State of HEALTH in Central & Eastern Europe 2023

dentsu

Every Brand Will Be a Health Brand

Though the Iron Curtain crumbled over three decades ago, it still exists metaphorically in health.

A striking disparity persists when examining health data across Western vs Central & Eastern Europe. While some countries in the CEE region excel in certain health indicators, others consistently find themselves at the bottom of European health charts. Unlocking the potential for betterment demands a multifaceted approach.

As we head towards the year 2030, health emerges as the true wealth of nations. With more leisure time and financial resources at their disposal, individuals will increasingly prioritize self-care and seek professional health services.

> **Every brand must evolve into a health brand to remain relevant and responsive to the growing demand of better health across Central & Eastern Europe.**

Healthcare spending as a share of GDP in CEE remains modest, resulting in considerable suffering from largely preventable and treatable illnesses.

At our core, we at dentsu are driven by an commitment to people-centricity, enabling us to discern the nuances of human behavior for the benefit of our esteemed clients.

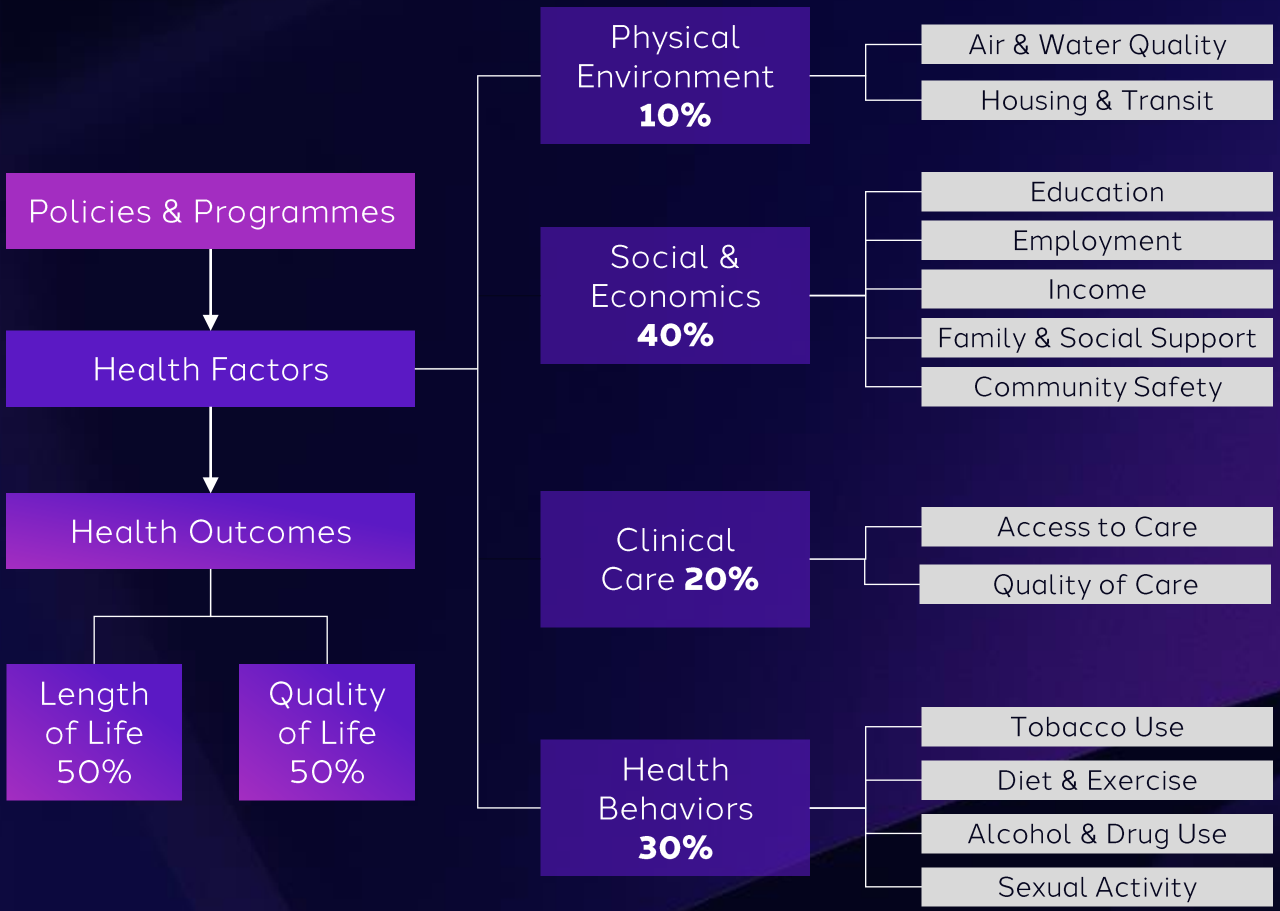
We see the significance of mental health, viewing it on par with physical health; even in the form of providing our staff 3 days a year to focus solely on their mental wellbeing. Encumbered by a lingering stigma, mental health issues ought not to be dismissed or overlooked. We at dentsu are also a health brand.

Additionally, our comprehensive exploration extends to individuals' attitudes toward self-care, self-medication, and over-the-counter (OTC) medicines. Notably, the number of Health Managers, who take a proactive approach to their well-being, opting for increased medication as the solution, is rapidly rising. With the continuous increase of eHealth solutions, self-quantification and vitality tracking, **patients are more and more becoming customers** seeking solutions to further their health, not ailments to illness.

Such insights enable us to refine our strategies and adapt to the evolving landscape.

In keeping with our forward-looking ethos, we scrutinize the prospects of telemedicine across the CEE regions. While some countries have raced this paradigm shift eagerly, others are still apprehensive.

To navigate the complex landscape of health across Central & Eastern Europe, our dentsu professionals offer expertise in all CEE markets.



What influences the experience of health on a personal level

80% of an individual's health outcomes are influenced by social determinants of health, such as education quality, housing, nutrition, employment, and the environment.

The pandemic emphasized the importance of exploring non-traditional healthcare partnerships. During the pandemic, common stressors like employment, income, family, and community issues were all at risk.

A County Health Ranking Model from the University of Wisconsin emphasizes that clinical care plays a minor role in overall health, while social and economic factors account for over 40% of the impact.

This is why in this paper we take a wide look at health across CEE, talking about OTC medicines, happiness, and governmental structures around health.

Source: County Health Ranking Model @2-14 UWPHI

CONTENT

SELF-CARE & OTC MEDICINES

How people in CEE have changed in their attitudes towards over-the-counter medication and dietary supplements.

Scale of attitudes towards self-medication

HEALTH MANAGER

More pills is better

Health managers believe in the effectiveness of all medicines and supplements and take them together.

They also stock up on OTC drugs at home and always have a painkiller or a heartburn medicine with them.

DOCTOR-ORIENTED

I only take doctor prescribed medicine

Doctor-oriented people take mainly the drugs that are prescribed by a family practitioner and do not believe so much to self-care medicines.

COST-CONSCIOUS

Trademarks are as good as white labels

This group is counting every penny, also in healthcare. Their purchase decision in all health-related matters is based on price and they are likely to buy a white-label product.

ONLY OTC

No need to go to doctor

This segment is hesitant about going to the doctor's office, they might also use own remedies for flu symptoms. They also can suffer from an ailment, like ache, for a long time without doing anything about it.

PREVENTIONIST

I avoid being sick by a healthy lifestyle

Preventionists believe that taking drugs prevents more serious illness later.

They are eager to get getting guidance from pharmacists and doctors, and only use drugs in the amounts they are prescribed.

NATURALIST

No to classic medicine

Naturalists avoid any storebought medicines. They don't believe in drugs, not even in non-life-threatening, easy-to-fix ailment, like heartburn or flu. They are open and willing to test all alternative routes to healthcare before visiting a doctor.

Segmentation done by dentsu research specialists

New needs emerge: People are more cost-conscious and consume more OTC

ACROSS CEE:

- The number of Health Managers, who believe that higher pill intake is better for your health, whether over-the-counter or prescribed, rose by 10% during the pandemic
- The cost-conscious group grew almost as much, by 8%, and those who only believe in OTC medicines by 7,5%
- The share of those who believe in only natural medicines diminished by 13%

Health managers	+10%
Cost-conscious	+8%
Doctor-oriented	=
Preventionists	-8%
Only OTC	+7,5%
Naturalist	-13%

We compared the same segmentation done by dentsu's research and insight professionals pre-pandemic and in 2023 to see how the health crises affected attitudes and behavior.

In the post-pandemic time, segments related to quickly dealing with ailments on a simple problem-solution basis, like the **HEALTH MANAGER**, gained size.

The number of Health Managers, who see more pills as a good thing, grew in all markets other than Romania and Serbia, where their share remained.

DOCTOR-ORIENTED segment is diminishing in all other markets than in Romania.

The segments in which more of a personal responsibility is needed, like the **ONLY OTC** group and **PREVENTIONISTS,** decreased in size in general.

Due to the wide European economic and cost-of-living crises, major increases are seen in **COST-CONSCIOUS** group.

The NATURALISTS set diminished significantly in the countries significantly during Covid-19.

A segment that didn't change that much in Czechia, Romania, Serbia, or Slovakia are the believers in only self-medication, the **ONLY-OTC** group.

In Poland, the size drop in Only-OTC group was the biggest while the Health Managers and Cost-conscious grew the most.

The same person can belong to multiple groups at the same time, like for example being doctor-oriented and cost-conscious.

Segmentation done by dentsu research specialists, data from CCS, Ipsos, Kantar TGI in markets consumer panels.

Changing attitudes by country

YEAR	HR '19	HR '22	CZ '19	CZ '22	HU '19	HU '22	PL '19	PL '22	RO '19	RO '22	RS '19	RS '22	SK '19	SK '22
HEALTH MANAGER	30%	38%	32%	34%	28%	31%	20%	27%	43%	41%	24%	24%	na	na
COST-CONSCIOUS	21%	25%	23%	40%	8%	19%	30%	35%	24%	30%	24%	27%	32%	31%
DOCTOR-ORIENTED	19%	20%	30%	31%	17%	18%	36%	34%	28%	32%	8%	7%	39%	35%
PREVENTIONISTS	17%	20%	17%	20%	13%	13%	28%	30%	27%	23%	10%	9%	61%	44%
ONLY OTC	12%	15%	11%	11%	13%	24%	51%	44%	16%	19%	10%	10%	43%	45%
NATURALISTS	10%	12%	20%	13%	19%	18%	34%	33%	12%	10%	13%	12%	46%	35%

Data shows clearly how pandemic scare and cost-of-living troubles have gone above the natural approach across CEE.

In Czechia there is a massive increase in cost-conscious. In Hungary, doctor-oriented stay virtually the same, but Only-OTC's rise. In Romania, both doctor-orientation and only-OTC grow. Slovakia sees a massive drop in the Naturalists group.

In Poland, both Doctor-oriented and Only-OTC groups are declining, and there is a massive rise in Health managers.

Importance of drug cost effects majority of markets, Slovakia's -1% is not statistically relevant change.

Croatia is the only market where naturalists grow.

Sources: Association of the European Self-Care industry & The report "Out-of-pharmacy trade in OTC drugs 2023" prepared by the Leki Tylko z Apteki Association and the Watch HealthCare Foundation

Supplements and other OTC drugs sales grow despite inflation

1.8
trillion euro

The wellness industry is expected to grow by 10% from 2022 to 2027, reaching a value of 1.8 trillion euro globally.

34
billion euro

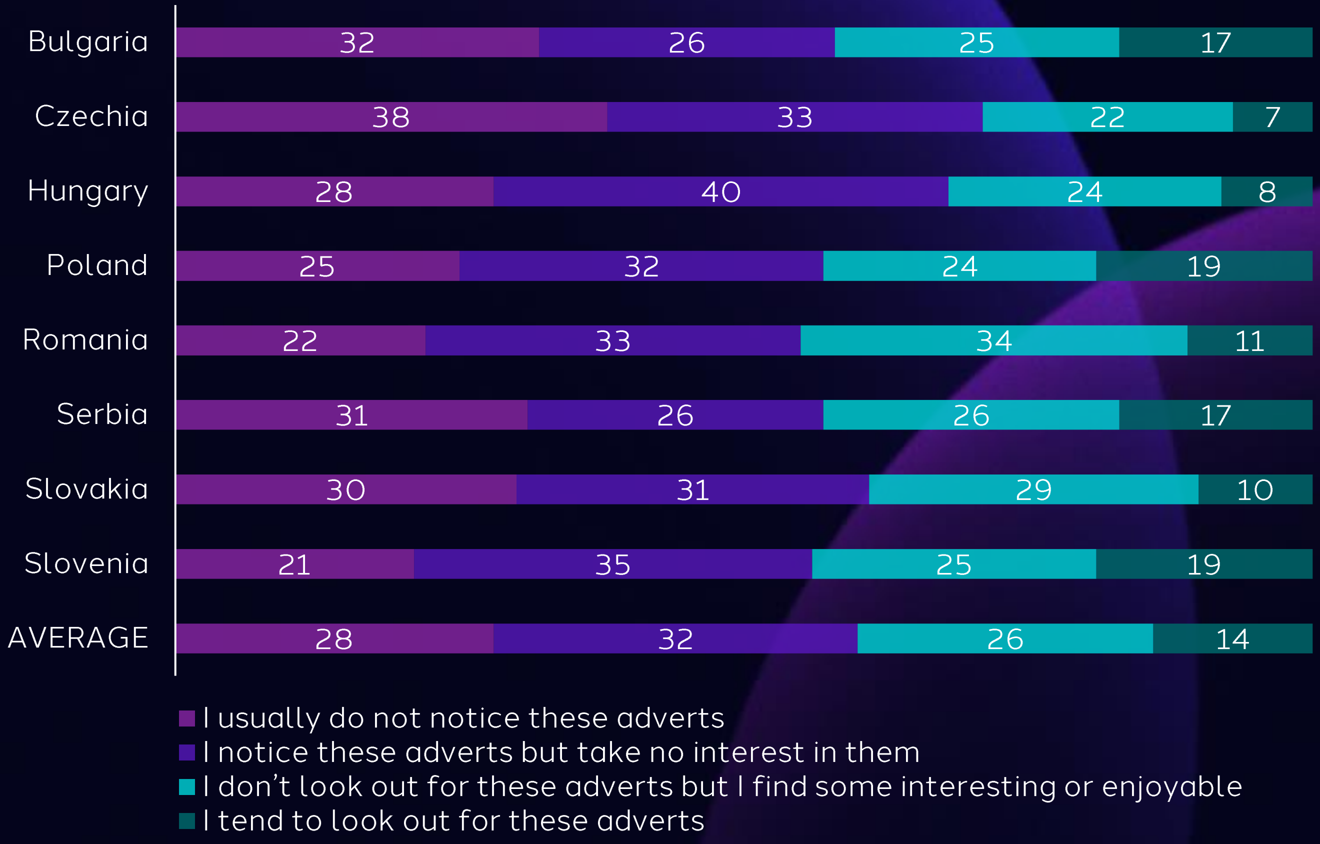
The Association of the European Self-Care Industry estimates self-care drug save from national health systems to reach 34 billion euro, with over 4,000 of these drugs being sold in the EU.

14
%

Supplement sales, including immunity-boosting remedies, grew by 14% in 2022 despite double-digit inflation in Poland.

Pharma and medical ads are sought after the most in Poland and Slovenia

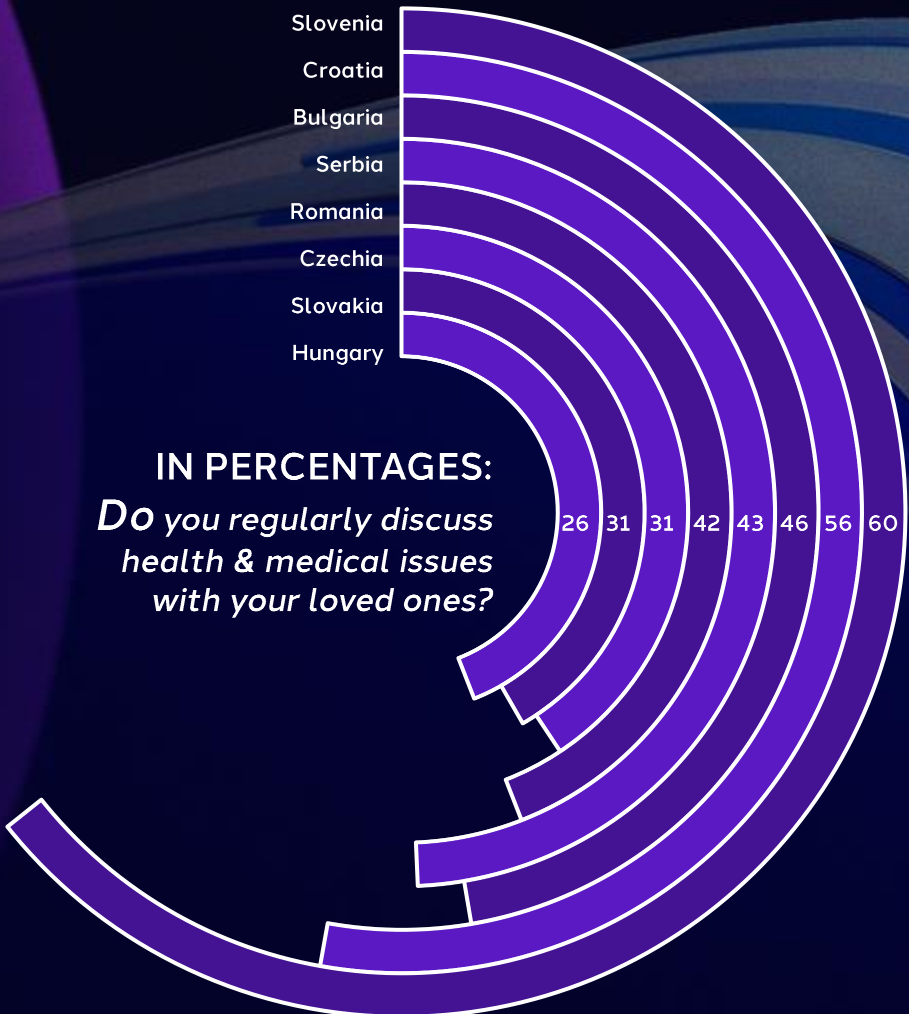
HEALTHY LIFESTYLE, PHARMACEUTICAL, AND MEDICAL ADS INTEREST PER MARKET



In total, Slovenia and Poland lead the pack when it comes to the highest interest for ads of pharmaceuticals or of the medical field. In Slovenia, Serbia, Poland, Croatia, and Romania, alcohol ads top them in people’s attention.

The fact that in some markets, like Czechia, the advertisements from the pharmaceutical or medical industry are not sought after as much has nothing to do with ad spends: this vertical is the biggest or one of the biggest advertisers in all CEE markets. More market data is available in the market sections.

Source: Dentsu Consumer Connection System panel data. Market by market datasets are found in the appendix.



People's openness about health issues differs widely across the region

In dentsu's Consumer Connection System (CCS) panels, we also study how open people are to **generally discuss** certain topics with their loved ones.

The nations who are the most open to chat about health and medical issues are Slovenia and Croatia.

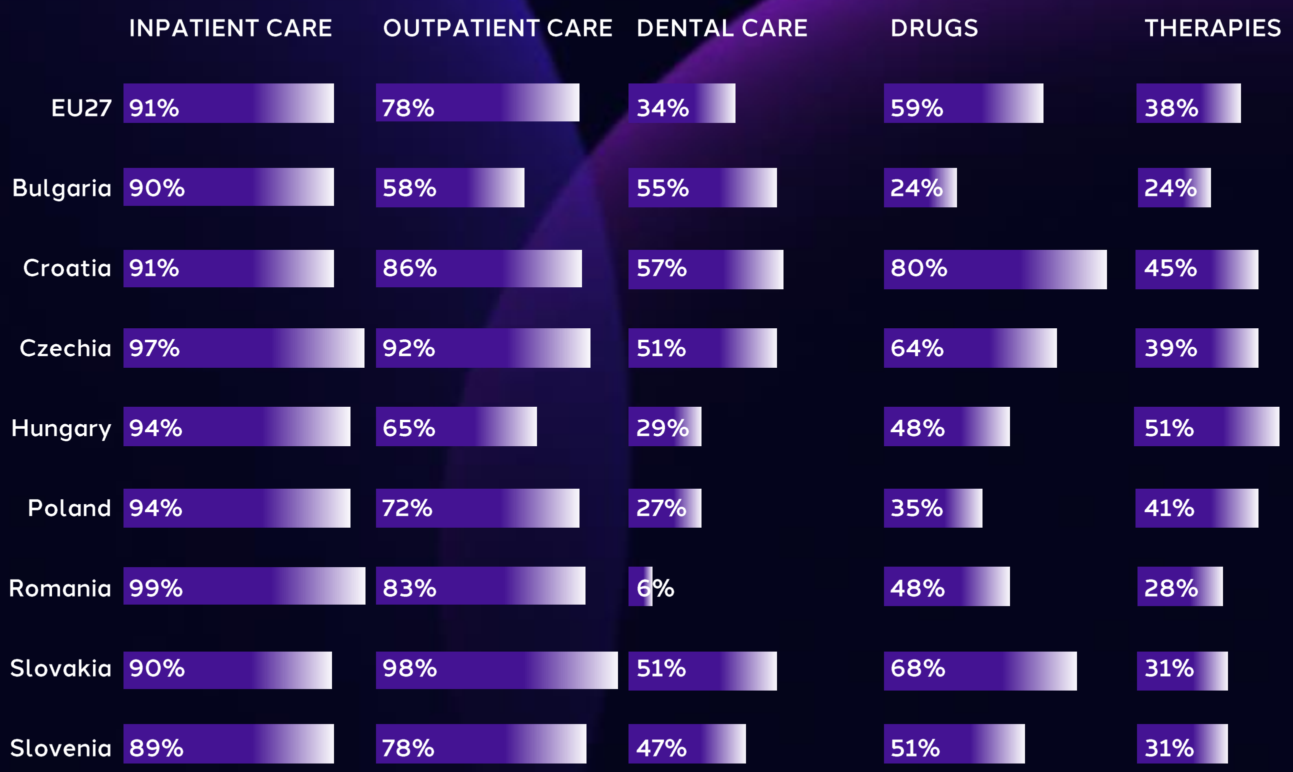
Hungarians keep these issues very close to their chests, and so do people in Slovakia and Czechia.

When we ask, "Have you **sought advice** from your loved ones on health and medical issues?", Romania comes to the top with 41% of the adult population regularly seeking guidance.

Slovaks and Hungarians are the least likely to consult their immediate circle on such topics.

Source: dentsu Consumer Connection System panel data

Croatia believes in drug care the most out of CEE markets



When we look at how the healthcare coverage divided by country and service, we see that the market who has put most effort into pharmaceutical care is Croatia.

Overall, government and compulsory insurance spending as proportion of total health spending to pharmaceuticals in EU is only higher in Germany, France, and Cyprus.

The use of Rx and OTC remedies is lowest in Bulgaria.

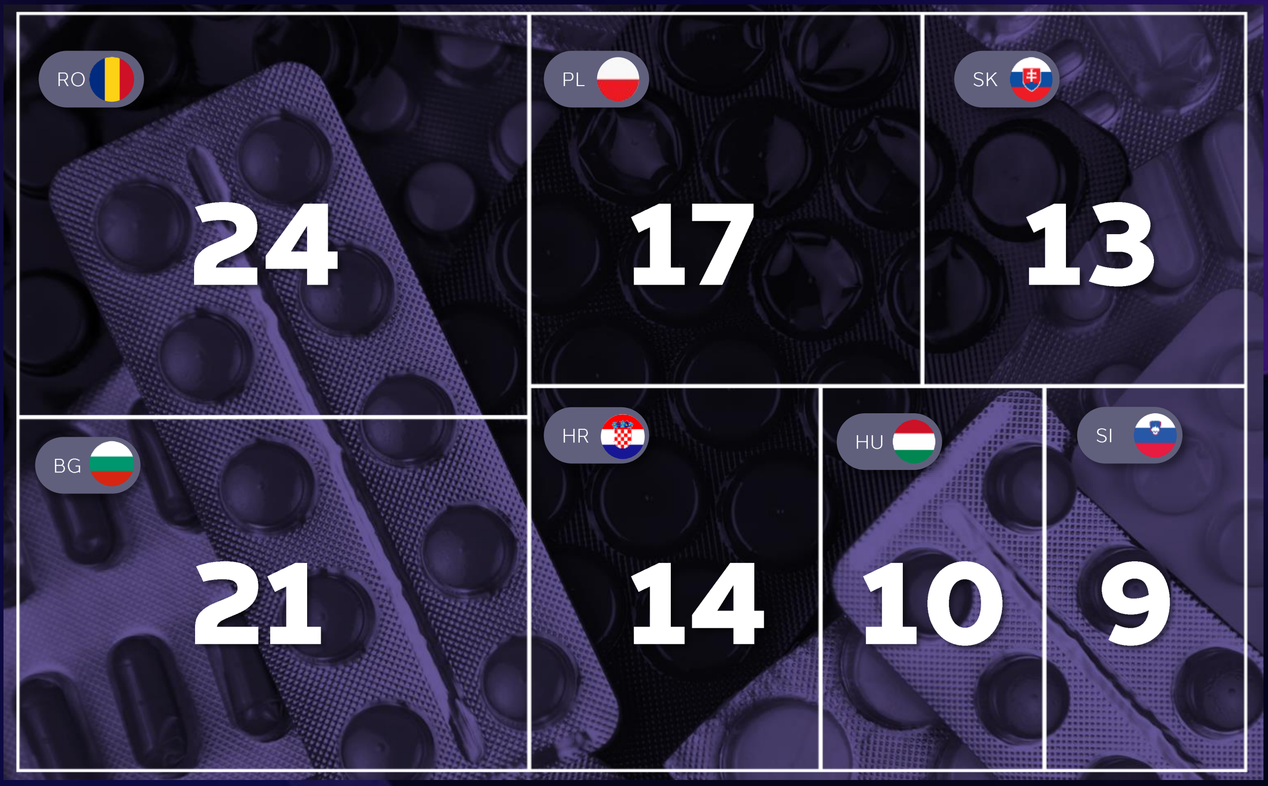
Therapeutic care, which means appliances like vision products, hearing aids and other medical devices, is the lowest in Bulgaria as well, while Hungary offers the biggest number of these appliances to its people.

