



# MONITORING NONCOMMUNICABLE DISEASE COMMITMENTS IN EUROPE 2021

ARE WE ON TRACK TO REACH TARGETS 10 YEARS  
AFTER THE MOSCOW DECLARATION AND FIRST  
UNITED NATIONS HIGH-LEVEL MEETING?

WHO EUROPEAN OFFICE FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES



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## > Abstract

Noncommunicable diseases (NCDs) represent a major challenge for public health in Europe, where they cause 90% of all deaths. Most NCD deaths are caused by a handful of main causes, including cardiovascular diseases, cancers, chronic respiratory diseases and diabetes.

The leading causes of the main NCDs are known and involve a few common behavioural risk factors – principally, tobacco use, harmful alcohol consumption, unhealthy diet and insufficient physical activity; these, in turn, lead to certain common biological risk factors – notably, high blood pressure, high blood glucose, high blood cholesterol, and overweight and obesity. Together, these factors are responsible for more than 85% of the NCD burden in the WHO European Region, but they can be prevented or controlled by means of a number of highly effective and low-cost health policies and interventions.

Determining frequency and distribution and monitoring trends in the NCD burden and implementation of control and preventive policies and measures are essential to assessing progress towards achieving the WHO European and global NCD action plans, the Global Monitoring Framework and the Sustainable Development Goal targets.

This report provides an overview of current trends in NCDs and their risk factors and the progress made in implementation of health policy to reduce the impact of NCD risk factors in the WHO European Region.

## > Keywords

NONCOMMUNICABLE DISEASES  
MORTALITY, PREMATURE  
HEALTH POLICY  
SUSTAINABLE DEVELOPMENT  
RISK FACTORS  
ALCOHOL  
TOBACCO  
OBESITY  
HYPERTENSION

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## > Foreword

Noncommunicable diseases (NCDs) are a major challenge for public health in the WHO European Region. The four major NCDs – cardiovascular disease, cancer, diabetes and chronic respiratory disease – account for 90% of deaths and 85% of years lived with disability. In addition to their detrimental impact on health, NCDs have important effects on sustainable development and a complex and deadly linkage with the ongoing COVID-19 pandemic.

The European Programme of Work, 2020–2025 – “United Action for Better Health in Europe” (EPW), adopted unanimously by all Member States of the WHO European Region, recognizes the central role of combating NCDs and their risk factors in improving population health. It also calls for enhanced leadership of health authorities and improved health intelligence and information.

This report, prepared by the WHO European Office for the Prevention and Control of NCDs in Moscow, Russian Federation, an integral part of the Division of Country Health Programmes, reveals that the burden of NCDs remains excessive in Europe. Every fifth male and every 10th female in the WHO European Region are currently dying before their 70th birthday from the four major NCDs, and these deaths are largely avoidable – preventable and/or amenable to health care. Inequalities in premature NCD mortality between countries are substantial – nearly fourfold – and driven mainly by circulatory diseases and excess male mortality. Although the European Region has made more progress in reducing premature NCD mortality than any other WHO region since 2010, we are just on track to achieve the targets agreed in the European and global NCD action plans, without much buffer. Most risk factors for NCDs are declining, but the progress is often uneven across countries and not sufficient to reach the agreed targets. Particularly alarming is the situation with respect to obesity, which is increasing rapidly in all countries. Analysis of recommended policies shows that progress is limited and that all countries can step up their implementation of cost-effective policies for NCD prevention and control.





Although substantial progress has been achieved, 10 years after the Moscow Declaration and the United Nations First High-level Meeting on NCDs, much remains to be done in the WHO European Region to fulfil the commitments made. The large burden of NCDs and the great inequalities within and between countries, as well as the links with many areas of sustainable development, mean that action against NCDs remains central to achievement of the EPW and the Sustainable Development Goals. Interlinkages between COVID-19 and NCDs are complex and deadly, and it is likely that the pandemic will have a detrimental impact on NCDs. The EPW motto – “United Action for Better Health in Europe” – remains particularly relevant for NCDs, where we need to urgently step up whole-of-government and whole-of-society actions and leadership to ensure universal health coverage. The voluntary grant to fight NCDs and long-lasting support from the Russian Federation play an important role in this regard. We are grateful that other donors, including Germany, are also gradually joining these efforts.

The WHO Regional Office for Europe stands ready to support countries in this endeavour.

**Dr Hans Henri P. Kluge**

WHO Regional Director for Europe

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## > Abbreviations

<b>BMI</b>	body mass index
<b>CIS</b>	Commonwealth of Independent States
<b>COSI</b>	Childhood Obesity Surveillance Initiative
<b>CRD</b>	chronic respiratory disease
<b>CVD</b>	cardiovascular disease
<b>EAP</b>	European Action Plan [Action Plan for the Prevention and Control of Noncommunicable Diseases in the WHO European Region 2016–2025]
<b>EPW</b>	European Programme of Work, 2020–2025
<b>EU</b>	European Union
<b>GAP</b>	Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020
<b>GMF</b>	Global Monitoring Framework [for NCDs]
<b>NCD</b>	noncommunicable disease
<b>NCD CCS</b>	Noncommunicable Disease Country Capacity Survey
<b>PM</b>	progress monitor [indicator]
<b>SDG</b>	Sustainable Development Goal
<b>UHC</b>	universal health coverage

## > Executive summary

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### **Reduce premature mortality from NCDs by 25% by 2025 and by one third by 2030**

Regionally, premature mortality from NCDs has been decreasing at a fast pace and is on track to reach the target set by 2025, particularly in countries where CVD predominates. However, the pace has become slower and the task more challenging where a shift to cancer has emerged.

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Noncommunicable diseases (NCDs) are a major challenge for public health in the WHO European Region. The four major NCDs – cardiovascular disease (CVD), cancer, diabetes and chronic respiratory disease – account for 90% of deaths and 85% of years lived with disability in the Region. The large burden of NCDs and the great inequalities within and between countries, as well as the links with many areas of health, health systems and sustainable development, mean that action against NCDs remains central to achievement of the European Programme of Work, 2020–2025 (EPW) and the Sustainable Development Goals (SDGs).

This report describes the current situation and charts the trends and trajectories of key NCD indicators, including the prospects of achieving targets agreed in the global and European NCD action plans and SDGs and commitments made by the Heads of State and Government at the United Nations high-level meetings on NCDs for 2025 and 2030. In addition, currently implemented and potential areas of health policy and interventions to improve and enhance countries' NCD situation are reviewed.

Every fifth male and every 10th female in the WHO European Region is currently dying before their 70th birthday from the four major NCDs, and these deaths are largely avoidable – either preventable and/or amenable to health care. Inequalities in premature NCD mortality between countries are substantial – nearly fourfold – and driven mainly by CVD and excess male mortality. Although the European Region has made more progress in reducing premature NCD mortality than any other WHO region, it is just on track to achieve the mortality targets agreed in the European and global NCD action plans, without much buffer. It is not likely that the SDG target will be met. Premature mortality patterns by cause of death reveal that, at lower levels, cancers tend to take over the lead from CVDs. And as decline in deaths due to cancers is slower, overall progress towards the targets is stalling too, calling for extra efforts and innovative approaches in order to sustain current trends.

The decreasing mortality trends have been accompanied by reductions in most risk factors, with the exception of overweight and obesity. Although falling, levels of tobacco use and alcohol consumption are still high; it is unlikely that the WHO European Region will reach the target of a 30% reduction in tobacco use by 2025 if efforts are not intensified substantially, although the relatively modest target of 10% alcohol reduction has been achieved. Hypertension is decreasing but is still slightly off track; the target is within reach if prevention and control measures – particularly salt reduction – are stepped up. Obesity is increasing fast in all countries in Europe, and the prospects of achieving the target of no increase by 2025 are out of reach. Falling levels of premature mortality are not necessarily associated with reductions in the prevalence of common NCD risk factors – an issue that suggests that different socioeconomic, environmental or health systems determinants may play an important role.

WHO Member States have committed to enhance health policy implementation to improve NCD prevention and control. However, activities and outcomes have shown uneven progress and been limited in some key areas, including:

- strengthening governance and surveillance;
- introducing fiscal policies to limit tobacco access, reducing exposure and creating smokefree environments, banning promotion and advertising, and enhancing awareness of the impact of smoking;
- regulating alcohol availability, banning promotion and advertising, and implementing pricing policies;
- reducing population salt intake, limiting saturated fats and eliminating trans-fats from the food chain, restricting marketing of unhealthy food to children, and introducing legislation related to the International Code of Marketing of Breast-milk Substitutes;
- implementing awareness programmes on physical activity; and
- strengthening management capacity of health-care systems with guidelines to address NCDs and providing drug therapy and counselling for high CVD risk.

On average, countries implemented 46% of progress monitor indicators fully, and 80% at least partly, in 2019, while no country reported fully achieving all indicators. Country-specific needs must be addressed by strengthening well-known policy interventions (such as the WHO “best buys”) if further gains towards achieving NCD and SDG targets are to be made.

Although substantial progress has been achieved, 10 years after the Moscow Declaration and the United Nations First High-level Meeting on NCDs, much remains to be done in the WHO European Region, including multisectoral action, in order to fulfil the commitments made and to reach the targets agreed. Additional issues may need to be considered when planning future actions to achieve NCD targets in the Region; one such issue is the overall impact of the current COVID-19 pandemic and the threat it poses to the small gains already achieved. Strengthening primary health care and health-care management for responsive health systems will be essential in tackling NCDs. Furthermore, some important epidemiological changes due to shifts in the distribution of CVD and cancers with decreasing premature mortality will have an impact on the effectiveness of policy interventions. Strengthening the links between cancer prevention and control and other strategies and initiatives, such as the United Action Against Cancer movement, will play an instrumental role not only in reducing the overall cancer burden but also in achieving the premature mortality target. In these ways, emerging new evidence and interlinkages between different areas of health, health technology and digital health will open up new avenues for more holistic health approaches. In such circumstances, the EPW motto – “United Action for Better Health in Europe” – is particularly relevant to NCDs, and we urgently need to step up whole-of-government action in order to ensure universal health coverage.

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Policy response to NCD prevention and control need to be strengthened.

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## > Introduction

The burden of noncommunicable diseases (NCDs) has increased continuously over the past decades worldwide, and today they cause 90% of deaths and 85% of years lived with disability in the WHO European Region (1). The impact of NCDs goes far beyond health effects (such as morbidity, disability and mortality) and has been identified as a major cause of social and economic loss (2). Increases in population ageing, unhealthy behaviours, metabolic factors and the harmful effects of changing environmental and socioeconomic conditions are all contributing to the NCD epidemic worldwide and, in particular, among populations of the Member States of the WHO European Region, where the burden is larger (3).

In response to these challenges, over the past 15 years WHO Member States have agreed on several policy frameworks and action plans to reduce the causes and consequences of NCDs, through well-known and proven public health measures and strategies that aim to achieve a set of agreed health targets. The action frameworks and goals have been defined by the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 (GAP) (4) and the WHO Action Plan for the Prevention and Control of Noncommunicable Diseases in the WHO European Region 2016–2025 (also known as the European Action Plan, or EAP) (5). At three United Nations high-level meetings, in 2011, 2014 and 2018 (6–8), the Heads of State and Government endorsed these plans (or their predecessors) and committed to step up whole-of-government action on prevention and control of NCDs; they also included them as an indispensable element in the Sustainable Development Goals (SDGs) (9). The European Programme of Work, 2020–2025 – “United Action for Better Health in Europe” (EPW) (10) identifies NCDs and inequalities in their outcomes as a major problem; it calls for a stepping-up of leadership and actions that address NCDs as part of universal health coverage (UHC) and commits to monitoring actions and progress.

Member States have agreed on three important sets of indicators to measure these commitments: 25 indicators from the Global Monitoring Framework for NCDs (GMF) (11) and the SDGs (9) to measure health outcomes; and 19 complementary progress monitor (PM) indicators (7) to measure implementation of recommended health policies, which include the most cost-effective interventions in low- and middle-income countries, the WHO “best buys” (12). WHO was asked to provide regular assessments of progress towards achievement of targets using these indicators.

The aims of the present report are to describe the current situation, to determine trends and trajectories of the key NCD indicators, and to provide an update on previous European assessments of progress towards achievement of the targets (13–16), including the prospects of achieving these targets and commitments. The publication of this report coincides with the 10-year anniversary of the historic First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control, which was held in Moscow, Russian Federation, in 2011, and the resulting Moscow Declaration (17), as well as the United Nations First High-level Meeting on NCDs (6). It also coincides with the development of the WHO NCD Implementation Roadmap 2023–2030 (18, 19) and thus provides input into its development for the WHO European Region.

# 1

## NCD indicators and analytical approach adopted in the assessment

### 1.1 Outcome indicators

The first group of indicators used in this report is a selection of NCD-related outcome indicators defined in the SDG and GMF frameworks (9, 11). They include impact indicators of premature NCD mortality, which are calculated using official cause-of-death and population data reported to WHO (20), as well as prevalence of key NCD-related behavioural and biological risk factors, which are estimated by WHO, in consultation with Member States following agreed practices, and disseminated through the Global Health Observatory (21).

### 1.2 PM indicators

The second group of indicators consists of 19 PM indicators, which were agreed by the Heads of State and Government at the United Nations General Assembly during the Second High-level Meeting on NCDs in 2014 (7). They include process indicators of country implementation of recommended NCD policies and capacities in key areas of surveillance and governance, demand-reduction measures for tobacco control, measures to reduce the harmful use of alcohol, measures to reduce unhealthy diets, improvement of physical activity awareness, and improvement of NCD management and resource delivery in health systems. Data for PM indicators are collected and collated every second year, mostly through the NCD Country Capacity Survey (NCD CCS) (22). Exceptions are indicators on tobacco, which are collected as part of WHO global tobacco reporting (23), and indicators on alcohol, which are collected through the Global Survey on Progress on SDG Health Target 3.5 (24). Achievement of PM indicators by country is also disseminated through dedicated publications (25, 26), which also contain detailed metadata including criteria on full and partial indicator achievement. Following the 2017 round of NCD CCS, the first European regional report on initial implementation levels of PM indicators and progress up to 2017 was prepared (13).

Indicators used in this assessment are given in Table 1, organized according to framework, type of indicator and source. Also included are GMF targets for 2025 and pertinent SDG targets for 2030, their quantification level, and the yearly rate of change needed to reach them by the expected year.



