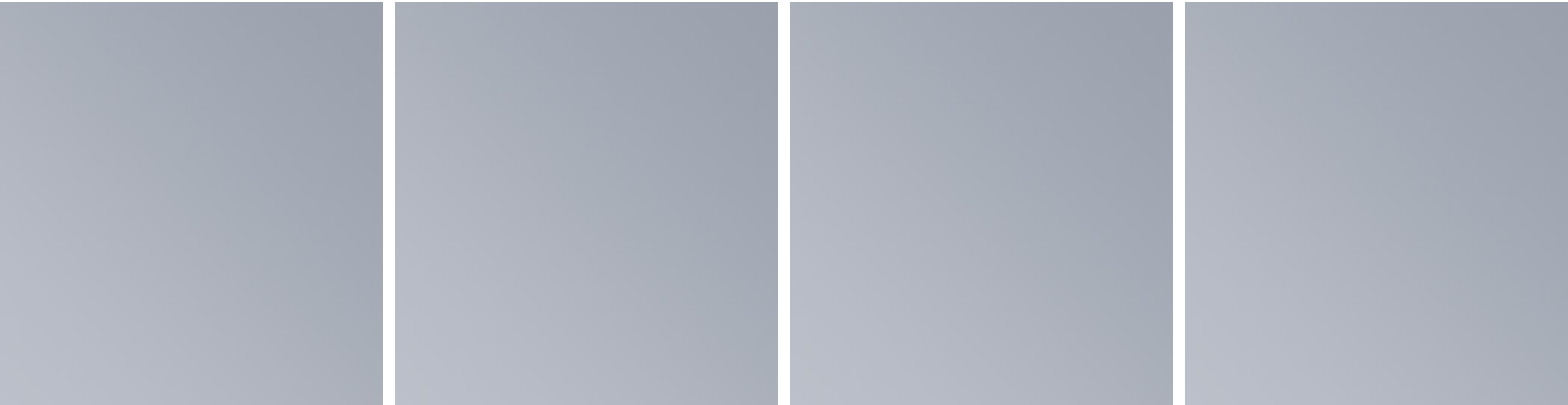
2021 (november)



2022 (september)

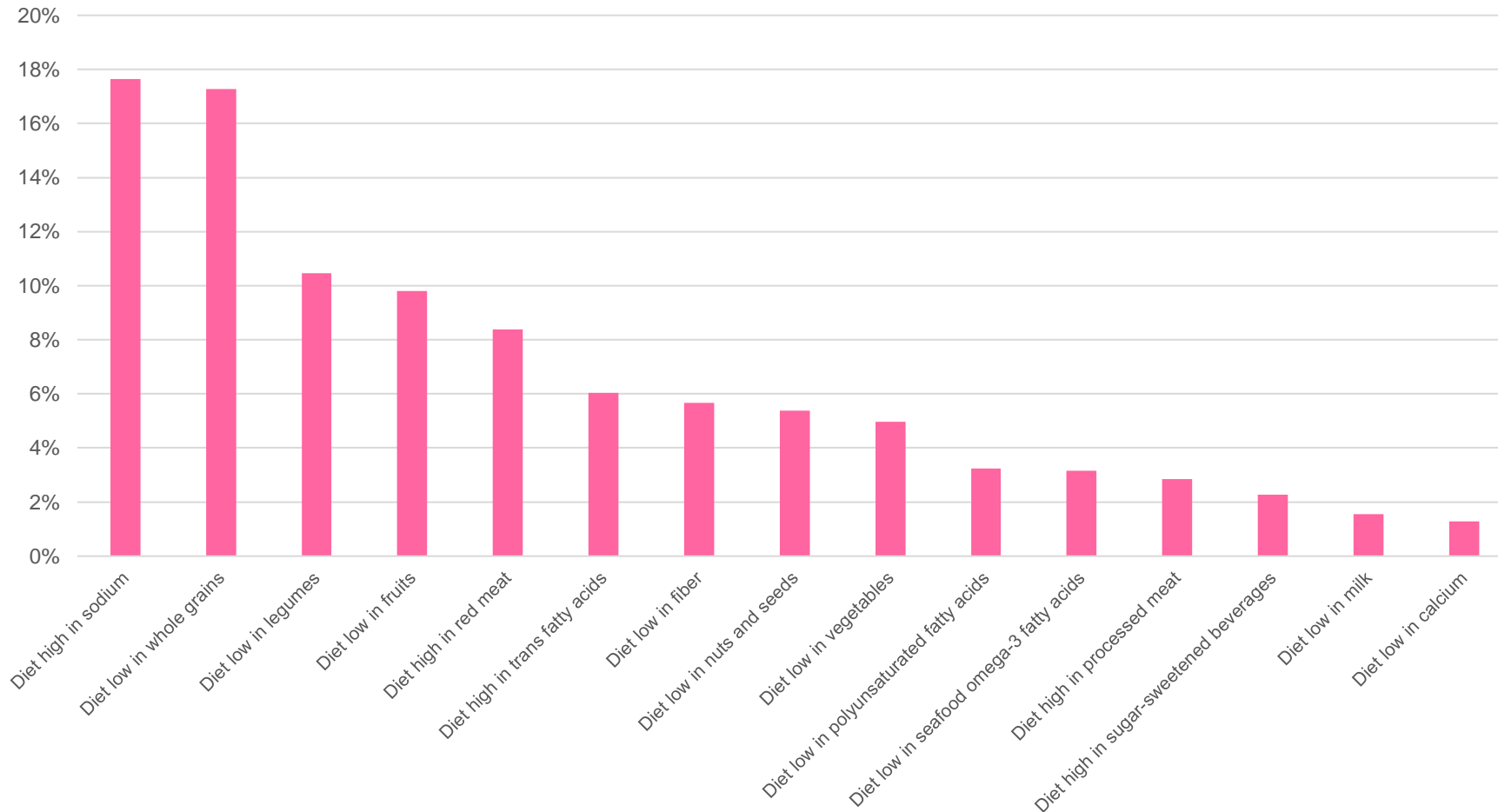


Dietary risk factors: „An apple a day, keeps doctor away?“





Bad diet causes more than 2 million deaths across Europe



Out of which:

18% salt consumption

17% low fiber diet

10% low consumption of legumes

10% low fruit consumption

8% high red meat consumption



Countries that are according to Bloomberg index TOP ...