Dental care is appreciated the least in Romania, with the neighboring countries putting into dentals 10X the amount of money Romania does.

Source: OECD Health Statistics 2022

4/7 CEE markets above the EU average in antibiotics usage

OVERALL VOLUME OF ANTIBIOTICS PRESCRIBED, 2020



DDD per 1,000 population per day

EU Average 14 DDD

Doctors, drug administrations, and health conventions are quite different in Central & Eastern Europe despite the region being in many ways is quite homogenous.

When we compare for example the prescription of antibiotics for example across the region, we see that Slovenia, Hungary and Slovakia are below the European average of 14 Defined Daily Doses.

Croatia, Poland, and Bulgaria are well above leaving Romania in the 2nd place only after Greece, which is the biggest user of antibiotics in Europe, reaching 26 Defined Daily Doses per 1,000 population daily.

DDD = Defined Daily Dose.

Source: European Centre for Disease Prevention and Control

eHEALTH GROWTH IN CEE

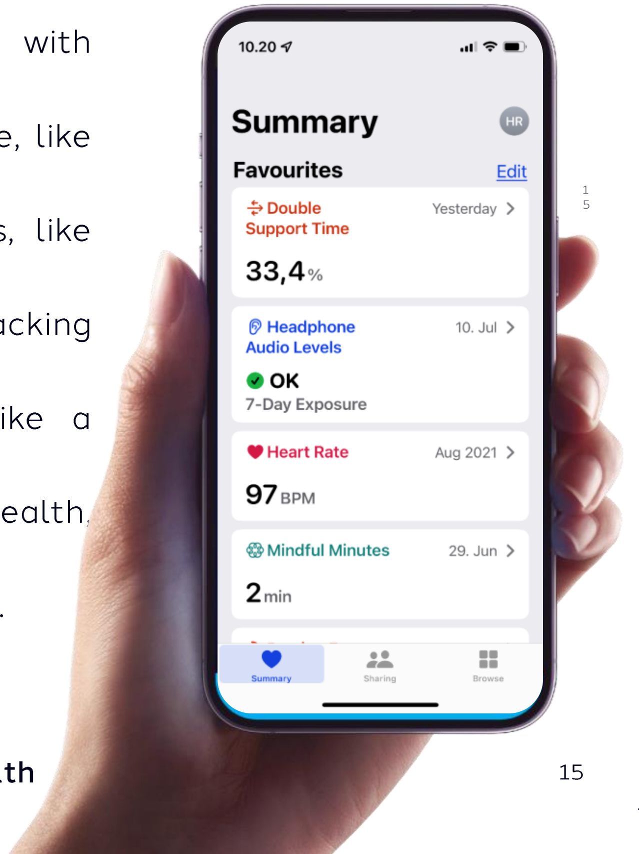
Telemedicine, using vitality trackers, ordering online, and start-ups across The CEE region.

The future lies in eHealth

Telemedicine is viewed as a cost-effective alternative to more traditional face-to-face medical care. Similarly, as in other regions, new eHealth technologies are changing the healthcare market in CEE.

eHealth is much more than online chats with doctors. It is for example:

- medical devices that report results online, like blood pressure devices hooked via Wi-Fi
- wearable technology tracking biometrics, like Apple watches or Oura rings
- software applications in your phone tracking vitals
- solutions using artificial intelligence, like a mobile app to detect skin cancer
- all remote access tools being used for health, like online doctors' teleconsultations
- online health shops, like online pharmacies.



Why eHealth is significant in the CEE

AGING

The proportion of individuals aged 65 and above in the EU population is projected to rise from 20% to 30% between 2019 and 2070.

This means a rise in healthcare expenditure that eHealth can manage in part.

DIGITALIZATION

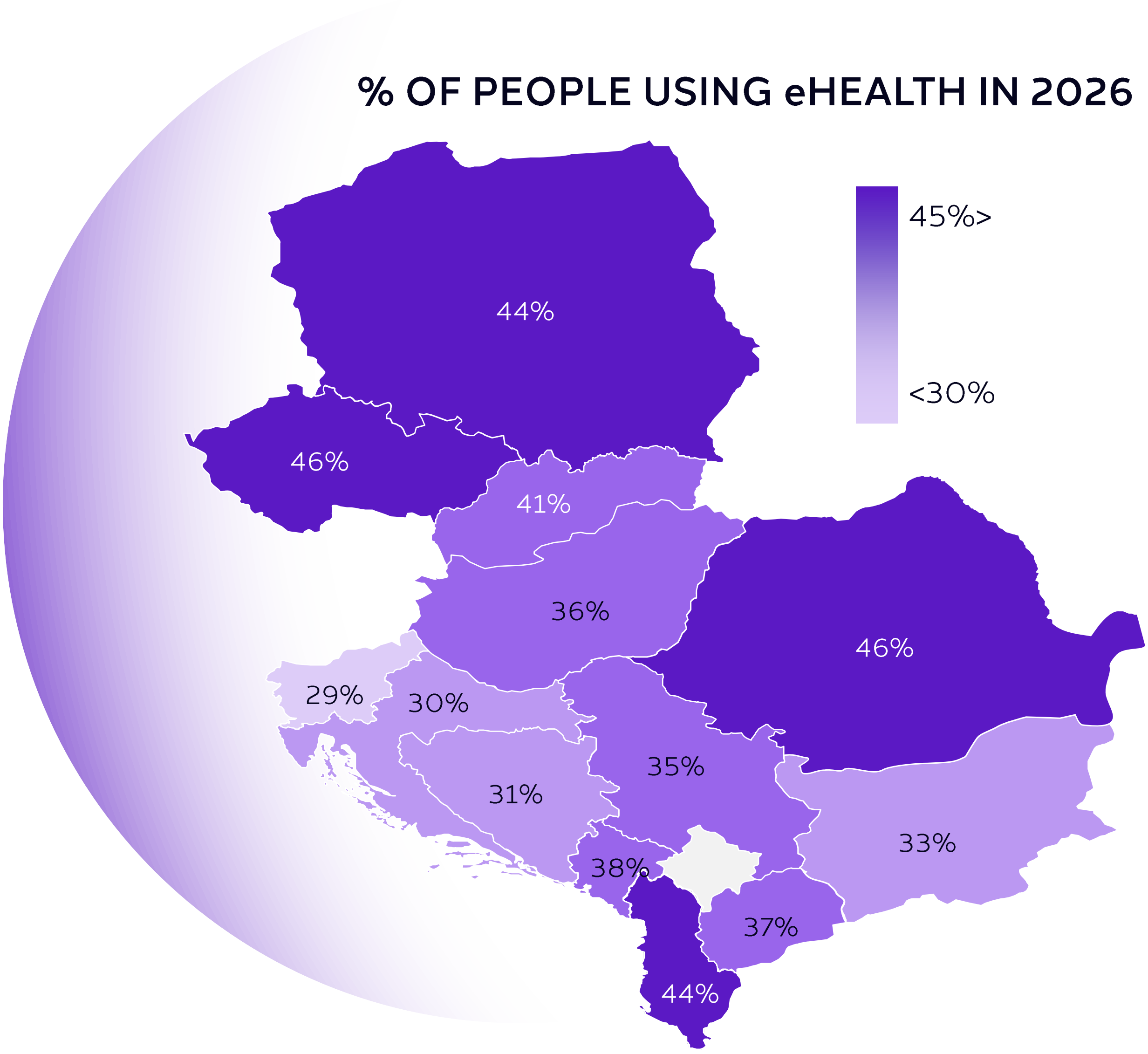
The Covid-19 pandemic accelerated technology and healthcare progress, fostering acceptance among practitioners and patients, with potential for further advancements in telemedicine in the region due to digitalization, innovative enterprises, and an aging population.

TECH & TOOLS

While the current number of users engaging with the services of telemedicine across the region remains relatively small, growth rates are exponentially high. eHealth is also online pharmacies usage, health data tracking, and many other services people can use online when uploading their personal health data to a tool.

Source: Wolf Theiss analysis

Popularity of online pharmacies will grow eHealth sector



Statista data is predicting the popularity of eHealth to grow significantly in all markets, the biggest markets for utilizing eHealth being Albania, Czechia, Poland, Romania, and Slovakia by 2027.

The CEE average is 31% of the population using eHealth in 2022. The difference to neighboring and bigger markets is quite vast: now Germany is at 42%, in total eHealth usage, Italy at 35%, Sweden at 43%, United Kingdom leads the development with 51%, and USA is at 45% of the population using eHealth regularly in some way.

The growth will come particularly from online pharmacy usage in the next years. By 2027, almost 40% of the population also in the CEE region will be using eHealth solutions.

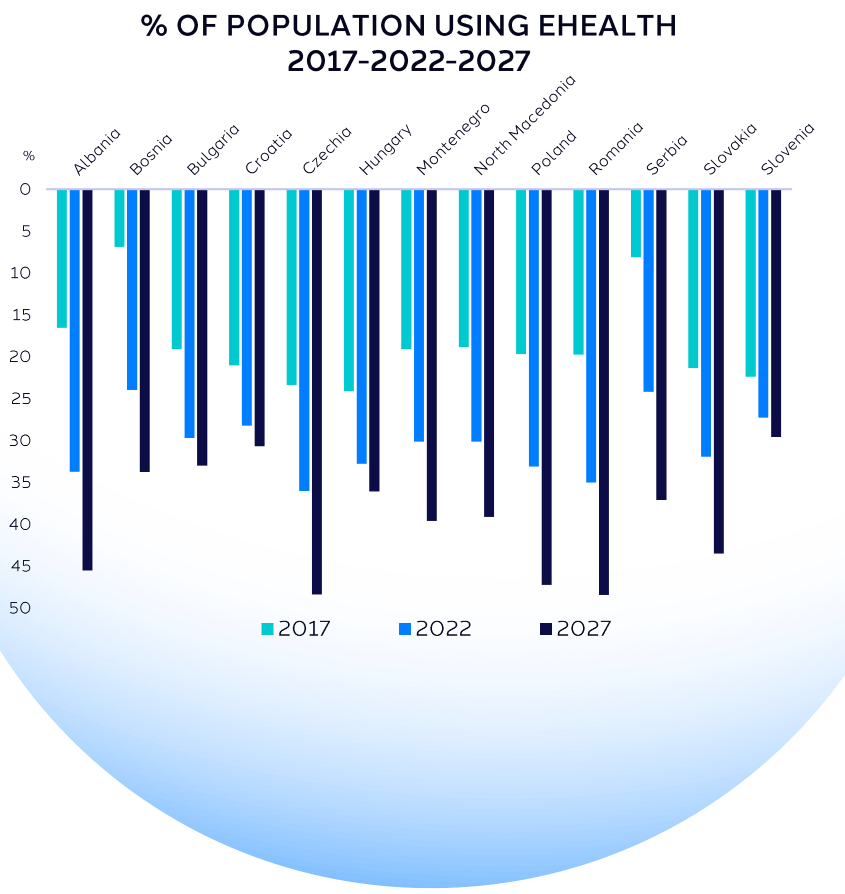
Source: Statista

eHealth growth in CEE towards 2027 in importance and usage

The biggest, double-digit growth in the usage of eHealth services, apps and devices from now to 2027 will be seen in the next years in Serbia, Albania, Slovakia, Romania, Poland, and Czechia.

While the increase in following up your health is a positive thing, eHealth apps present a new challenge to regulatory authorities as software, and raise the question if apps intended for use in a medical context can be classified as medical device. Quality of data usage is also a concern, for example if people take some data too seriously and don't consult a doctor on a health issue.

Openness towards eHealth has increased enormously: 40% of Europeans are willing to use health apps and transmit their data directly to their physicians.



Eurobarometer study Digital Society & Technology, in 2023 shows that nevertheless digital healthcare is something CEE people see as very important and something they look forward to in this decade.

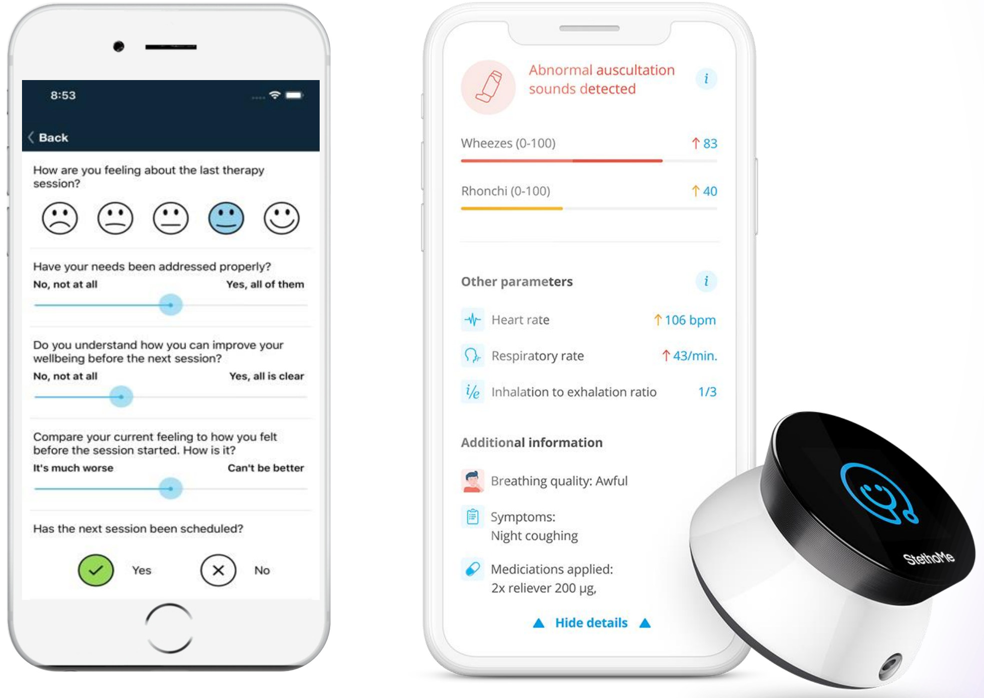
Regarding how important technologies in their life will be by 2030 in accessing or receiving healthcare services (e.g., telemedicine, artificial intelligence for diagnosing diseases), most countries in CEE are either in the EU average or above like Slovenia, Slovakia, and Bulgaria.

The only market where general attitudes toward digitalization of healthcare are lagging is Romania, where the number of total answers as Not important is the highest of all EU countries, 31%.

This is very polarized between young/old and urban/rural, as at the same time Romania is seen as one of the drivers of eHealth in the next years in whole of CEE region.

Sources: Statista Eurobarometer

eHealth is inspiring new companies in the CEE region



eHealth companies in the CEE area include the following:

- Czech Vos and Bulgarian Relaxifyapp are mental well-being applications that help to for example find mental health experts and balance well-being.
- StethoMe is an AI-powered automatic and remote lung and heart screening from Poland.
- Getvig.Health (Romania), LittleDot (Croatia), Medicall (Hungary), HomeDoctor (Poland), Medevio (Czechia), and Telios (Romania) offer digital care, online medical consultations and delivery of healthcare services to patients' homes.
- Telemedycyna Polska provides telecardiology services for individual patients and medical facilities in Poland.
- Slovakian PMCardio uses AI to diagnose cardiovascular diseases.
- Romanian Medicai offers tools for medical teams to collaborate on complex cases.
- Momsanity is aimed at mothers who have postpartum depression symptoms, tool is developed in Bulgaria.
- Hungarian OrthoPred is an AI-based tool for medical image analysis in the orthopedic field.
- Slovakian Mentegram is a tool for therapists to stay in touch with patients between therapy sessions and avoid re-admissions.
- HerbAnalytics is a Hungarian AI tool created to widen the knowledge about which medicines, herbs and supplements work or do not work together.

Self-quantification on the rapid rise

Part of the megatrend of connected devices, self-care is self-quantification by for example a watch or a ring that tracks your vitals.

One-fifth (19%) of people aged 16-74 in the EU used smartwatches, fitness bands, connected goggles or headsets, safety trackers, clothes or shoes with connected technology, and other internet-connected accessories in 2020.

Younger people (aged 16-24) used these smart wearables to a larger extent (28%) than people aged 25-54 (23%), followed by people aged 55-64 with 11%.

Only 5% of people aged 65-74 used such smart wearables.

Source: Eurostat

OWNS A DEVICE FOR FITNESS TRACKING

CZ	35%
SI	26%
HR	14%
PL	13%
BG	10%
HU	10%
RO	8%

1/3 of owners use tracking features daily

TRACKING FEATURES ARE NOT ALWAYS ACTIVELY USED BY THEIR OWNERS

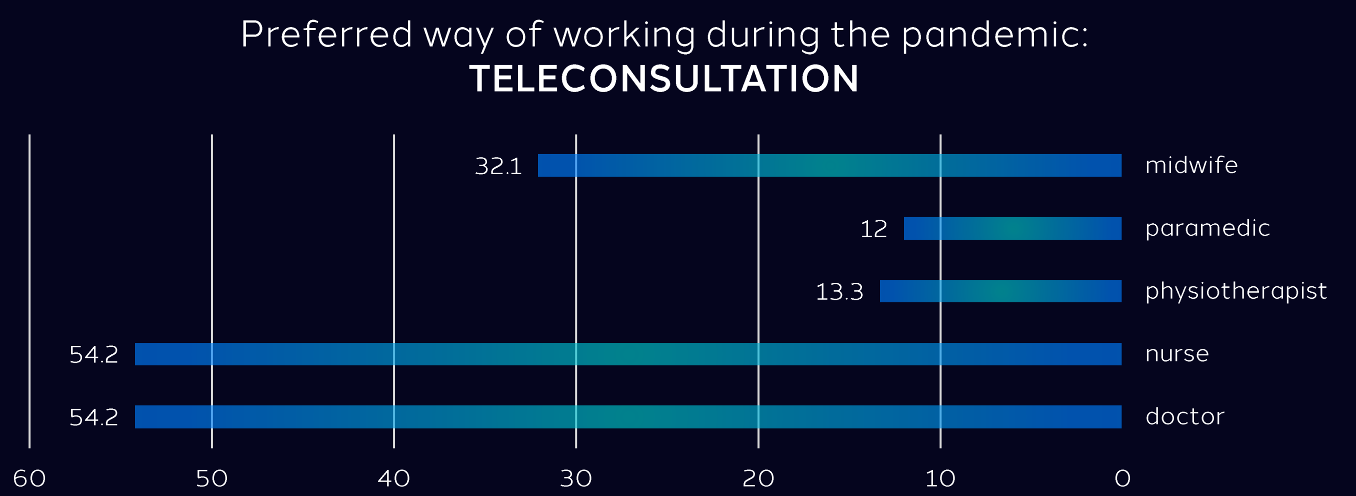
In a Huawei study conducted in 2022 in Hungary, we see that although one might have all the capabilities to track fitness levels, they are not always used.

Less than 50% of surveyed Hungarians used their mobile trackers for health and fitness tracking.

One-third of consumers used tracking technology features daily, and one-fifth multiple times per day.

Moreover, one-tenth of respondents weren’t at all interested in the apps provided to them although they had a wearable smart device.

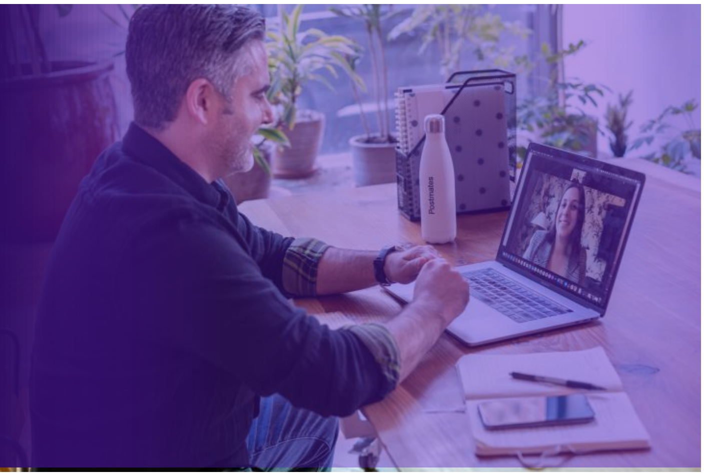
Source: Huawei; IoTmagazin.hu



Teleconsultations grew significantly in CEE during Covid

During the pandemic, Poland, Croatia, and Czechia saw significant growth in both in-person consultations and teleconsultations in 2019 and 2020.

Some EU countries quickly promoted teleconsultations by revising laws, and several allowed teleconsultations through government schemes. Poland also introduced for example e-prescriptions and e-referrals during this time.



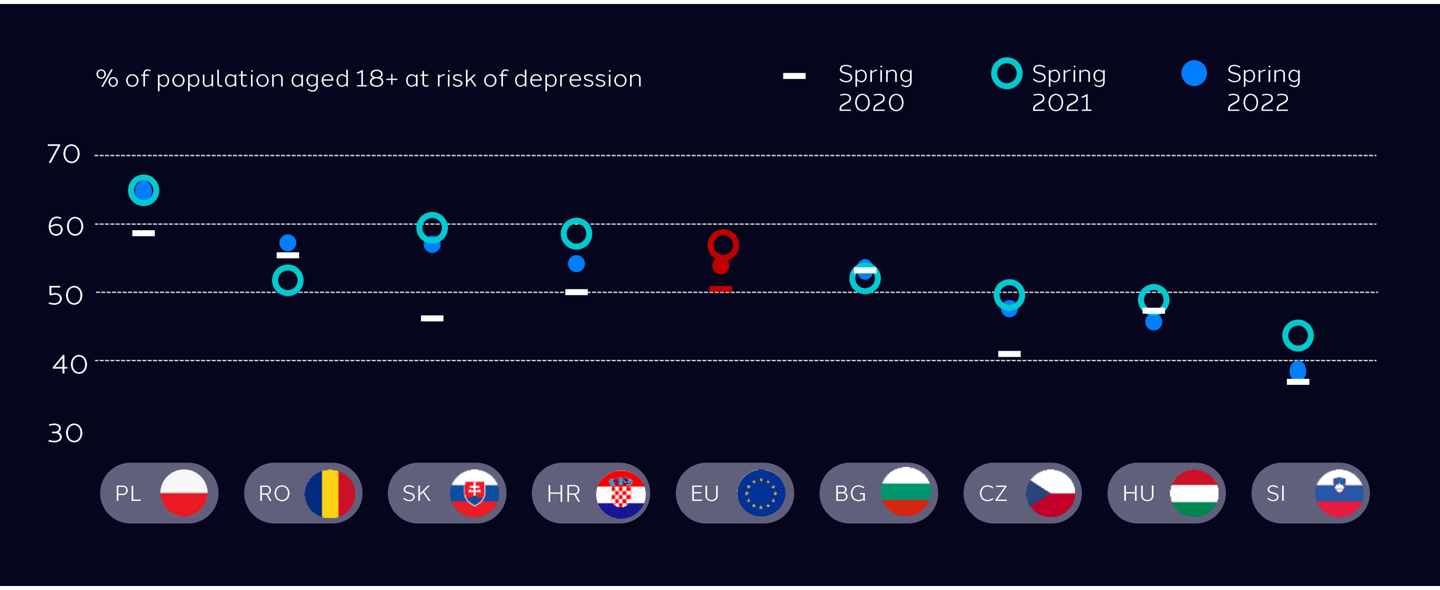
A study among Polish healthcare professionals showed that doctors and nurses were more open to teleconsultations, while paramedics and physiotherapists had a more negative attitude toward them.

OECD data shows that European countries have varying stances on telemedicine. Poland and Slovenia permit medical consultations without physical presence and provide government coverage for real-time teleconsultations. Hungary changed its stance during the Covid-19.

In Czechia, telemedicine is possible, but the first visit to a medical professional must be in person. The pandemic accelerated telemedicine adoption in most European countries, including Germany, Greece, Slovenia, and the UK, to reduce backlogs caused by the pandemic.

Source: OECD Health at a Glance Europe 2022 & Perception and Attitude toward Teleconsultations among Different Healthcare Professionals in the Era of the Covid-19 pandemic 2022

Mental health has wide unmet care needs across the CEE region



Telemedicine is now the most widely used approach in mental health, especially due to the challenges faced during the pandemic.

CEE has the highest rates of disability and mortality linked to mental disorders.

The region faces a significant gap between affected individuals and those who receive evidence-based treatment, partly due to lower priority given to their physical healthcare, high rates of alcohol abuse, and unhealthy lifestyle.

Stigma surrounding mental health is prevalent, impacting policies, funding, service quality, help-seeking willingness, and early detection.

Across Europe, inpatient care for mental health patients has declined, with Poland experiencing the largest decrease at -28%, followed by Hungary with -27%, and Slovenia with -19%.

When looking at the annual percentage change in hospital discharges for mental and behavioral disorders, we see that CEE countries like Poland, Hungary and Slovenia were diminishing these services the most during Covid-19.