**Table 1.** Indicators used in the report and agreed target quantification, by framework, type of indicator and source

Framework and category	Indicator and target quantification (2010 baseline, unless otherwise stated)	Minimum yearly rate of change needed to reach target	Source
<b>Outcome indicators (GMF and SDG)</b>			
<b>NCD-related mortality</b>			
<b>Premature mortality</b>	Unconditional probability of dying between ages 30–69 from four main NCD causes – cardiovascular disease (CVD), cancers, chronic respiratory disease (CRD) and diabetes. GMF target is 25% reduction by 2025 (11), aligned with the EAP target, which then calls for a reduction by one third by 2030 (5). SDG target 3.4.1 calls for its reduction by one third between 2015 and 2030 (9) (time period of 15 years).	1.98% for 2010 baseline or 2.63% for 2015 baseline	Calculations based on (20)
<b>NCD-related risk factors</b>			
<b>Alcohol consumption</b>	Total (recorded and unrecorded) alcohol consumption per capita among persons aged 15 years and older within a calendar year (in litres (L) of pure alcohol). GMF target is 10% reduction by 2025 (11). This is also SDG indicator 3.5.2 (9).	0.70%	(21)
<b>Tobacco use</b>	Age-standardized prevalence of current tobacco use among the population aged 18 and older. GMF target is 30% reduction by 2025 (11). This is also SDG indicator 3.a.1 (9).	2.35%	(21)
<b>Raised blood pressure</b>	Age-standardized prevalence of raised blood pressure among persons aged 18 and over (defined as systolic blood pressure $\geq 140$ mmHg and/or diastolic blood pressure $\geq 90$ mmHg). GMF target is 25% reduction by 2025 (11).	1.98%	(21)
<b>Obesity</b>	Age-standardized prevalence of obesity in persons aged 18 and over (defined as body mass index (BMI) $\geq 30$ kg/m <sup>2</sup> ). GMF target is no increase in obesity by 2025 (11).	0.00%	(21)
<b>PM indicators</b>			
<b>Surveillance and governance</b>	<ol style="list-style-type: none"> <li>1. Set time-bound NCD targets and indicators according to WHO guidance</li> <li>2. Availability of a functional system for generating reliable cause-specific mortality data on a routine basis</li> <li>3. STEPS survey or a comprehensive health examination survey every five years</li> <li>4. Having an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors</li> </ol>		(25, 26)
<b>Risk factors – tobacco</b>	<ol style="list-style-type: none"> <li>5a. Reduce affordability of tobacco products by increasing tobacco excise taxes</li> <li>5b. Create by law completely smokefree environments in all indoor workplaces, public places and public transport</li> <li>5c. Warn people of the dangers of tobacco and tobacco smoke through effective health warnings and mass-media campaigns</li> <li>5d. Ban all forms of tobacco advertising, promotion and sponsorship</li> <li>5e. Implement mass-media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke</li> </ol>		(25, 26)
<b>Risk factors – alcohol</b>	<ol style="list-style-type: none"> <li>6a. Regulations over commercial and public availability of alcohol</li> <li>6b. Comprehensive restrictions or bans on alcohol advertising and promotions</li> <li>6c. Pricing policies such as excise tax increases on alcoholic beverages</li> </ol>		(25, 26)
<b>Risk factors – unhealthy diet</b>	<ol style="list-style-type: none"> <li>7a. Adopt national policies to reduce population salt/sodium consumption</li> <li>7b. Adopt national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply</li> <li>7c. Implement WHO set of recommendations on marketing of foods and nonalcoholic beverages to children</li> <li>7d. Legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes</li> </ol>		(25, 26)
<b>Risk factors – physical activity</b>	<ol style="list-style-type: none"> <li>8. Implement at least one recent national public awareness programme on physical activity</li> </ol>		(25, 26)
<b>NCD management</b>	<ol style="list-style-type: none"> <li>9. Evidence-based national guidelines/protocols/standards for the management of major NCDs through a primary care approach, recognized/approved by government or competent authorities</li> </ol>		(25, 26)
<b>Health system NCD resource delivery</b>	<ol style="list-style-type: none"> <li>10. Provision of drug therapy, including glycaemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level</li> </ol>		(25, 26)

### 1.3 Analytical approach

Regional averages of mortality and risk factor indicators are summaries that tend to mask the heterogeneity of health situations seen among the 53 Member States of the WHO European Region. Therefore, to facilitate comparisons, countries were also grouped using the same groupings as in the WHO European Health for All database system (27), as follows:

**EU14** – countries that were part of the European Union prior to 2004: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, Netherlands, Portugal, Spain, Sweden

**EU13** – countries that became members after 2004: Bulgaria, Croatia, Cyprus, Czechia, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia

**CIS** – members and associate members of the Commonwealth of Independent States: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan.

In accordance with the GAP and EAP, the baseline for premature mortality and risk factor assessment was the year 2010. In order to assess progress towards the targets, the following analytical approach was chosen:

- (1) available data were plotted as a line chart;
- (2) the target line, starting at the value in 2010 and interpolated to the value needed to reach the GMF (and EAP) target in 2025 (2030 for premature mortality), as specified in Table 1, was then added to the plot;
- (3) the minimum average yearly rate of change needed to reach the target was calculated (values per indicator are given in Table 1); and
- (4) the distance between the latest available data point and the target line was calculated and compared to the minimum yearly rate of change required to reach the target (step 3 above).

Current progress was assessed by measuring the distance or difference between the latest available data value and the target line. Latest available data lower than the target line indicate that the country or country group is on track to reach the target, while latest available data higher than the target value indicate that the country or country group is not on track to reach the target. The ratio of the distance between the latest observed value and the target value to the minimum average yearly rate of change needed to reach the target was used to quantify time lag. This analytical approach allowed us not only to assess if a country or country group was on track to reach the target, but also to quantify how much off track or ahead of target a country or country group was, according to the latest available data.

For PM indicators, the approach adopted in WHO's *Monitoring noncommunicable disease commitments in Europe* (13) was used. Briefly, regional assessment included the percentage of countries fully, partly or not at all achieving specific indicators in 2017 and 2019. Country progress was assessed by level of achievement of individual indicators and summarized according to percentage of indicators partly or fully met by country. Detailed criteria of full and partial achievement for all PM indicators are given in WHO's NCD Progress Monitor reports (25, 26). It should be noted that criteria for selected PM indicators changed between 2017 and 2019 to reflect updated WHO "best buys" (12), and this limits comparability.

# NCD outcomes and trends since 2010

## 2

The latest available outcome data, as well as other basic context indicators by country, are shown in Annex 1.

## 2.1 Premature mortality

### 2.1.1 Trends in premature mortality from four major NCDs

Mortality from NCDs in the WHO European Region represents an important health burden, accounting for 90% of about 9 million deaths occurring yearly. Premature mortality (deaths occurring between ages 30–69) due to four main NCDs (CVD, cancers, diabetes and CRD) accounts for 68% of all deaths in the 30–69 age group in Europe. Reducing this figure is a key objective for improving healthy life in the Region.

The GAP included among its nine voluntary targets a central one aiming for a 25% relative reduction in premature mortality from the four main NCDs between 2010 and 2025, which would correspond to an average annual rate of reduction of 1.90% (4). The EAP aims for a 33% reduction in premature mortality from the four main NCDs between 2010 and 2030, which would correspond to an average annual rate of change of 1.98% – a figure that is aligned with the bold initial global goal of 2% annual reduction (28) adopted by Member States in 2007 and in the GMF.

The agreed indicator for monitoring premature mortality is the unconditional probability of dying from one of the four major NCDs between ages 30–69 and represents the probability that a 30-year-old will die before their 70th birthday from CVD, cancers, CRD or diabetes, if the currently observed age-specific mortality rates continue (11). As this is a relatively new indicator based on life tables, the WHO European Office for the Prevention and Control of Noncommunicable Diseases has developed an Excel workbook, as well as R and SQL code, that can be used for its calculation (29).

In 2010 the probability of dying prematurely from the four major NCDs in the WHO European Region was 18.0%, with figures of 23.9% for men and 12.6% for women – in other words, the risk was twice as high for men as for women (Fig. 1), and nearly every fourth man and every eighth woman were dying from major NCDs before their 70th birthday. By 2018 the probability of premature death from the four major NCDs had fallen to 15.6%; 20.8% for men and 10.9% for women, with the different level of risk for the sexes remaining much the same.

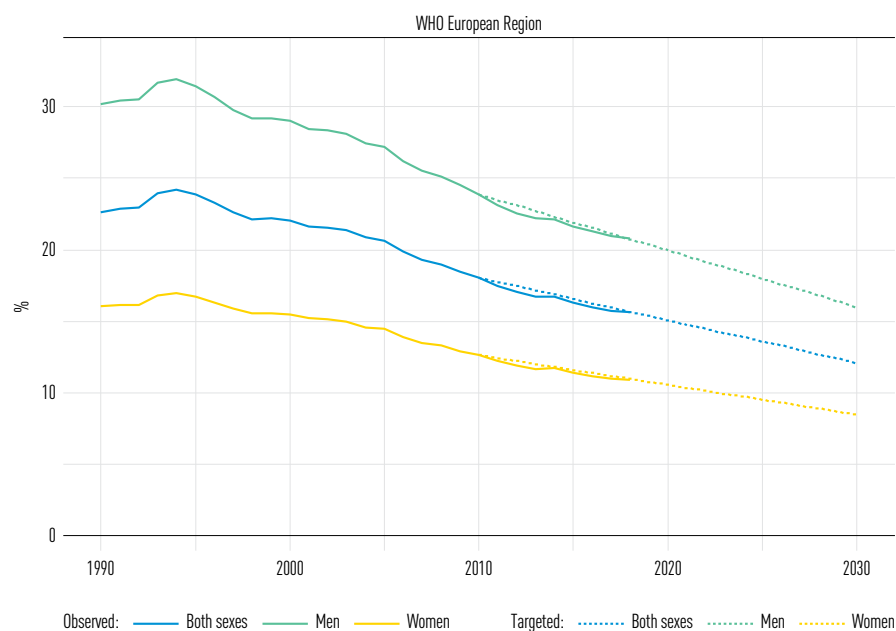
It is important to note that, after a period between 2010 and 2013 when important reductions in premature mortality were observed and progress was in advance of the target line, since 2014 progress has slowed down. The latest observed values in 2018 show that the WHO European Region was just on track to reach the premature mortality target, with a difference

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Significant health gains are being made across the WHO European Region, but gaps persist if the target is to be reached in several countries.

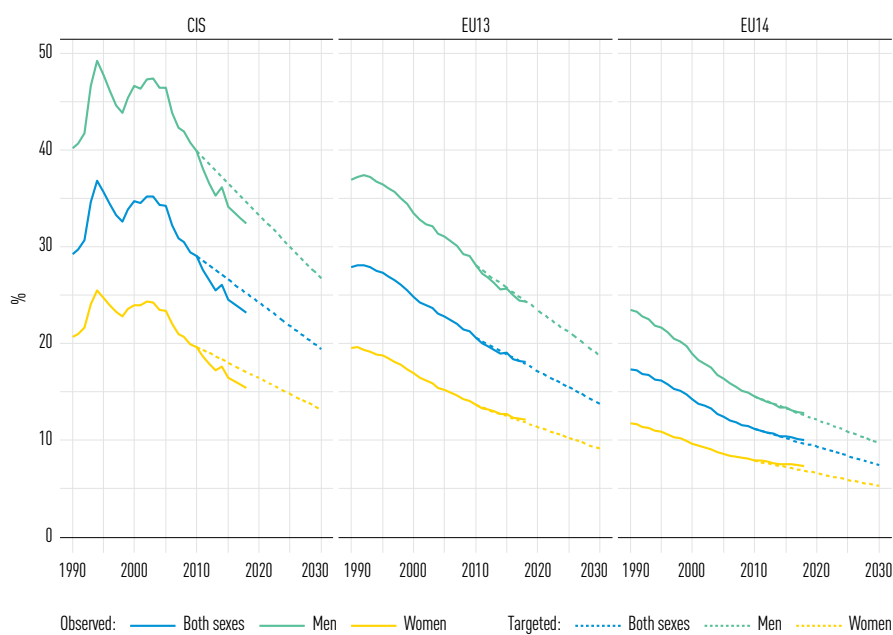
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**Fig. 1.** Unconditional probability of dying between ages 30–69 from four main NCDs in the WHO European Region (1990–2030), by sex



of 0.32% to the target line (the value for 2018 was 15.65%); the distance to the target line was  $-0.13\%$  for men (slightly off track) and  $0.75\%$  for women. This means that, in terms of time needed to achieve the target, the Region overall was still ahead of the target by a small amount of 0.16 years (or  $0.32\%$  of the observed reduction divided by  $1.98\%$ , which is the annual target), the figures for men and women being 0.38 years (gain) and  $-0.06$  years (loss), respectively. Therefore, the Region is just on track to reach the premature mortality target, but there is not much leeway or buffer in hitting the target. Progress has stagnated since 2014 and we still have more than a decade “to go”. Even slight disruptions in health or social systems in the future could have detrimental effects and jeopardize the progress achieved so far. Disruptions in health-care systems caused by the COVID-19 pandemic since 2020 (30), as well as social distancing and lockdown measures imposed by governments to mitigate the risks posed by the pandemic, could have detrimental effects on premature mortality from NCDs, but the magnitude of these effects remains to be seen in the years to come. Thus, close monitoring of trends and increasing efforts to protect the current small gain, by enhancing and scaling up action to prevent and control NCDs, are urgently needed.

A deeper look into premature mortality data by country groupings showed large differences between them. For example, in 2010 the overall probability of dying was highest in the CIS at 29.0%, with figures of 39.9% for men and 19.7% for women, representing a twofold differential between the sexes (Fig. 2). The corresponding 2010 premature mortality figures in the EU13 were nearly one third lower than those in the CIS, at 20.6% (both sexes), 28.1% (men) and 13.6% (women), with a similar twofold gender differential. In turn, the probability-of-dying values were nearly 45% lower in the EU14 than in the EU13, with premature mortality probabilities of 11.2% (both sexes), 14.5% (men) and 7.9% (women), representing an 80% higher mortality risk for men than for women.