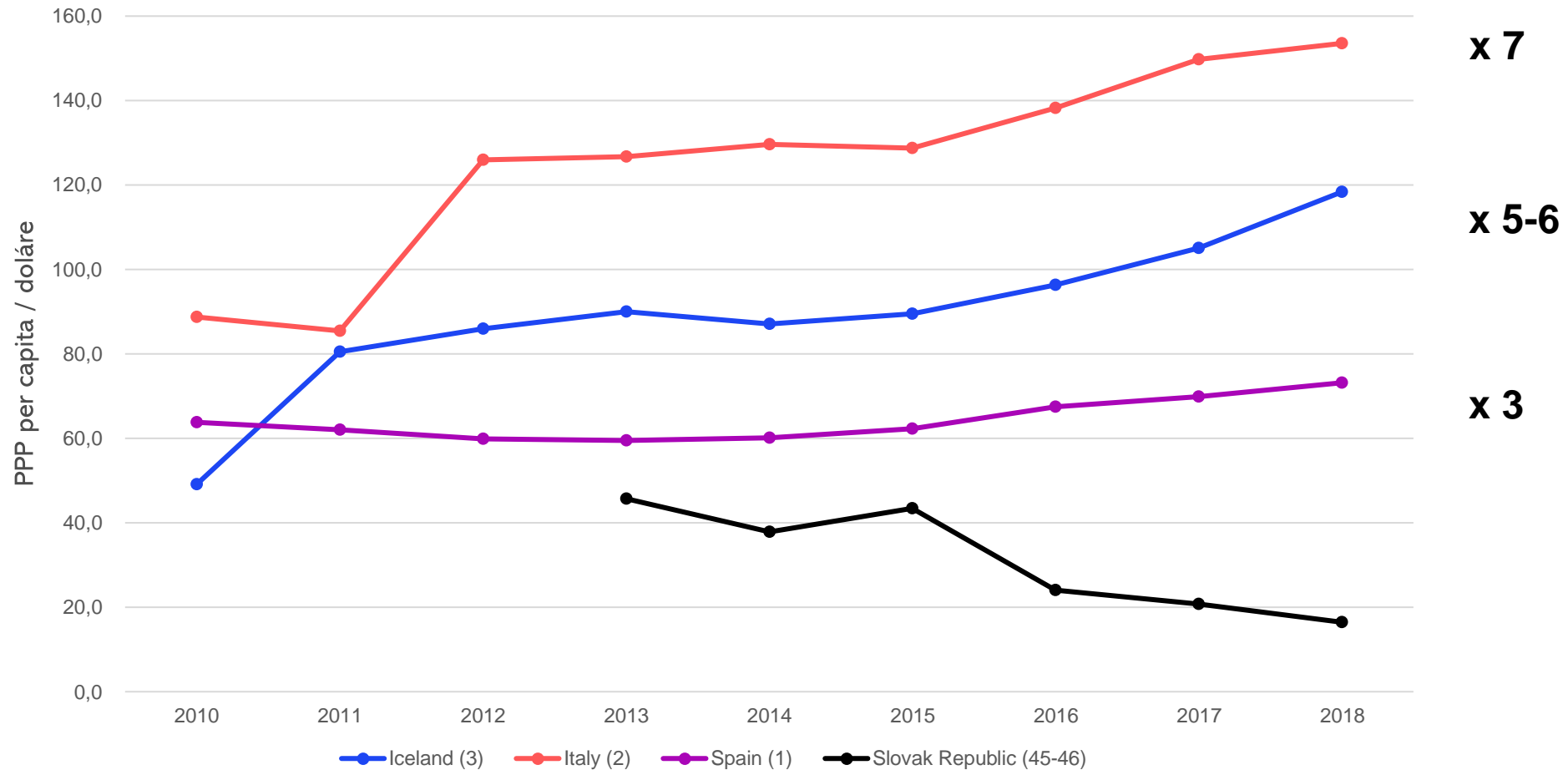
Bloomberg 2019 Healthiest Country Index

2019 Rank	2017 Rank	Change	Economy	Health Grade	Health Score	Health Risk Penalties
1	6	+5	Spain	92.75	96.56	-3.81
2	1	-1	Italy	91.59	95.83	-4.24
3	2	-1	Iceland	91.44	96.11	-4.67
4	7	+3	Japan	91.38	95.59	-4.21
5	3	-2	Switzerland	90.93	94.71	-3.78
6	8	+2	Sweden	90.24	94.13	-3.89
7	5	-2	Australia	89.75	93.96	-4.21
8	4	-4	Singapore	89.29	93.19	-3.90
9	11	+2	Norway	89.09	93.25	-4.16
10	9	-1	Israel	88.15	92.01	-3.86
11	10	-1	Luxembourg	87.39	92.03	-4.64
12	14	+2	France	86.94	91.70	-4.76
13	12	-1	Austria	86.30	90.81	-4.51
14	15	+1	Finland	85.89	90.18	-4.29
15	13	-2	Netherlands	85.86	90.07	-4.21
16	17	+1	Canada	85.70	90.31	-4.61
17	24	+7	S. Korea	85.41	89.48	-4.07
18	19	+1	New Zealand	85.06	89.68	-4.62
19	23	+4	U.K.	84.28	88.74	-4.46
20	22	+2	Ireland	84.06	89.57	-5.51



...have in common not only significant expenditures on prevention

Prevention spending as PPP / per capita in US dollars





But also dietary habits ...

Mediterranean diet, as part of a clinical trial of the PREDIMED project

Recommended	Goal
Olive oil	≥4 tbsp/day
Tree nuts and peanuts	≥3 servings/wk
Fresh fruits	≥3 servings/day
Vegetables	≥2 servings/wk
Fish (especially fatty fish), seafood	≥3 servings/wk
Legumes	≥3 servings/wk
Tomato and onion sauce cooked with olive oil	≥2 servings/wk
White meat	Instead of red meat
Wine with meals (optional)	≥7 glasses/wk
Discouraged	
Soda drinks	<1 drink/day
Commercial bakery goods, sweets, pastries	<3 servings/wk
Spread fats	<1 serving/day
Red and processed meats	<1 serving/day



What about dietary risk factors in Slovakia?



In short: awful

Country	Dietary factor	High blood pressure	High Cholesterol
Hungary	34	34	34
Slovakia	33	32	33
Turkey	32	30	30
Estonia	31	33	32
Poland	30	31	31
Czech Republic	29	29	29
Mexico	28	28	22
United States	27	18	23
Slovenia	26	27	16
Belgium	25	12	20
Portugal	24	24	7
Finland	23	25	28
Greece	22	26	26
Denmark	21	17	25
Ireland	20	22	24
Germany	19	21	27

Ranking of countries by DALY loss (OECD) **Slovakia is the second worst** ... after Hungary, **but Poland is not far**

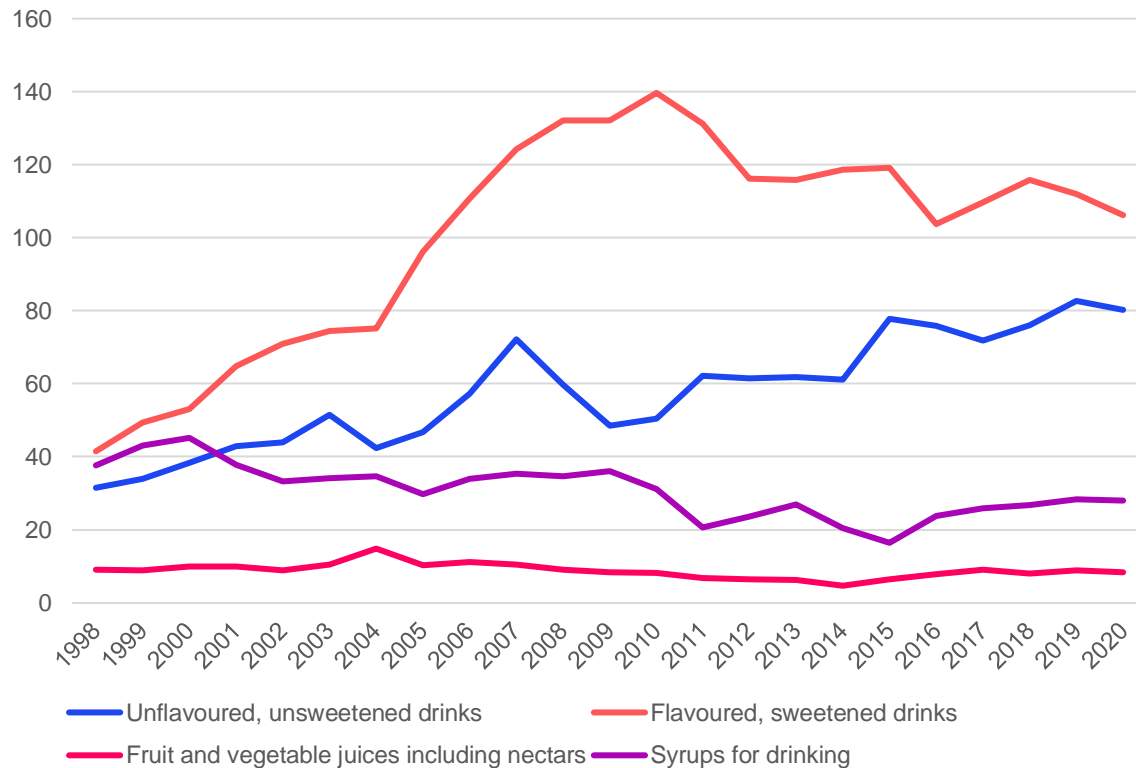
Primarily because of:

- High salt consumption
- Low fruit / fiber consumption
- High consumption of red meat
- Growing sugar consumption ...