Sources: The Czech Mental Health Study (CZEMS): Study rationale, design, and methods & OECD Health statistics

KEY TAKEAWAYS FOR BRANDS ON eHEALTH

Different forms of eHealth are developing fast and should be widely adopted to better people's access to healthcare and their wellbeing.

For pharma companies, online pharmacy sales and supplement sales will grow rapidly in the next years together with online commerce.
It is vital to make sure that when permissible by the local legislation, you provide easy access to sales channels from your owned media, possibly also by collaborating with online retail sellers.

The growth in the use of eHealth, spanning from online pharmacies to teleconsultations and fitness tracking, is based on the trust that people have in the companies to keep their personal health data safe. While people are ready to share even personal data with doctors or companies to get personalized recommendations and service, it can be shaken by any inclination for people to think service is not secure.

Brands which can utilize people's shared tracking mobile data are popular, spanning from gamification apps like Pokemon Go to Better Sleep type of apps.

Oura rings, a new type of tracking devices, are soon going to be joined soon by also glasses and other wearable technology that the most forward-looking people will adopt swiftly. Good example of a successful brand collaboration are the Gucci X Oura rings keeping the classic fashion house on top of the trend of fitness tracking.

One implication for all brands is that your own employees will expect and demand different eHealth services to be part of their healthcare package, also including mental health consultations.

Picture: Gucci

HEALTH AT A GLANCE: CEE STATS

From births to deaths to CEE-specific health risks and usage of health services across CEE.

Health at a glance in CEE: Heterogeneous within, homogenous when compared to Western Europe

HEALTHCARE SYSTEMS

CEE countries have varying levels of healthcare development and accessibility.

Some countries like Poland, Czechia, and Hungary have more advanced infrastructure, while disparities can exist within individual countries, particularly in rural areas.

LIFE EXPECTANCY

Overall, life expectancy is increasing in CEE countries, reflecting improvements in healthcare and living. However, there are disparities among countries and regions.

Countries like Slovenia and Czechia have higher life expectancy compared to the Balkan countries.

HISTORICAL CONTEXT

Historical context is still to be considered in multiple CEE markets, as healthcare systems and health indicators still carry the history of the old communist era system that collapsed more than 30 years ago.

SOCIO-ECONOMIC FACTORS

Socio-economic factors significantly impact health outcomes, with countries having higher GDP per capita generally exhibiting better overall health indicators.

Economic disparities affect access to care, nutrition, and living conditions.

LIFESTYLE AND BEHAVIORS

Lifestyle choices, including diet, physical activity, and smoking rates, affect health outcomes. Some countries in the region have higher smoking rates, leading to increased rates of diseases like lung cancer.

Challenges during this transition continue to impact various aspects.

DIASPORAS AND MIGRATION

CEE citizens form large diasporas in Western Europe, affecting health data. Events like joining the EU, Brexit, and the pandemic impact migration patterns and health statistics.

The number of Ukrainian refugees in CEE is substantial, with Poland and Czechia having the largest Ukrainian populations.

FUTURE OUTLOOK

Digitalization will play a significant role in improving health outcomes in CEE countries.

Each country may have specific strengths, weaknesses, and ongoing initiatives to address health issues.

CEE isn’t as focused on health as other regions in part due to more pressing issues

While health has been at the forefront of global discussion more than ever in the past years, in Central & Eastern Europe new issues have come to the forefront, like massive inflation and war at our borders in Ukraine.

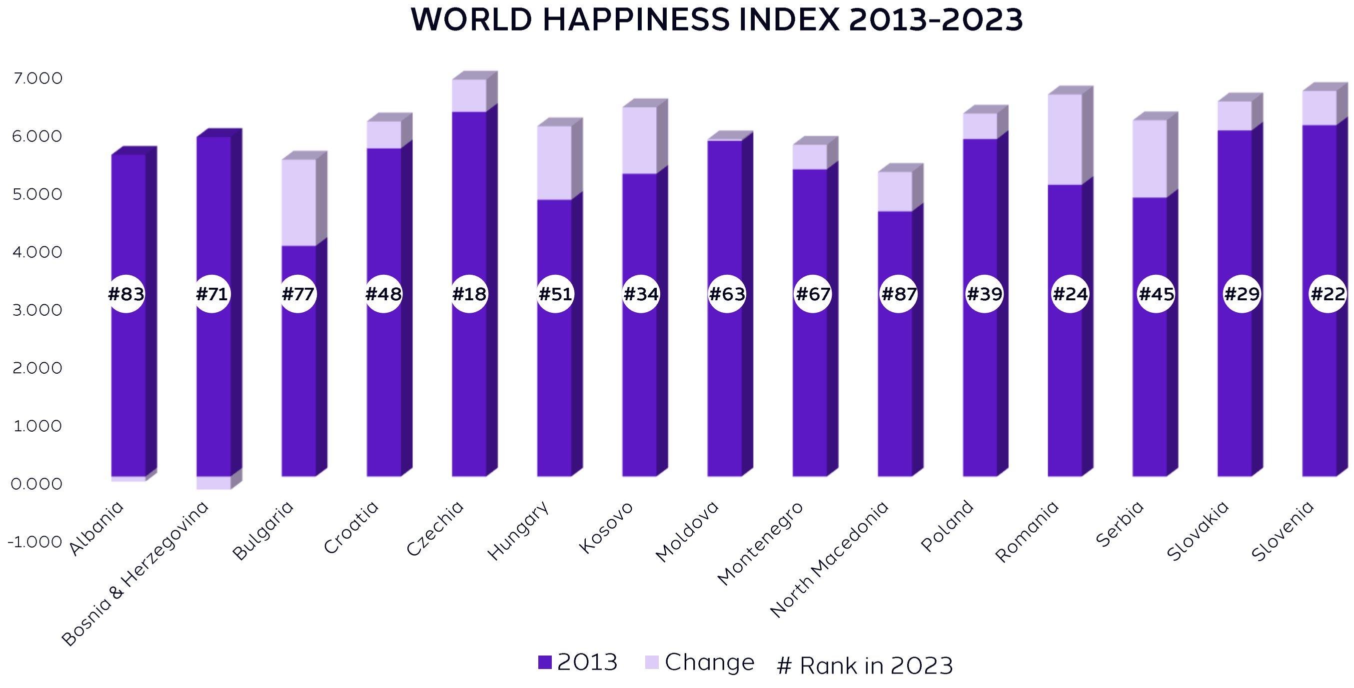
Tellingly, in a PwC C-level survey, when asked about the different risks' leaders feared the most for their companies in the next 1-2 years, the answers in CEE were quite different. While all groups saw global recession and catastrophic cyberattacks are main issues, only Global and EMEA leaders were concerned about a global pandemic hitting again in the 3rd place.

In CEE, this issue was 7th, and next on the list were inflation and geopolitical conflicts.

Source: PwC CEE digital trust 2023

	GLOBAL	EMEA	CEE
Catastrophic cyberattack	1st	1st	2nd
Global recession	2nd	2nd	1st
Covid-19 level health crises	3rd	3rd	7th
Inflationary environment	4th	4th	3rd
Supply chain bottlenecks	5th	6th	5th
New geopolitical conflict	6th	5th	4th

Steady growth in happiness across CEE



A composite index of world's happiest countries is released around the date of the United Nations International Day of Happiness March 20. Published annually since 2012, the report considers health and life expectancy in a big way as part of its score. It also takes into consideration factors such as GDP, social support from friends and relatives, generosity, perceived corruption, recent emotions, and others in a Gallup World Poll to reach its results.

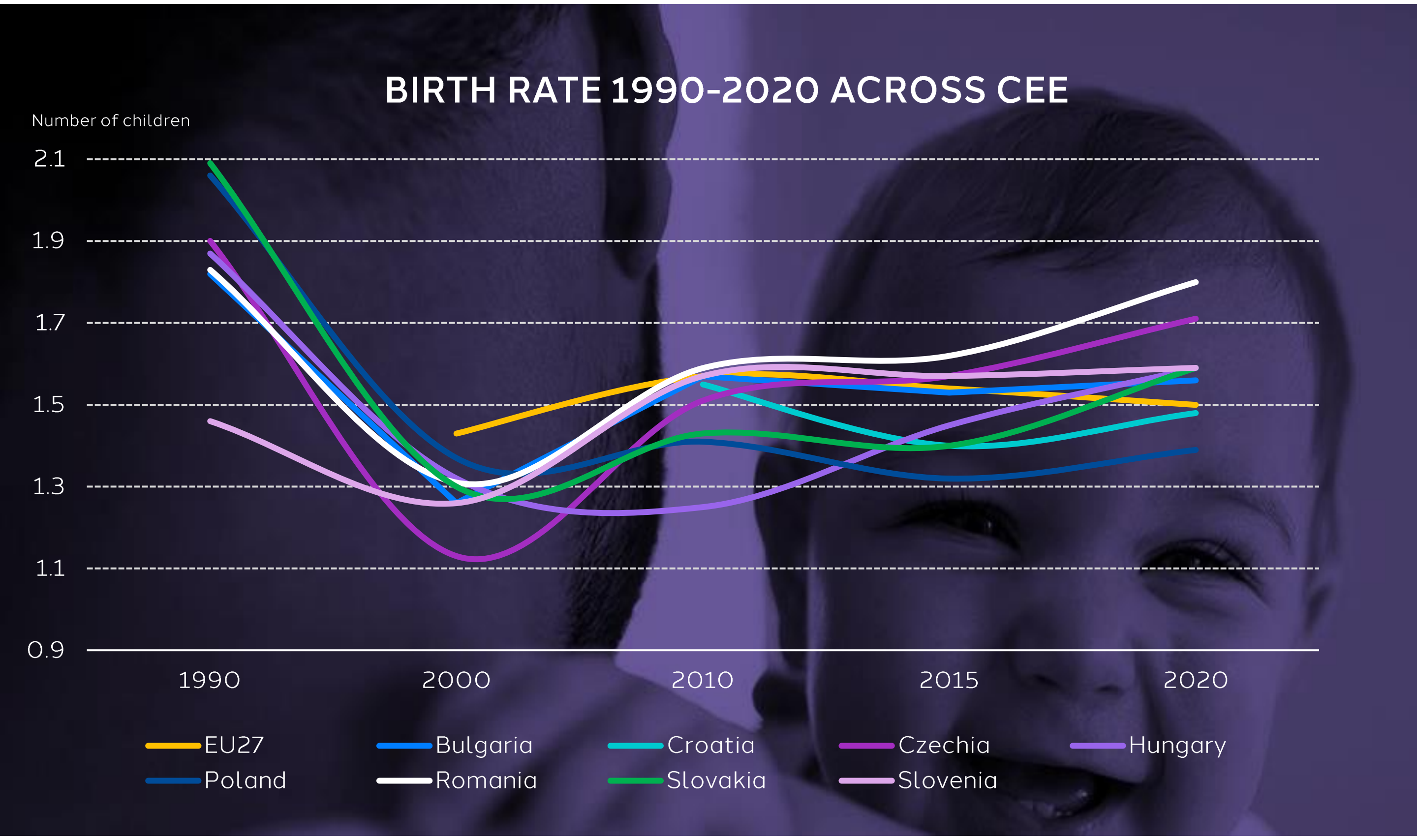
When comparing the results from a 10-year span in the above-mentioned issues, we see that the countries moving the most rapidly upwards have been Bulgaria, Hungary, Kosovo, Romania, and Serbia.

From CEE countries, Czechia is placed the highest in the 2023 ranking, 18th, having a difference of only 0,95 points to the overall "winner", which is Finland.

Only Albania, Bosnia, and Moldova have seen very little or negative change in the past 10 years.

Source: World Happiness Report

Aging population, but birth rate shows signs of spiking up



Economic factors have a massive effect on birth rates. From 1990 to 2000, we saw a significant drop in the birth rate across post-communist countries.

In 1990's, when the region was riddled with great economic uncertainty and depression as well as the war in ex-Yugoslavia, many people postponed growing their families.

The trend is clear, birth rates have lowered so drastically across Europe.

In 2020, Romania has the biggest birth rate of the continent, with 1.8 children per woman aged 15-49 in 2020.

For example, in Bulgaria, the annual population growth has been negative for over 10 years, hitting its lowest rate -0.81% in 2021.

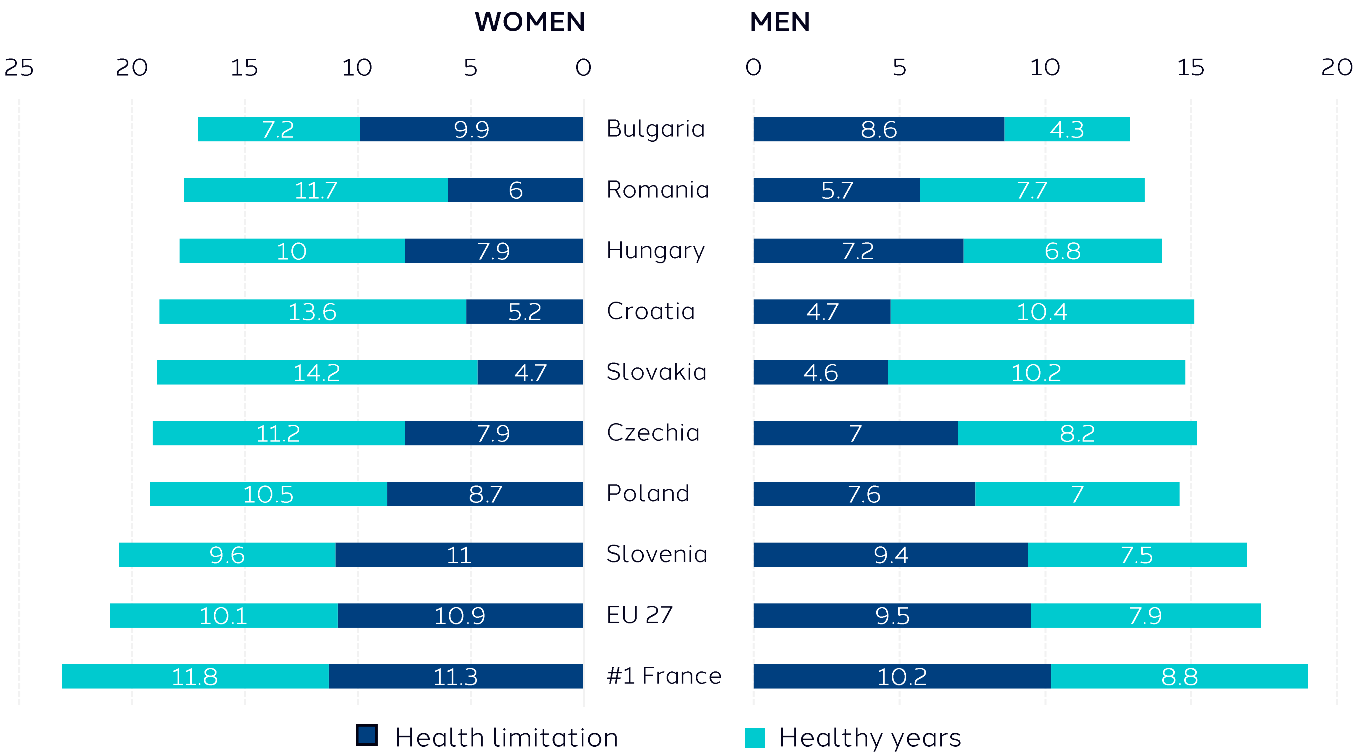
The total population of Slovakia is forecasted to continuously decrease between 2023 and 2028 by in total 0.02 million in total (-0.37%) amounting to more than 5.4 million people in 2028.

Also, although there are also positive years, the total population is aging and shrinking under 4 million.

Across the board the population of countries have been affected by the emigration to other parts of Europe, specifically popular among the youngest adults, after the markets have joined the EU.

Source: Eurostat September 2022 and National Library of Medicine 'The Post-Communist Fertility Puzzle'

Life expectancy across CEE is below the EU average in all countries



When looking at key indicators, from life expectancy to causes of mortality to treatable and preventable diseases, Central & Eastern Europe lags Western Europe.

Life expectancy is lowest in Bulgaria (71.4 years), Romania holding the penultimate position (72.9).

The only country making it above the EU average of 80.3 years is Slovenia with 80.6 years.

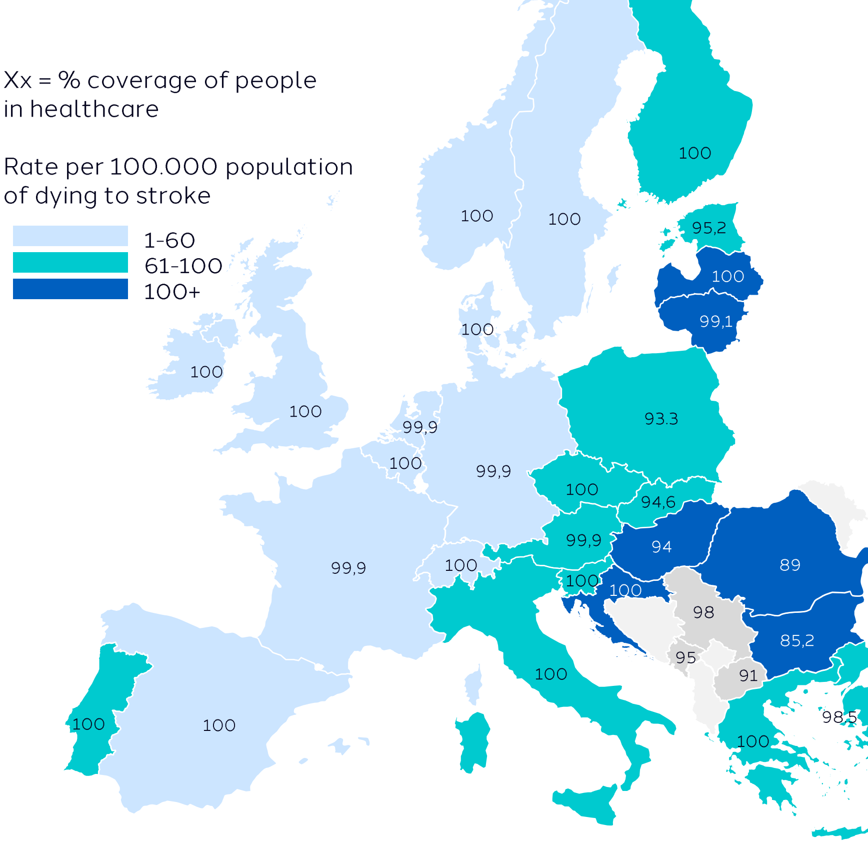
There is also a dramatic difference in how many healthy years (chart above) does a person get after 65 years of age.

Women live longer and healthier than men in all countries in Europe.

Bulgaria and Romania are at the bottom of the chart, with Hungary, Croatia, and Slovakia holding the 3rd, 4th and 5th worst positions across the EU.

Source: OECD Health at Glance 2022 Europe

Mortality to treatable and preventable diseases follows in part where people are less insured in Europe



CEE countries spent about 2-4% of GDP less on healthcare compared to the EU average in 2017. This shows in that all CEE countries are well above the EU average in mortality reasons that could've been either treatable or preventable in the first place.

Treatable diseases are the likes of circulatory troubles and some cancers, preventable diseases are the likes of diabetes, alcohol-related conditions, and ones that can be avoided through public health care.

While Lithuania has the worst numbers in all the EU, and Italy the best, in CEE the markets where people die to preventable or treatable diseases in the highest numbers are Hungary and Romania. Slovenia is closest to the EU average.

Across Europe, majority of people have coverage of a core set of services from a national healthcare system.

In Bulgaria and Romania, where the coverage numbers are the lowest, majority of uninsured people lack an identity card, are unemployed long-term, or are working in another country.

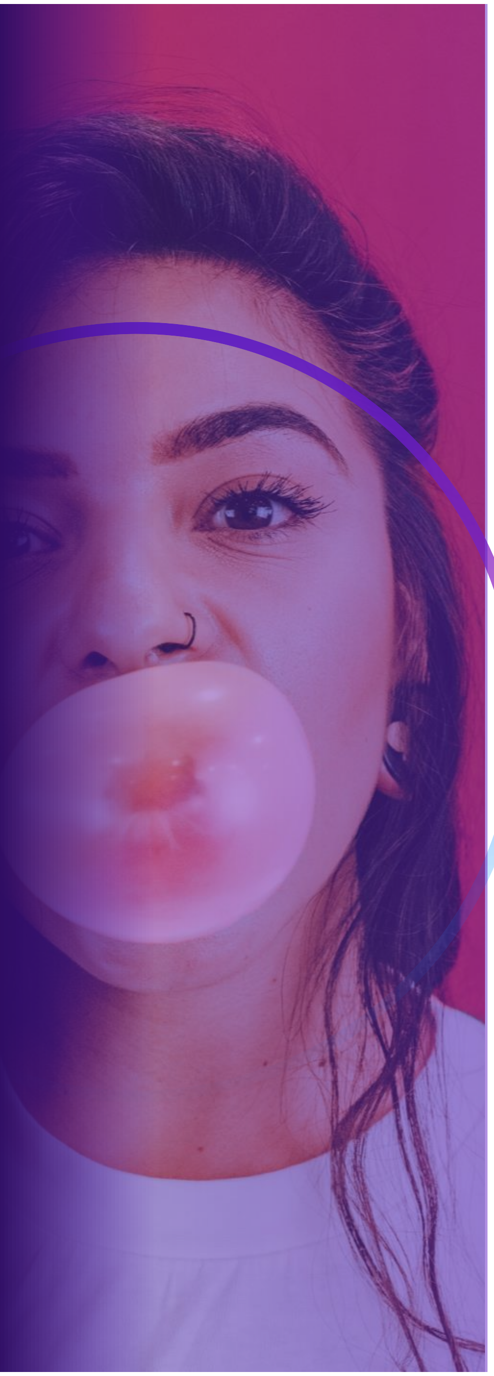
Strokes are caused by blocked arteries or bursting of blood vessels, causes being most commonly diabetes, high blood pressure, heart and blood vessel diseases, high cholesterol levels and smoking.

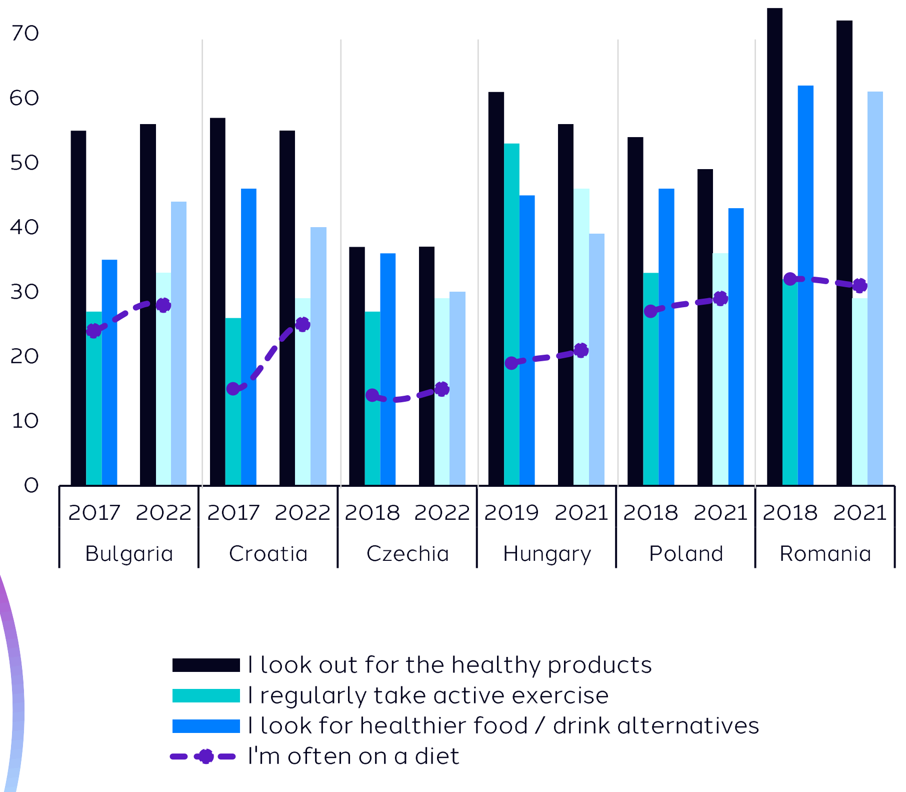
In the EU, on average 75 people out of 100,000 die of stroke. While in Switzerland, it is only 40 out of 100,000, in Bulgaria the number is highest, 311 out of 100,000.

Mortality rates are not related to the number of hospital beds, as Bulgaria and Romania are second and third after Germany when it comes to the number of hospital beds per population.

Source: OECD health statistic 2022; Eurostat database

Exercising and healthy eating is at a downward trend across CEE





The only country where all healthy lifestyle statements are moving upwards, is Bulgaria.

Comparing dentsu's tailor-made consumer studies that we conducted pre-pandemic to post-pandemic studies, we see that dieting and doing regular exercises have increased a bit across the board, but buying healthier food and drinks is dwindling in the markets.

In search for an answer to why, we should consider that many people comforted themselves with snacks and food during the pandemic while economic certainty was very low, and unemployment high.

Moreover, all markets in CEE have recently been suffering from cost-of-living and inflation.