**Fig. 2.** Unconditional probability of dying between ages 30–69 from four main NCDs in the CIS, EU13 and EU14 (1990–2030), by sex

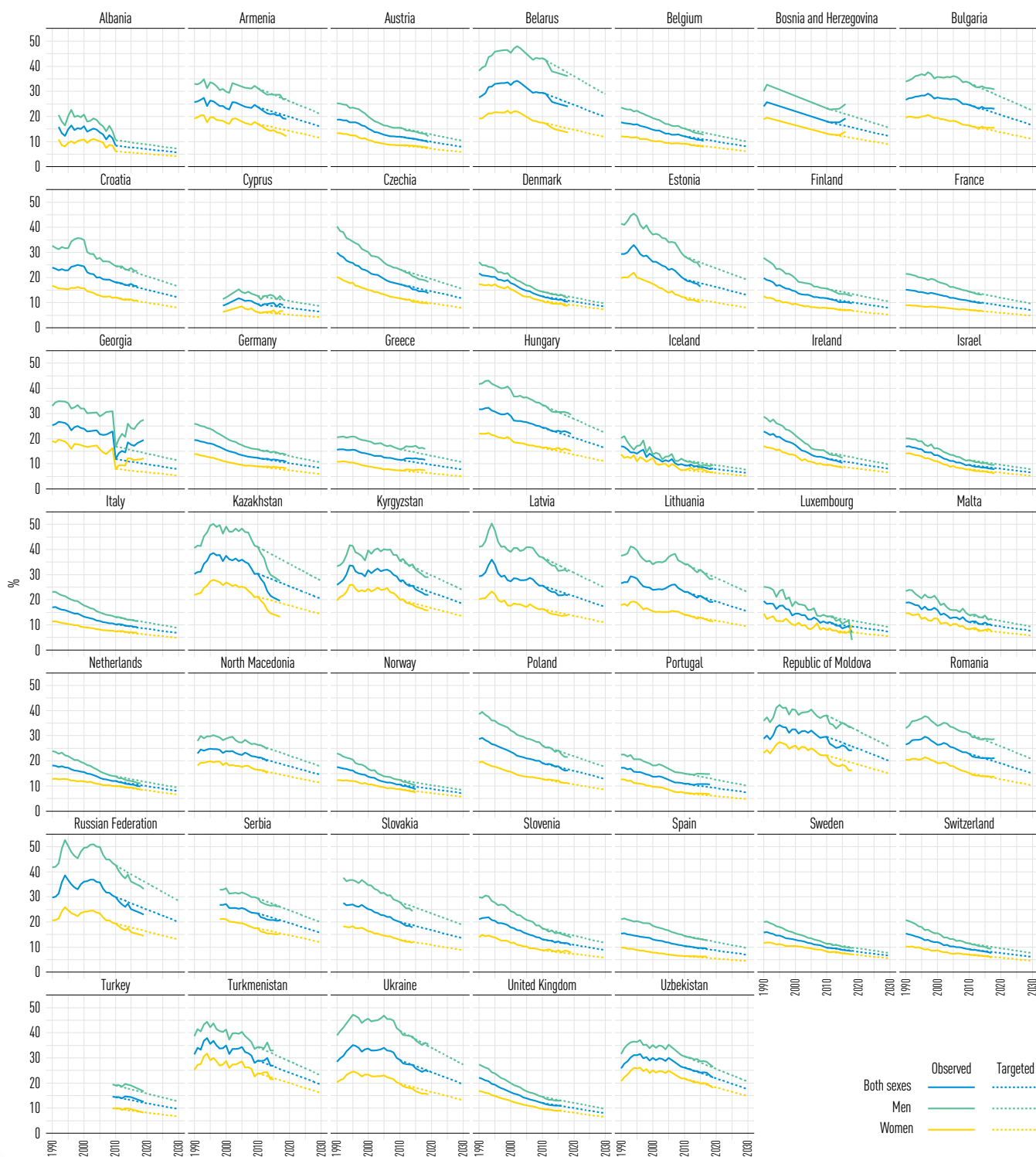
When progress between 2010 and 2018 was assessed, comparing the observed values with the target line, an initial period of faster decline in premature mortality was observed up to 2013, followed by a period of slower decline, especially in the EU13 and EU14 country groups. The 2018 observed premature mortality values for both sexes were 23.2% in the CIS, 18.1% in the EU13, and 10.1% in the EU14. Compared to the target line, the CIS was on track with an 8.3% relative gain (or 4.3 years advantage), but the EU13 and EU14 were both off track, with a –1.2% relative loss (or 0.6 years delay) and a –3.8% relative loss (or 1.9 years delay), respectively. In the CIS, progress was somewhat greater among women (10.6% gain or 5.4 years advantage) than among men (6.8% gain or 3.5 years advantage), but the opposite occurred in the EU13 (where there was a 0.1% gain or 0.0 years for men versus 2.9% relative loss or 1.5 years lag for women) and in the EU14 (where a 1.8% loss or 0.9 years lag was observed for men and a more accentuated 7.3% loss or 3.7 years lag for women).

More than 85% (46/53) of Member States in the WHO European Region have reported cause-of-death data to WHO since 2010. In 2010 the probability of prematurely dying from an NCD for both sexes ranged from a low of 8.4% to a high of 30.4%; the values for men ranged from 10.6% to 43.1%, for women from 6.1% to 23.8% (Fig. 3).

Based on their latest available year with data, 28 countries (61% of countries with data since 2010) were on track to reach the premature mortality target. For these countries, the advantage between the latest observed value to the target line ranged from 0.4% to 37.5%. Ten countries made relatively small gains of 2 years or less of the necessary average yearly reduction; a further 14 countries made more comfortable gains between 2 and 5 years; and four countries had gains of more than 5 years. Of 18 countries that were off track for the premature mortality target

**Fig. 3.** Country-specific unconditional probability of dying between ages 30–69 from four main NCDs (1990–2030), by sex

for both sexes, 10 countries had a delay of 2 years or less and could still reach the target if they invested straightaway in NCD prevention and control; four had a delay of 2 to 5 years; and another four had a delay of more than 5 years. The results were similar when considering sex-specific data, with slightly more countries on track to achieve the premature mortality target for males (28) than for females (25).



The current SDG target 3.4.1 is more ambitious and calls for a one-third reduction in premature mortality between 2015 and 2030 (9), or an average annual rate of change of 2.63%, which is nearly 40% higher than the annualized GMF target of 1.9%. Thirty-nine countries reported mortality data from 2015; of these, 21 (54%) were on track to reach the target, but it should be noted that the monitoring period was very short and most countries had only 2–3 years of data. However, only eight of 45 countries (18%) reporting data in the period 2000–2015 were able to achieve this reduction.

### 2.1.2 Premature mortality from each of the four main NCDs individually

The same indicator used for premature mortality for the four major NCDs – the unconditional probability of dying between ages 30–69 – was also used for each of the four NCDs separately. In 2010 the most prominent cause of premature deaths in the WHO European Region was CVD, which accounted for 10.0% of such deaths, followed by cancers at 8.0% – in other words, for every four deaths from cancer there were five from CVD (Fig. 4). The probability of premature death from CRD was significantly lower (0.6%), as was that from diabetes (0.5%). By 2018 the probability of dying between ages 30–69 for CVD had decreased to 8.0% (a 19.8% relative reduction or 2.7% annually), while for cancers it was 7.2% (a 9.9% relative reduction or 1.3% annually). For CRD, the probability fell to 0.6% (a relative decrease of 1.0% or 0.1% annually), while for diabetes it rose to 0.5% (a relative increase of 17.2% or 2.0% annually). The long-term trend for CVD showed a sustained decline from the mid-1990s, some slowing in the early 2000s, a further acceleration from 2005, and then slowing again from 2014. Cancers showed a much

Understanding premature mortality levels and cause-of-death patterns is essential in establishing appropriate country-specific health policies. CVD predominates in countries with higher and cancer in countries with lower mortality levels, highlighting that a one-size-fits-all approach to NCD prevention and control is not always appropriate.

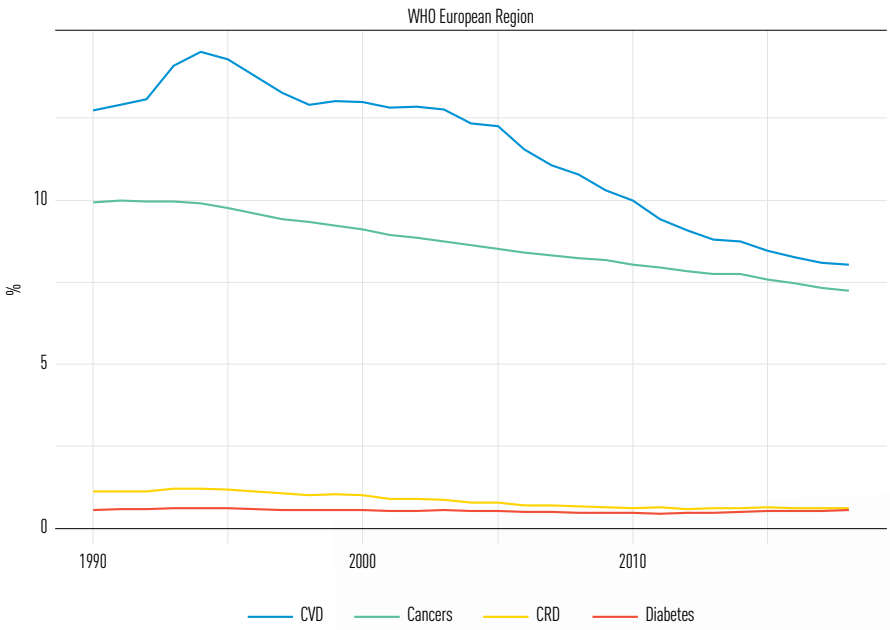
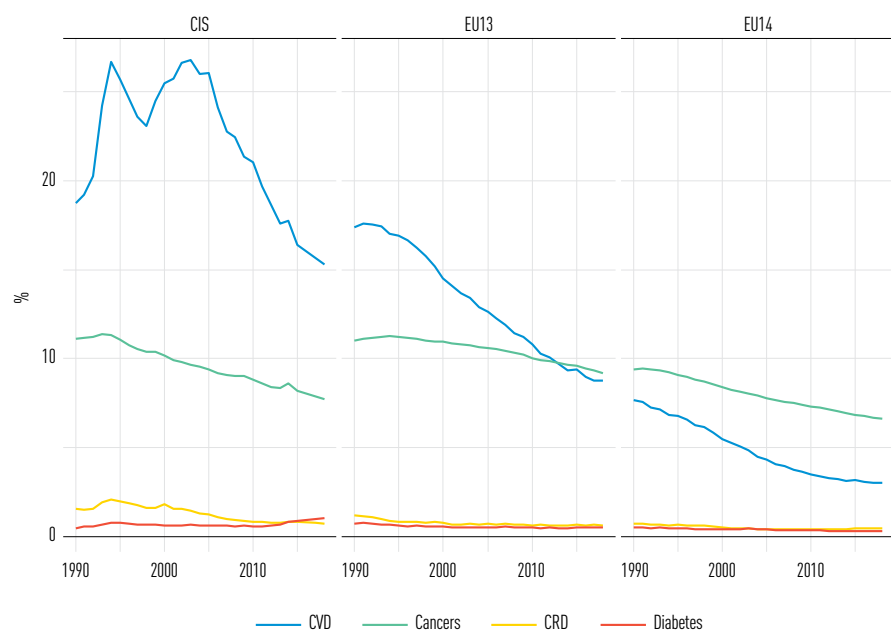


Fig. 4. Unconditional probability of dying between ages 30–69 from CVD, cancers, CRD and diabetes in the WHO European Region (1990–2018)

slower but steady decline from the mid-1990s. It is harder to discern a pattern or trend for mortality from CRD and diabetes.

A deeper look at the disaggregated data revealed an uneven distribution of causes of death across the country groups, with differences in levels, trends and patterns (Fig. 5). In 2010, for example, the probability of dying from CVD was highest in the CIS at 21.1% – twice as high as in the EU13 (10.8%) and six times higher than in the EU14 (3.5%). The probability of dying from cancers also showed a different pattern, being higher in the EU13 (10.0%) than in the CIS (8.8%) and the EU14 (7.3%). Premature mortality from CRD and diabetes, although less prominent, was also highest in the CIS at 0.8% and 0.6%, respectively, compared to 0.6% and 0.5% in the EU13 and 0.4% and 0.3% in the EU14. The probability of dying from CVD continued to see a decrease until 2018, falling to 15.3% in the CIS, 8.8% in the EU13 and 3.0% in the EU14. Compared to 2010, this meant that there was a relative reduction in premature CVD mortality of 27.5% (or –3.9% annually) in the CIS, 18.9% (–2.6% annually) in the EU13, and 13.5% (–1.8% annually) in the EU14, but all subregions experienced a slowdown after 2014 (and even a small increase in the EU13). Premature mortality from cancers also saw a decrease during the 2010–2018 period, but it was of smaller magnitude than for CVD, with the relative reduction being highest in the CIS at 12.0% (–1.6% annually), followed by 9.7% (–1.3% annually) in the EU14 and 7.0% (–1.0% annually) in the EU13. In the EU14, the level of premature mortality from cancers was twice as high as from CVD, which had reached very low levels. The most salient features of the trends in premature NCD mortality were, first, the important decreases in CVD mortality in all country groups, but particularly in the CIS, and its slowdown in the EU14; and second, the changing patterns of disease occurrence, with cancer mortality predominating in central and western parts of the WHO

**Fig. 5.** Unconditional probability of dying between ages 30–69 from CVD, cancers, CRD and diabetes in the CIS, EU13 and EU14 (1990–2018)

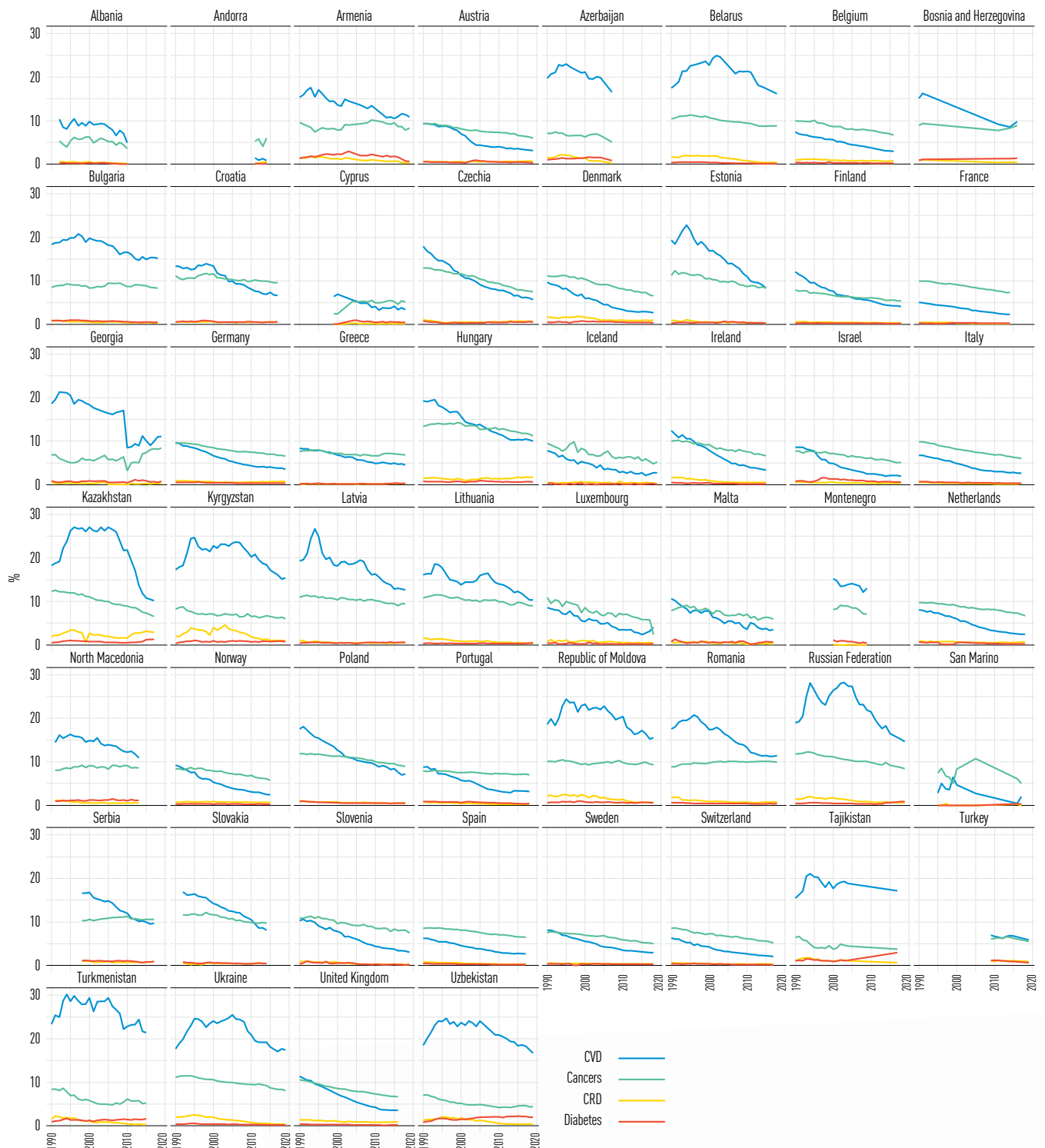




European Region, particularly at the point when CVD mortality reached a threshold of around 10% probability of dying.