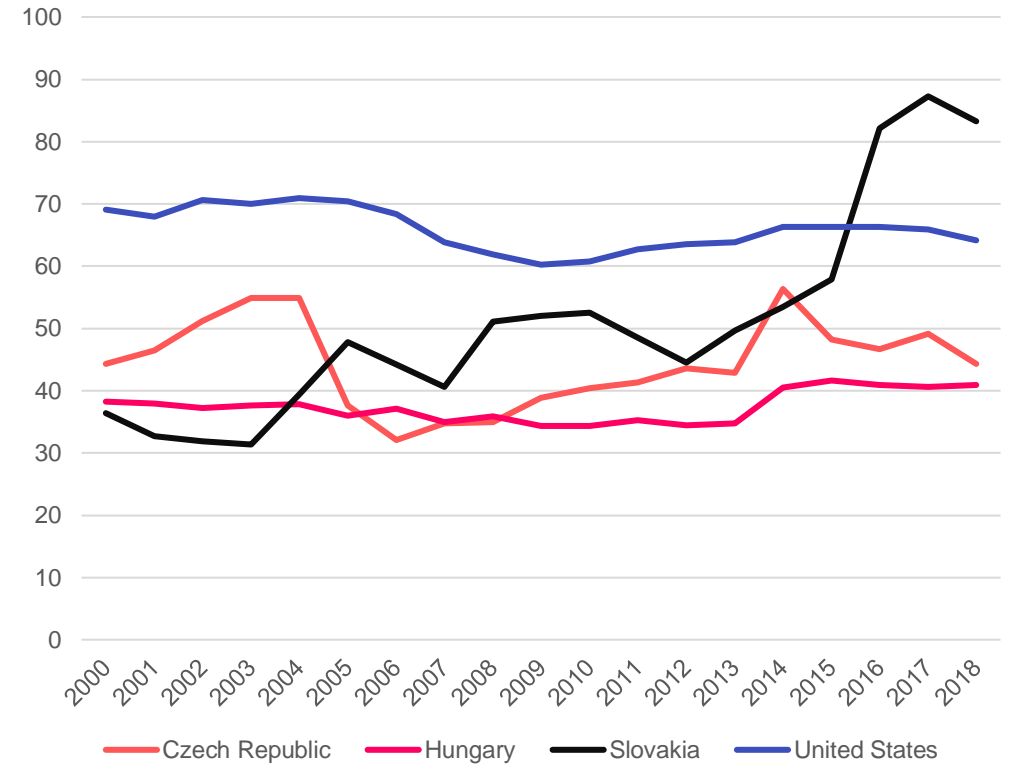


... and it does not seem to get better for Slovakia

Consumption of soft drinks in Slovakia per capita (litres)



Sugar consumption per capita (kg)





HOW SLOVAKIA COULD LOOK LIKE?



If we applied 4 measures, we would save 4 thousand. lives and 40 mil. EUR*

Policy	Reduction in relative risk of CVD	Estimated fewer CVD deaths in Slovakia	Estimated healthcare savings (mil. Euros)*
Trans fat bans	4.5%	1 206	12.6
Sodium reduction due to mandatory government reformulation	6.0%	1 608	16.8
SSB tax 30%	1.9%	509	5.3
Fruit and veg subsidy 10%	1.7%	456	4.8
SPOLU		3 779	39.5*

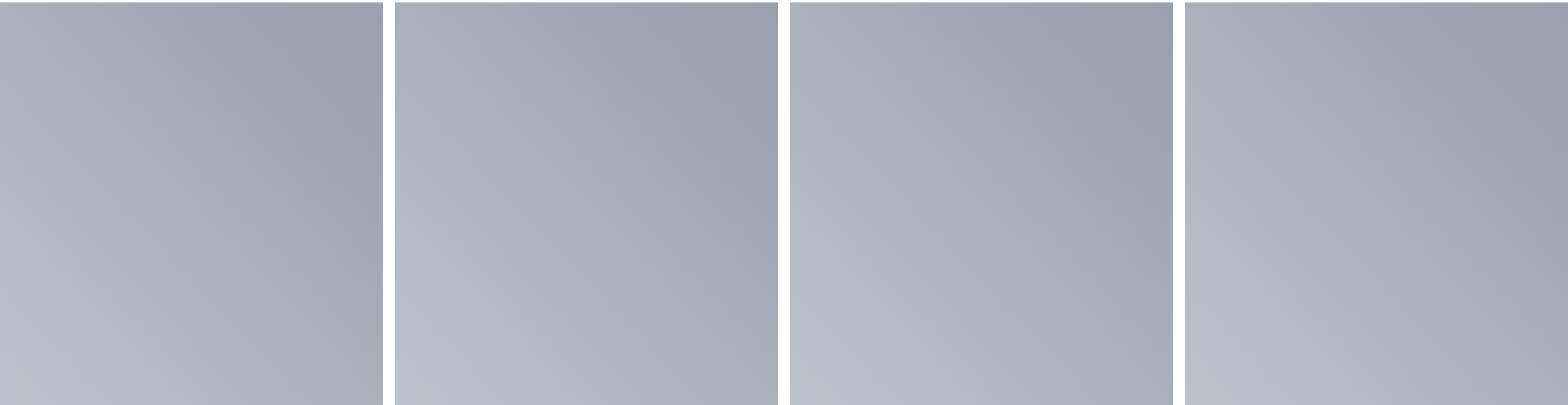


And Czechia would look similar (per capita, overall numbers are greater)

Policy	Reduction in relative risk of CVD	Estimated fewer CVD deaths in Slovakia	Estimated healthcare savings bil CZK
Sodium reformulation	6.0%	3 078	1.0
Trans fat bans	4.5%	2 308	0.8
SSB tax 30%	1.9%	975	0.3
Fruit and veg subsidy 10%	1.7%	872	0.3
SPOLU		7 233	2.4 (+- 100 mil. eur)



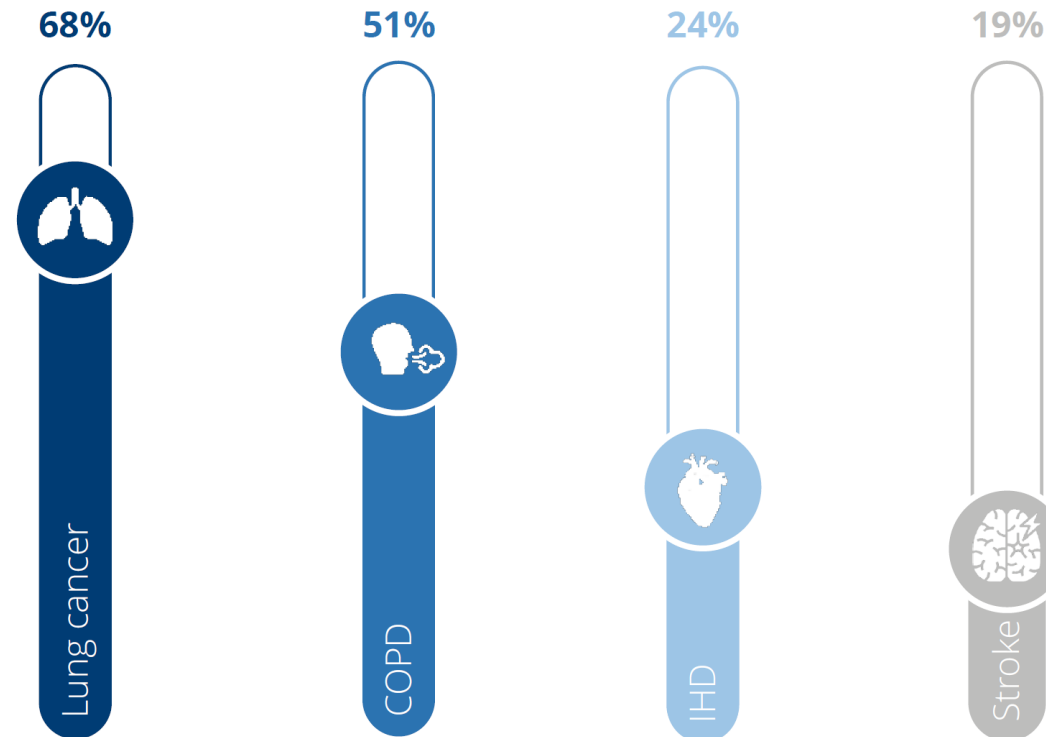
Smoking in Czechoslovakia: a little more, but a little better?