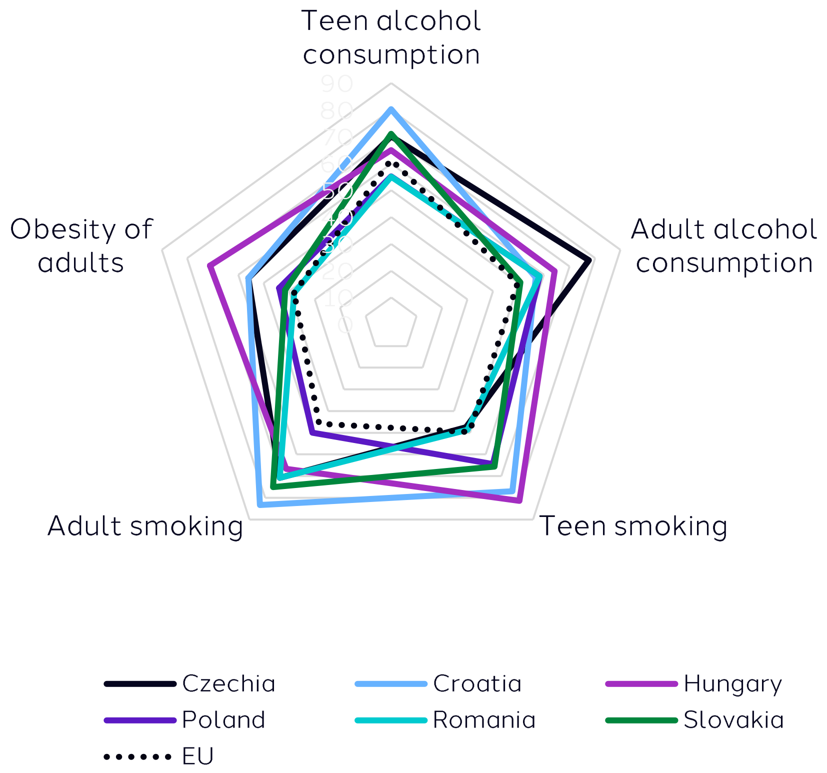
Source: dentsu's Consumer Connection System panel

Risk factors to health include diet, smoking, alcohol, and obesity

When looking at what is causing risk to health across the region, we see that all markets in CEE have more risk factors than EU markets in general. An Erste Bank study found that smoking, both as a teenagers and adults, is high above the EU average in the CEE region.

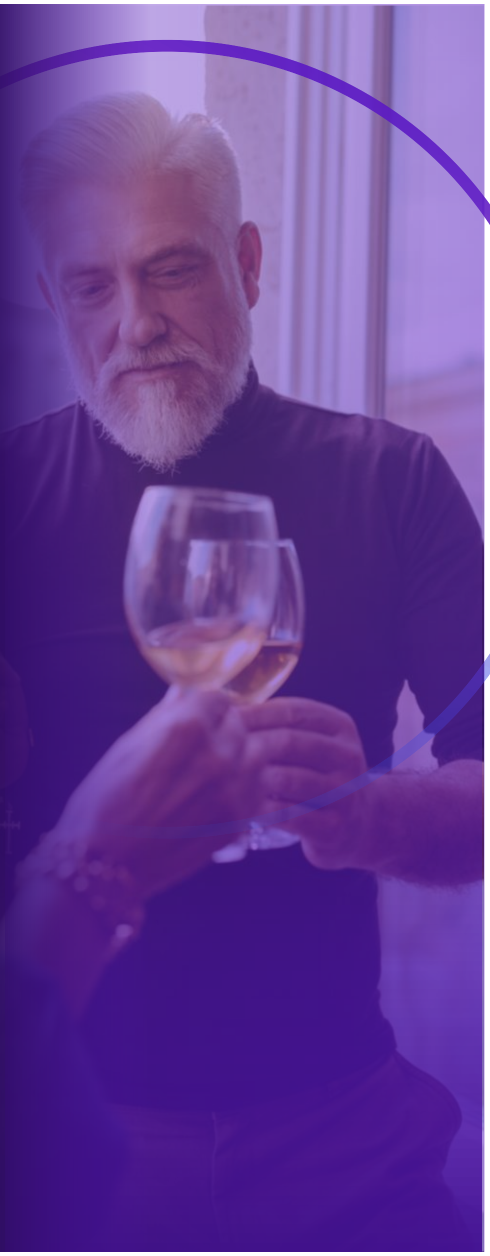
Regarding obesity, Hungary takes the lead, while Croatia takes the #1 spot in teen alcohol consumption.

Diet in general is also a risk: all CEE countries are well below the EU average of eating 5 portions of fruit and vegetables a day, Romania taking the absolute bottom with only 2% of the population reaching the quota.

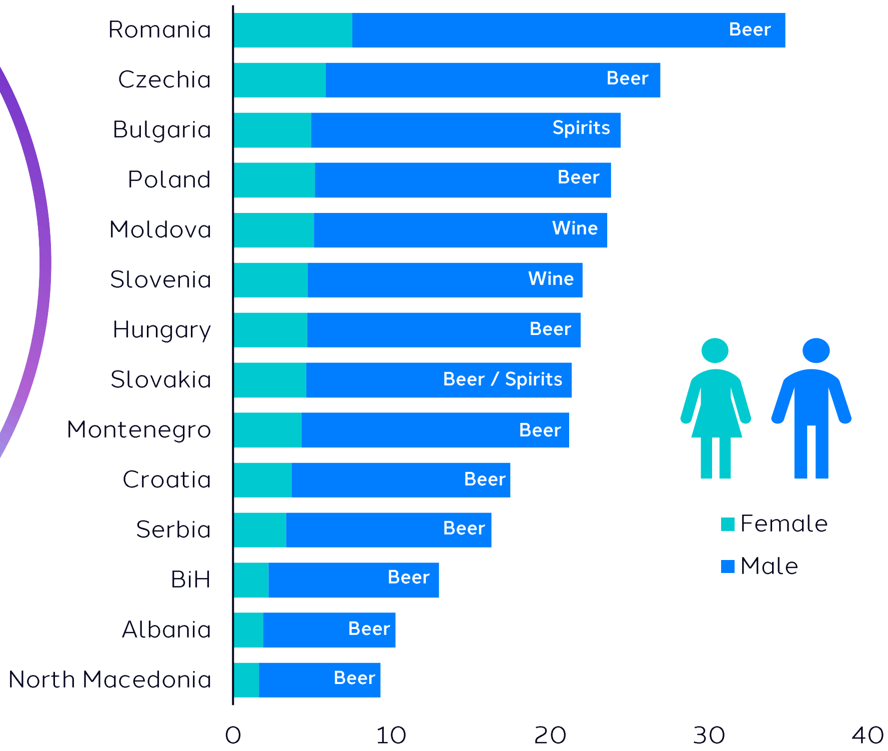


Source: Erste Group, Eurostat

Alcohol consumption differs vastly by identified gender



ALCOHOL, TOTAL PER CAPITA (15+) IN LITERS OF PURE ALCOHOL PER SEX & MOST POPULAR ALCOHOL TYPE OF COUNTRY



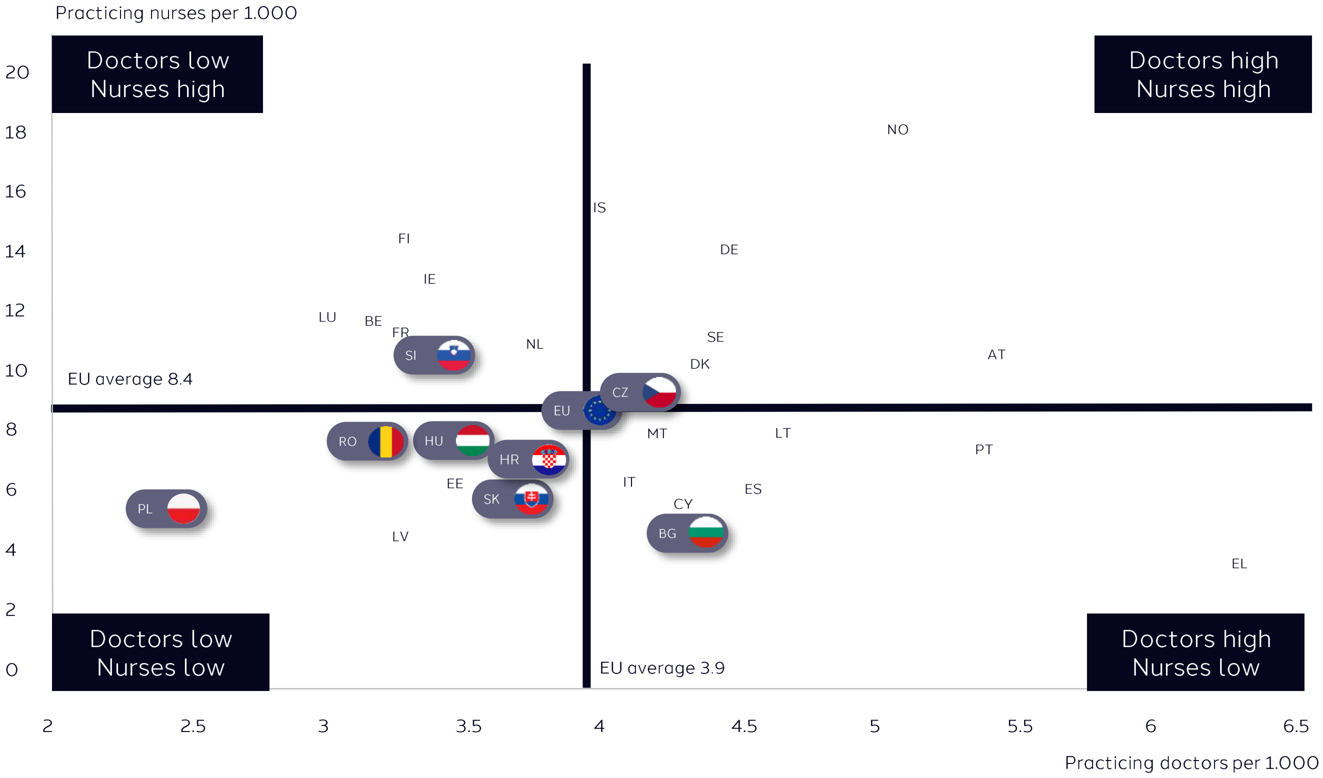
One of the main risk factors, alcohol is a very relevant risk to health, particularly in those identifying as male.

The consumption average in the world is 5,5 liters of pure alcohol per person. The only countries in the CEE region below this average are Albania and North Macedonia.

CEE markets are in majority beer countries, with only Bulgaria and Slovakia as exceptions where spirits are the most popular tipple, and two markets where wine is the most popular drink, that is Moldova and Slovenia.

Source: WHO 2019

Availability of healthcare staff is lagging behind in CEE region



Only Czechia is above the EU average in the number of doctors and nurses across CEE markets. The number of doctors is also high in Bulgaria, while Slovenia leads in the number of nurses.

The most populous country of the CEE region, Poland, is lagging in the numbers of healthcare staff per 1,000 population.

Source: State of Health in the EU, 2021

CEE came out from the pandemic OK, but there are unmet healthcare needs

In an Eurofound survey, we see that due to the pandemic, some unmet healthcare needs arose in almost all countries. Namely, scheduled surgeries, GP care, dental care, mental health care, or seeing a specialist were not as available as previously.

The lowest unmet needs in all of Europe were recorded in Czechia (below 5%). In Hungary, every fourth person had an unmet healthcare need in the spring of 2022, and Poland had the second highest in Europe, with nearly every third person having a need that went unaddressed.

During the pandemic, Poland was also the market that significantly increased teleconsultations while diminishing in-person consultations.

Countries have very different approaches to screenings for the common female cancers. When it comes to detecting breast cancer with mammography among 50–69-year-olds, only Slovenia and Czechia are above the EU18 average, with Poland, Slovakia, Bulgaria, and Romania having the smallest number of screens executed.

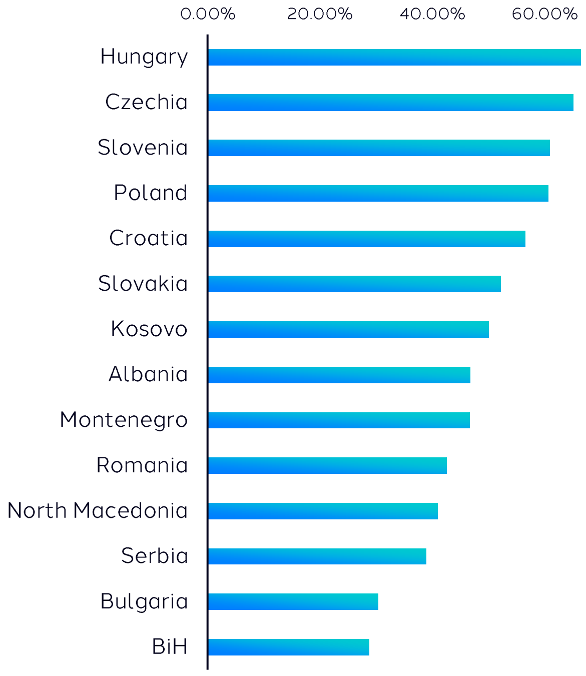
With cervical cancer screenings, Croatia, Czechia, Poland, Slovenia, and Bulgaria are above the average, while Slovakia, Romania, and Hungary are the tail end.

Slovenia, Croatia, and Czechia are the countries well above the EU averages in both regards.

Source: OECD Health at a Glance 2022

Religion, misinformation, and lack of trust make CEE lag in vaccinations

AT LEAST ONE COVID VACCINATION DOSE



World average: **70,3%**

EU average: **75.6%**

Low level of trust in the government and public institutions, fake information, spreading of rumors about vaccination effects have all been blamed for Central & Eastern Europe's low vaccination rates.

From some eastern markets, it has been also been speculated that Orthodox priests have strongly urged people not to get vaccinated.

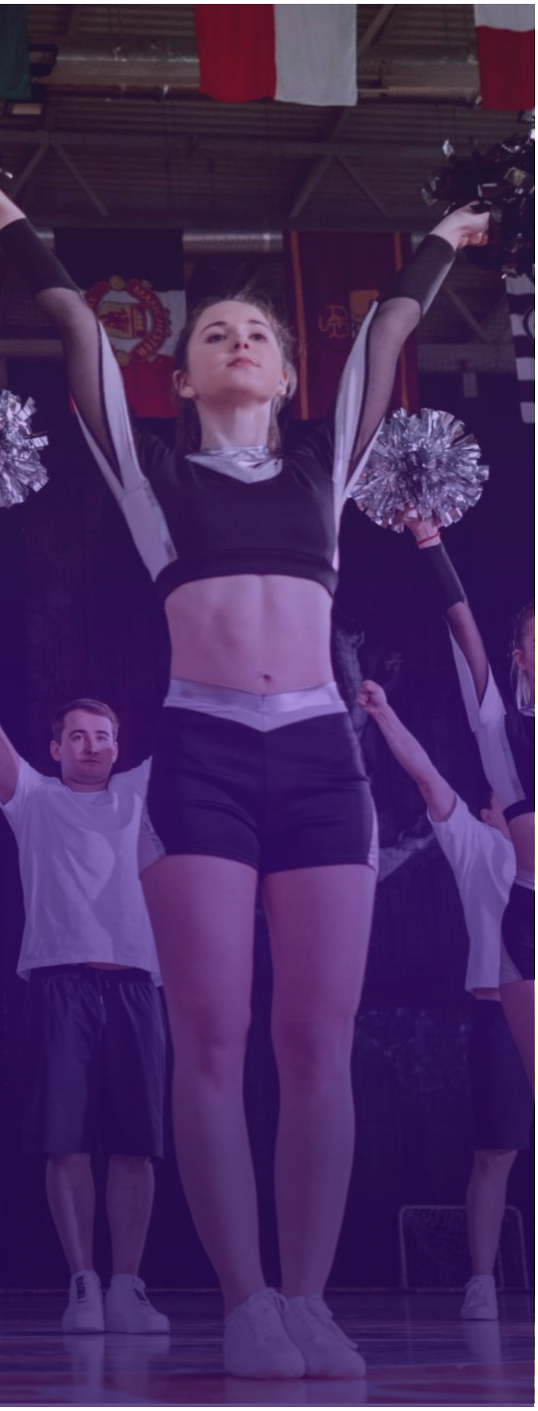
Romania, Bulgaria, and Ukraine for example are among the most religious countries in all of Europe, and church has a stronger stance in the public's minds than in other countries.

In these countries, where social trust is low, the local GP's power over people's decision is also crucial.

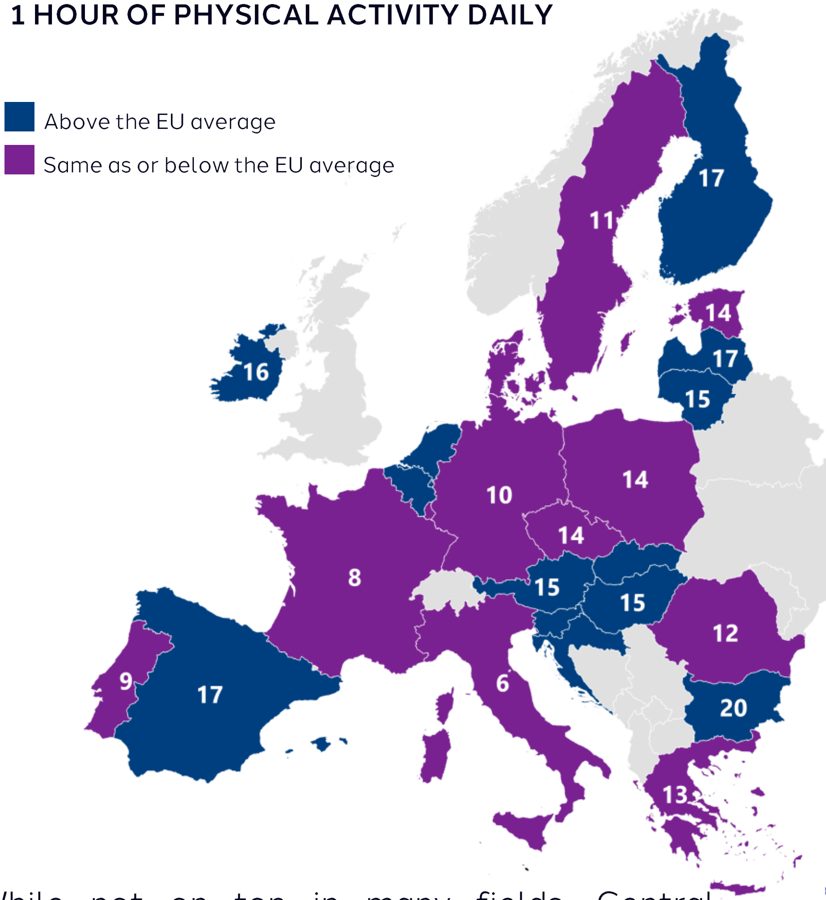
Eurobarometer study reveals that trust in official institutions across CEE markets is significantly below the EU average, meaning that democracy still has shallow roots in the post-communist region.

Sources: Johns Hopkins database, Eurobarometer, Politico, Project Syndicate, European Centre for Disease Prevention and Control

Future outlook: CEE children are on the move more than the EU average



% OF 15-YEAR-OLDS WHO DO AT LEAST 1 HOUR OF PHYSICAL ACTIVITY DAILY



While not on top in many fields, Central & Eastern Europe can look to a brighter future in building a healthy lifestyle from a young age. Bulgarian girls, and even more so, boys were the ones most likely to clock in at least an hour of physical activity per day followed closely by Slovakia, Slovenia, Croatia, and Hungary. The EU average of 26 countries is that 14% of 15-year-old children actively move enough every day.

Eurostat data shows that while in Bulgaria every fifth 15-year-old was active for the minimum recommended time daily, in Poland and Romania the numbers were only 14% and 12%, respectively. However, it is still far away from Italy, where only 6% reach at least an hour of activity a day.

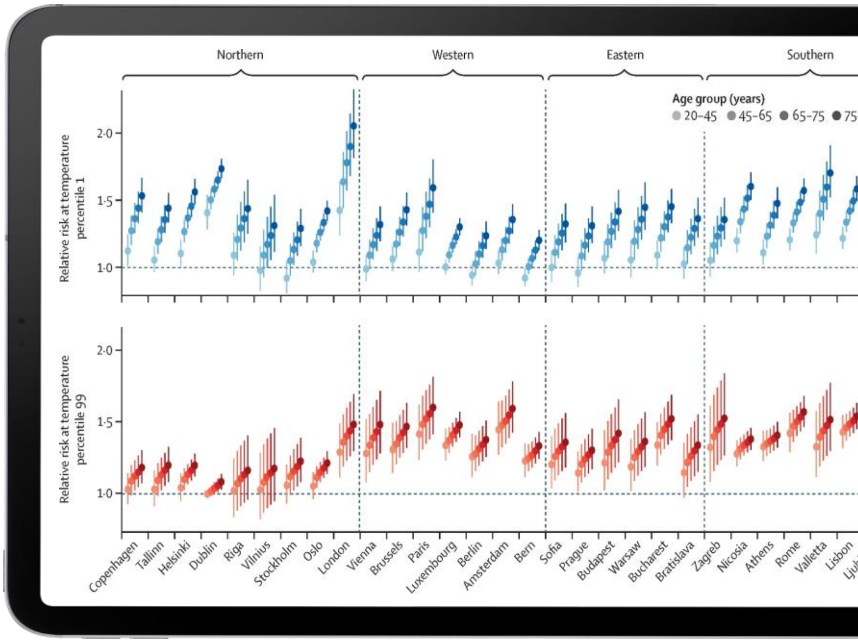
Source: OECD

Future outlook: Urban Heat hits Zagreb & Bucharest

With the increasing temperatures due to climate change, also Central and Eastern European cities are feeling the toll. Respected science journal The Lancet released in 2023 a study looking at cold and heat related deaths across 854 European cities in 2000-2019.

Heat-related deaths showed an increasing trend by age and were generally lower in the northern region.

The city with the highest number of heat-related deaths was Paris, France, where the likelihood of excess deaths due to rising temperature was 1.6 times higher than in other European cities. Zagreb in Croatia, and Bucharest in Romania were the next highest.



Pollution, tight urban building, lack of green spaces, air-conditioning and shade all contribute to the index. This is known as the Urban Heat Island Effect.

Croatia, Bulgaria and Romania are also called out in the study as countries, where there is a likelihood of having excess mortality within a year due to cold as well as heat.

Source: The Lancet, Excess Mortality Attributed to Heat and Cold

5 EFFECTS OF THE CHANGING LANDSCAPE ON HEALTH BRANDS

What health and pharma brands need to consider in the rest of this decade to be ready for 2030.

The effect of changing landscape has on health brands

Towards 2030, prioritizing long-term health and extending longevity is becoming a significant consumer goal. Advances in disease eradication, treatments, and global regulation have saved and improved countless lives.

However, the prevalence of lifestyle-related diseases and reduced state health shift responsibility onto individuals, particularly in higher income markets.

1. HEALTH IS THE NEW WEALTH

The growing global affluence in the 2020s grants consumers more time and resources to invest in good health and longevity.

In this context, every brand transforms into a health brand, striving to enhance customer well-being through their products and services.

Dentsu Health research indicates that over half of global consumers expect to use technology for daily health monitoring, leading to the adoption of print-on sensors and microchip implants as technology becomes more precise yet less intrusive.

Achieving health and longevity in 2030 involves leveraging technology to mitigate life risks while addressing the potential dangers technology presents.

Brands can prepare for this future by capitalizing on data available through wearable technology and aiding people in planning for longer, multi-staged retirements.

Wearable devices enable sophisticated personal health data reporting and monitoring. Tech-driven innovators tailor services based on policyholders' lifestyles, exemplified by Gucci's collaboration with Oura rings.

Brands can incentivize better lifestyle choices and partner with wearable tech providers to tap into this trend. Data security investment and positioning as stewards of data privacy will foster market differentiation and trust among consumers.

2. MULTI-PHASED RETIREMENT

With increasing life expectancy, brands must consider multi-staged and longer-lasting retirements. "New retirees" have time, money, and better health in early retirement. Brands should have strategies at capturing their share of the wallet.

3. NEW PLAYERS IN THE HEALTH FIELD

As patients gain access to their biometric data and use data and AI for self-diagnosis, reliance on family practitioners may decrease. Companies can position themselves as essential partners in this revolution by embracing innovation, product development, and consumer-centric design thinking throughout the healthcare journey.

Surprising players like Alibaba and Amazon have already ventured into white-label drugs and telemedicine, signaling the need for adaptability and forward thinking in the healthcare industry.

The effect of changing landscape has on health brands

4. TECH & FEMTECH

The use of AI technologies and big data approaches are beginning to transform not just the R&D within the industry but also clinical and commercial approaches, exerting pressure on value levers within the industry.

We foresee this trend to further accelerate and lead to the automation of manual processes and implementation of new systems within the industry's value chain. Buyers, suppliers, payers, and patients will need to have continued dialogues to find a way forward while preserving privacy and security concerns.

A field we see rising across the board is Femtech, which means applications, devices, products, and diagnostics that cater to the needs of women's health, and once taboo topics, such as menstruation, menopause, sexual wellbeing, and fertility.

Globally, only 4% of healthcare research and development has been towards women's health, despite the field being worth over 450 billion euro in annual spend.

Health brands should also revisit Corporate Social Responsibility strategies to see that they strike a balance in this sense, as well as the global, local and 'glocal', and make sure they meet the needs of different demographic groups, like those based on ethnicity and race on top of gender.

5. DIGITAL MATURITY WILL BE A GAME-CHANGER

Pharma companies have not been in the forefront of digital development.

Be it maturing in terms od digital content, owned 1st party data management, analytics to form better understanding of your consumers, or revisiting the way you target, the best time to invest into digital maturity was yesterday.