Premature mortality trends for the four main NCD groups at country level broadly resembled the three patterns seen in the CIS, EU13 and EU14 country groups (Fig. 6). In 16 countries where premature mortality due to the four main NCDs was over 20%, it was mostly driven by high,

**Fig. 6.** Country trends in unconditional probability of dying between ages 30–69 from CVD, cancers, CRD and diabetes (1990–2019)



and often fast-declining, CVD deaths. Most of these countries belong to the CIS and/or are located in central and eastern Europe and central Asia. In a second group of eight countries, the overall level of premature NCD mortality was 15–19% and there were similar levels of CVD and cancer mortality. These countries were mainly from the EU13 group and/or located in central Europe. A third group of 22 countries was characterized by having overall premature mortality below 15% and a ratio of CVD-to-cancer mortality of less than 1 – a pattern that reflected the profile of the EU14 subregion. The decline in the probability of dying from CVD had slowed down since 2014, or even seen a slight increase, especially in countries with relatively low levels – a worrying trend.

It is important to remember that cancers represent a diverse group of diseases (including lung, breast, colon, stomach and ovary, among the more common ones) that differ in the extent to which they are preventable and amenable to health care. Therefore, a more detailed analysis of levels of and trends in premature mortality from different cancers would be interesting to inform policy but is beyond the scope of this publication. Another issue to consider when interpreting trends is the small population size of some countries in the WHO European Region, which may affect the stability of mortality levels in a way that makes them more difficult to interpret and classify.

### 2.1.3 Possible implications of changing cause-of-death patterns

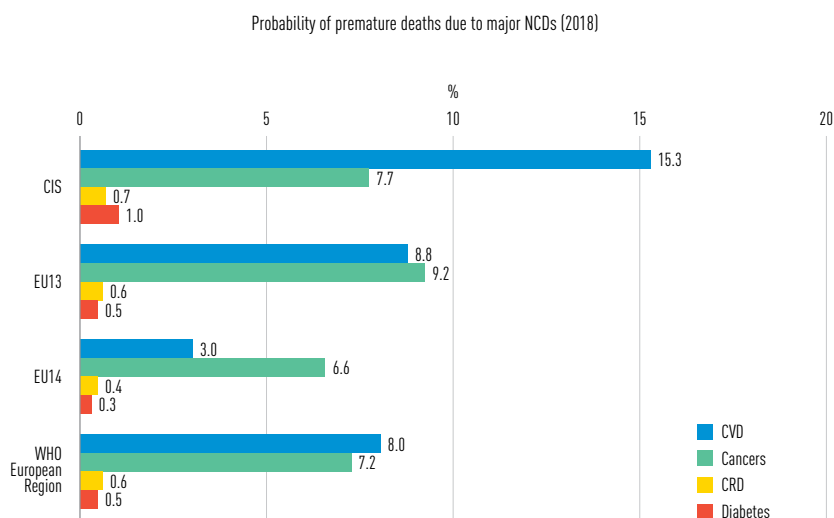
Compared to previous assessments (13, 14, 16), a worrying and novel feature is that countries with relatively low levels of premature mortality, such as the EU14 countries, saw a slowdown in the reduction of premature mortality, and this group of countries – which had previously been on track to achieve or even surpass the target (16) – was now off track. Patterns of premature mortality by broad NCD group show that, upon reaching an overall level of approximately 18–20% or lower, cancers tended to take the place of CVD as the leading cause of death, and reductions in NCD mortality began to be driven mostly by cancers (Fig. 7). As cancer mortality showed a much slower rate of decline compared to deaths from CVD, yearly reductions in premature mortality due to the major NCDs were slowing down as well and falling below the levels needed to reach the targets (2.0% annually for the initial bold targets of the GMF and EAP and 2.6% for the SDG). In addition, at very low levels of premature mortality due to CVD, as seen, for example, in the EU14 countries, a slowdown in the annual rates of decline in CVD mortality was observed. Also worrying was the increasing trend in premature mortality from diabetes.

Therefore, as more countries reach lower levels of premature mortality, a further slowdown of the yearly reduction rates in years to come is possible. It can be anticipated that this will have an impact on the number of countries that are able to achieve the targets.

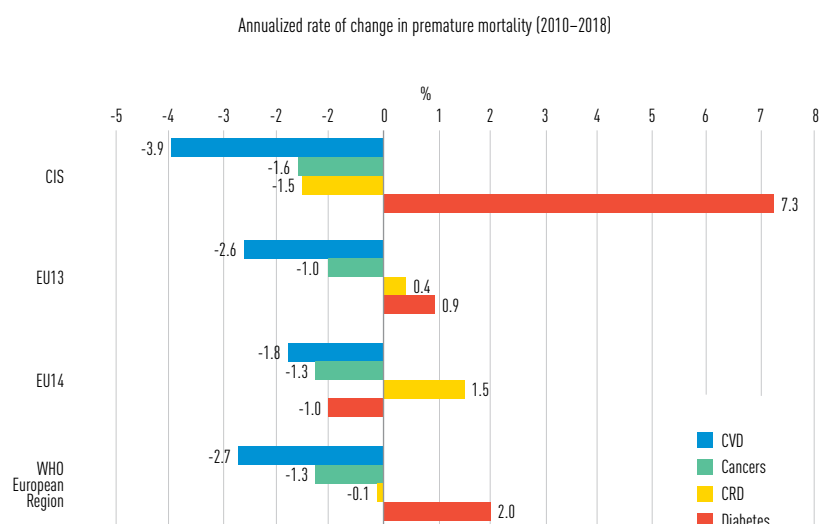
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Premature mortality patterns by cause of death reveal that, at lower levels, cancers tend to take over the lead from CVDs. And as decline in deaths due to cancers is slower, overall progress towards the targets is stalling too, calling for extra efforts and innovative approaches.

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**Fig. 7.** Premature mortality due to four major NCDs in 2018 (top) and annualized rate of change in premature mortality 2010–2018 (bottom), by country group



## 2.2 NCD risk factors

Most NCDs are caused by four modifiable behavioural risk factors: tobacco use, unhealthy diet, lack of physical activity and harmful use of alcohol. These behavioural risk factors lead to biological risk factors, the most common being overweight and obesity, high blood pressure, high blood glucose and high blood cholesterol. Taken together, these risk factors cause more than 85% of the NCD burden in the WHO European Region (31). In recent years, the links between air pollution and other environmental factors and NCDs have been increasingly recognized. For these reasons, it is important to monitor not only NCD mortality but also the levels of the main NCD risk factors and their related trends.

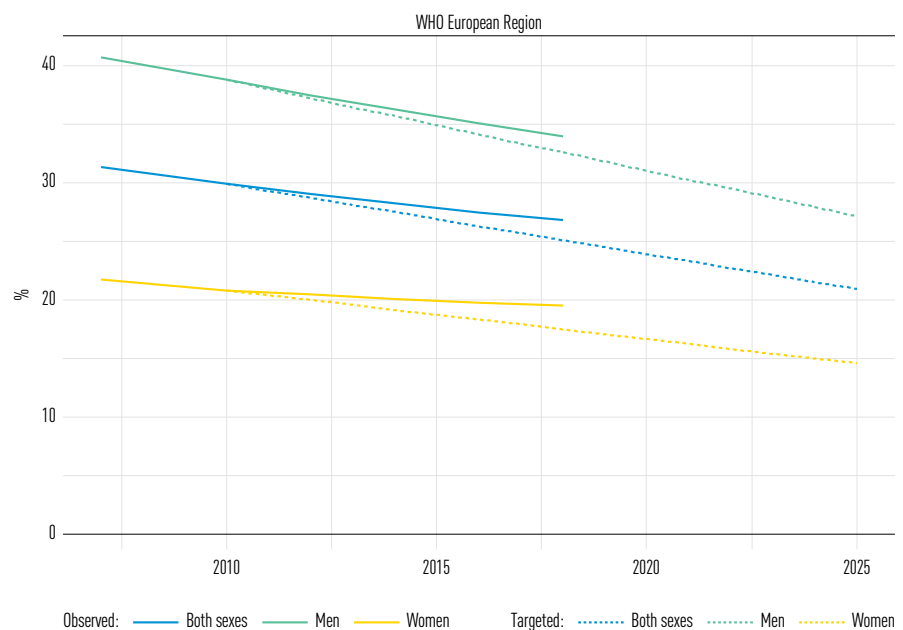
## 2.2.1 Tobacco use

While overall trends in tobacco use are declining, gains across the European Region are uneven, and if current trends continue, the GMF target will not be met. A particular concern is that tobacco use among women is falling more slowly, and even increasing in some areas.

Tobacco use, including both smoked and smokeless tobacco products, is one of the major behavioural risk factors for NCDs; it is a challenge for public health worldwide, and particularly for Europe, where the highest prevalence levels are recorded. It is estimated that around 7 million NCD deaths attributed to tobacco use are largely avoidable, with effective health measures known at both population and individual levels (32). WHO has also estimated that around 16% of all NCD deaths in the WHO European Region can be attributed to tobacco use (and thus be eliminated by removing exposure in the population), with a significantly higher fraction among men (28%) than among women (7%). The impacts of tobacco use are associated with numerous and diverse health and disease consequences, ranging from impaired body function and tissue damage to cell carcinogenesis (33). The GMF includes a target of a 30% reduction in tobacco use between 2010 and 2025.

In 2010 the overall prevalence of current tobacco use in the WHO European Region was 29.9%; there was a marked difference by sex, with the prevalence being nearly twice as high among men (38.8%) as among women (20.8%) (Fig. 8). By 2018 the prevalence of current tobacco use for both sexes had declined to 26.8% (a 10.3% relative reduction), with the prevalence for men declining to 33.9% and for women to 19.5%. However, the observed decline in tobacco use by 2018 was not fast enough to achieve the levels needed to be on track to reach the target, with a relative difference to the target line of 6.3% (or a delay of 2.7 years) for both sexes. The gap to the target line was larger for women (10.2% or a delay of 4.7 years) than for men (4.1% or a delay of 1.7 years).

**Fig. 8.** Prevalence of current tobacco use in the population aged 18 and over in the WHO European Region (2004–2025), by sex



In 2010, tobacco use prevalence for both sexes showed relatively little variation by country group, with levels highest in the EU13 at 33.0%, followed by the EU14 at 30.4% and the CIS at 27.8% (Fig. 9). More pronounced differences were observed between sexes, with levels four times higher among men than women in the CIS, 1.5 times higher in the EU13 and 1.2 times higher in the EU14. By 2018, tobacco use prevalence for both sexes had seen relative reductions of 12.6% in the EU13, 9.3% in the CIS and 7.6% in the EU14. However, the reductions were not fast enough to reach the target line, with gaps of 9.1% (a delay of 3.8 years) in the EU14, 7.4% (a delay of 3.1 years) in the CIS, and 3.8% (a delay of 1.6 years) in the EU13. Trends by sex showed that neither men nor women in any of the country groups were on track to reach the target, with a slower reduction (and increasing gap to the target line) among women than among men in all country groups. Particularly worrying was the increase in tobacco use among women in the CIS between 2010 and 2018, with current levels 20% higher than the target line, corresponding to a delay of 8.5 years.

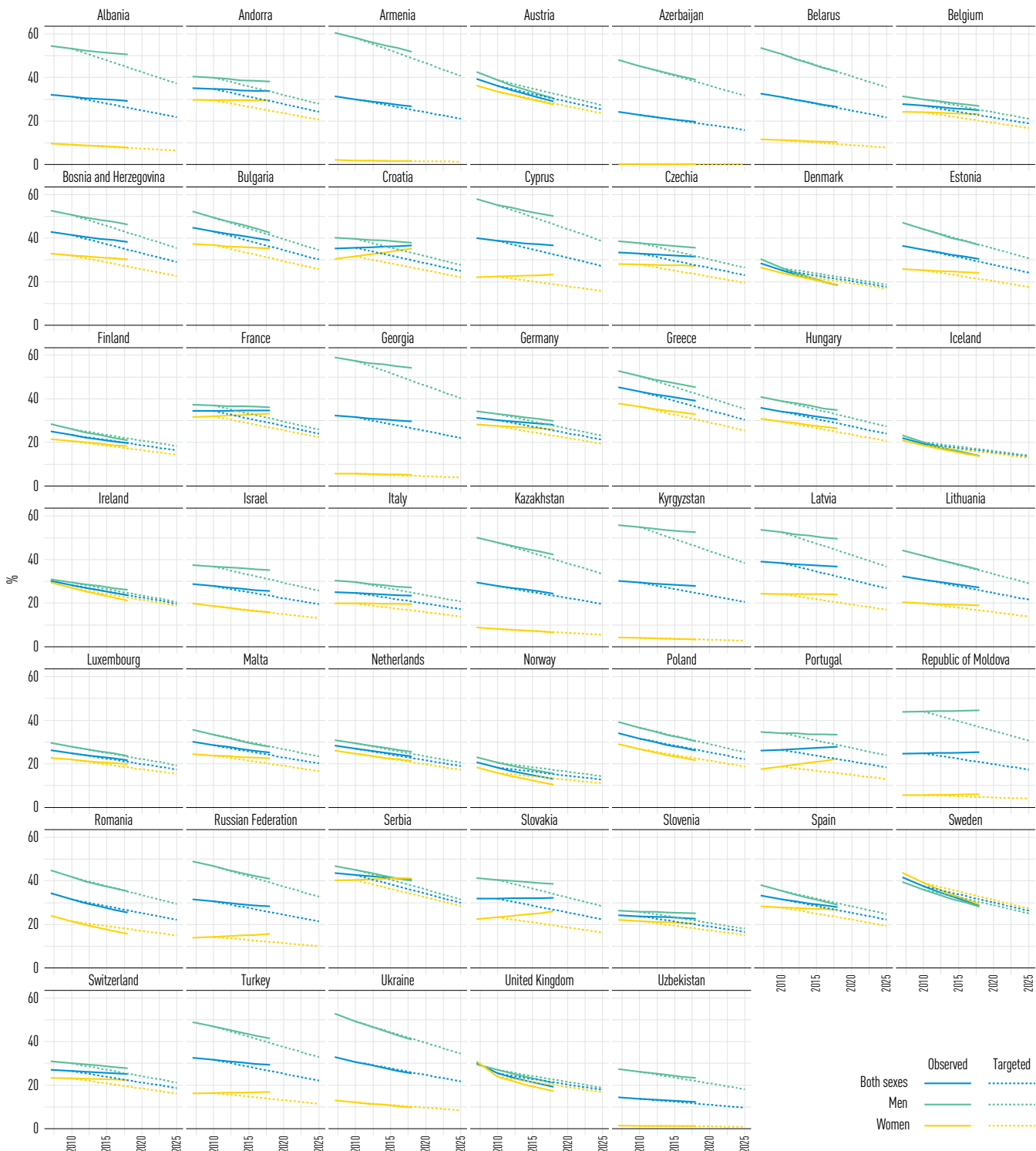
Country-specific prevalence of current tobacco use and 30% reduction targets between 2010 and 2025, by sex, are shown in Fig. 10. The overall picture was rather varied, with prevalence for both sexes in 2010 ranging from 13.8% to 43.4%; the values for men ranged from 20.1% to 58.2%, for women from 0.2% to 40.4%. Although 42 of 47 countries (89%) with available data showed decreasing trends by 2018, there were only 10 countries (21%) where the decreases were large enough to be on track to reach the target for both sexes, with five countries having an advantage of more than 2 years. In contrast, 37 countries were off track to reach the target, with nine showing a gap of less than 2 years, 19 having a gap



Fig. 9. Prevalence of current tobacco use in the population aged 18 and over in the CIS, EU13 and EU14 (2004–2025), by sex

**Fig. 10.** Country-specific prevalence of current tobacco use in the population aged 18 and over (2004–2025), by sex

of 2–5 years, and nine showing a gap of more than 5 years. Of particular concern was that tobacco use increased in five countries. A similar number of countries were on track to reach the target for men (12) and women (11), but a larger number were off track by 5 years or more to reach the target for women (21) than for men (nine).