The relationship between smoking and health is known

„Population attributable fraction“ of smoking in Slovakia (2019)





The relationship between smoking and health is known

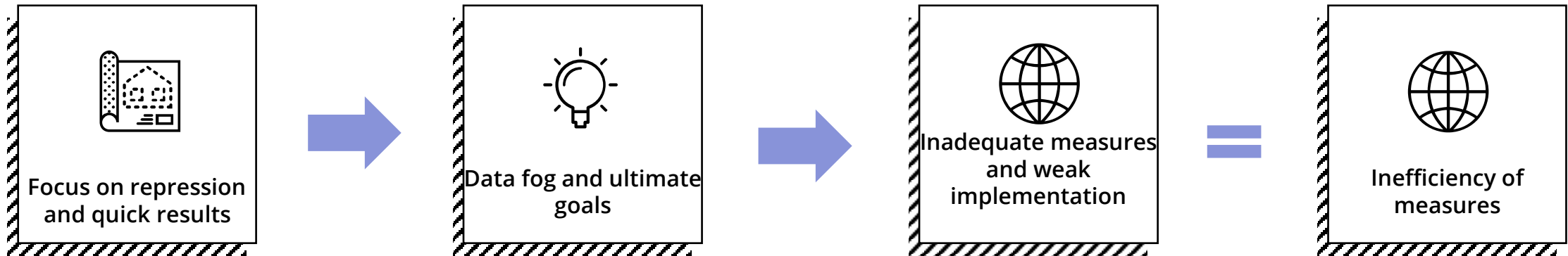
DALYs and the effects of diagnoses where tobacco is a risk factor

Disease	DALY (smoking)	Years of life lost	Years lived with disabilities
Lung Cancer	46 400 (31,140)	45 300	1 100
COPD	18 100 (9,790)	12 500	5 600
Ischemic heart disease	231 200 (45,350)	216 700	14 600
Stroke	76 300 (12,490)	71 200	5 100
Total	372 010 (98,770)	345 620	26 390



Tobacco policies are also a nice example of bad practices...

The three most common mistakes in the creation of public health policies:





1. Focus on repression and quick results

- State / government
 - Ministry of Health and Economy
 - Ministry of Education
- Health care payers
- Care providers
- The media
- Industry
- Surrounding countries and their policies
- Family and social relations



Influence the
behaviour of citizens

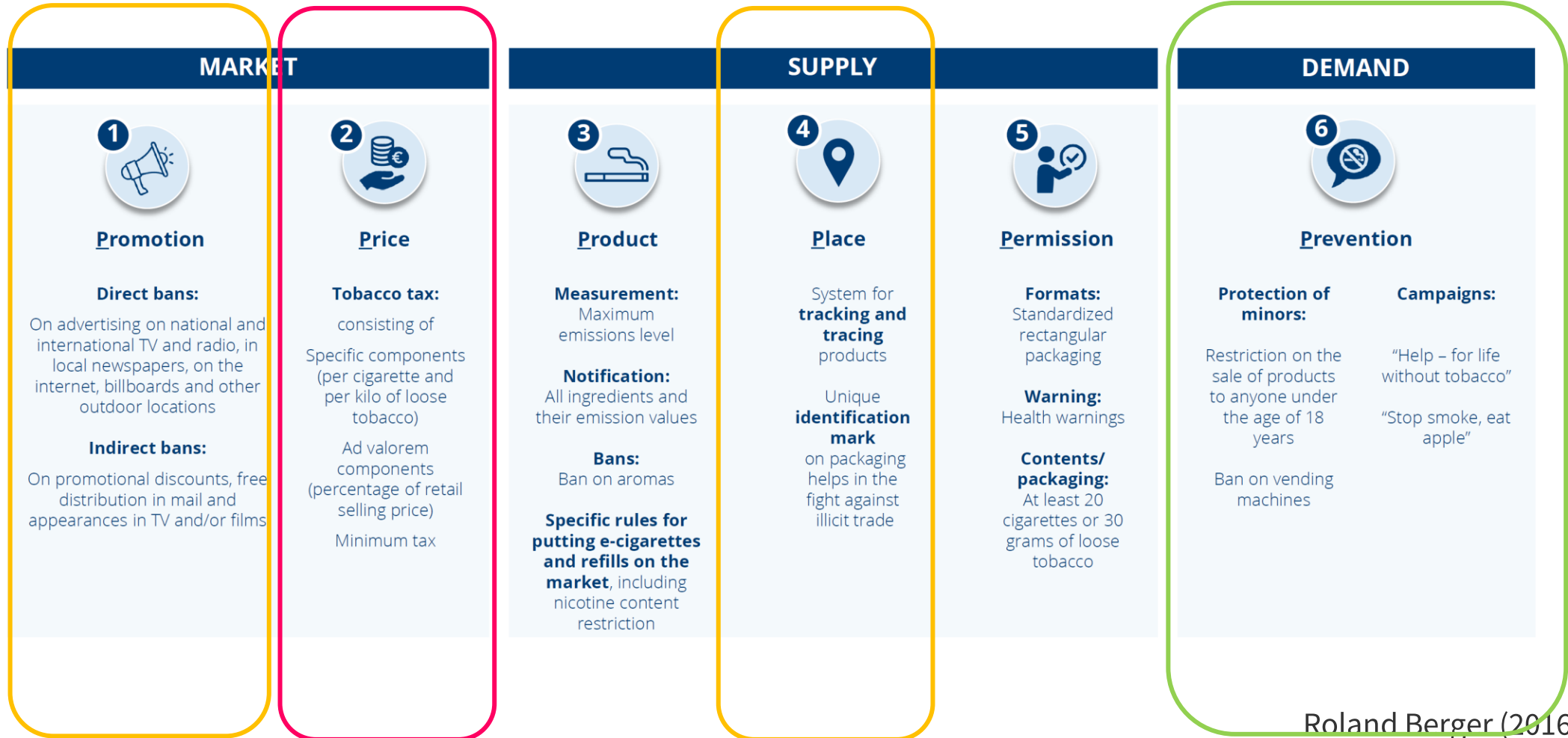


Every country has a mix of measures in the following areas...





... aimed primarily at repression through taxes / availability





However, if countries only focus on fiscal measures with the aim of quick "profits"“



... it ends up like in France, where after a sharp increase in taxes, the number of C&C increased by 30% in 2021

Cigarette consumption in France 2017 - 2020

Total manufactured cigarette consumption – 2017-2021⁽¹⁾⁽²⁾

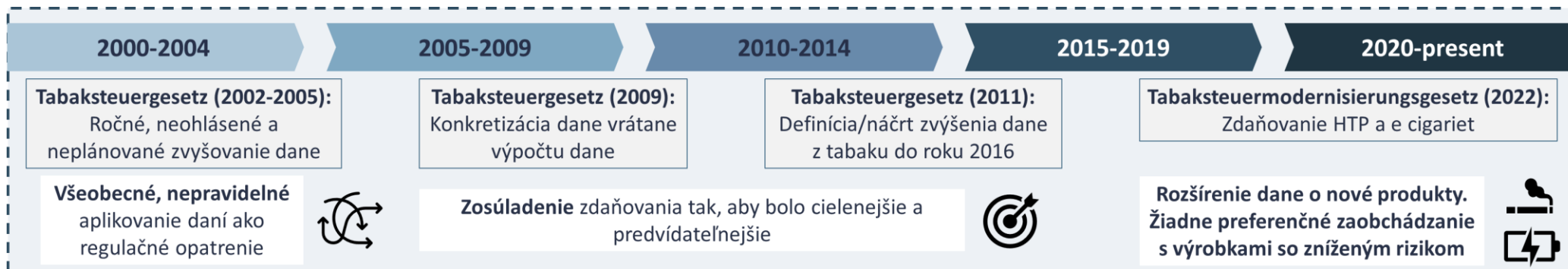
Total France Consumption

Billion cigarettes	2017	2018	2019	2020	2021	2020-21 (%)
Legal Domestic Sales (LDS)	44.37	40.23	37.21	35.82	33.48	(7%)
Outflows	(0.45)	(0.53)	(0.73)	(0.42)	(0.22)	(47%)
Legal Domestic Consumption (LDC)	43.92	39.70	36.48	35.40	33.26	(6%)
Non-Domestic Legal (ND(L))	6.71	8.02	8.57	3.69	3.14	(15%)
Counterfeit and Contraband (C&C)	7.61	7.84	7.16	11.74	15.13	29%
Total Non-Domestic	14.31	15.86	15.73	15.44	18.27	18%
Total Consumption	58.23	55.56	52.21	50.83	51.53	1%