47% of global consumers say that healthcare & life sciences are more focused on industry needs than patient needs.

Digital therapies are set to deliver evidence-based interventions to patients through software programs that help prevent, manage, or treat a medical disorder or disease. Technology could be a viable alternative to traditional pharmacologic treatments, or used in concert with medications, devices, or other therapies to optimize patient care and health outcomes.

Digital therapeutics, for example, might use an app-based platform to target modifiable chronic diseases such as diabetes, depression, anxiety, and heart disease.

With proper and safe infrastructure, focus on breaking down unneeded data and digital silos, and move from one-size-fits-all experiences to personalized ones as per the preferences of your customer segments. This is key to capturing market share with Gen Z and the Millennials.

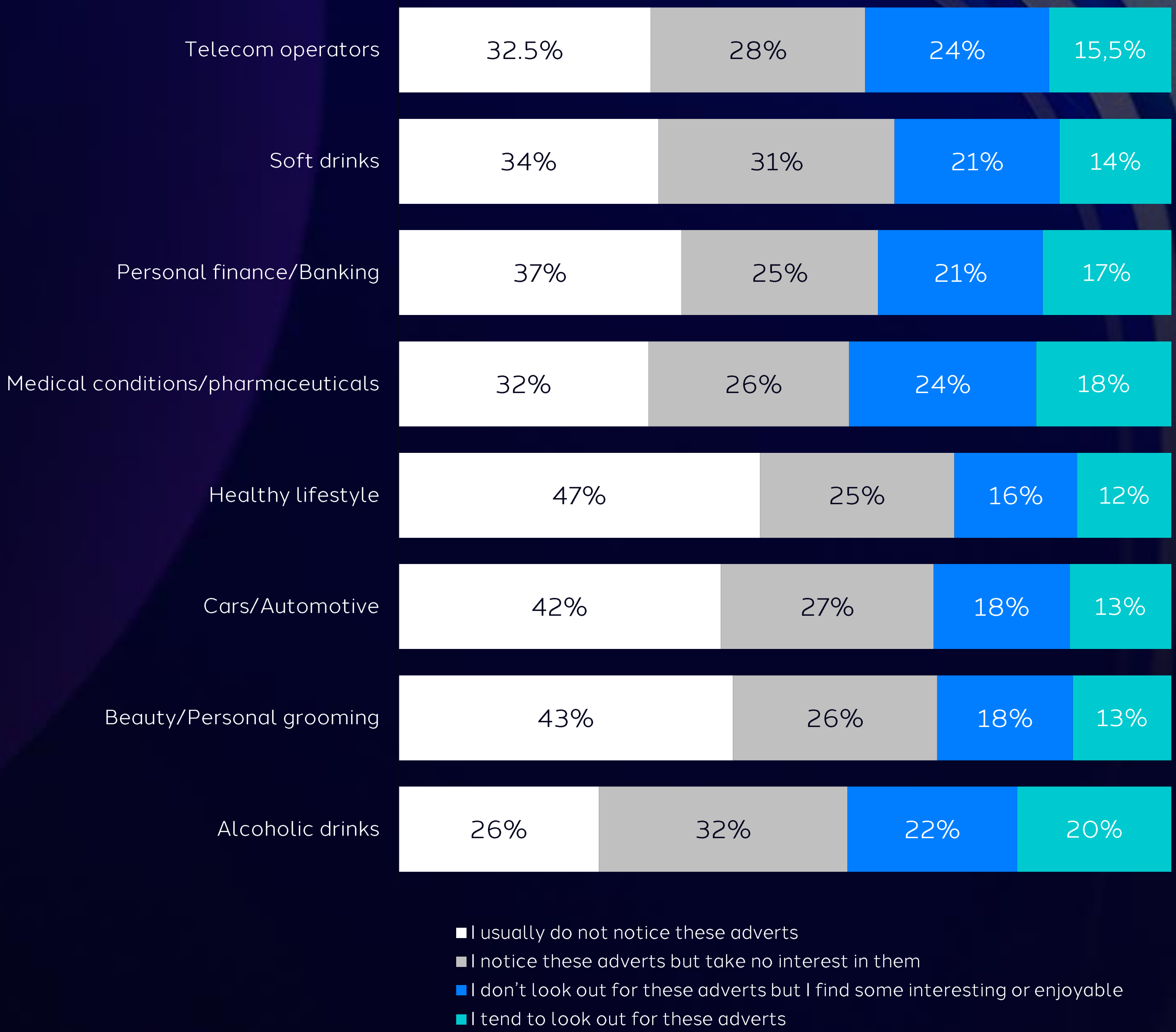
BULGARIA

Audience deep dive reveals changes in Bulgarians views of health & life pre- and post-Covid

2019	2022	
55%	**+1%**	*I look out for the healthy products*
51%	**+3%**	*My personal appearance says a lot about my personality*
27%	**+6%**	*I regularly take active exercise*
35%	**+9%**	*I'm always looking for healthier food alternatives*
88%	**+9%**	*Living in secure surrounding is important to me*
24%	**+4%**	*I'm often on a diet to lose weight*

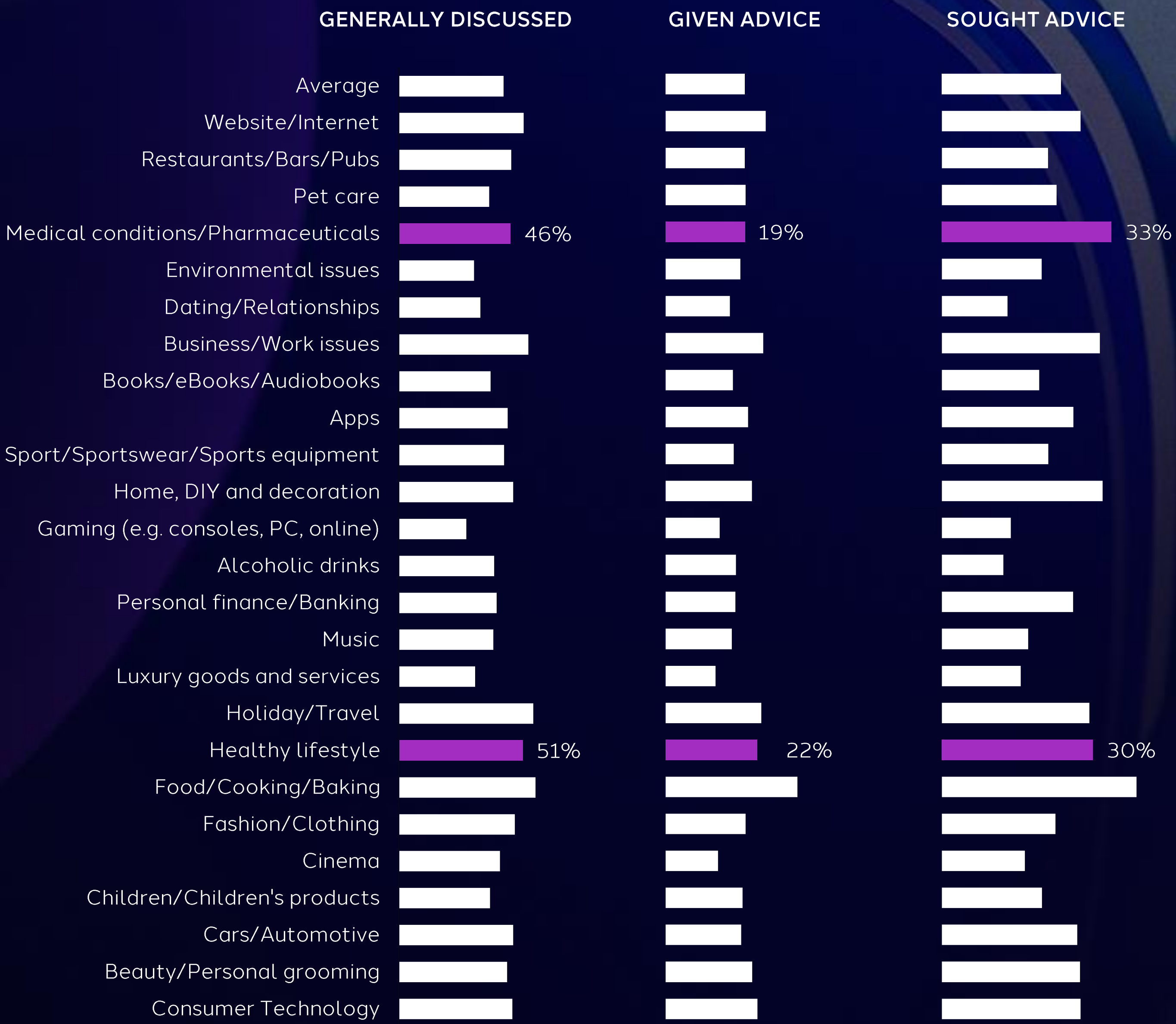
Source: dentsu Consumer Connection System panel Bulgaria

Attitudes towards advertising in Bulgaria: more than the CEE average interest towards pharma & health advertisements



Source: dentsu's Consumer Connection System (CCS) panel

High likelihood of discussing medical conditions and health in Bulgaria



Source: dentsu's Consumer Connection System (CCS) panel.
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months?"

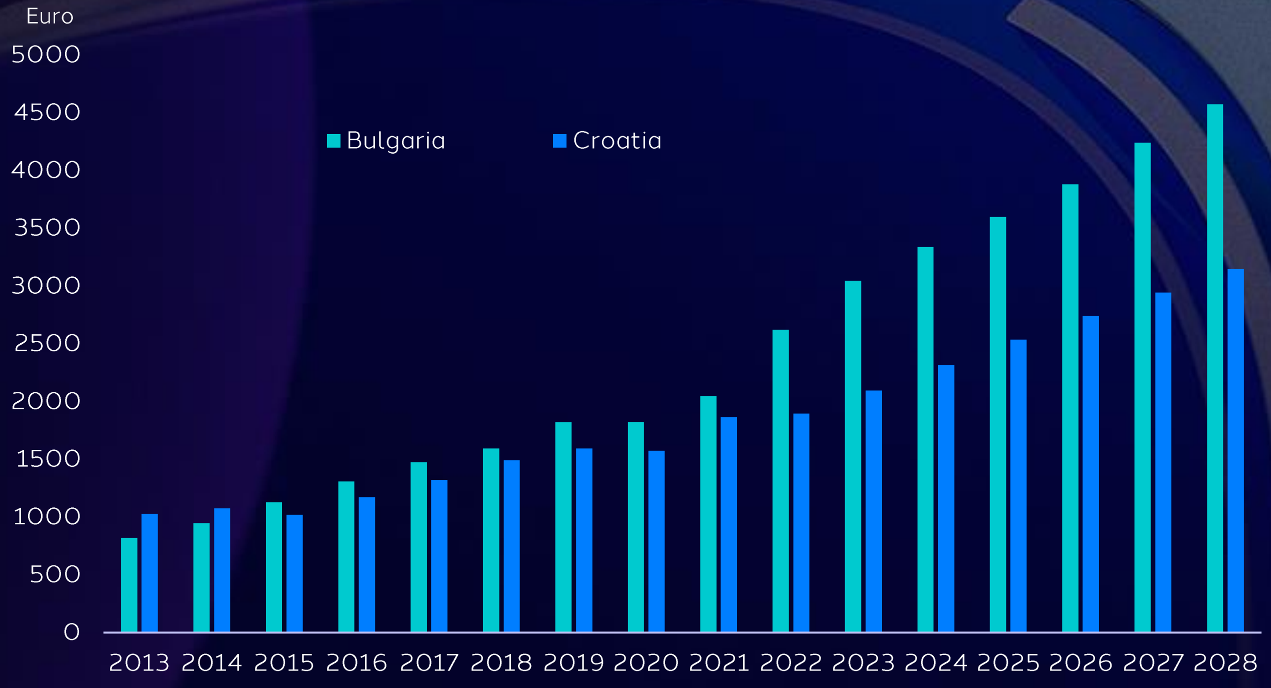

CROATIA

Scale of attitudes towards self-medication in Croatia

HEALTH MANAGER	DOCTOR-ORIENTED	COST-CONSCIOUS	ONLY OTC	PREVENTIONIST	NATURALIST
More pills is better	*I only take doctor prescribed medicine*	*Trademarks are as good as white labels*	*No need to go to doctor*	*I avoid being sick by a healthy lifestyle*	*No to classic medicine*
+8	**+1**	**+4**	**+3**	**+3**	**+2**
Health managers believe in the effectiveness of all medicines and supplements and take them together. They also stock up on OTC drugs at home and always have a painkiller or a heart-burn medicine with them.	Doctor-oriented people take mainly the drugs that are prescribed by a family practitioner and do not believe so much to self-care medicines.	This group is counting every penny, also in healthcare. Their purchase decision in all health-related matters is based on price, and they are likely to buy a white-label product thinking they are as good in quality as a branded product.	The Only OTC segment is hesitant on going to the doctor's office, they might also use own remedies to flu symptoms. They can also suffer from an ailment, like an ache, for a long time without doing anything about it or seeking any help for it.	Preventionists believe that taking drugs prevents more serious illness later. They are eager on getting guidance from pharmacist and doctors, and only use drugs in the amounts they are prescribed.	Naturalists avoid any store-bought medicines. They don't believe in drugs, not even for non-life threatening, easy-to-fix ailment like heartburn or flu. They are open and willing to test all alternative routes to healthcare before visiting a doctor.
2019: 30% 2022: 38%	2019: 19% 2022: 20%	2019: 19% 2022: 25%	2019: 12% 2022: 15%	2019: 17% 2022: 20%	2019: 10% 2022: 12%

Change to the pre-pandemic group size.

Total consumer spending on healthcare 2013 to 2028 in Croatia & Bulgaria



2013: 1,028 euro / 819 euro

2028: 3,146 euro / 4,572 euro

The real total consumer spending on healthcare in multiple markets like Croatia has been forecasted to increase between 2013 and 2028.

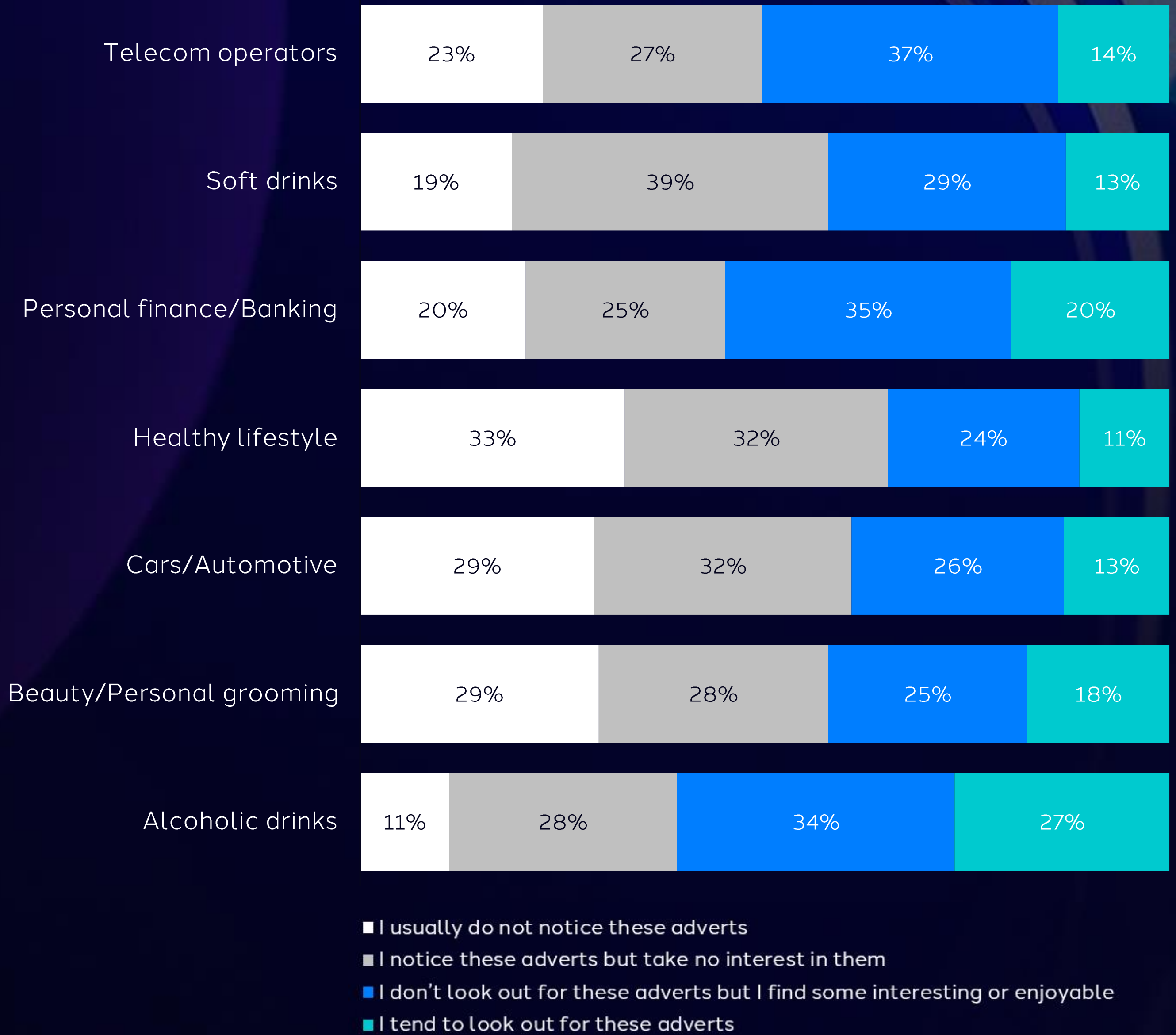
Consumer spending, in this case healthcare-related spending, refers to the domestic demand of private households and non-profit institutions serving household. Spending by corporations and the state is not included, and the forecast has been adjusted for the expected impact of Covid-19.

As a comparison, Croatia has been added to the chart showing the forecasted massive amount of healthcare spend rise. Reasons span from insurance coverage gaps, aging population, increasing GDP, and average life expectancy.

Consumer spending is broken down according to the United Nations' Classification of Individual Consumption by Purpose (COICOP). The shown data adheres broadly to group 06.

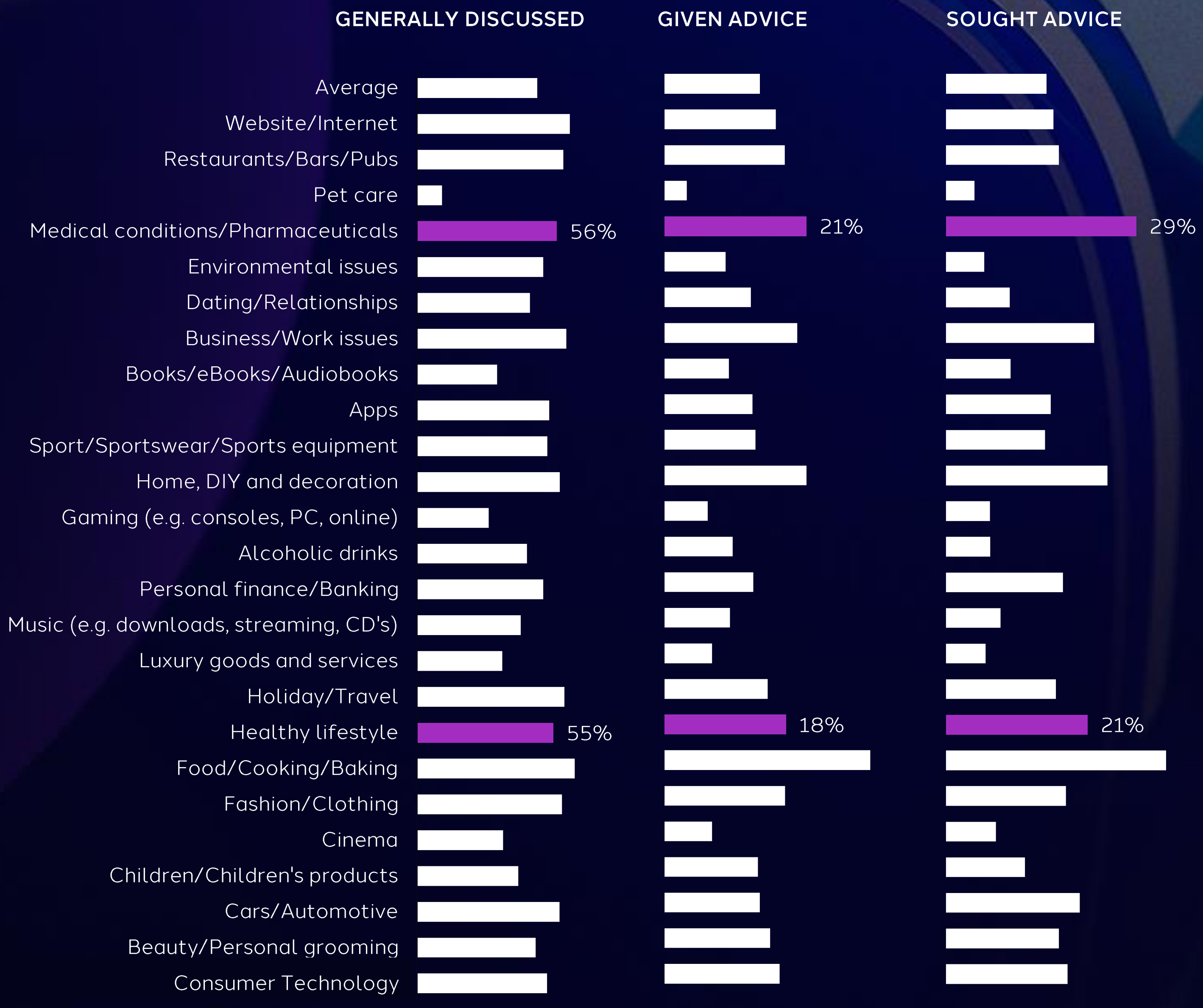
Source: Statista Consumer Spending, Analysis of Healthcare Expenditures 2022

Attitudes towards advertising in Croatia: healthy lifestyle ads are not sought after



Source: dentsu's Consumer Connection System (CCS) panel

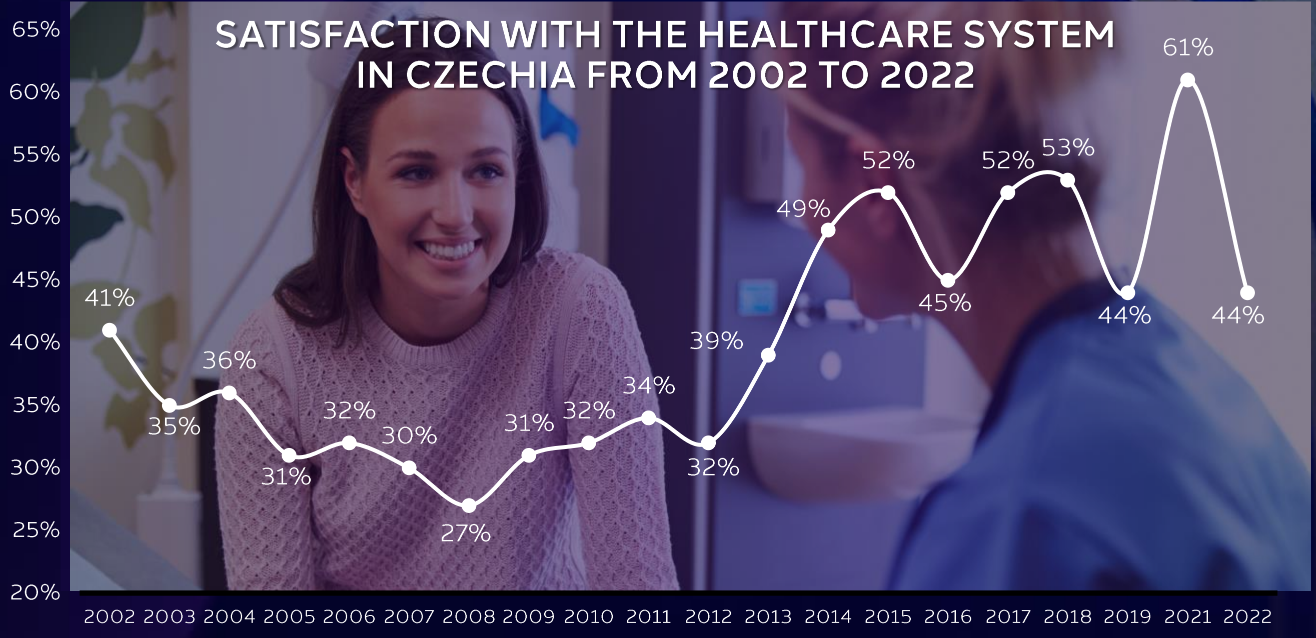
Heath and medical issues are among the most discussed issues



Source: dentsu's Consumer Connection System (CCS) panel.
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months?"

CZECHIA

Satisfaction growth with healthcare system on a steady rise for a decade



According to an annual survey run by the Center for Public Opinion, the share of people satisfied with the healthcare system in Czechia fluctuated in the observed period.

While in 2002, around 41% of people were content with healthcare, it reached 44% in 2022, a difference of just 3%. The lowest satisfaction in the observed period was noted in 2008 at 27%.

On the other hand, 61 percent of respondents were satisfied in 2021, the highest recorded figure. It is a sum of respondents saying they are "definitely satisfied" or "rather satisfied" with the healthcare system and the high numbers coincide with a year of pandemic of Covid-19.

The rise of satisfaction started 2013; the system has undergone significant changes in the last 30 years covering now all residents. Compared to the EU averages, Czechia is about the same level as the EU average in out-of-pocket spending on health, about 14% of their total health bill, where compulsory schemes and government cover 81.8%.