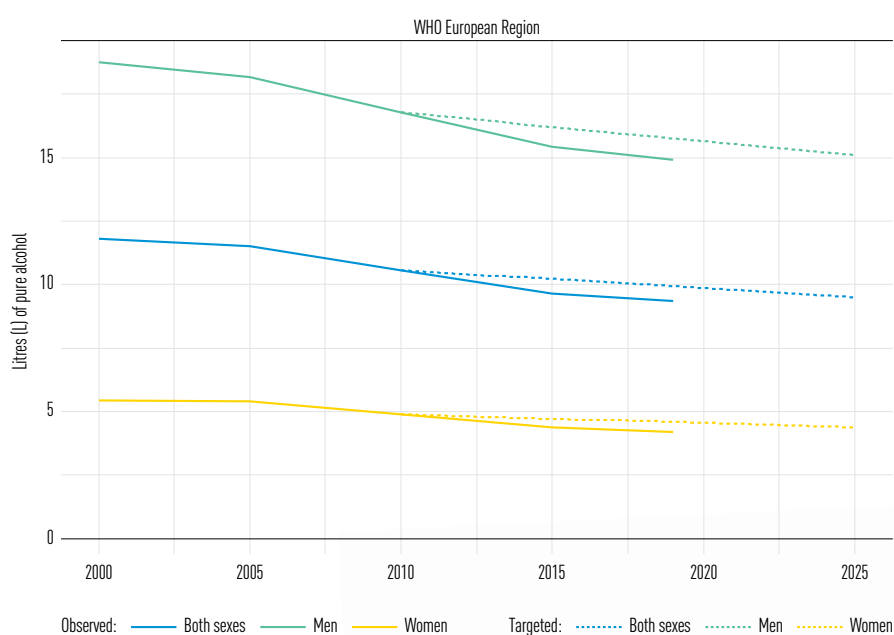


## 2.2.2 Alcohol consumption

Alcohol consumption is another main behavioural risk factor for NCDs and a key challenge for public health in the WHO European Region, where the highest consumption levels have been recorded worldwide (34). Alcohol consumption has been linked to a large number of diseases and disorders, including CVD, cancers, diabetes, digestive diseases and mental health disorders (such as depression), and injuries from transport accidents, violence and poisoning (34). Furthermore, 5.1% of the overall global burden of disease has been attributed to this risk factor (34). The harm caused by alcohol consumption in the population has two important interrelated drivers: the total volume of alcohol intake per person and the pattern of alcohol drinking as determined by heavy episodic drinking (defined as six or more standard drinks on a single drinking occasion during the past 30 days). The GMF target is a relative 10% reduction in total (recorded and unrecorded) adult per capita alcohol consumption, in litres (L) of pure alcohol, in the population aged 15 years and over between 2010 and 2025.

In 2010, total alcohol consumption in the WHO European Region was 10.6 L per capita (15 years and over), with consumption nearly 3.5 times higher among men (16.8 L) than women (4.9 L) (Fig. 11). By 2019, overall total consumption had fallen to 9.4 L (an absolute decrease of 11.5%), while the figure for men was 14.9 L (a 11.0% decrease) and for women 4.2 L (a 13.7% decrease). Therefore, the GMF target of a 10% reduction had already been reached by 2019 for both sexes (corresponding to an advantage of 6.3 years compared to the target line) and for men and women separately (with advantages of 5.7 years for men and 10.0 years for women), as was reported in an earlier paper (35). It should be noted, however, that the alcohol target of a 10% reduction is much more modest than other GMF targets, which are all 25% or more.

The regional target was reached in 2017, largely as a result of reductions in eastern countries, where levels were higher, and particularly among men. However, trends in countries are diverging and increasing worryingly in western parts of the Region.

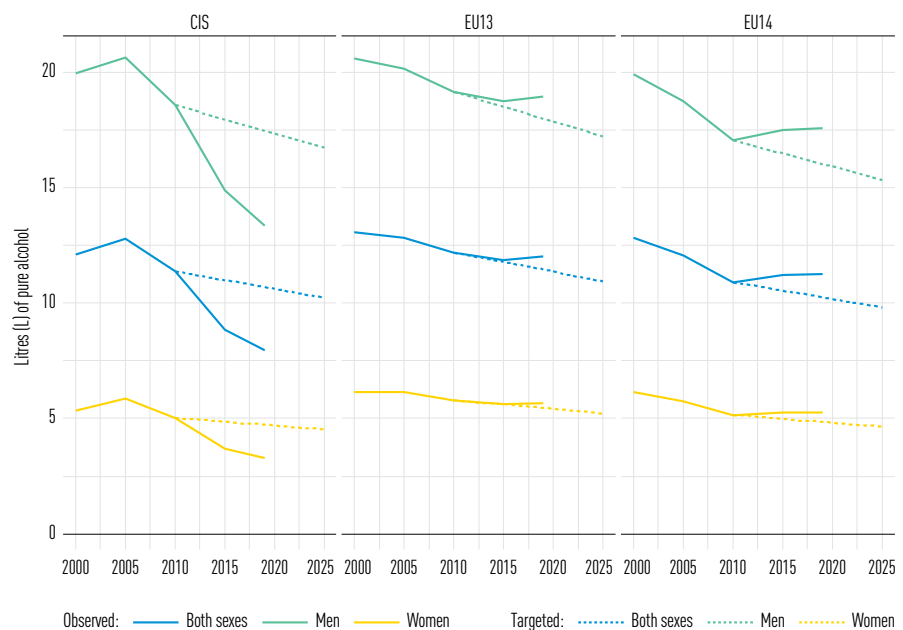


**Fig. 11.** Total alcohol consumption in the population aged 15 and over in the WHO European Region (2000–2025), by sex

In 2010, levels of average adult alcohol per capita consumption were broadly similar across the CIS, EU13 and EU14 country groups, with the highest level in the EU13 (12.2 L), followed by the CIS (11.4 L) and the EU14 (10.9 L); there were large differences between sexes in all country groups (Fig. 12). By 2019, adult alcohol per capita consumption had decreased in the CIS to 8.0 L (a 34.4% relative reduction, exceeding the target three times over); in the EU14, meanwhile, it had risen to 11.3 L (a 9.1% relative increase, resulting in a gap to target of 13.0 years) and in the EU13 to 12.0 L (a 4.8% relative increase, resulting in a gap to target of 6.9 years). Although men drank more than women in all subregions, in the CIS relative decreases were larger among women (44.2%) than men (30.8%); in the EU13 and EU14, however, the reverse was the case, with slightly larger relative increases among men than women. This suggests that, although their alcohol consumption levels were initially among the highest, most of the progress in the WHO European Region occurred in the CIS countries, in particular among men, and that little or no progress (or worse) was made in the countries of the EU13 and EU14.

With regards to total adult alcohol per capita consumption by country, a mixed picture had emerged by 2019 (Fig. 13). Sixteen of 51 countries with available data (31%) were on track to reach, or had already reached, the target for both sexes. Five countries were off track but had a delay of less than 2 years to the target, while a further four countries had a delay of 2–5 years. The situation by sex followed a similar pattern to that of the total population, but with three more countries on track for women than for men. Relative reductions were particularly prominent in many CIS and

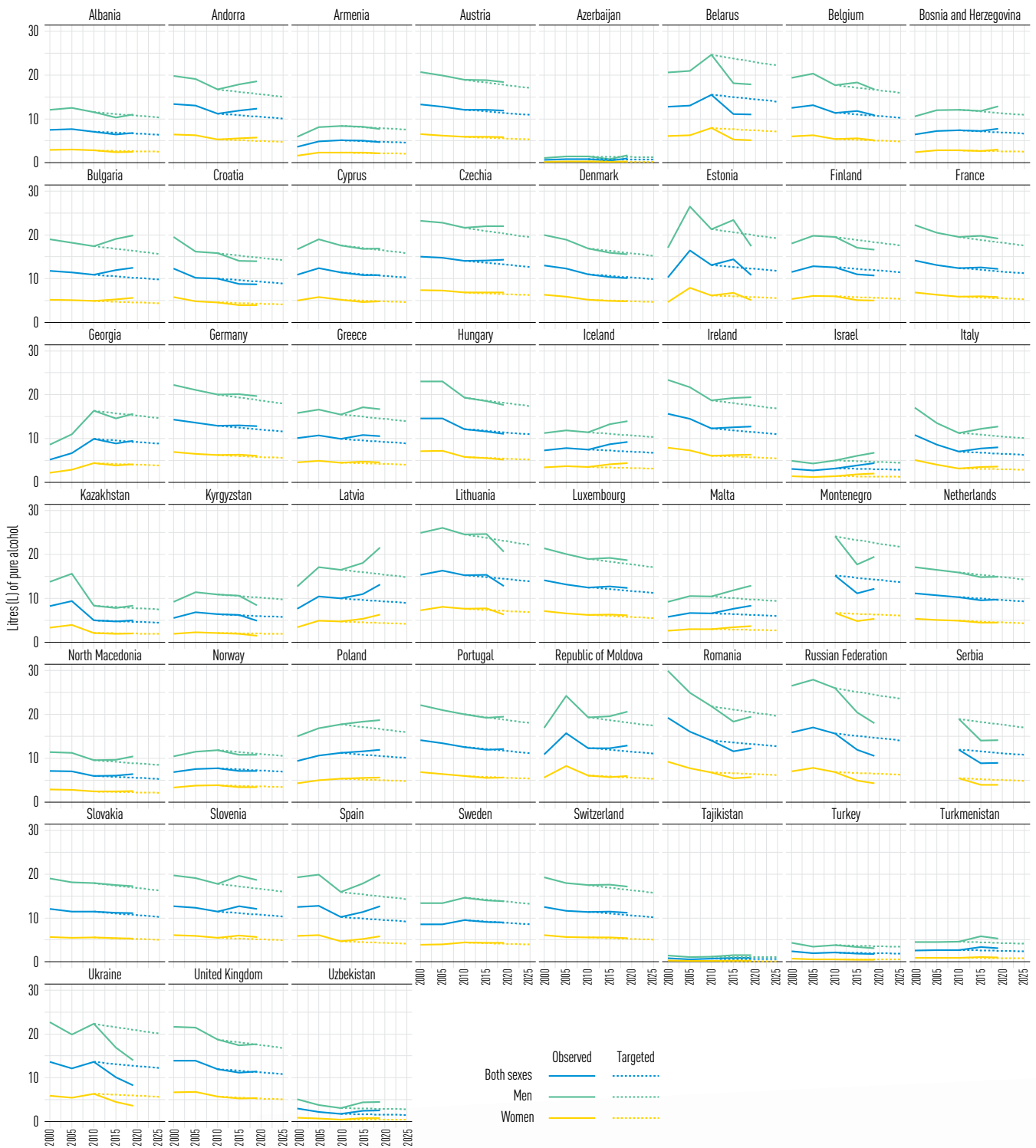
**Fig. 12.** Total alcohol consumption in the population aged 15 and over in the CIS, EU13 and EU14 (2000–2025), by sex





eastern European countries, where higher total alcohol consumption levels were seen in 2010. A particularly worrying aspect, as already indicated in the country group analysis, was the increase in alcohol consumption observed in many EU countries.

**Fig. 13.** Country-specific total alcohol consumption in the population aged 15 and over (2000–2025), by sex



### 2.2.3 High blood pressure

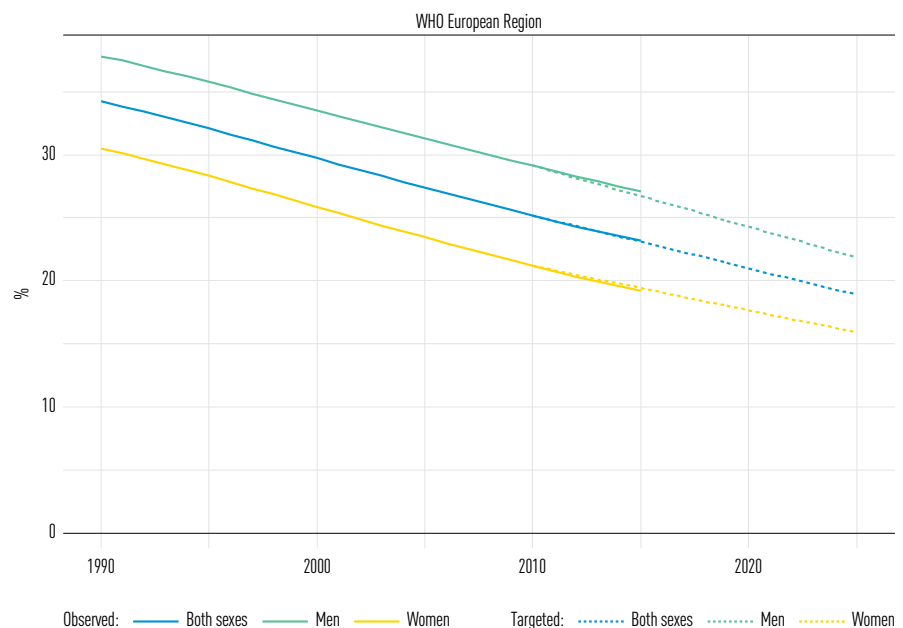
The regional target is within reach, but differences between countries remain considerable. Improvements may be achieved with primary prevention through lower salt consumption, reduction of overweight and obesity and increased physical activity, and primary health care with access to diagnosis and management.