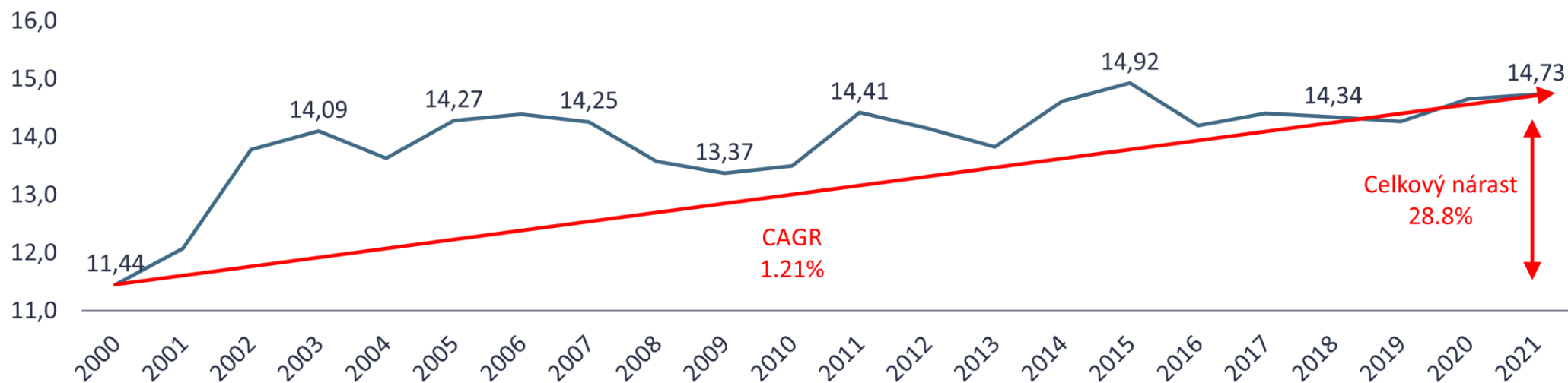
... and overall consumption continued to grow, but they lost 1.9bn in taxes



There are successful countries, such as Germany



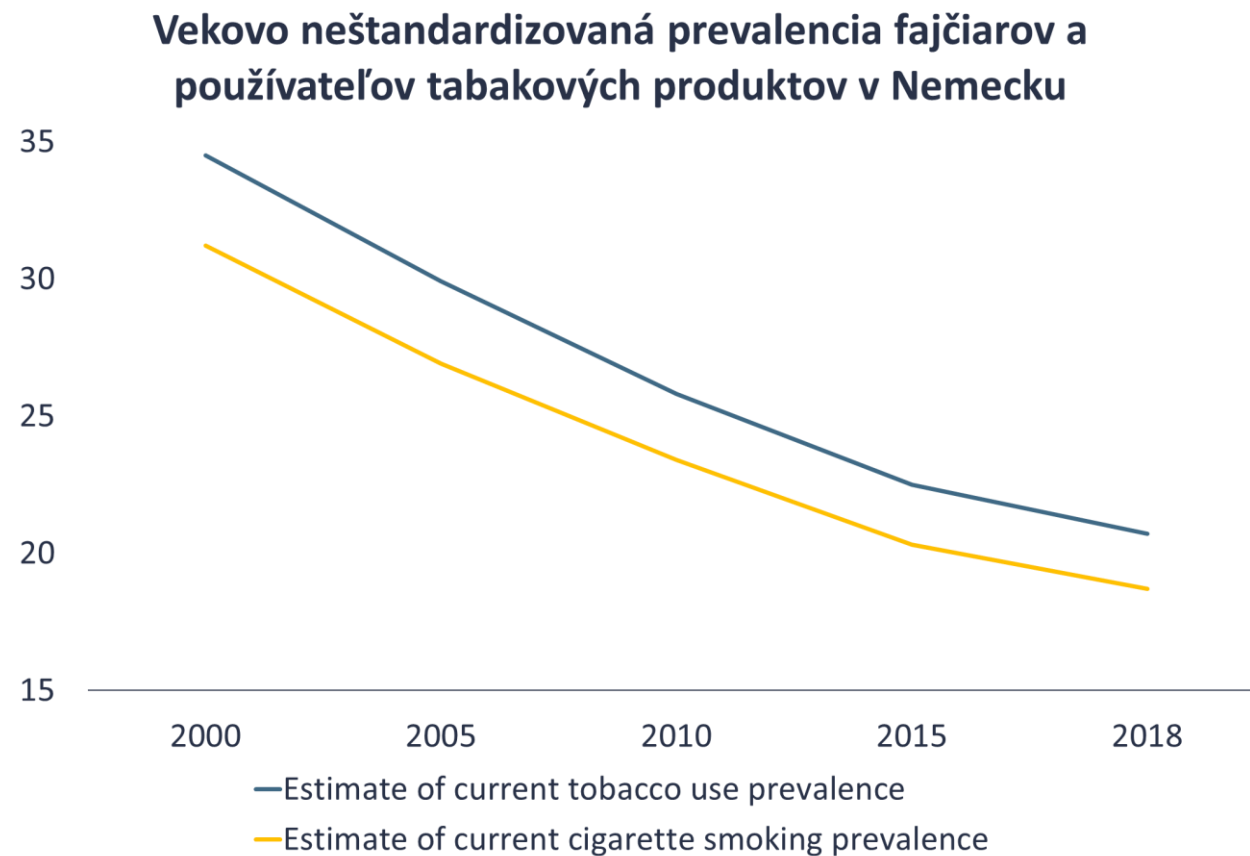
Ročný výnos dane z tabaku v mld. EUR



Zdroj: Statistisches Bundesamt (2022): Statistik über das Steueraufkommen. [Steuereinnahmen: Deutschland, Jahre, Steuerarten vor der Steuerverteilung](#); Pivot (2022)



Since 2000, the prevalence of smokers has decreased by 40% in Germany





How is it possible? Well, success is not just about these steps...





...it is influenced by all other players who impact all of us

- State / government
 - Ministry of Health and Economy
 - Ministry of Education
- Health care payers
- Care providers
- The media
- Industry
- Surrounding countries and their policies
- Family and social relations



Digital Quality and Outcomes Framework

[Welcome](#) | [Search for practice results](#)

[Understanding the results](#) | [Frequently asked questions](#) | [Glossary](#)

QOF 2020-21 results

The Quality and Outcomes Framework (QOF) is a voluntary annual reward and incentive programme for all GP practices in England, detailing practice achievement results. It is not about performance management but resourcing and rewarding good practice.

QOF

The QOF contains four main components, known as domains. The four domains are: Clinical; Public Health and Public Health – Additional Services and Quality Improvement. Each domain consists of a set of achievement measures, known as indicators, against which practices score points according to their level of achievement. The 2020-21 QOF measured achievement against 68 indicators; practices scored points based on achievement against each indicator, up to a maximum of 567 points.

- **Clinical:** consists of 57 indicators across 20 clinical areas (e.g. chronic kidney disease, heart failure, hypertension) worth up to a maximum of 386 points.
- **Public health:** consists of five indicators (worth up to 85 points) across three clinical areas – blood pressure, obesity 18+ and smoking 15+.
- **Public health – additional services:** consists of two indicators (worth up to 22 points) across one service area – cervical screening.
- **Quality improvement:** consists of four indicators (worth up to 74 points) across two areas – early cancer diagnosis and care of people with learning disabilities.

For accessibility purposes, all conditions/measures within public health and public health additional services are to be found under the one heading 'Public Health'.

The QOF gives an indication of the overall achievement of a practice through a points system. Practices aim to deliver high quality care across a range of areas for which they score points. The final payment is adjusted to take account of surgery workload, local demographics and the prevalence of chronic conditions in the practice's local area.

NHS Digital has developed this online database to allow patients and the public easy access to the latest annual QOF data. NHS Digital is working to make information more relevant and accessible to patients and the public, regulators, health and social care professionals and policy makers, leading to improvements in knowledge and efficiency.

Welcome page sections

- [Understanding the results](#)
- [Example of the results](#)
- [What this site can tell you](#)
- [What this site cannot tell you](#)

COVID-19

Due to the impact of the COVID-19 pandemic on activity in general practice, QOF implementation was changed for the 2020-21 reporting year. The majority of QOF indicators were income protected (i.e. payments were made to practices irrespective of activity recorded for indicators in 2020-21), to enable practices to direct resources towards COVID-19 response and targeting care at the most vulnerable and high-need groups. Further information on the income protection measures applied to QOF can be found on the NHS England and Improvement website.