Of the out-of-pockets spendings, pharmaceuticals take 6.7%.

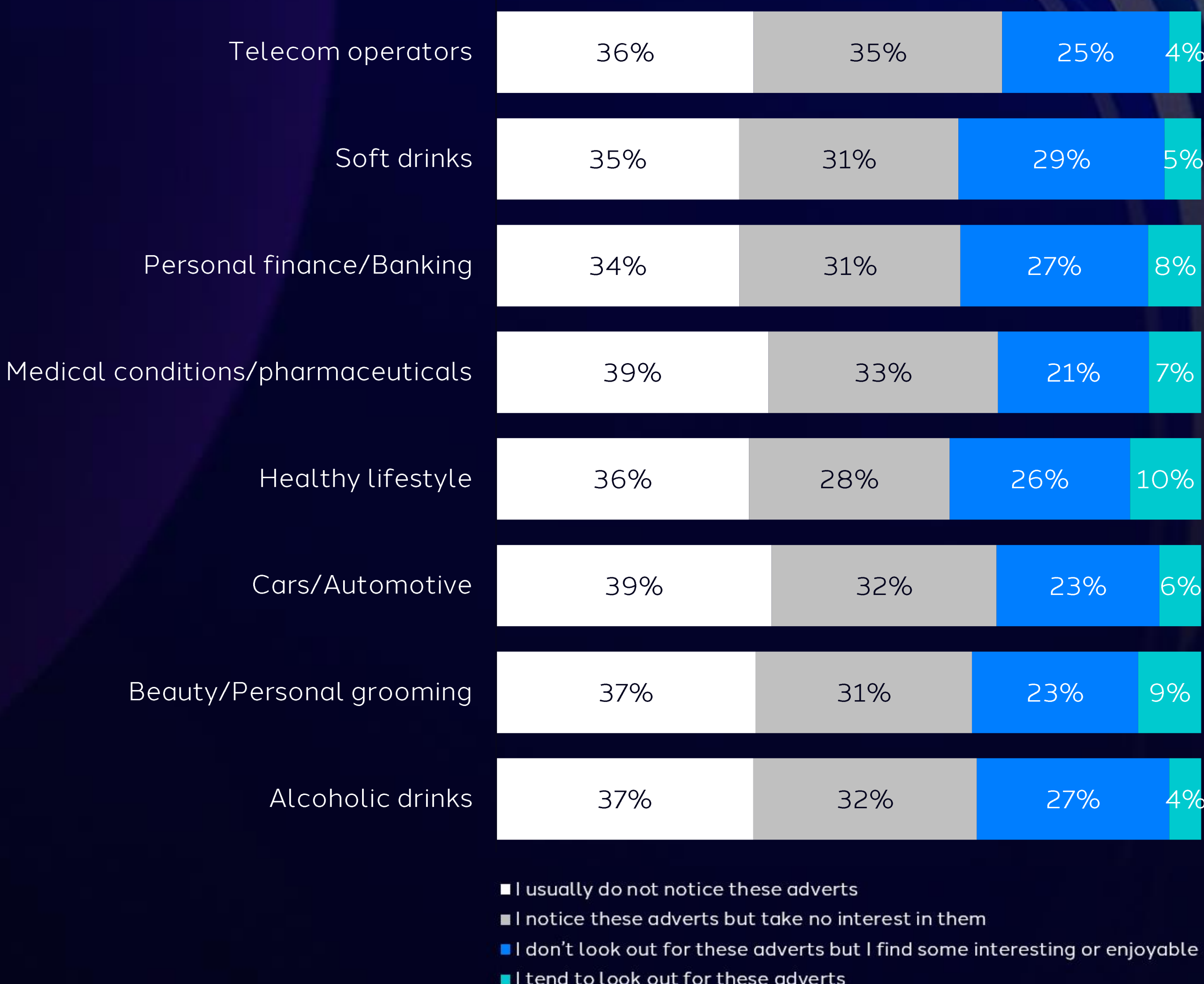
Source: Center for Public Opinion, Czech

Scale of attitudes towards self-medication in Czechia

Segment	Attitude	Change	Description	2019	2022
HEALTH MANAGER	*More pills is better*	+2	Health managers believe in the effectiveness of all medicines and supplements and take them together. They also stock up on OTC drugs at home and always have a painkiller or a heart-burn medicine with them.	2019: 32%	2022: 34%
DOCTOR-ORIENTED	*I only take doctor prescribed medicine*	+1	Doctor-oriented people take mainly the drugs that are prescribed by a family practitioner and do not believe so much to self-care medicines.	2019: 30%	2022: 31%
COST-CONSCIOUS	*Trademarks are as good as white labels*	+17	This group is counting every penny, also in healthcare. Their purchase decision in all health-related matters is based on price, and they are likely to buy a white-label product thinking they are as good in quality as a branded product.	2019: 23%	2022: 40%
ONLY OTC	*No need to go to doctor*	=	The Only OTC segment is hesitant on going to the doctor's office, they might also use own remedies to flu symptoms. They can also suffer from an ailment, like an ache, for a long time without doing anything about it or seeking any help for it.	2019: 11%	2022: 11%
PREVENTIONIST	*I avoid being sick by a healthy lifestyle*	+3	Preventionists believe that taking drugs prevents more serious illness later. They are eager on getting guidance from pharmacist and doctors, and only use drugs in the amounts they are prescribed.	2019: 17%	2022: 20%
NATURALIST	*No to classic medicine*	-7	Naturalists avoid any store-bought medicines. They don't believe in drugs, not even for non-life threatening, easy-to-fix ailment like heartburn or flu. They are open and willing to test all alternative routes to healthcare before visiting a doctor.	2019: 20%	2022: 13%

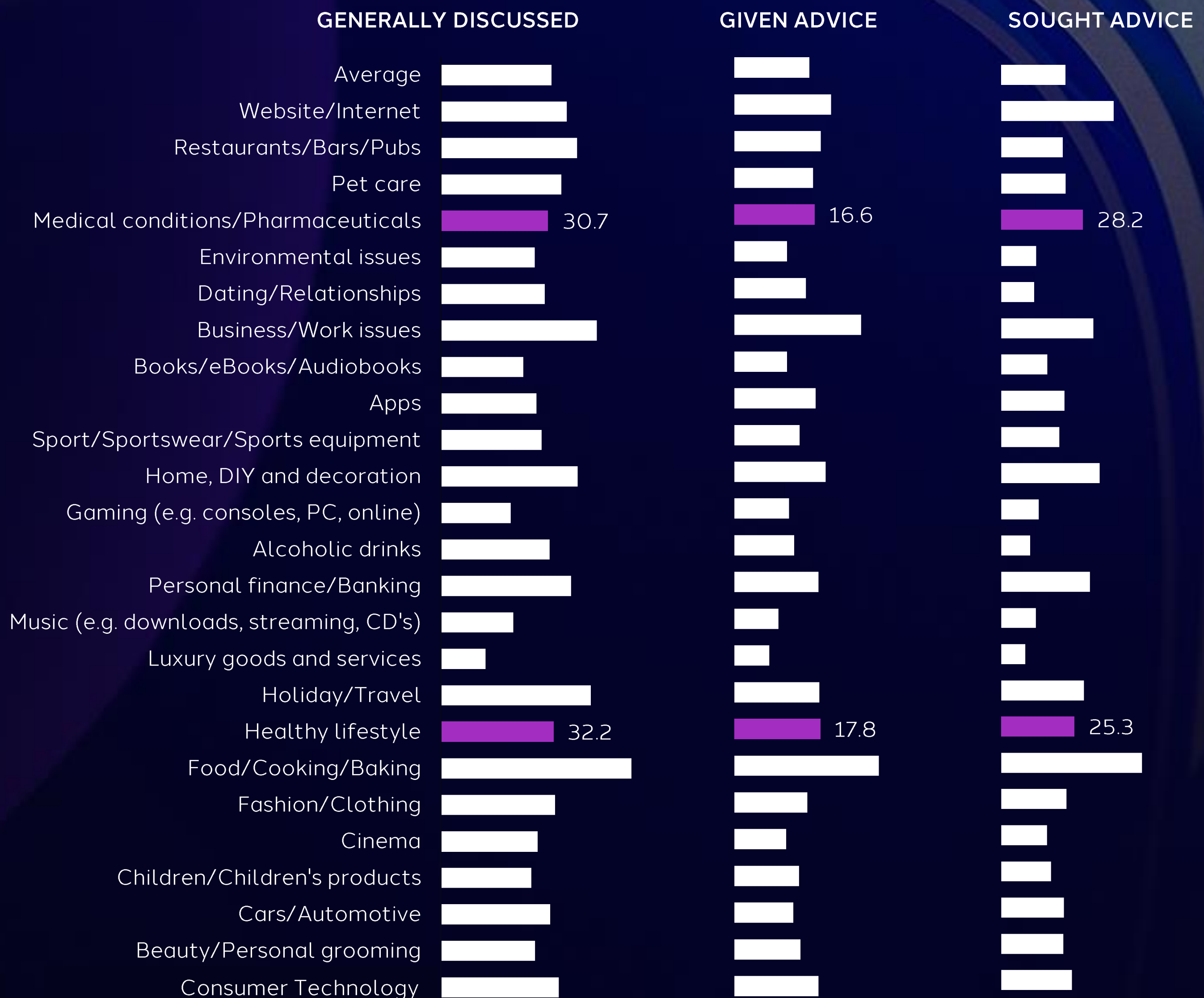
Change to the pre-pandemic group size.

Attitudes towards advertising in Czechia: People tend to not notice the ads if they have no ailments



Source: dentsu’s Consumer Connection System (CCS) panel

People generally seek advice on health & medical issues in Czechia



Source: dentsu's Consumer Connection System (CCS) panel.
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months?"

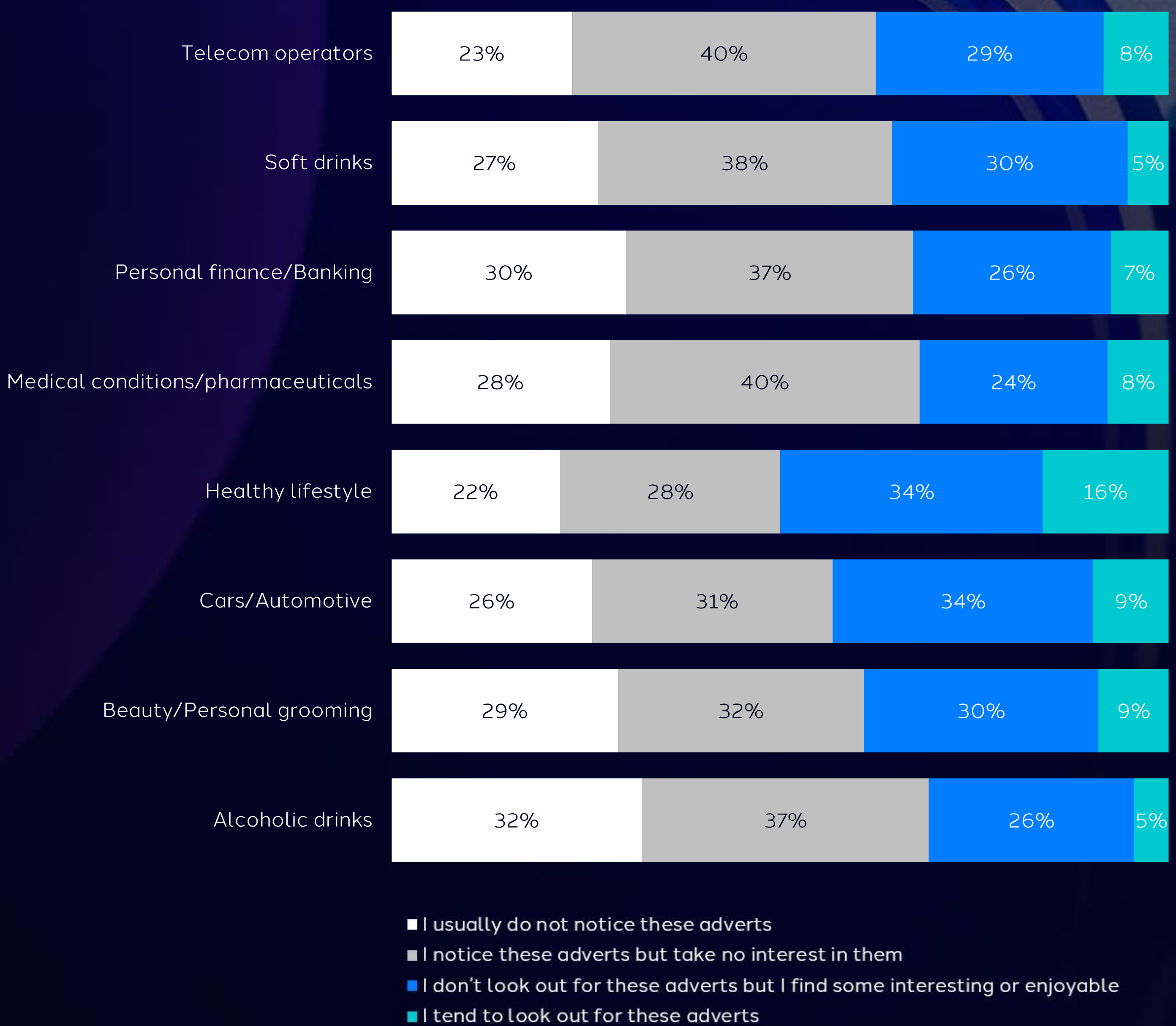
HUNGARY

Scale of attitudes towards self-medication in Hungary

HEALTH MANAGER	DOCTOR-ORIENTED	COST-CONSCIOUS	ONLY OTC	PREVENTIONIST	NATURALIST
More pills is better	*I only take doctor prescribed medicine*	*Trademarks are as good as white labels*	*No need to go to doctor*	*I avoid being sick by a healthy lifestyle*	*No to classic medicine*
+3	**+1**	**+11**	**+11**	**=**	**-1**
Health managers believe in the effectiveness of all medicines and supplements and take them together. They also stock up on OTC drugs at home and always have a painkiller or a heart-burn medicine with them.	Doctor-oriented people take mainly the drugs that are prescribed by a family practitioner and do not believe so much to self-care medicines.	This group is counting every penny, also in healthcare. Their purchase decision in all health-related matters is based on price, and they are likely to buy a white-label product thinking they are as good in quality as a branded product.	The Only OTC segment is hesitant on going to the doctor's office, they might also use own remedies to flu symptoms. They can also suffer from an ailment, like an ache, for a long time without doing anything about it or seeking any help for it.	Preventionists believe that taking drugs prevents more serious illness later. They are eager on getting guidance from pharmacist and doctors, and only use drugs in the amounts they are prescribed.	Naturalists avoid any store-bought medicines. They don't believe in drugs, not even for non-life threatening, easy-to-fix ailment like heartburn or flu. They are open and willing to test all alternative routes to healthcare before visiting a doctor.
2019: 28% 2022: 31%	2019: 17% 2022: 18%	2019: 8% 2022: 19%	2019: 13% 2022: 24%	2019: 13% 2022: 13%	2019: 19% 2022: 18%

Change to the pre-pandemic group size.

Hungarians are not keen to look at medicine ads, healthy lifestyle interests them more



Source: dentsu’s Consumer Connection System (CCS) panel

Hungarians talk or seek advice significantly less than the CEE average

Source: Dentsu's Consumer Connection System (CCS) panel.
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months"

POLAND

Scale of attitudes towards self-medication in Poland

HEALTH MANAGER	DOCTOR-ORIENTED	COST-CONSCIOUS	ONLY OTC	PREVENTIONIST	NATURALIST
More pills is better	*I only take doctor prescribed medicine*	*Trademarks are as good as white labels*	*No need to go to doctor*	*I avoid being sick by a healthy lifestyle*	*No to classic medicine*
+7	-2	+5	-7	+2	-1
Health managers believe in the effectiveness of all medicines and supplements and take them together. They also stock up on OTC drugs at home and always have a painkiller or a heart-burn medicine with them.	Doctor-oriented people take mainly the drugs that are prescribed by a family practitioner and do not believe so much to self-care medicines.	This group is counting every penny, also in healthcare. Their purchase decision in all health-related matters is based on price, and they are likely to buy a white-label product thinking they are as good in quality as a branded product.	The Only OTC segment is hesitant on going to the doctor's office, they might also use own remedies to flu symptoms. They can also suffer from an ailment, like an ache, for a long time without doing anything about it or seeking any help for it.	Preventionists believe that taking drugs prevents more serious illness later. They are eager on getting guidance from pharmacist and doctors, and only use drugs in the amounts they are prescribed.	Naturalists avoid any store-bought medicines. They don't believe in drugs, not even for non-life threatening, easy-to-fix ailment like heartburn or flu. They are open and willing to test all alternative routes to healthcare before visiting a doctor.
2019: 20% 2022: 27%	2019: 36% 2022: 34%	2019: 30% 2022: 35%	2019: 51% 2022: 44%	2019: 28% 2022: 30%	2019: 34% 2022: 33%

Change to the pre-pandemic group size.

+14%

OTC growth in 2022

1/3

OTC is bought online

Supplement and other OTC drug use growth despite inflation in Poland

The wellness industry is expected to grow by 10% from 2022 to 2027, reaching a value of $2 trillion globally.

The Association of the European Self-Care Industry estimates self-care drugs save from national health systems 34 billion euro. Over 4,000 of these drugs being sold in the EU.

Supplement sales, including immunity-boosting remedies, grew by 14% in 2022 despite double-digit inflation in Poland.

More supplements are also trending, and in recent years, collagen, turmeric, ginger, hemp oil and CBD products have gained popularity.

A 2023 report on OTC drug trade in Poland reveals that about 64% of people occasionally buy OTC drugs from supermarkets, petrol stations, online platforms, and kiosks on top of pharmacies.

The market has seen a rapid increase in the number of pharmacies due to market deregulation, the highest per capita in Europe. Non-pharmacies contribute significantly to ibuprofen and paracetamol sales.

Research from 2021 shows that two-thirds of Poles regularly take supplementary drugs, with 80% being vitamins and minerals for overall health, and a significant share supplements for hair, skin, and nails.

One-third of products are purchased online, and surprisingly, only about one in four Poles consulta a pharmacist before taking an OTC drug.

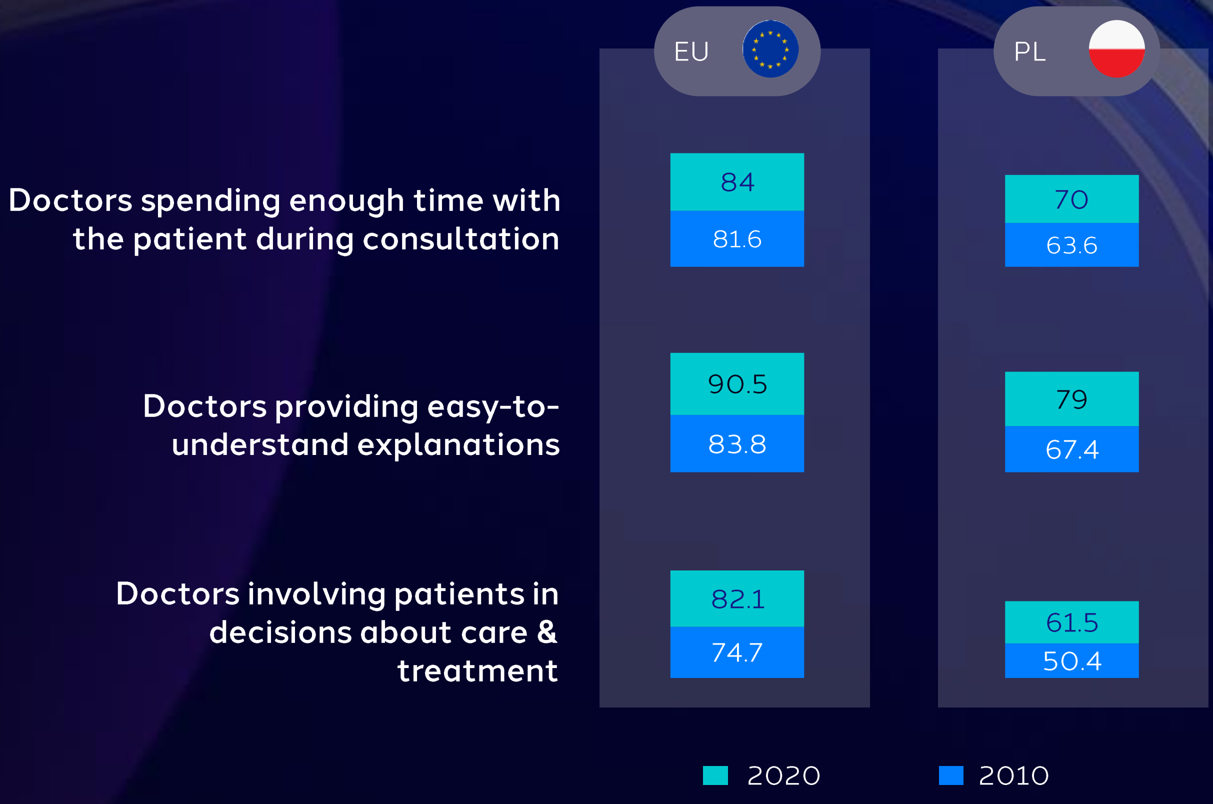
Polish consumers exhibit strong brand loyalty towards OTC drugs, with 30% loyal to specific brands compared to 19% for drinks.

During the lockdown in Poland, a study revealed that nearly half of the respondents engaged in non-appropriate self-medication behaviors, such as taking medication as a precaution or using prescription drugs without consultation.

Higher self-medication indices were linked to greater religiosity and the presence of children in a household.

Sources: AESGP, Brand Loyalty Index 2023, Apteki Association, Watch HealthCare Foundation, Farmacja.net, NCBI

Doctor-patient relationship is evolving



Despite online possibilities, face-to-face meetings with doctors are still the most important source of health-related information.

In an OECD study, we see that Poles are satisfied with the time doctors spend with them, and that doctor-provided, easy-to-understand explanations has improved massively from 2010 to 2020.

Most significantly, the number of doctors involving their patients' opinions in the decision-making about care and treatment has increased from 50.4% to 61.5%.

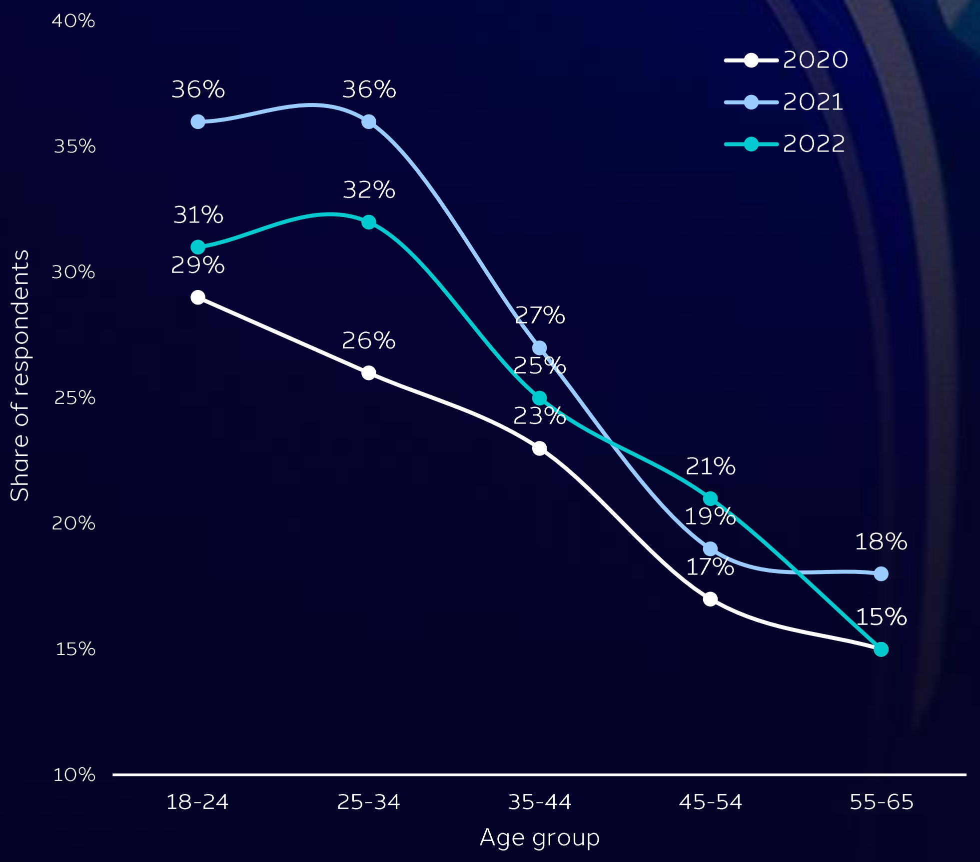
Nevertheless, the time spent per patient is still concerning. Poles are among the most dissatisfied with the time doctors spend with them. The numbers differ a lot from EU averages, possibly because in Poland, the number of doctors per 1,000 inhabitants is one of the lowest in all EU countries.

Reasons for this are twofold: firstly, in the study period, there was a growth in a number of doctors from the new generation. Secondly, people are more aware of their ailments and treatment options when they arrive at the doctor's office due to "Dr. Google".