High blood pressure is perhaps the single most important risk factor for CVD (and therefore NCDs); it has been estimated that around 18% of premature deaths due to CVD in the WHO European Region are attributable to this risk factor, in particular stroke and heart disease (16). There are many causes of high blood pressure, including behavioural, biological and health systems-related factors, most of which can be addressed effectively through prevention and management in primary health-care settings. The GMF target aims for a 25% relative reduction, in the population aged 18 and over, between 2010 and 2025, in the age-standardized prevalence of raised blood pressure, defined as systolic blood pressure  $\geq 140$  mmHg and/or diastolic blood pressure  $\geq 90$  mmHg.

The prevalence of raised blood pressure in the WHO European Region in 2010 was estimated to be 25.2% for both sexes; the prevalence was higher for men (29.1%) than for women (23.2%) (Fig. 14). By 2015 the prevalence for both sexes had dropped to 23.1%, a relative decrease of 8.1% or delay of 0.16 years compared to the target line. The value for women saw a reduction of 9.4% to 19.2% and was on track, with a small advantage of 0.6 years compared to the target line; the value for men, on the other hand, saw a 6.9% reduction to 27.1% and was off track by 0.8 years. These trends also indicate that in 2015 there was an overall relative increase in prevalence of 0.3% (or a loss of 0.2 years) with respect to the expected target value.

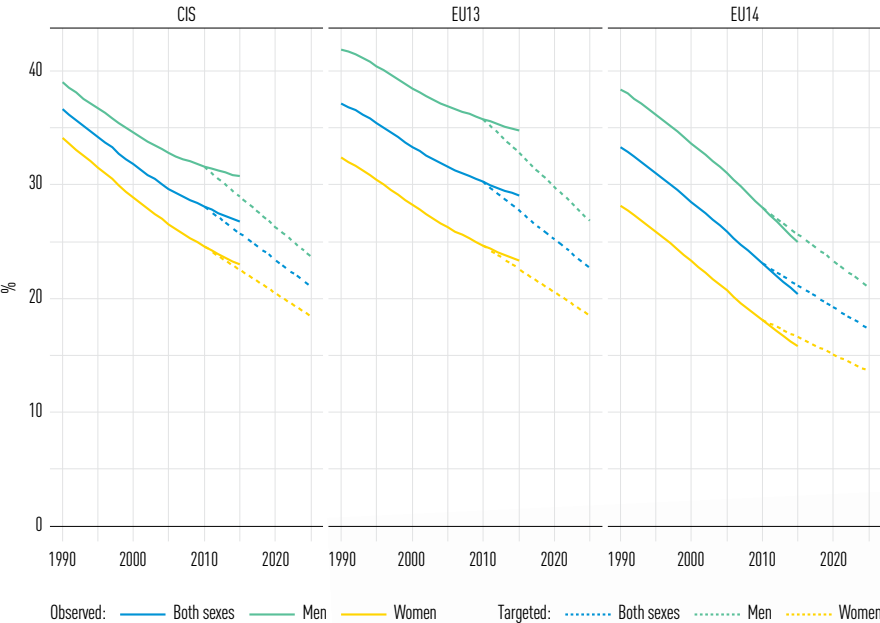
In 2010, the EU13 country group showed the highest overall prevalence of high blood pressure at 30.2%, followed by the CIS at 28.1% and the EU14 at 23.1% (Fig. 15). In addition, men had 45%, 30% and 53% higher

**Fig. 14.** Prevalence of raised blood pressure in the population aged 18 and over in the WHO European Region (1990–2025), by sex



prevalence than women in the EU13, CIS and EU14, respectively. By 2015, trends had shown larger relative decreases of 11.5% in the EU14 for an advantage of 1.9 years compared to the target line (for men and women, the decreases were -10.6% and -12.7%, with gains of -1.4 and -2.6 years to the target line). A worrying aspect is that decreases in the CIS (a 4.6% relative decrease for a delay of 2.1 years to the target line) and the EU13 (a 4.0% relative decrease for a delay of 2.4 years to the target line) were not sufficient to stay on track. Larger reductions were observed among women than men in all country groups.

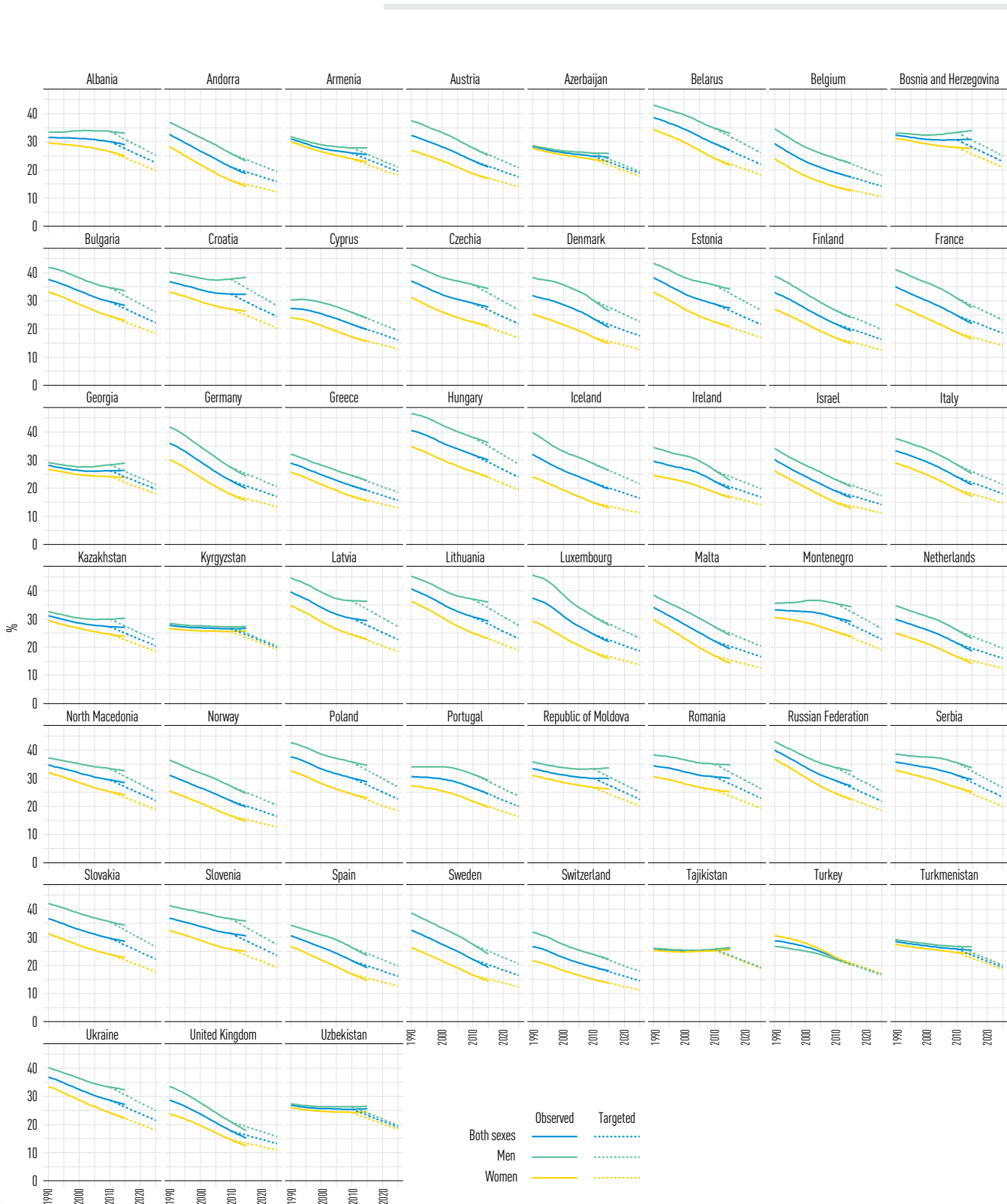
Further country-specific assessments allowed for a better definition of the situation, patterns and trends with respect to high blood pressure prevalence (Fig. 16). In 2010, overall country prevalence levels varied between 17.8% to 32.5%, with consistently higher levels for men (21.0–38.1%) than for women (14–29.6%). By 2015, 20 of 51 countries with available data (39%) were on track to reach the target, with eight having an advantage of more than 2 years compared to the target line. Of countries that were off track, 10 had delays of less than 2 years, 20 delays of 2–5 years, and one a delay of more than 5 years. Overall prevalence levels remained basically the same for men but showed a downward trend for women, as indicated by 2% absolute differences between 2010 and 2015. This was corroborated when the differences between observed and target values in 2015 were compared by country. Overall, 20 countries continued or improved their progress towards the target (relative decreases from 0.3% to 7.3% or gains from 0.2 to 3.9 years), most of them among EU14 members. In contrast, 16 countries showed relative values of 0.1% to 4.9% over the target line (or losses between 0.1 and 2.6 years) and 15 more had relative prevalence increases between 5.4% and 10.1% (or losses between 2.9 and 5.3 years). When



**Fig. 15.** Prevalence of raised blood pressure in the population aged 18 and over in the CIS, EU13 and EU14 (1990–2025), by sex

sex was considered, 17 countries had relative decreases between 0.3% and 7.4% with respect to the target (or gains between 0.2 and 4.0 years) among men, while 25 also showed relative decreases between 0.4% and 8.3% (or gains between 0.2 and 4.4 years) among women. Women not only had lower prevalence levels at baseline but also larger decreases than men, resulting in smaller gaps to the target line.

**Fig. 16.** Country-specific prevalence of raised blood pressure in the population aged 18 and over (1990–2025), by sex



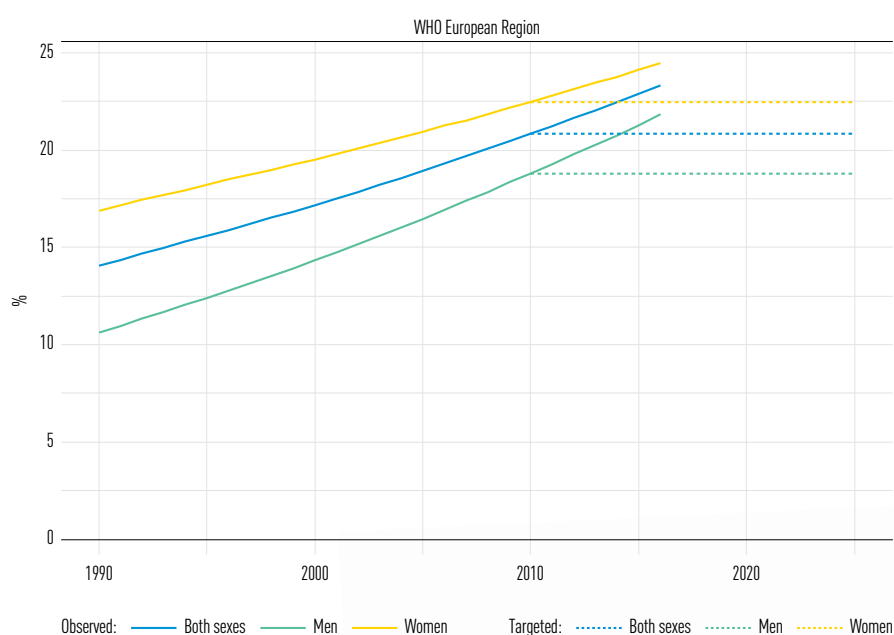
## 2.2.4 Overweight and obesity

Overweight and obesity are recognized as one of the greatest challenges for public health, with prevalence tripling worldwide since 1975 (36). They have been linked in particular with increased risk of diabetes, CVD and cancer, and it is estimated that 10–13% of premature deaths in the WHO European Region are attributable to overweight and obesity (16). The GMF target aims to halt the increase of the age-standardized prevalence of obesity (defined as BMI  $\geq 30$  kg/m<sup>2</sup>) in people aged 18 and over.

In 2010 the age-standardized prevalence of obesity in the WHO European Region was 20.8%; the prevalence was 18.8% for men and 22.5% for women, with a 20% higher prevalence among the latter (Fig. 17). By 2016 the prevalence for both sexes had reached 23.3% (a 12.1% relative increase), with values of 21.8% for men (a 16.2% relative increase) and 24.5% for women (a 9.0% relative increase). While obesity prevalence was higher in women than in men in 2010, an accelerating pace among men led to convergence between the sexes – a troubling circumstance that indicates how far the Region is from meeting the GMF target.

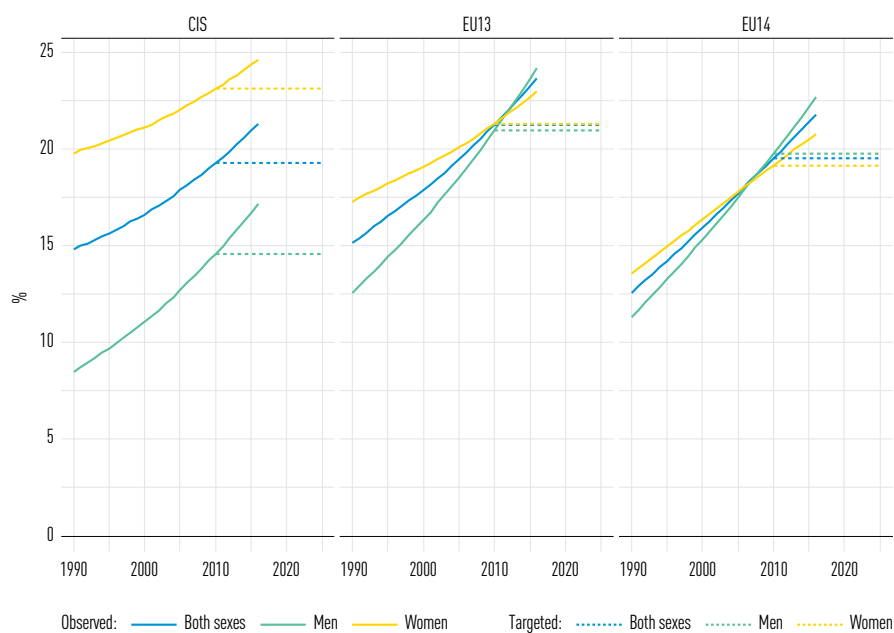
Fig. 18 shows trends in obesity by country group. In 2010, prevalence of obesity for both sexes was fairly similar; it ranged from 19.3% to 21.3%, with higher levels occurring in the EU13. In the CIS, however, there was an excess prevalence of 58.5% higher among women than men, while in the EU13 the excess in women was only 1.6%; in contrast, in the EU14 the reverse happened, with a male prevalence excess of 3.2%. By 2016 the overall prevalence levels had seen relative increases of between 10.7% and 11.7%, reaching 21.3% in the CIS, 21.8% in the EU14 and 23.7% in the EU13. The increase in prevalence was larger for men than for women in all country groups, and in the EU14 and EU13 men overtook women in levels of obesity by 9.0% and 5.4%, respectively.