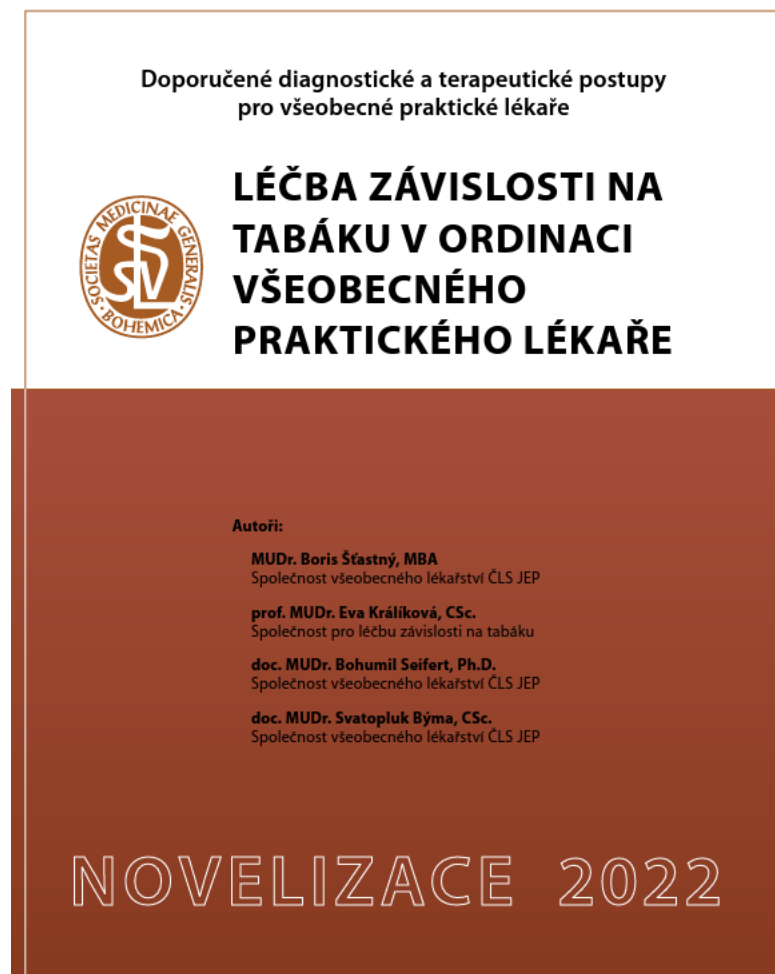
These changes mean that indicator data may be inaccurate for the 2020-21 reporting year, and comparisons with data from previous years would be misleading. Therefore, for the 2020-21 reporting year, this website includes prevalence data only; they are available in the .csv files included in the 2020-21 QOF publication.

Task list



...it is influenced by all other players who impact all of us

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 - Ministry of Health and Economy
 - Ministry of Education
- Health care payers
- **Care providers**
- The media
- Industry
- Surrounding countries and their policies
- Family and social relations





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2. Data fog and (3) inadequate (outdated) measures



Health prevention: opportunities for impact using behavioural science

An evidence and ideas note from The Behavioural Insights Team
December 2020

Executive summary

The biggest causes of ill health

According to the global burden of disease study, **tobacco smoking and unhealthy diets remain the UK's greatest contributors to years of healthy life lost**, respectively accounting for more than 2 million and 1.5 million disability-adjusted life years (DALYs).

Whilst smoking rates have halved over the last 35 years, **smoking still causes over 78,000 deaths a year** and is the leading cause of preventable illness and premature death in England.¹ **Over 60% of adults are overweight or obese**; in the last 30 years, rates of adult obesity have almost doubled (to 29%), and morbid obesity has quadrupled (to 4%).² 1 in 3 children aged 10 to 11 are now overweight or obese, and we know that obese children are five times more likely to become obese adults.³

The screenshot shows the CDC website page for "Smoking & Tobacco Use". The page is titled "National Youth Tobacco Survey (NYTS)". It includes a search bar at the top right, a navigation menu on the left, and a main content area with a list of survey goals. The CDC logo and name are visible at the top left of the page.

Smoking & Tobacco Use

Home > Data and Statistics > Surveys

National Youth Tobacco Survey (NYTS)

The National Youth Tobacco Survey (NYTS) datasets are available for public use, so that researchers and public health managers can explore the data in detail. In addition, states can compare their estimates of prevalence of youth tobacco use with national data.

The NYTS was designed to provide national data on long-term, intermediate, and short-term indicators key to the design, implementation, and evaluation of comprehensive tobacco prevention and control programs. The NYTS also serves as a baseline for comparing progress toward meeting selected *Healthy People 2030* goals for reducing tobacco use among youth:

- **TU-04** – Reduce current tobacco use in adolescents
- **TU-05** – Reduce current e-cigarette use in adolescents
- **TU-06** – Reduce current cigarette smoking in adolescents
- **TU-07** – Reduce current cigar smoking in adolescents
- **TU-08** – Reduce current use of smokeless tobacco products among adolescents
- **TU-09** – Reduce current use of flavored tobacco products in adolescents who use tobacco
- **TU-22** – Reduce the proportion of adolescents exposed to tobacco marketing

On This Page

[Historical NYTS Data and Documentation](#)



Harm reduction policies are a nice example of policy measures that have a potential, also based on data, but...

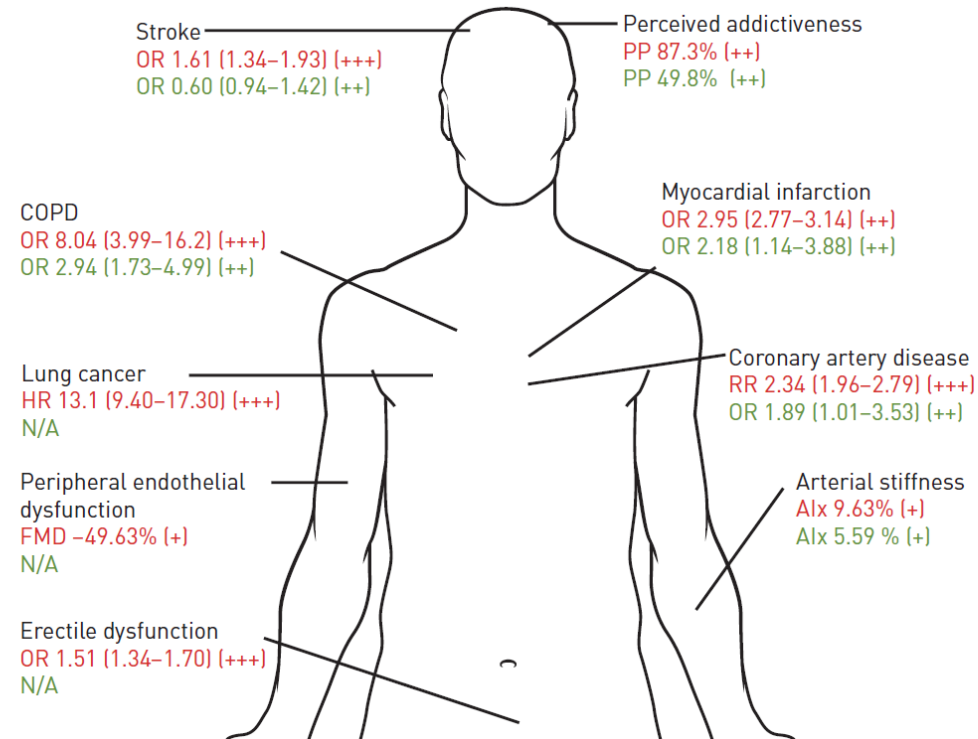


Figure 3. Hazard ratio (HR), odds ratio or adverse effects (%) for smoking-associated health risks (shown in red) or vaping-associated health risks (shown in green) or complications based on selected representative studies. The level of evidence is indicated: +++: strong; ++: good; +: medium. PP: proportion of participants; RR: risk ratio; Alx: augmentation index; FMD: flow-mediated dilation; N/A: not available. Reproduced and modified from [54] with permission.