Source: OECD, Social Issues, Migration – Health; State of Health in the EU, 2021

The youngest generation leads the wearable movement in Europe and Poland

SHARE OF PEOPLE WITH A PHYSICAL ACTIVITY MONITOR/FITNESS WRISTBAND IN POLAND FROM 2020 TO 2022, BY AGE



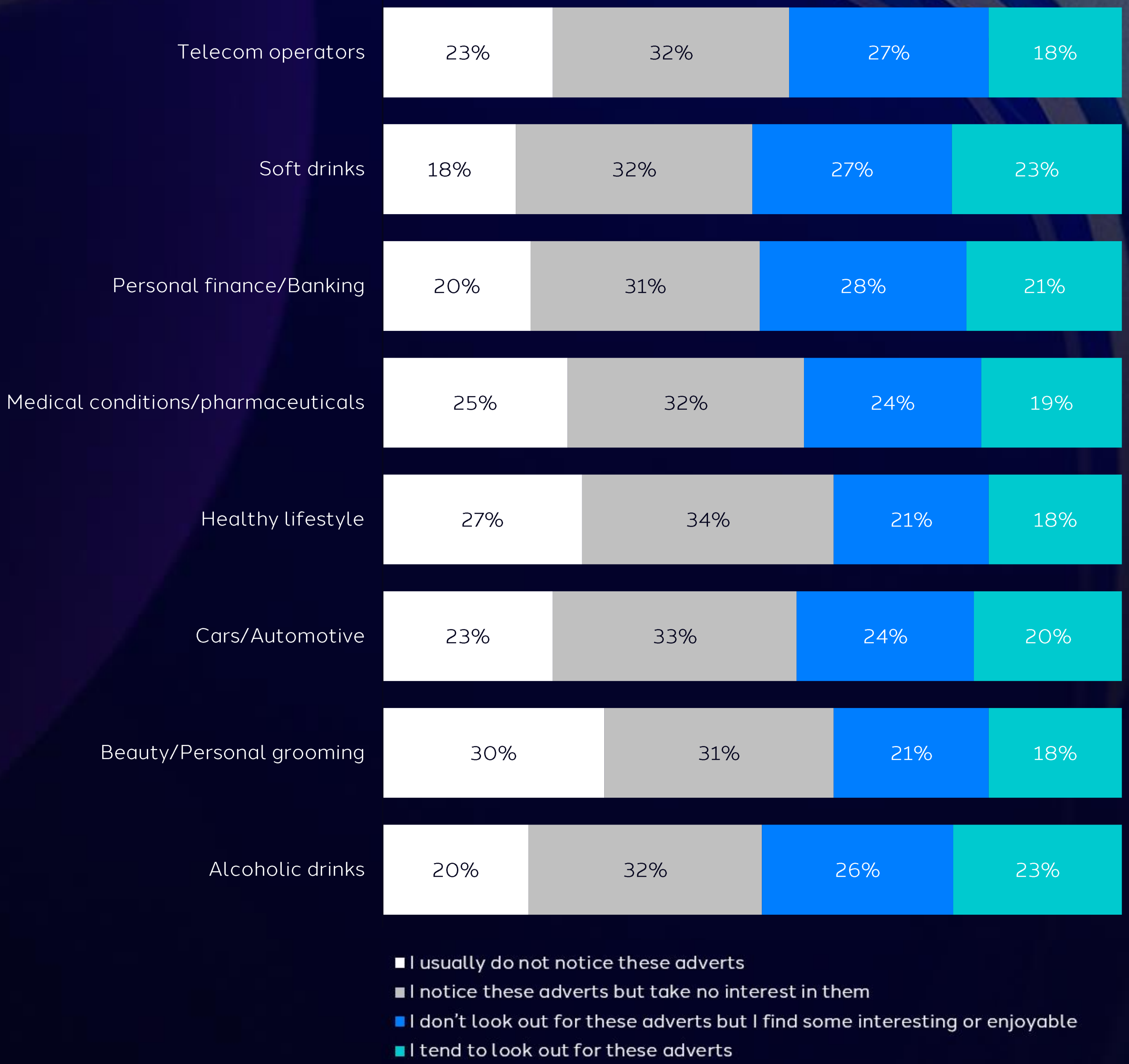
Around a third of people in Czechia (35%), Finland (33%), and Estonia (31%) used a smartwatch, fitness band or other internet-connected accessory in 2020.

In contrast, less than 10% of people in Greece (7%) and Romania (8%) used internet-connected wearables in this period.

Age greatly correlates the use of fitness activity monitors. In Poland, for example, 18–24-year-olds are twice as likely to monitor their activity than 55–65-year-olds. The pandemic, and the increased effect inflation has on consumer behavior, shows in the Polish Deloitte / Ipsos study: from year 2021, ownership decreased to year 2022.

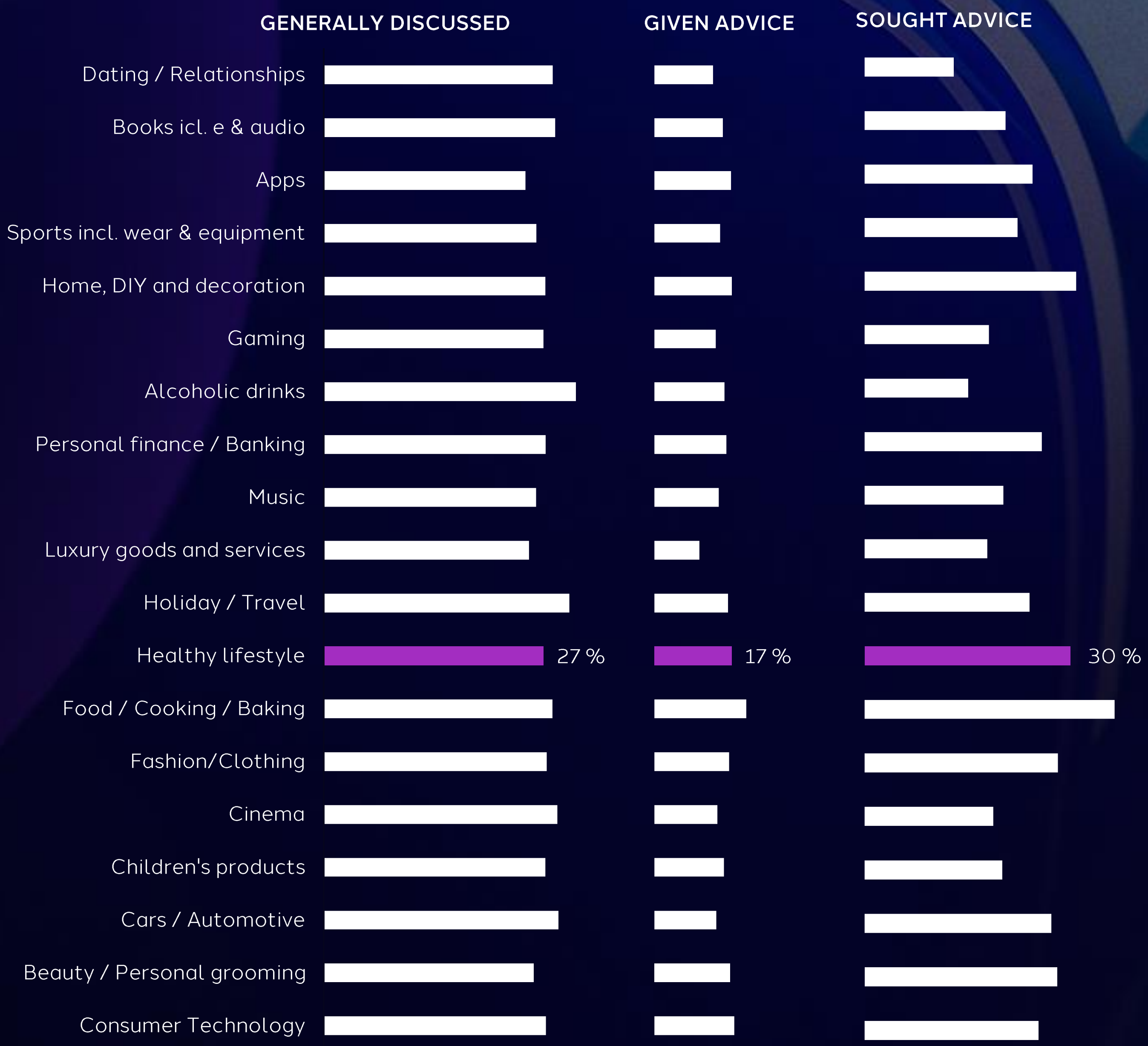
Source: Statista, Deloitte; Ipsos MORI

Attitudes towards advertising in Poland: More than the CEE average looking for pharma & health ads



Source: dentsu's Consumer Connection System (CCS) panel

Poles seek advice on health from people close to them



Source: Dentsu's Consumer Connection System (CCS) panel.
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months?"

ROMANIA

Scale of attitudes towards self-medication in Romania: lacking trust in only prevention

HEALTH MANAGER	DOCTOR-ORIENTED	COST-CONSCIOUS	ONLY OTC	PREVENTIONIST	NATURALIST
More pills is better	*I only take doctor prescribed medicine*	*Trademarks are as good as white labels*	*No need to go to doctor*	*I avoid being sick by a healthy lifestyle*	*No to classic medicine*
-2	+4	+6	+3	-4	-2
Health managers believe in the effectiveness of all medicines and supplements and take them together. They also stock up on OTC drugs at home and always have a painkiller or a heart-burn medicine with them.	Doctor-oriented people take mainly the drugs that are prescribed by a family practitioner and do not believe so much to self-care medicines.	This group is counting every penny, also in healthcare. Their purchase decision in all health-related matters is based on price, and they are likely to buy a white-label product thinking they are as good in quality as a branded product.	The Only OTC segment is hesitant on going to the doctor's office, they might also use own remedies to flu symptoms. They can also suffer from an ailment, like an ache, for a long time without doing anything about it or seeking any help for it.	Preventionists believe that taking drugs prevents more serious illness later. They are eager on getting guidance from pharmacist and doctors, and only use drugs in the amounts they are prescribed.	Naturalists avoid any store-bought medicines. They don't believe in drugs, not even for non-life threatening, easy-to-fix ailment like heartburn or flu. They are open and willing to test all alternative routes to healthcare before visiting a doctor.
2019: 43% 2022: 41%	2019: 28% 2022: 32%	2019: 24% 2022: 30%	2019: 16% 2022: 19%	2019: 27% 2022: 23%	2019: 12% 2022: 10%

Change to the pre-pandemic group size.

Over 60% of Romanians resort to self-medication for common medical problems and trust their pharmacist

More than 60% of Romanians resort to self-medication to treat minor health problems such as a cold or flu, headaches, joint or muscle pain, gastric burns, or abdominal pain, according to a study by IPSOS Romania.

The 62% of respondents who use over-the-counter medicines usually buy food supplements, vitamins, and minerals.

The same study revealed that most respondents (93%) read the instructions on the medicine label before using the product (especially the information on the number of pills to take and the possible side effects).

Meanwhile, 16% of the participants of this study said they choose home remedies to treat a common medical problem, and 18% wait to see if the problems go away on their own.

68% of Romanians keep a stock of cold and flu remedies, painkillers, and vitamins at home.

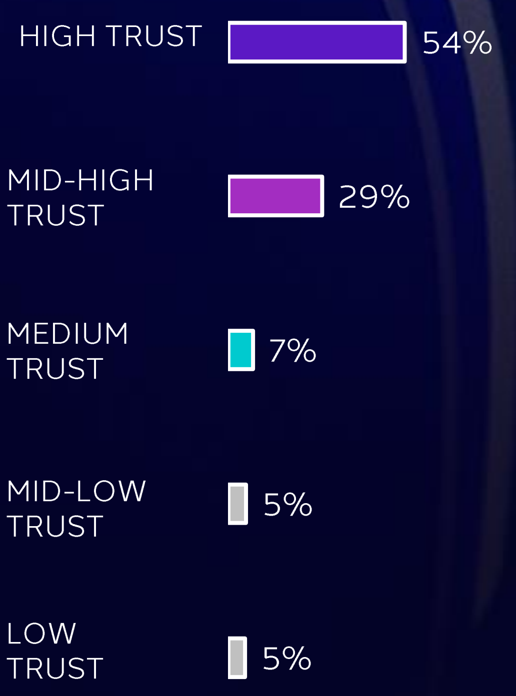
Overall, most respondents trusted the advice they received at pharmacies in 2021.

Moreover, roughly one-third of Romanians surveyed for this study had full confidence in the pharmacists' recommendations.

The study is based on answers received from Romanians living in urban areas aged between 18 and 55.

Source: Ipsos 2020

HOW MUCH DO YOU TRUST THE ADVICE YOU RECEIVE IN PHARMACIES?



Pharmacist's role is important for patients: availability for personal service is appreciated

During and after the pandemic, pharmacies became even more important to people.

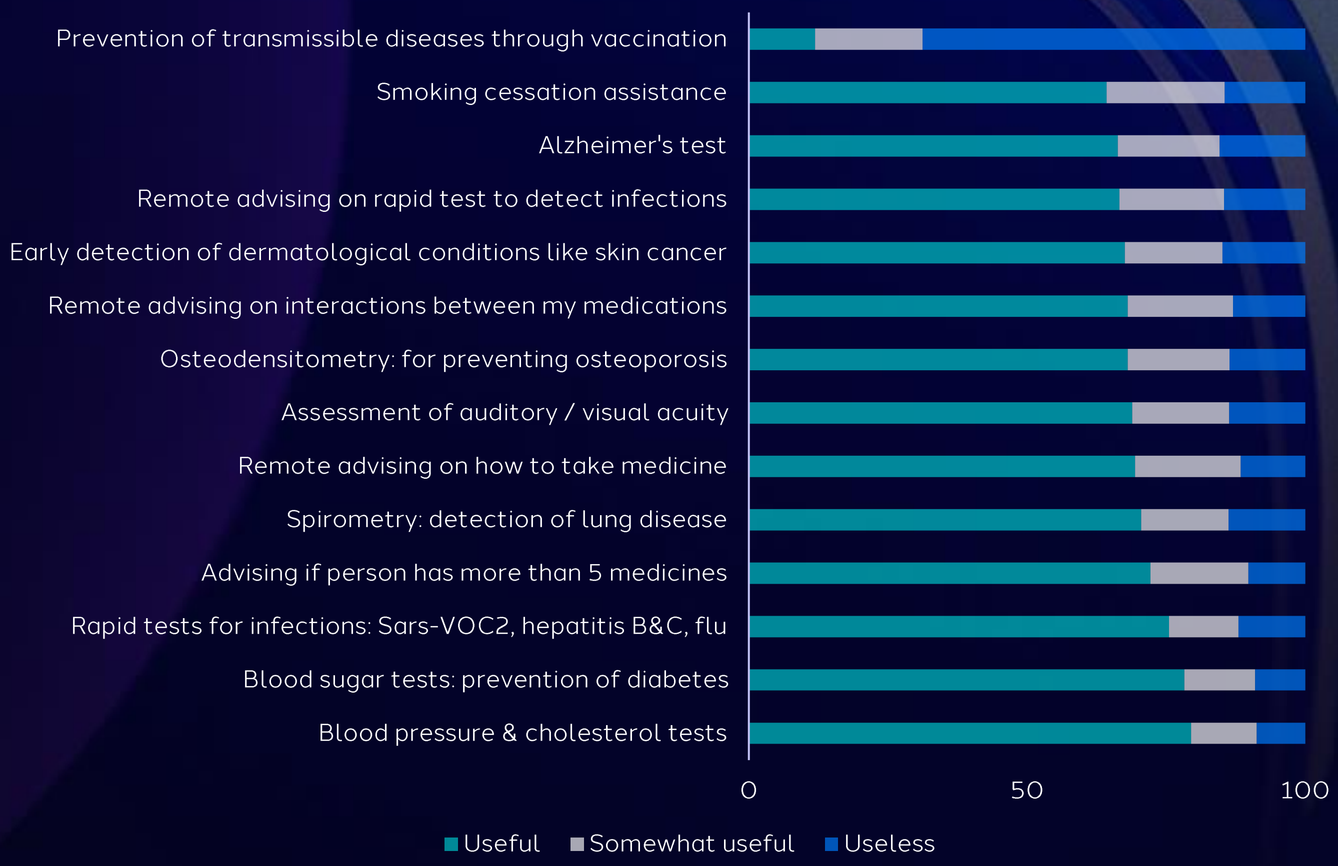
In Romania, for example, satisfaction with the services received at pharmacies, rated as very high, is mainly determined by the pharmacist's characteristics (80%), the pharmacist's attitude and the time spent with the patient (78%), the clarity with which the information is presented (72%), the pharmacist's availability (81%), the cost of medicines (45%), as well as the state of health.

Source: IQVIA, Marketingpirula

FACTORS WHICH INFLUENCE THE LEVEL OF SATISFACTION WITH THE SERVICES PROVIDED AT PHARMACIES IN ROMANIA IN 2021

What services people expect from their pharmacies, and which they see useless

USEFULNESS OF NEW SERVICES OFFERED BY PHARMACIES



During the pandemic, pharmacies played a vital role with increased customer visits. People have a high level of trust in pharmacies and value basic services like medication dispensing, usage information, and health improvement tips.

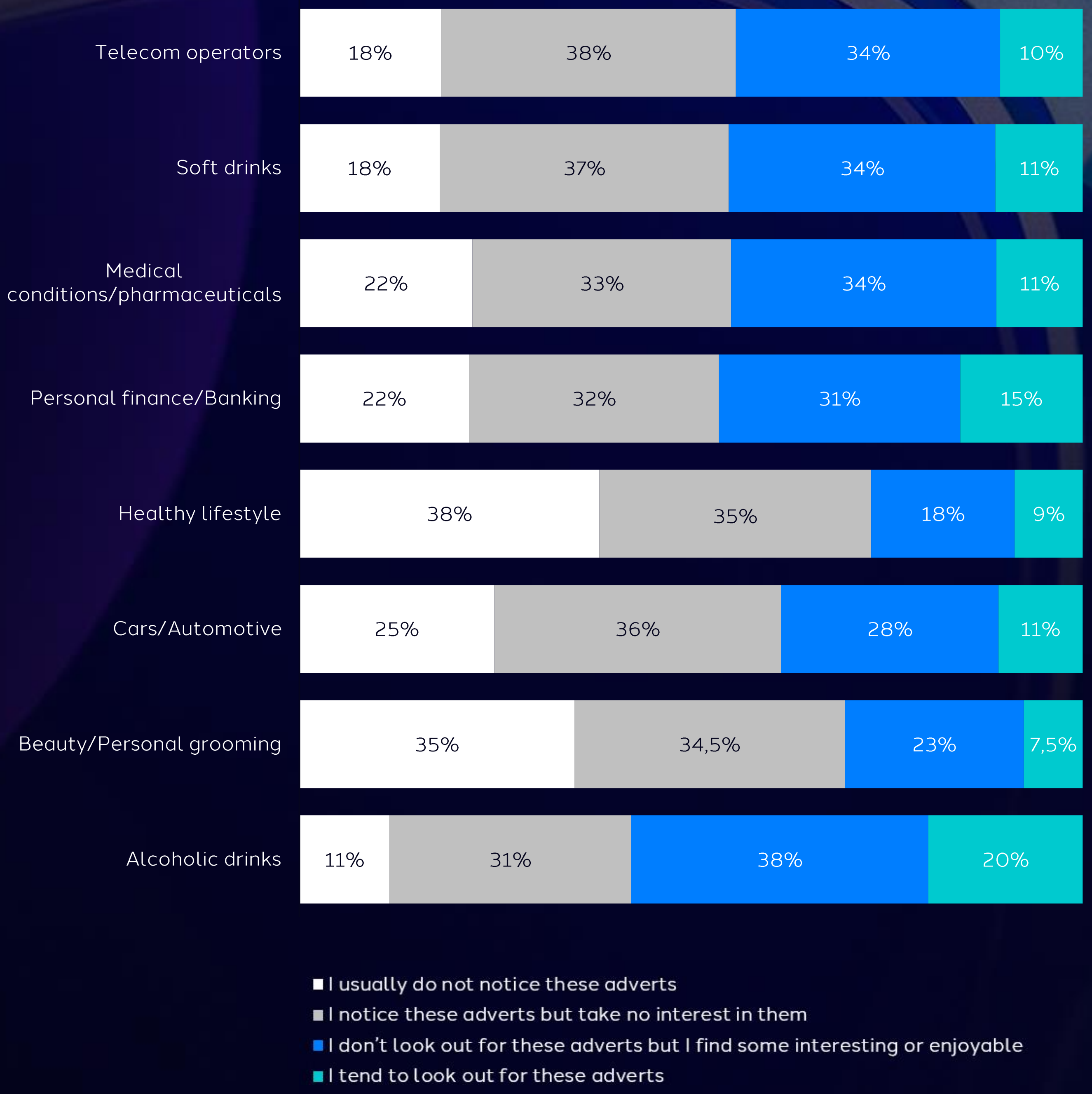
However, there's less demand for health testing, medication preparation, and involvement in healthcare programs.

A study in Romania found that citizens are interested in new pharmacy services such as rapid tests for blood pressure, glucose levels, and infections. Yet they are reluctant about spirometry, osteodensitometry, and screenings for skin cancer and age-related degenerative diseases.

Vaccination services in pharmacies are strongly rejected, especially by women, individuals with higher education, higher incomes, and those with chronic illnesses.

Source: Pharmaceutical services in Romania during the COVID-19 pandemic, University Politehnica of Bucharest 2022

Romanians are most keen on alcohol & financials ads



Source: dentsu's Consumer Connection System (CCS) panel

Romanians are active in seeking advice on health & medicine issues

Source: dentsu's Consumer Connection System (CCS) panel.
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months?"

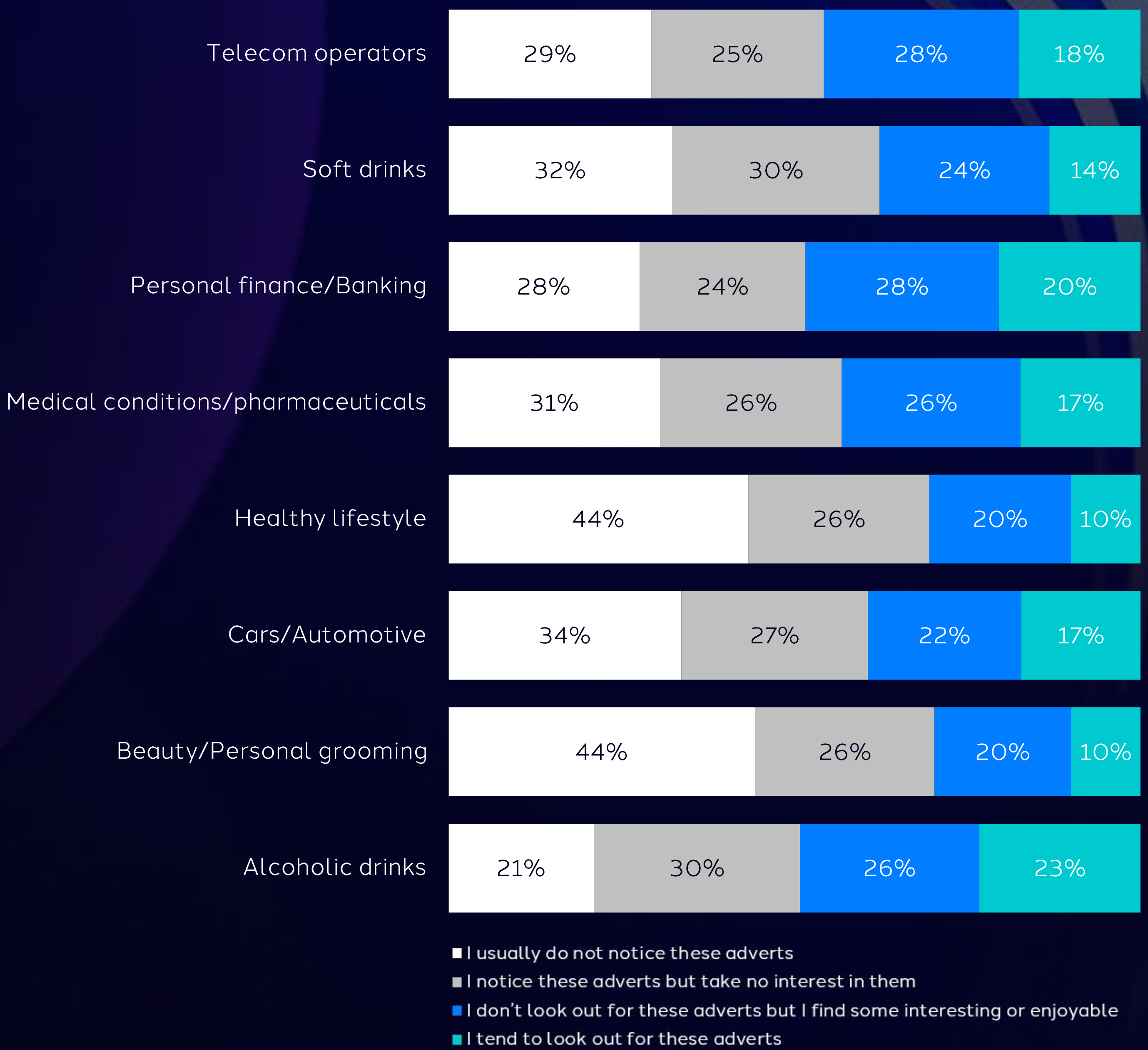
SERBIA

Scale of attitudes towards self-medication in Serbia: cost-consciousness on the rise