Overweight and obesity represent a fast-rising epidemic and a public health threat in all countries, with potential implications for and impacts on other diseases, including CVD, cancers and diabetes. Though prevalence is currently higher among women, trends for men are rapidly catching up.



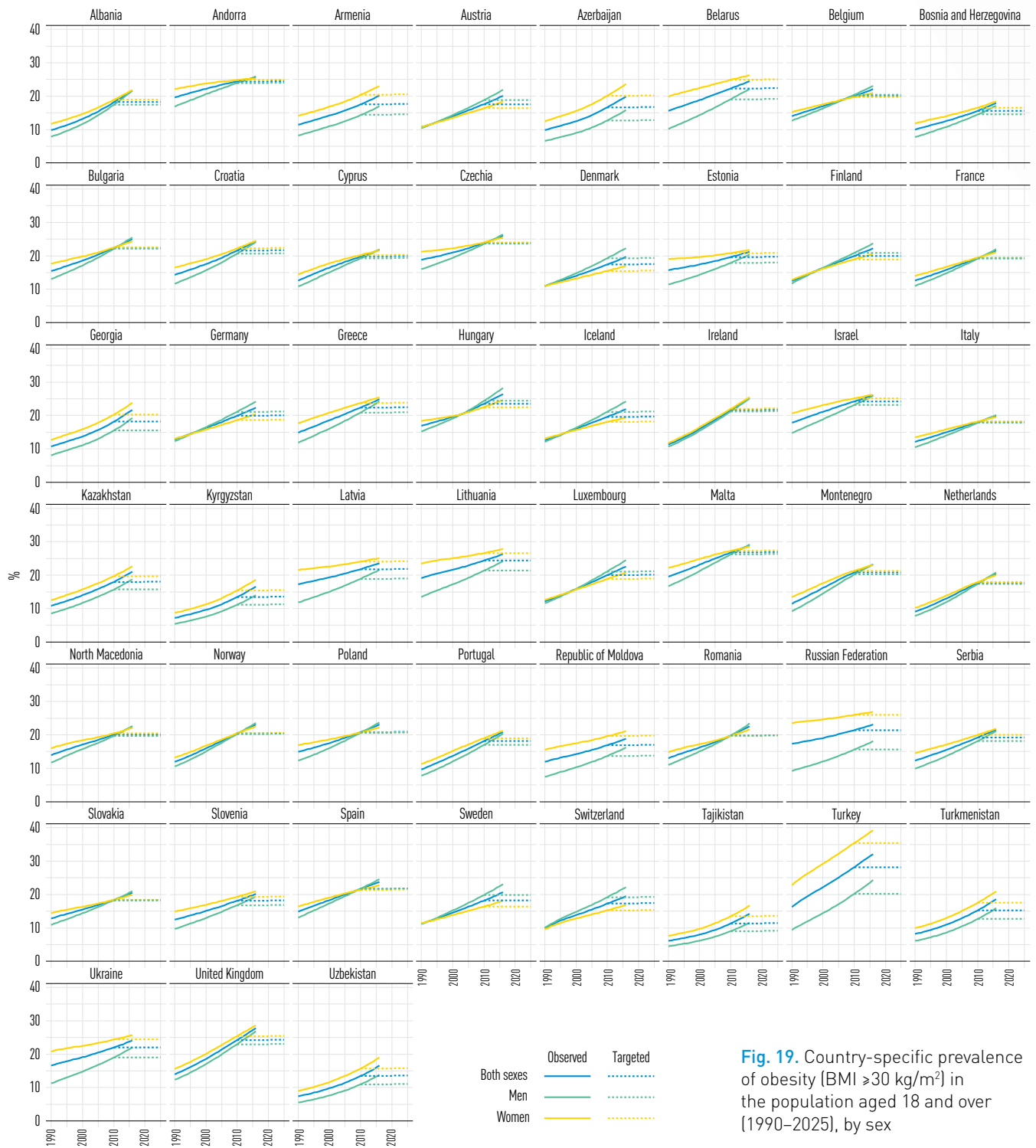
**Fig. 17.** Prevalence of obesity (BMI  $\geq 30$  kg/m<sup>2</sup>) in the population aged 18 and over in the WHO European Region (1990–2025), by sex

**Fig. 18.** Prevalence of obesity (BMI  $\geq 30$  kg/m<sup>2</sup>) in the population aged 18 and over in the CIS, EU13 and EU14 (1990–2025), by sex



The country-specific assessment of trends showed rapid increases for both sexes and for men and women separately in all countries – not a single country in the WHO European Region was able to halt the rise in obesity (Fig. 19). In 2010, obesity prevalence for both sexes ranged from a low of 11.3% to a high of 28.2%, a 2.5-times differential between countries. By 2016, obesity levels for both sexes ranged from 14.2% to 32.1%, with observed relative increases ranging from 5% to 26%. A particularly worrying aspect was that 75% of countries saw a relative increase in obesity prevalence of more than 10%. Considering trends by sex, increases were more prominent among men, with prevalence in all but one country increasing by more than 10% relatively. The same increase (at least 10% relatively) was observed in 20 countries (39% of 51 countries with available data).

While a life-course approach is important for prevention of many NCDs, it is particularly important for prevention of overweight and obesity, as weight gain accumulates throughout the life-course (37). Therefore, monitoring childhood overweight and obesity and turning the tide at an early age is particularly important. Accordingly, the WHO Regional Office for Europe has established and is supporting the Childhood Obesity Surveillance Initiative (COSI), which is the largest initiative of its kind in the world. To date, COSI has measured more than half a million children in 42 European countries. The latest results show that, although levels of childhood overweight and obesity are very high, selected countries have been able to reduce them (38, 39).



**Fig. 19.** Country-specific prevalence of obesity (BMI  $\geq 30$  kg/m<sup>2</sup>) in the population aged 18 and over (1990–2025), by sex

# 3

## Policy response to NCDs and trends since 2017

Detailed data on achievement of all PM indicators by country in 2017 and 2019 are given in Annex 1 (see also Table 1 above for a list of indicators used in the current report). In both years, all 53 Member States of the WHO European Region responded to the NCD CCS, demonstrating their strong commitment to the fight against NCDs.

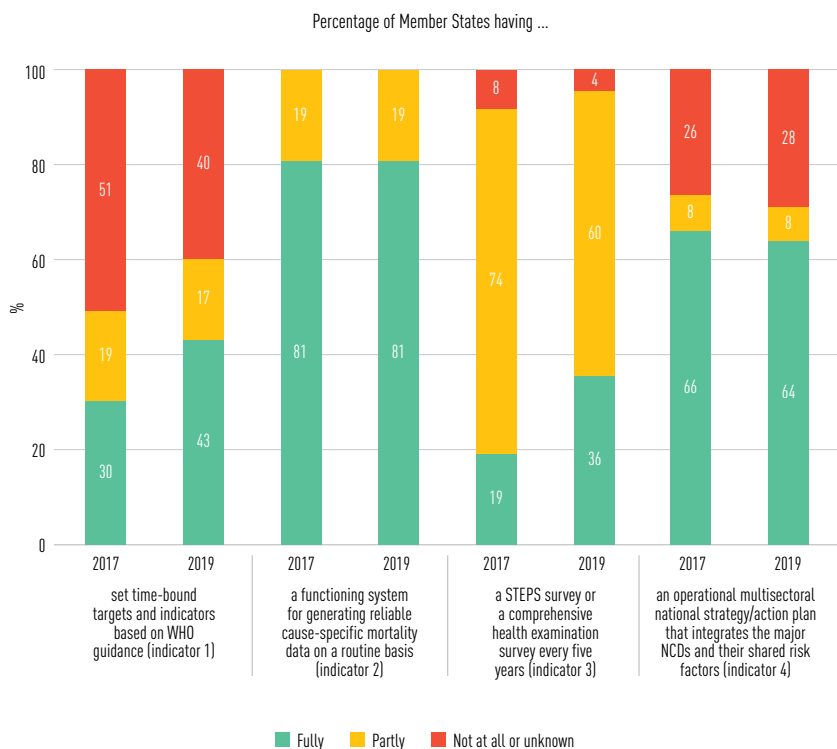
### 3.1 PM indicator achievement by policy area

#### 3.1.1 PM indicators related to surveillance and governance (indicators 1–4)


In the WHO European Region, the PM indicators related to **surveillance and governance** (indicators 1–4) showed an overall improved picture in 2019 compared to 2017 (Fig. 20). The proportion of countries that had set time-bound national targets and indicators aligned with WHO guidance (PM indicator 1) increased for full achievement (characterized by inclusion of NCD mortality and either risk factor and/or health system indicators) from 30% to 43%; and for at least partial achievement (characterized by inclusion of less than two areas or targets that are not time-bound) from 49% to 60%. Nevertheless, 40% of countries did not set any NCD targets and there was still considerable room for improvement.

Significant progress has been made in the European Region in implementing commitments to NCD prevention and control. However, gains are uneven and insufficient to achieve targets. It is essential that integrated policies involving health systems are fully implemented with support from different sectors at all levels.

**Fig. 20.** PM indicators related to governance and surveillance in 53 countries of the WHO European Region (2017 and 2019), by level of achievement







There was no change in the proportion of countries that had a functioning system for generating reliable cause-specific mortality data (PM indicator 2), with very high levels of full implementation (characterized by timely and highly usable data) in countries (81%). This reflects rather strong civil registration and vital statistics systems in the Region, although the quality of data and timeliness of reporting can be improved, as can be seen from the premature mortality analysis and detailed data in Annex 1. It is also noteworthy that the EU regulates timely provision of cause-of-death data (40), so all EU Member States fully achieve this indicator.

The proportion of countries implementing NCD surveys (PM indicator 3) such as WHO STEPS (41) increased for full achievement (characterized by inclusion of seven major NCD risk factors and objective measurement of weight, height, blood pressure and blood sugar in a survey in the last five years) from 19% to 36%, and from 92% to 96% for at least partial achievement (characterized by inclusion of at least three risk factors in a survey in the last 10 years). NCD risk factor surveillance has significantly improved in the eastern part of the WHO European Region in recent years, thanks to a generous grant from the Russian Federation and the efforts of the newly established WHO European Office for the Prevention and Control of NCDs in Moscow. NCD surveys are indispensable in measuring progress towards GMF targets and accurately quantifying detection, treatment and control gaps for priority NCDs such as hypertension, diabetes and obesity, and thus play a crucial role in the measurement of UHC and health planning. However, as can be seen from the data in Annex 1 and as previously highlighted in assessment of the situation regarding NCD surveillance in the Region (42), many EU countries and countries in south-east Europe are failing to implement such surveys at the recommended level. The EU has regulated surveillance of behavioural risk factors (43), which is implemented through the European Health Interview Survey (44), but not of health examination surveys. While EU legislation has increased the implementation of several recommended NCD policies, lack of regulation of health examination surveys permits only suboptimal surveillance systems.

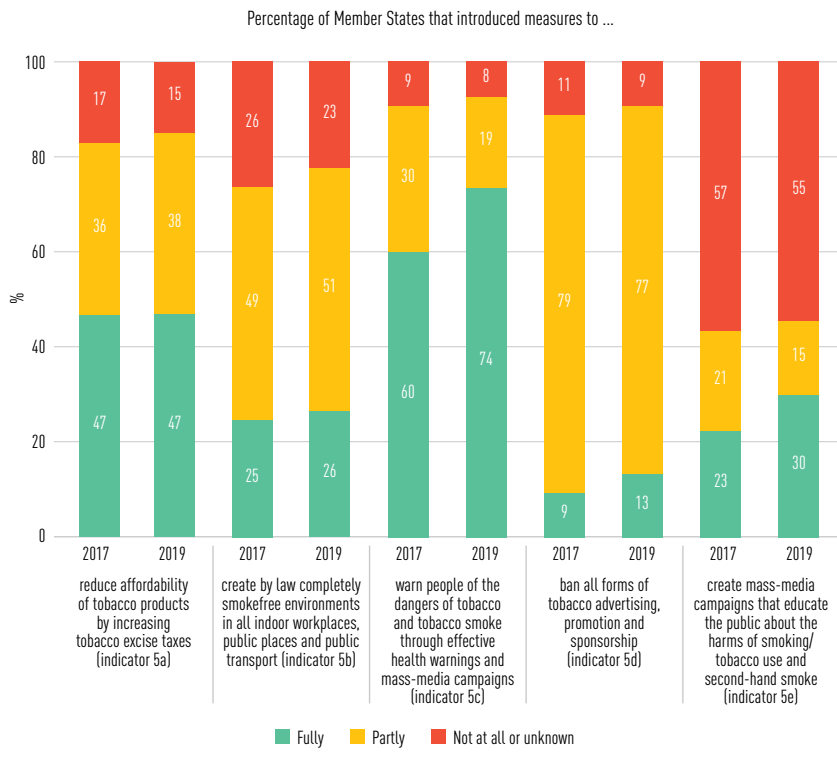
A small decline in the proportion of countries having operational multisectoral national NCD strategies (PM indicator 4) was observed, with 64% of countries achieving full implementation (characterized by the multisectoral nature of the strategy and inclusion of four main risk factors and diseases). Coordinated and collaborative work within United Nations systems and other international agencies, under the umbrella of the United Nations Development Assistance Framework (UNDAF) (45), can play an important role and contribute to catalysing and increasing achievement of this indicator. Therefore, it is important to consider systematic inclusion of NCDs in the UNDAF.

### 3.1.2 PM indicators related to main NCD risk factors (indicators 5–8)

The situation regarding PM indicators related to **tobacco use** is shown in Fig. 21. This category includes five indicators that cover a broad range of effective tobacco policy interventions, including reduction of exposure to tobacco smoke, reducing affordability and access to tobacco products, creating smokefree environments, banning advertising, promotion and sponsorship, and increasing awareness through education campaigns about the harms of tobacco use and second-hand smoke.

There was no major change between 2017 and 2019 regarding tobacco taxation policies (PM indicator 5a), with 47% of countries implementing tobacco taxation at the highest level (characterized by total taxes comprising more than 75% of the price of the most sold brand of cigarettes), nor with respect to smokefree environments (PM indicator 5b), with 26% of countries in 2019 (from 25% in 2017) implementing them at the highest level (characterized by all public places in the country being completely smokefree by national law or at least 90% of the population covered by complete subnational smokefree legislation). The highest implementation in 2019, as well as the greatest progress since 2017, was seen with PM indicator 5c, on warning people of the dangers of tobacco and tobacco smoke through different health alerts, with 74% of countries reaching full achievement in 2019. EU tobacco product regulation (46) is playing an important role in the achievement of this indicator. By contrast, banning all forms of tobacco advertising,

**Fig. 21.** PM indicators of measures to control tobacco use in 53 countries of the WHO European Region (2017 and 2019), by level of achievement



promotion and sponsorship (PM indicator 5d) reached full achievement (characterized by a total ban of direct or indirect tobacco advertising) in only 13% of countries in 2019 – a small improvement from 9% in 2017. However, partial achievement (characterized by an advertising ban on national TV, radio and print media, but not on all other forms of direct and/or indirect advertising) was high, adding a further 77% of countries. A slight improvement was also seen with regard to anti-tobacco mass-media campaigns (PM indicator 5e), with 30% of countries implementing them at the highest level (characterized by a campaign having at least seven out of eight recommended characteristics including airing on television and/or radio). It is concerning that 55% of countries still did not implement this policy in 2019.