If we were to replace / reduce the consumption of standard products in Slovakia (Czechia is proportionally similar)

Disease	DALYs lost, today	DALYs lost, 100% switch	DALYs lost, Full cessation
Lung Cancer	46,400	24,600 (21,790)	15,250 (31,140)
COPD	18,100	11,240 (6,850)	8,300 (9,790)
Ischemic heart disease	231,200	199,490 (31,730)	185,870 (45,350)
Stroke	76,300	67,570 (8,740)	63,820 (12,490)
Total	372,010	302,900 (69,110)	273,240 (98,770)



...we could save countless lives as well as millions of EUR*

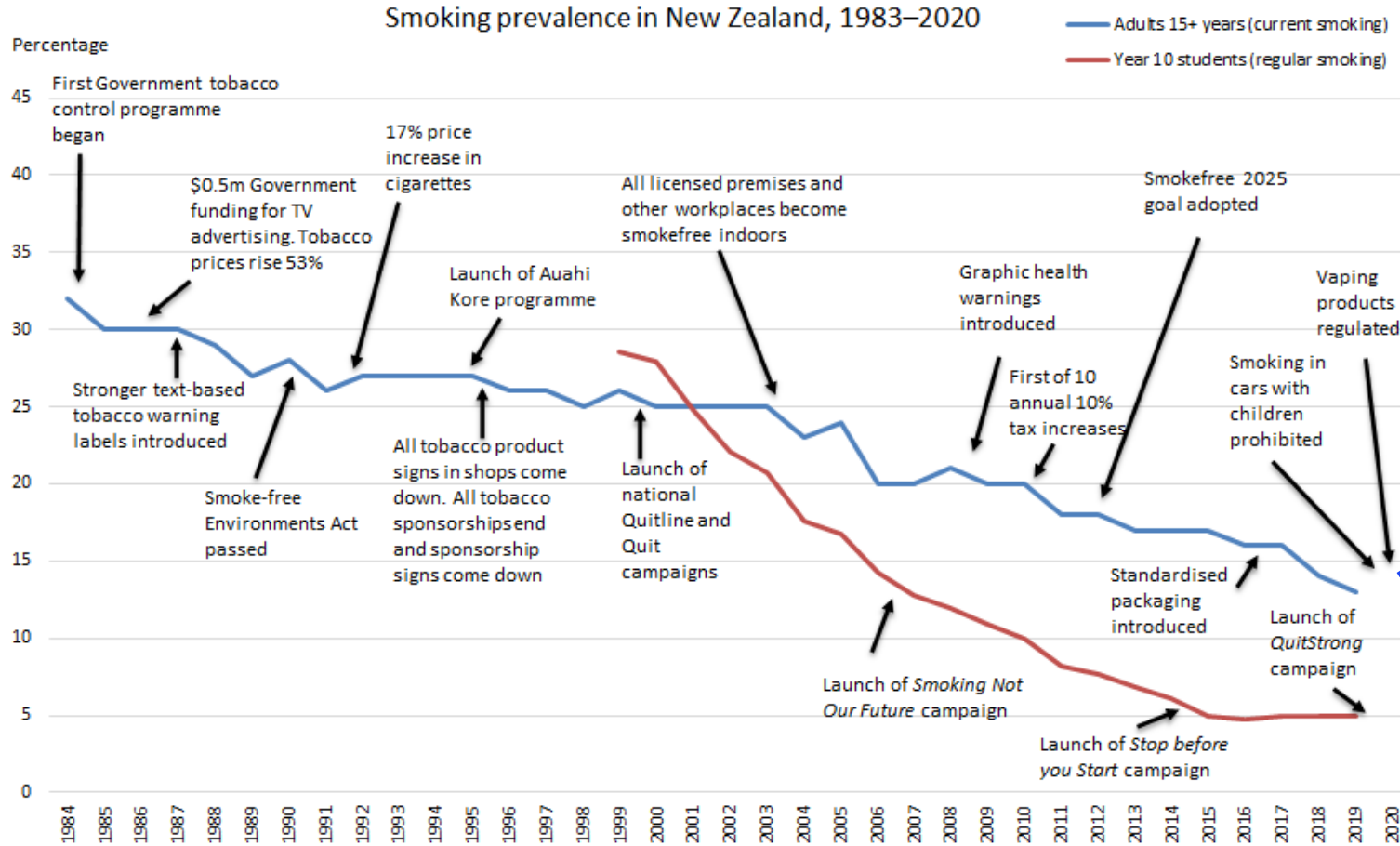
Disease	Savings from 50% switch in mil. EUR	Savings from 100% switch in mil. EUR	Savings from full cessation in mil. EUR
Lung Cancer	1,090 – 1,340	2,190 – 2,670	3,140 – 3,840
COPD	2,135 – 2,600	4,270 – 5,220	6,100 – 7,460
Ischemic heart disease	1,360 – 1,660	2,700 – 3,310	3,890 – 4,750
Stroke	9,850 – 12,000	19,700 – 24,000	28,100 – 34,400
Total	14,450 – 17,650	28,850 – 35,300	41,300 – 50,450



Do we need alternative approaches?



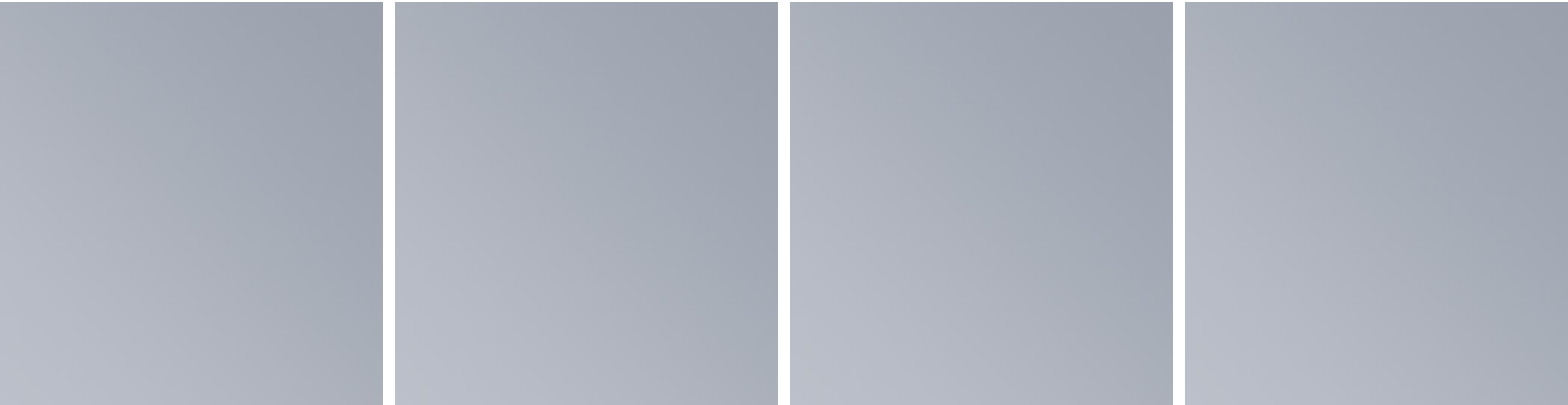
Yes, because even the best in class, New Zealand...



But what can we do about „adult smokers“?



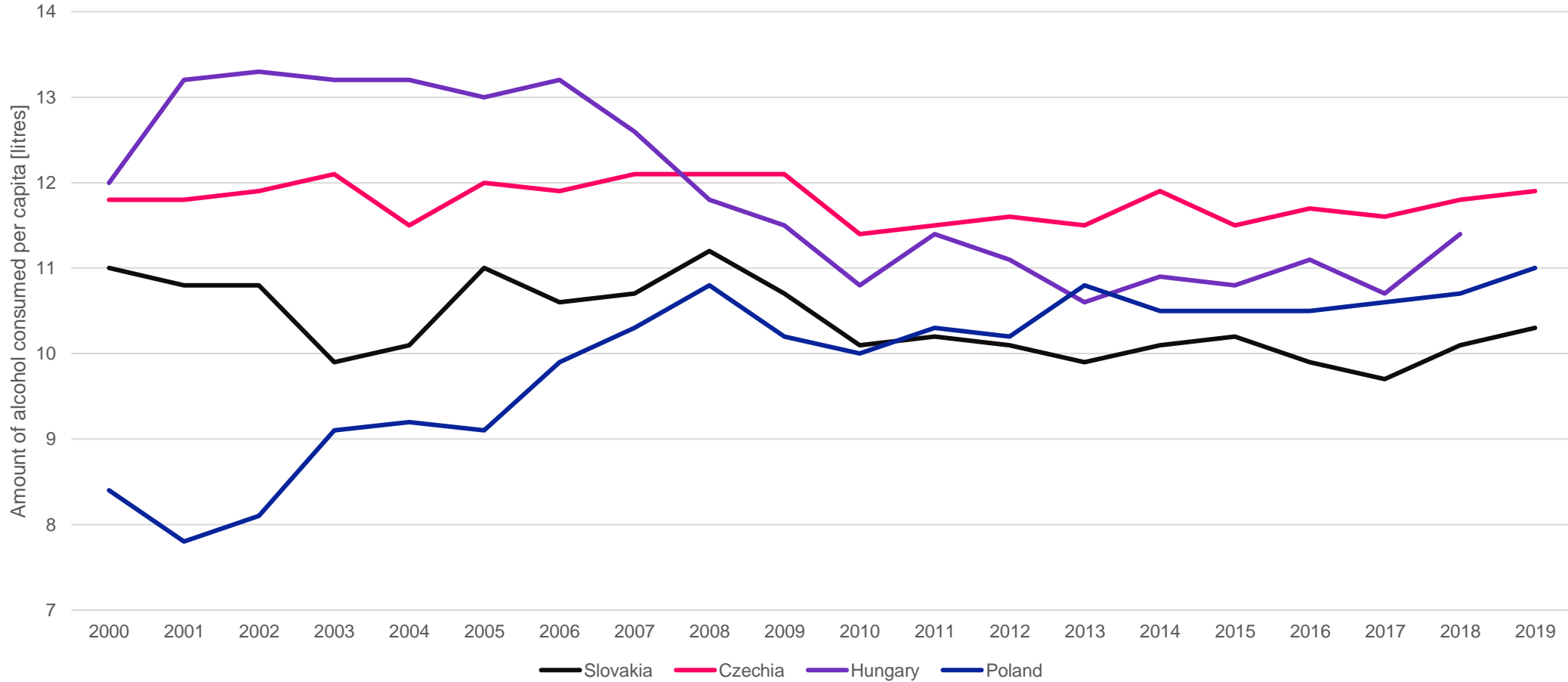
Alcohol: are we ashamed of drinking?