HEALTH MANAGER	DOCTOR-ORIENTED	COST-CONSCIOUS	ONLY OTC	PREVENTIONIST	NATURALIST
More pills is better	*I only take doctor prescribed medicine*	*Trademarks are as good as white labels*	*No need to go to doctor*	*I avoid being sick by a healthy lifestyle*	*No to classic medicine*
=	**-1**	**+3**	**=**	**-1**	**-1**
Health managers believe in the effectiveness of all medicines and supplements and take them together. They also stock up on OTC drugs at home and always have a painkiller or a heart-burn medicine with them.	Doctor-oriented people take mainly the drugs that are prescribed by a family practitioner and do not believe so much to self-care medicines.	This group is counting every penny, also in healthcare. Their purchase decision in all health-related matters is based on price, and they are likely to buy a white-label product thinking they are as good in quality as a branded product.	The Only OTC segment is hesitant on going to the doctor's office, they might also use own remedies to flu symptoms. They can also suffer from an ailment, like an ache, for a long time without doing anything about it or seeking any help for it.	Preventionists believe that taking drugs prevents more serious illness later. They are eager on getting guidance from pharmacist and doctors, and only use drugs in the amounts they are prescribed.	Naturalists avoid any store-bought medicines. They don't believe in drugs, not even for non-life threatening, easy-to-fix ailment like heartburn or flu. They are open and willing to test all alternative routes to healthcare before visiting a doctor.
2019: 24% 2022: 24%	2019: 8% 2022: 7%	2019: 24% 2022: 27%	2019: 10% 2022: 10%	2019: 10% 2022: 9%	2019: 13% 2022: 12%

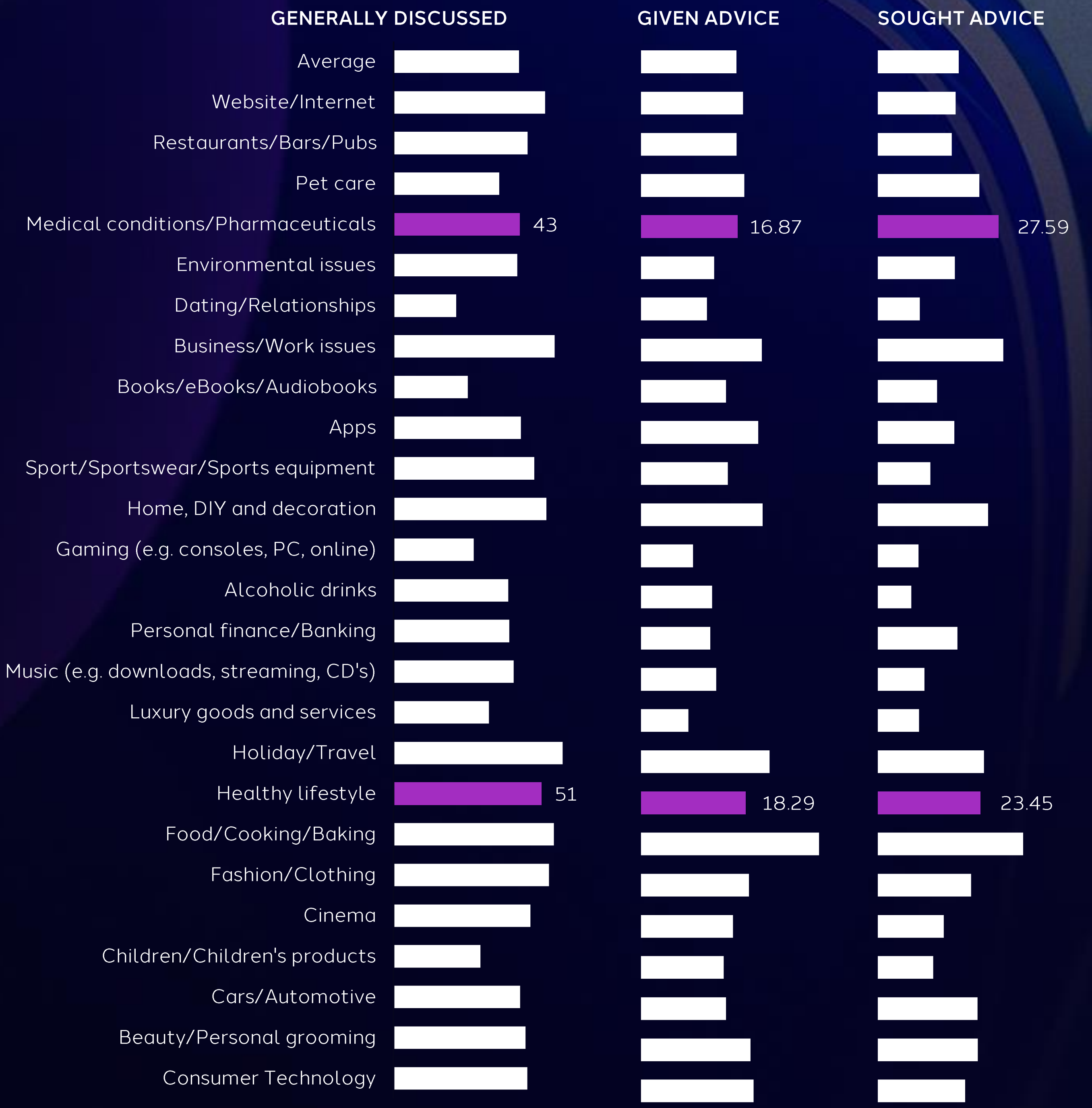
Change to the pre-pandemic group size.

Interest in medical conditions and medicines, but less in healthy lifestyle in Serbia



Source: dentsu's Consumer Connection System (CCS) panel

Serbians are open to discussing healthy lifestyle more than many other issues



Source: dentsu's Consumer Connection System (CCS) panel.
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months?"

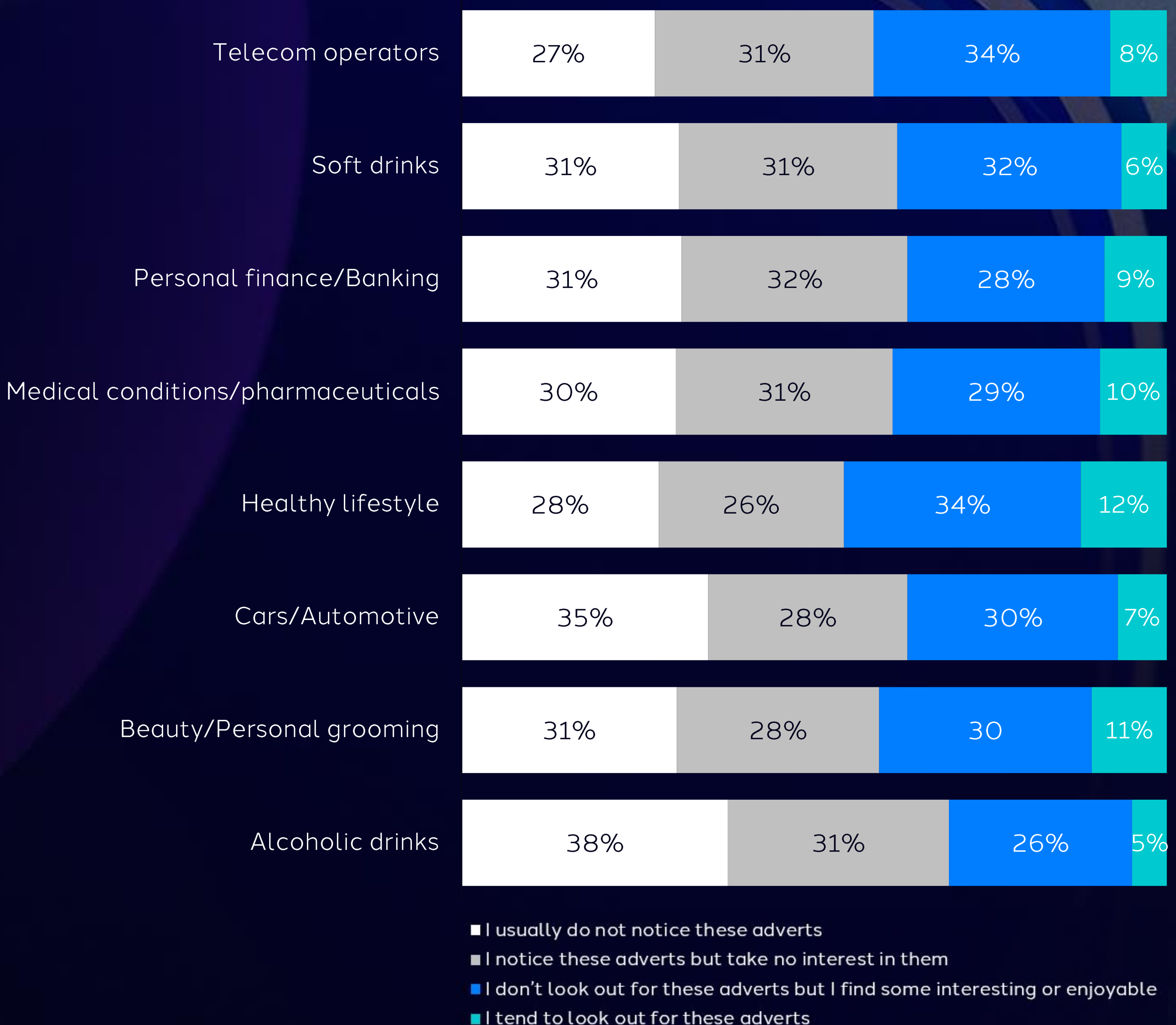
SLOVAKIA

Scale of attitudes towards self-medication in Slovakia: dwindling trust in natural methods

DOCTOR-ORIENTED	COST-CONSCIOUS	ONLY OTC	PREVENTIONIST	NATURALIST
I only take doctor prescribed medicine	*Trademarks are as good as white labels*	*No need to go to doctor*	*I avoid being sick by a healthy lifestyle*	*No to classic medicine*
-4	-1	+2	-17	-11
Doctor-oriented people take mainly the drugs that are prescribed by a family practitioner and do not believe so much to self-care medicines.	This group is counting every penny, also in healthcare. Their purchase decision in all health-related matters is based on price, and they are likely to buy a white-label product thinking they are as good in quality as a branded product.	The Only OTC segment is hesitant on going to the doctor's office, they might also use own remedies to flu symptoms. They can also suffer from an ailment, like an ache, for a long time without doing anything about it or seeking any help for it.	Preventionists believe that taking drugs prevents more serious illness later. They are eager on getting guidance from pharmacist and doctors, and only use drugs in the amounts they are prescribed.	Naturalists avoid any store-bought medicines. They don't believe in drugs, not even for non-life threatening, easy-to-fix ailment like heartburn or flu. They are open and willing to test all alternative routes to healthcare before visiting a doctor.
2019: 39% 2022: 35%	2019: 32% 2022: 31%	2019: 43% 2022: 45%	2019: 61% 2022: 45%	2019: 46% 2022: 35%

Change to the pre-pandemic group size.

Slovaks tend to look for healthy lifestyle ads the most



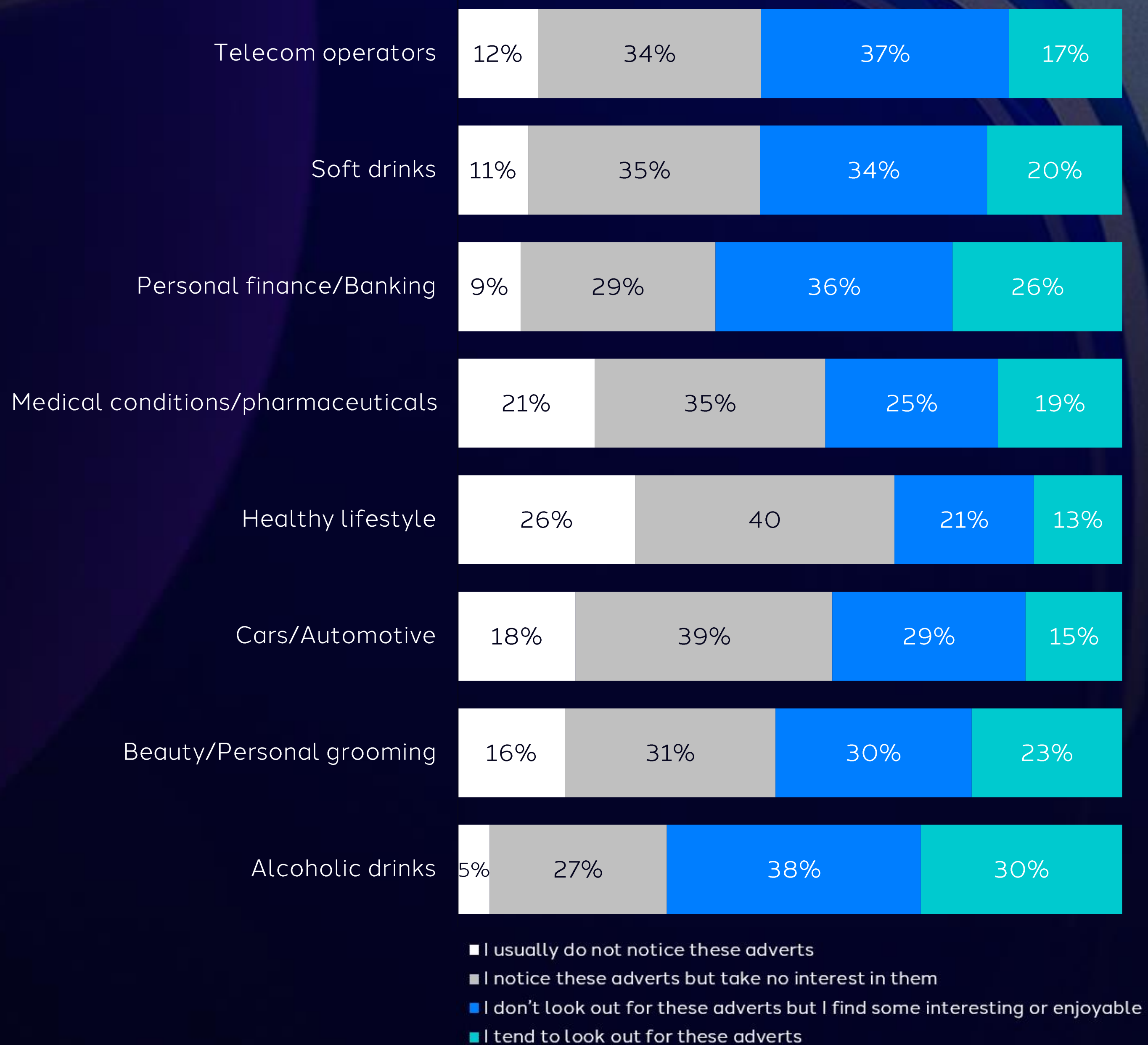
Source: dentsu's Consumer Connection System (CCS) panel

Slovaks are open to seeking advice on health matters

Source: dentsu's Consumer Connection System (CCS) panel
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months?"

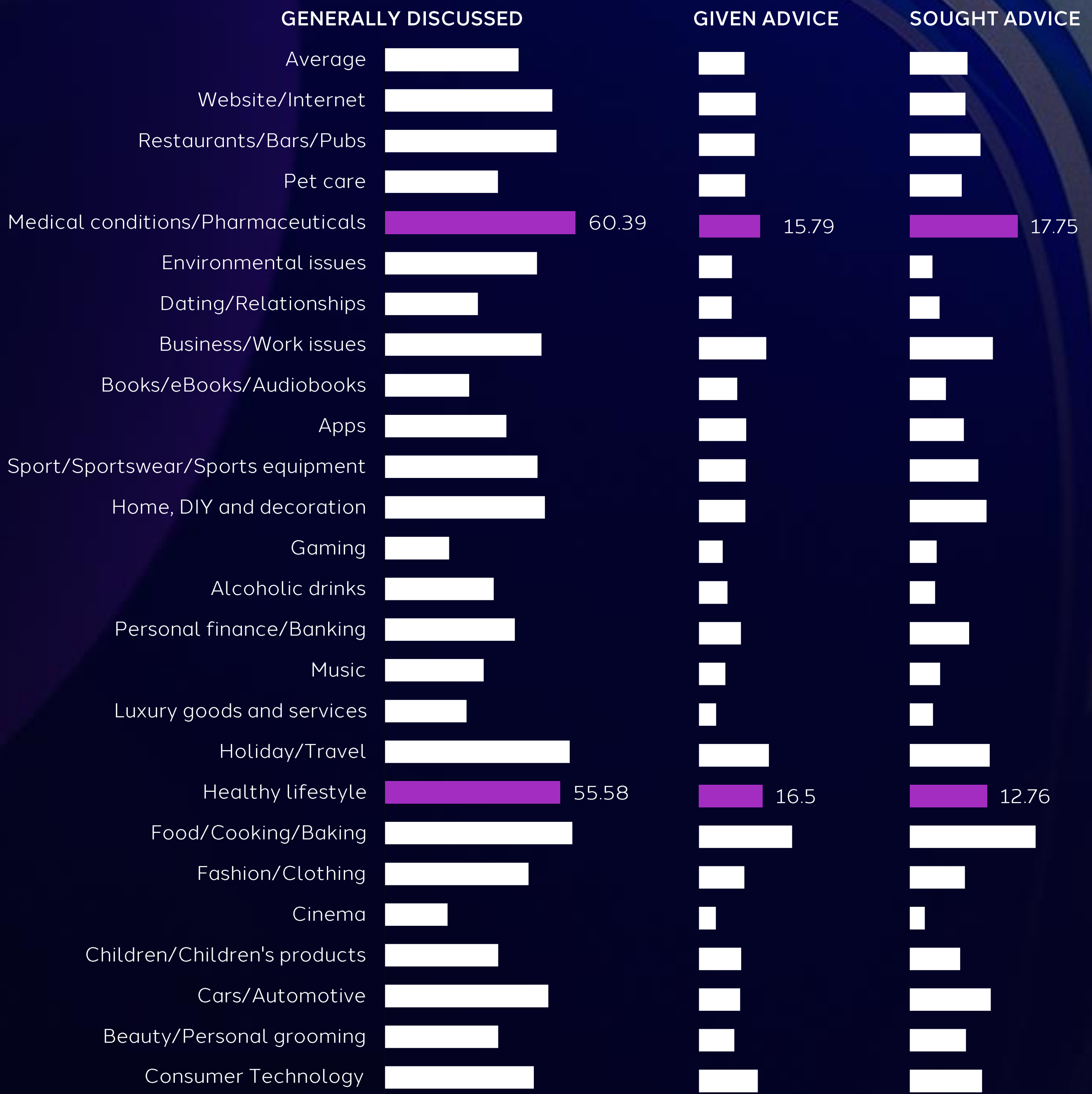
SLOVENIA

Slovenians look the most for alcohol & finance ads



Source: dentsu's Consumer Connection System (CCS) panel

Out of all CEE region, Slovenia has the highest number in discussions about medical conditions and medicines



Source: dentsu's Consumer Connection System (CCS) panel.
"Have you sought advice, given advice or generally discussed any of the following topics in the last 3 months?"

Acronyms and abbreviations

GDP	Gross Domestic Product
OECD	Organisation for Economic Co-Operation and Development
OTC	Over-the-counter medicine
Rx	Prescription medicine
WHO	World Health Organization

Austria	AT	Liechtenstein	LI
Belgium	BE	Lithuania	LT
Bosnia & Herzegovina	BA / BiH	Luxembourg	LU
Bulgaria	BG	Hungary	HU
Czechia	CZ	Malta	MT
Cyprus	CY	Moldova	MD
Denmark	DK	Montenegro	ME
Germany	DE	Netherlands	NL
Estonia	EE	North Macedonia	MK
Ireland	IE	Norway	NO
Finland	FI	Poland	PL
Greece	EL	Portugal	PT
Spain	ES	Romania	RO
France	FR	Slovenia	SI
Croatia	HR	Slovakia	SK
Island	IS	Sweden	SE
Italy	IT	Switzerland	CH
Kosovo	XK	Ukraine	UA
Latvia	LV	United Kingdom	UK

CCS Methodology

Consumer Connection System (CCS) is a suite of tools proprietary to dentsu. This suite is based on a panel run on each market. The panel size matches the market size and other consumer panels in the markets, and is always representative of urban / rural areas, and generally people aged from 15 or 16 top 65-70, depending on the market.
The CCS panel finds out over 10,000+ attributes, 180 behavioral statements, buying behavior, future plans, media behavior, how people make decisions, 220+ attitudes of 60+ paid, owned, earned and shared media channels in a CAWI methodology.

PANEL SIZES & METHODOLOGY:

Bulgaria	> 3,300+, online panel
Croatia	> 2,000+, online panel
Czechia	> 3,000+, online panel
Hungary	> 4,000+, online panel & phone interviews
Poland	> 3,000+, online panel
Romania	> 3,300+, online panel & phone interviews
Serbia	> 3,000+, online panel
Slovakia	> 2,000+, online panel
Slovenia	> 2,000+, online panel

Sources

Page 3: County Health Ranking Model @2-14 UWPHI

Pages 6-8: Segmentation done by dentsu's research specialists; composite indexes made from each market's data available in TGI / Ipsos / CCS studies.

Page 9: Association of the European Self-Care industry & The report "Out-of-pharmacy trade in OTC drugs 2023" prepared by the Leki Tylko z Apteki Association and the Watch HealthCare Foundation

Page 10-11: dentsu's proprietary Consumer Connection System panel data from each market

Page 12: OECD Health Statistics 2022

Page 13: European Centre for Disease Prevention and Control

Page 16: Wolf Theiss analysis

Pages 17-18: Statista

Page 20: Eurostat, Huawei IoTmagazin.hu

Page 21: Source: OECD Health at a Glance Europe 2022 & Perception and Attitude toward Teleconsultations among Different Healthcare Professionals in the Era of the Covid-19 Pandemic 2022

Page 22: The Czech Mental Health Study (CZEMS): Study rationale, design, and methods & OECD Health statistics 2022

Page 26: PwC CEE digital trust 2023

Page 27: World Happiness Report

Page 28: Eurostat September 2022 and National Library of Medicine "The Post-Communistic Fertility Puzzle"

Page 29: OECD Health at Glance 2022 Europe

Page 30: OECD Health at Glance 2022 Europe & Eurostat

Page 31: dentsu's proprietary Consumer Connection System panel data from each market

Page 32: Erste Group, Eurostat

Page 33: WHO 2019

Page 34: State of Health in the EU, 2021

Page 35: OECD Health at Glance 2022 Europe

Page 36: Johns Hopkins database, Eurobarometer, Politico, Project Syndicate, European Centre for Disease Prevention and Control

Page 37: OECD library

Page 38: The Lancet, Excess mortality attributed to heat and cold

BULGARIA

Page 42-44: Dentsu's proprietary Consumer Connection System panel data

CROATIA

Page 47: Segmentation done by dentsu's research specialists; composite indexes made from each markets data available in TGI / CCS studies.

Page 48: Statista Consumer Spending, Analysis of Healthcare Expenditures 2022

Page 49-50: dentsu's proprietary Consumer Connection System panel data

CZECHIA

Page 52: Center for Public Opinion, Czech

Page 53: Segmentation done by dentsu's research specialists; composite indexes made from each market's data available in TGI / CCS studies.

Page 54-55: dentsu's proprietary Consumer Connection System panel data

HUNGARY

Page 57: Segmentation done by dentsu's research specialists; composite indexes made from each markets data available in TGI / CCS studies.

Page 58-59: dentsu's proprietary Consumer Connection System panel data

POLAND

Page 61: Segmentation done by dentsu's research specialists; composite indexes made from each markets data available in TGI / CCS studies.

Page 62: Association of the European Self-Care industry, Brand Loyalty Index 2023, Apteki Association, Watch HealthCare Foundation, Farmacja.net, medo.net, NCBI

Page 63: OECD

Page 64: Statista

Pages 65-66: dentsu's proprietary Consumer Connection System panel data

ROMANIA

Page 68: Segmentation done by dentsu's research specialists; composite indexes made from each market's data available in TGI / CCS studies.

Page 69: Ipsos 2020

Page 70: IQVIA; Marketingpirula

Page 71: Pharmaceutical services in Romania during the COVID-19 pandemic, University Politehnica of Bucharest 2022

Page 72-73: dentsu's proprietary Consumer Connection System panel data

SERBIA

Page 75: Segmentation done by dentsu's research specialists; composite indexes made from each markets data available in TGI / CCS studies.

Pages 76-77: dentsu's proprietary Consumer Connection System panel data

SLOVAKIA

Page 79: Segmentation done by dentsu's research specialists; composite indexes made from each markets data available in TGI / CCS studies.

Pages 80-81: dentsu's proprietary Consumer Connection System panel data

SLOVENIA

Pages 83-84: dentsu's proprietary Consumer Connection System panel data

ABOUT US

Dentsu is a network designed for What's Next, helping clients predict and plan for disruptive future opportunities and create new paths to growth in a sustainable economy. Taking a people-centered approach to business transformation, we use insights to connect brand, content, commerce, and experience, underpinned by modern creativity.

As part of Dentsu Group Inc. (Tokyo: 4324; ISIN: JP3551520004), we are headquartered in Tokyo, Japan, and our 72,000-strong employee base of dedicated professionals work across four regions (Japan, Americas, EMEA, and APAC). Dentsu combines Japanese innovation with a diverse, global perspective to drive client growth and shape society.

In Central & Eastern Europe, dentsu operates across the region in 15 markets with over 1.200+ passionate professionals, delivering excellence in media and creative to the region's biggest clients.

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Additional dentsu resources used: dentsu Sales Enablement team, dentsu CEE research teams & dentsu Health solution

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