Alcohol consumption is lower compared to V4 countries ...

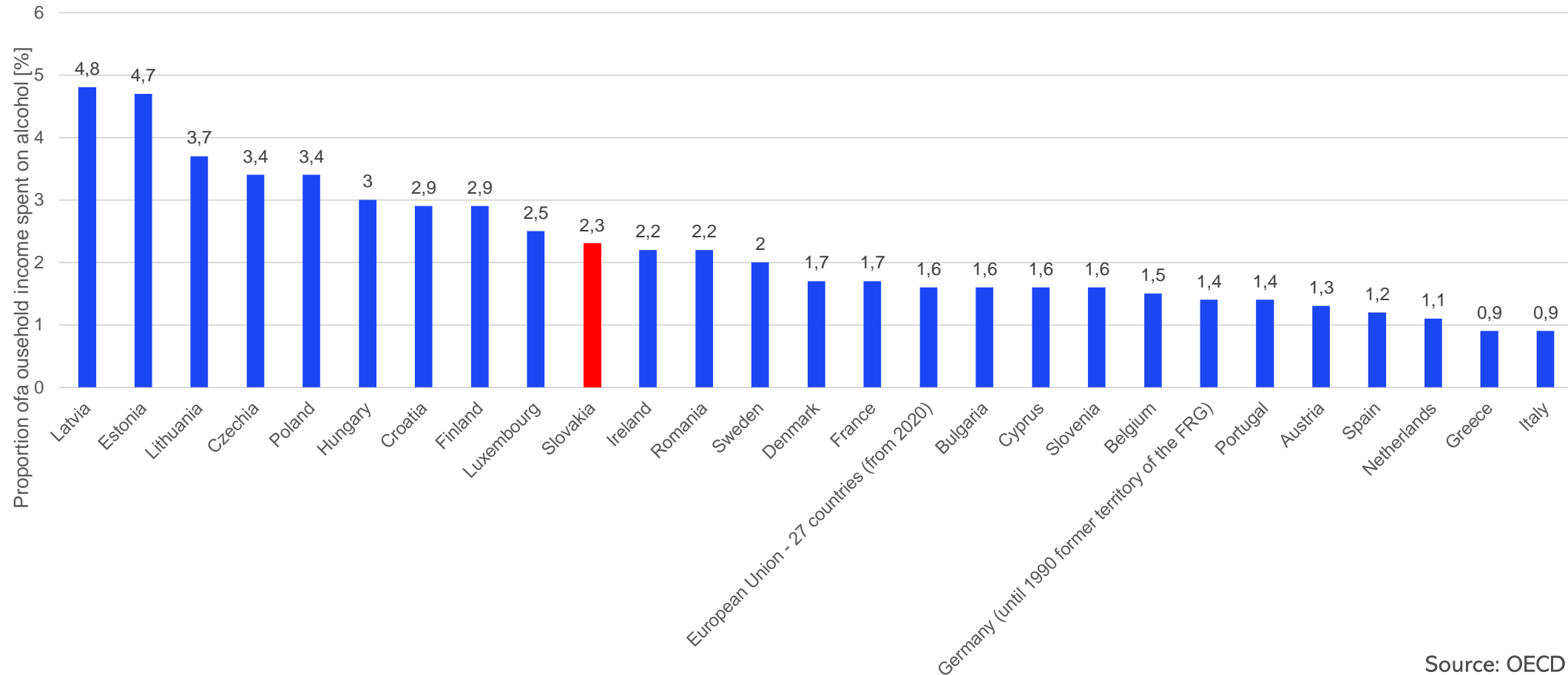
Alcohol consumption per capita (15 rokov+ in litres)





... however, a more detailed analysis will reveal slightly different picture

Share of household expenditure on alcoholic beverages in the EU





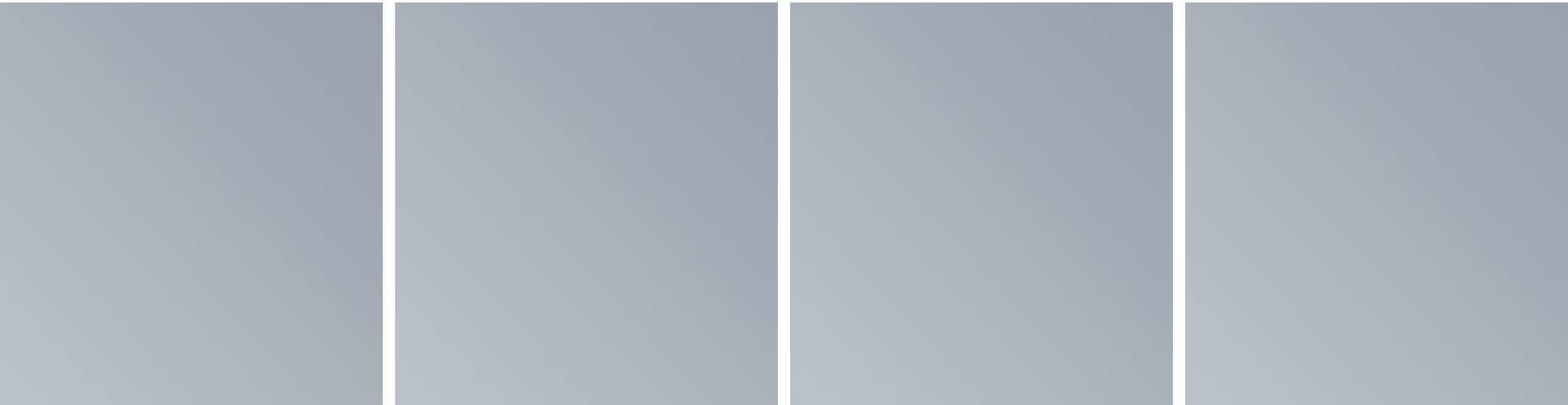
Compared to the "most effective" countries, Slovakia could:

The three most effective policies that are relatively enforceable in Slovakia are:

- promotion of less harmful substitutes or alcoholic beverages with lower amounts of alcohol,
- restriction of alcohol sales after 22:00
- raising the drinking age limit to 21 years with stricter enforcement.



What should Slovakia and Czechia do next? Is there a way out?





Yes, the key is addressability, not the quantity of measures

The key findings of both studies are::

- A pandemic and a lack of staff and resources will put significant pressure on the availability of care
- Almost half of deaths in Slovakia and Czechia are affected by factors that can be effectively eliminated.
- **We could avert more than 10 000 deaths and tens of thousands of lost years of quality life.**
- **The savings would conservatively reach 250 mil. EUR***
- **Slovakia and Czechia have many measures. Most of them have not been historically analyzed** since their introduction. However, most effective policies and measures are beyond the reach of the Ministry of Health of the Slovak Republic and require not only a professional but also a political agreement.
- **The governments need to accept up-to-date data and regularly analyse impact of policies and our goal is to open** a debate and finalize a workable proposal (january 2023) for Slovakia and a support good debate in Czechia



Thank you



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