Target indicators on policy measures to control **alcohol consumption** involve three areas: regulations on its availability (PM indicator 6a); restrictions and bans on advertising and promotion (PM indicator 6b); and pricing policies, including excise taxation (PM indicator 6c) (Fig. 22). Restrictions and bans on advertising and promotion (PM indicator 6b) showed the greatest improvement, with the highest level of full implementation (characterized by advertising restrictions on beer, wine and spirits through all channels and the existence of a detection system for infringements on marketing) in 47% of countries. Paradoxically, this indicator also showed the highest level of *non*-implementation (40% of countries in 2019). Full implementation of regulations on alcohol availability (4% of countries) and of fiscal policies (13% of countries) was very low, although a large majority of countries implemented these measures at least partly. It

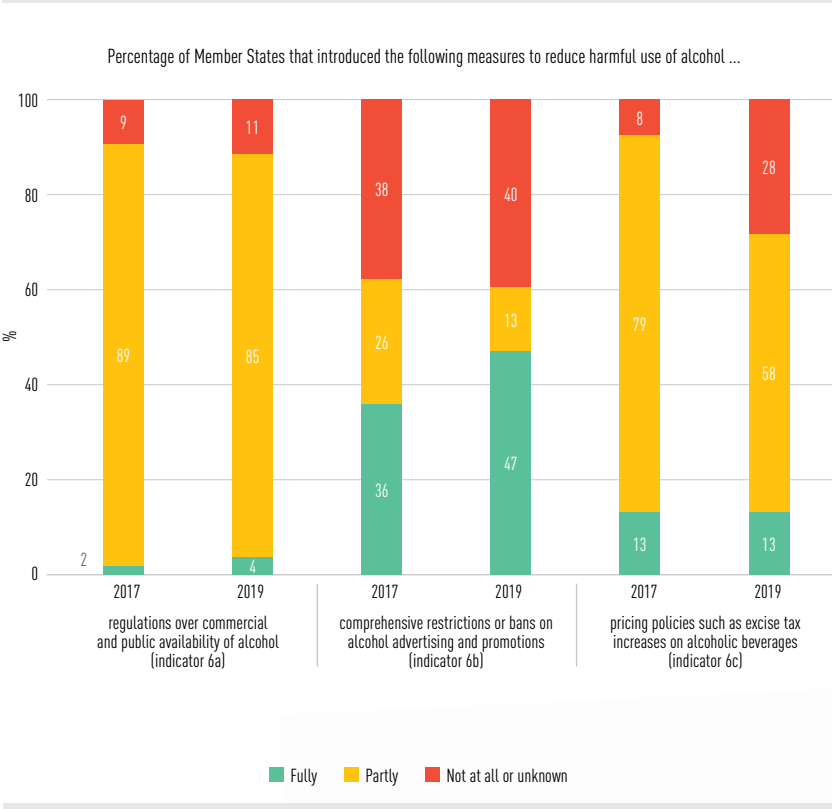


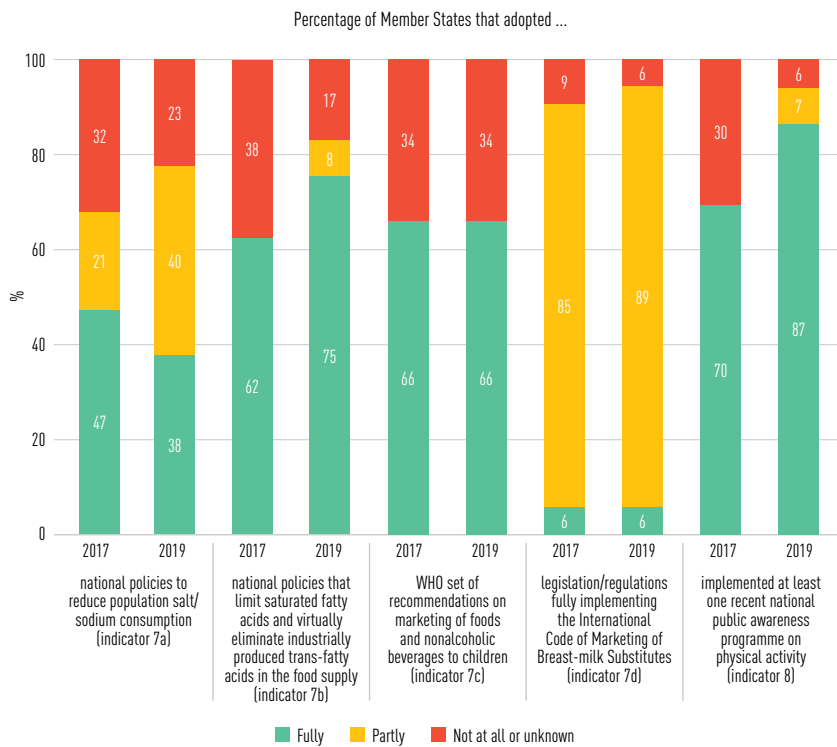
Fig. 22. PM indicators related to alcohol policies in 53 countries of the WHO European Region (2017 and 2019), by level of achievement

should be noted that the EU directive (92/83/EEC) requires wine and other products, including cider, to be taxed on a unitary basis. As such excise duties are only an indirect tax on the consumer, these restrictions mean that EU countries are unable to implement tax systems that are optimal from the perspective of public health (47).

Four PM indicators are related to **nutrition policies** (Fig. 23). Implementation of policies to reduce population salt/sodium intake (PM indicator 7a) at the highest level fell to 38% of countries in 2019. This decrease could be caused by changing indicator criteria, as the requirement of front-of-pack labelling was added to reflect new scientific evidence. The share of countries implementing policies limiting saturated fats and virtually eliminating industrially produced trans-fatty acids in the food chain (PM indicator 7b) increased to 75%, as the EU and Eurasian Economic Union adopted regulative documents (48, 49). There was no change in the proportion of countries restricting marketing of unhealthy foods and nonalcoholic beverages to children, with full implementation in 66% of countries (PM indicator 7c). The change regarding implementation of legislation related to the International Code of Marketing of Breast-milk Substitutes (PM indicator 7d) was minimal, with only 6% of countries with full implementation and 89% with partial implementation, even though the code was adopted as long ago as 1981 (50).

Since **physical activity** is importantly related to nutrition and NCDs and NCD risk factor development, Member States were asked whether they had implemented at least one recent national public awareness programme on physical activity, including mass media campaigns to

**Fig. 23.** PM indicators related to nutrition and physical activity awareness in 53 countries of the WHO European Region (2017 and 2019), by level of achievement



encourage behavioural change with respect to physical activity. The share of countries fully implementing PM indicator 8 on public awareness programmes on physical activity increased by 17 percentage points to 87% between 2017 and 2019 (Fig. 23). This increase was driven by the large number of countries taking part in the European Week of Sports (51). Recognizing its relevance, nearly 60% of countries also developed physical activity guidelines that included children under 5 years and older adults (25) – a matter that should stimulate physical activity awareness, practice and programmes addressing this need.

### 3.1.3 PM indicators related to NCD management (indicators 9 and 10)

There was a small deterioration regarding PM indicator 9 on guidelines for NCD management between 2017 and 2019, with two thirds of countries (66% down from 68%) achieving full implementation (characterized by the existence of guidelines for all four major NCDs), with an additional 19% having partial implementation (characterized by the existence of guidelines for at least two major NCDs) (Fig. 24). A slight improvement was seen in the implementation of PM indicator 10 on the provision of drug therapy and counselling for those at high CVD risk (characterized by more than 50% of primary health-care facilities offering CVD risk stratification and general availability of eight medicines in the public sector), which was fully achieved by 64% of countries, and partly by a further 9% of countries.

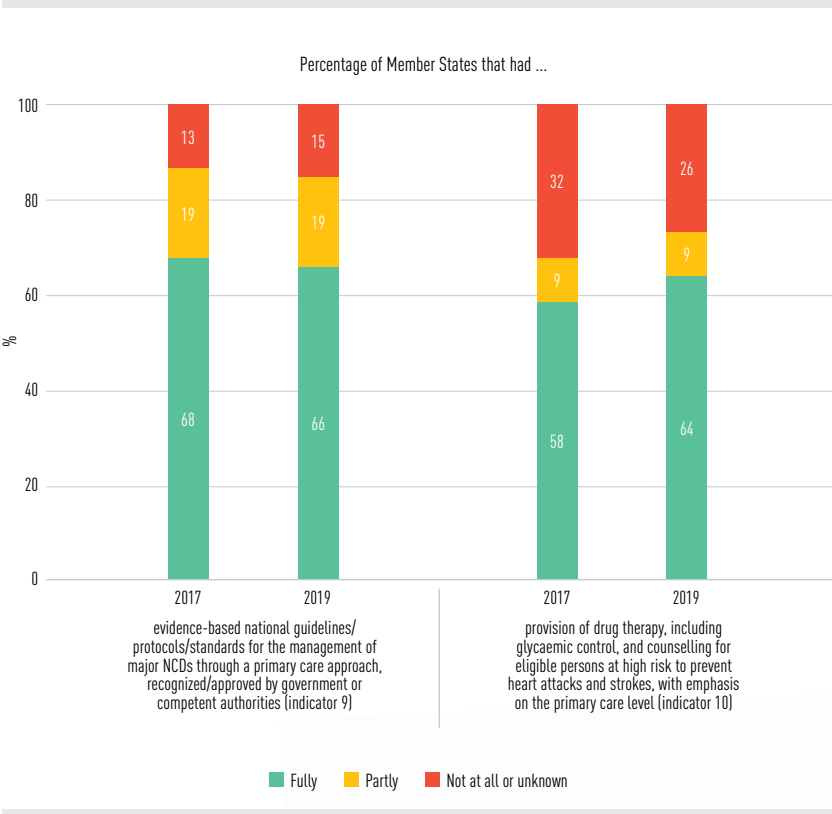
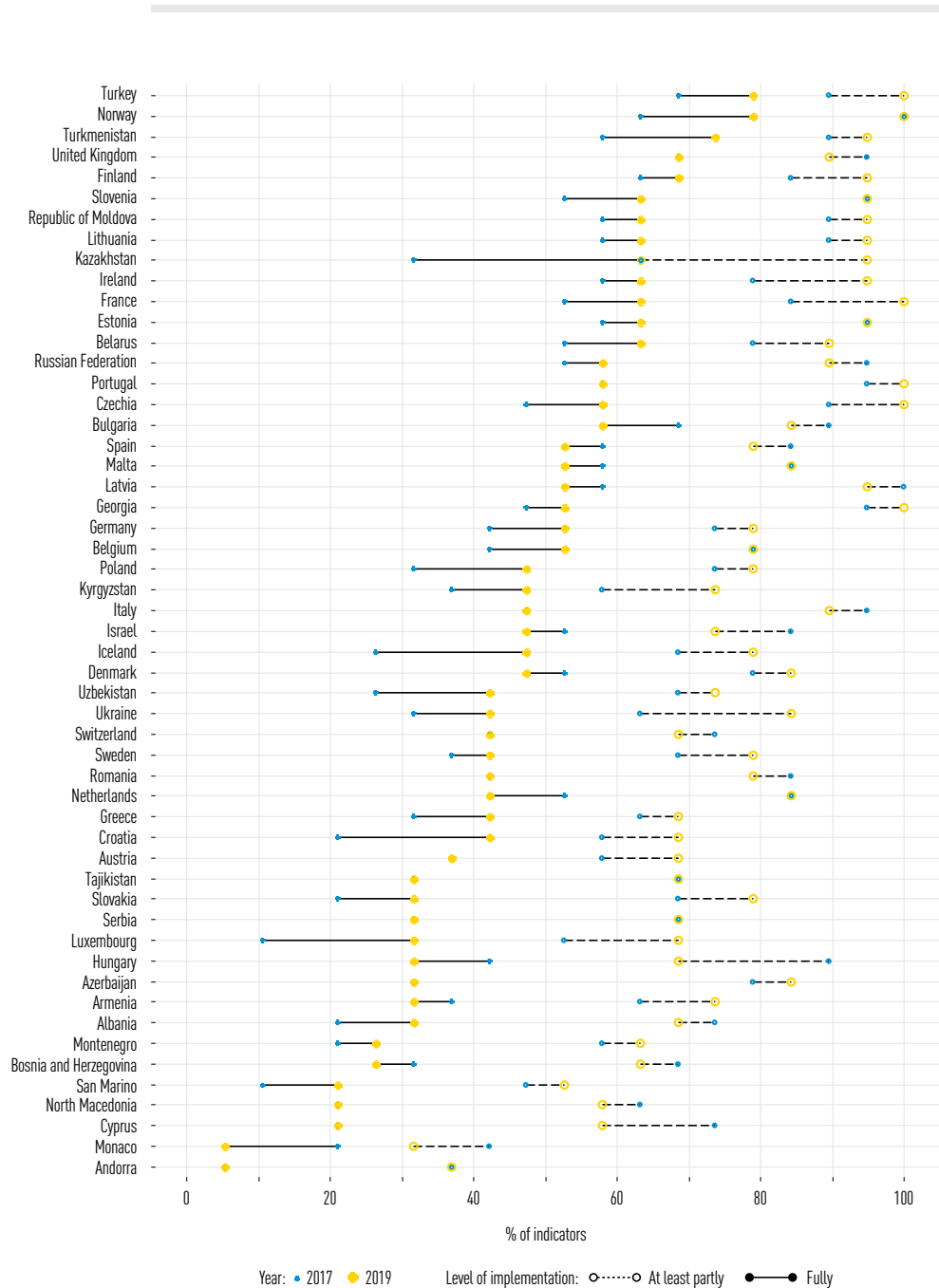


Fig. 24. PM indicators related to NCD management in 53 countries of the WHO European Region (2017 and 2019), by level of achievement

### 3.2 Progress by country

The levels of achieving PM indicators, either fully or at least partly, in 2017 and 2019, by country, are shown in Fig. 25. On average, countries implemented 46% of PM indicators fully, and 80% at least partly, in 2019 – an increase of four percentage points for both full and partial implementation since 2017. Thirty of 53 countries (57%) increased their share of fully implemented PM indicators; 12 countries remained at the same achievement level; and 11 saw their level decrease. However, the

Fig. 25. Share of PM indicators with full or at least partial achievement (2017 and 2019), by country



variation between countries was substantial. Overall results showed that 23 countries (43%) had fully achieved 50% or more indicators in 2019, with three countries fully implementing more than 70%. No country reported fully achieving all indicators in 2019. The largest improvement was seen in Kazakhstan (31 percentage points), followed by Croatia, Luxembourg and Iceland (all 21 percentage points). Twenty-nine countries (55%) increased their share of at least partly implemented PM indicators; nine countries remained at the same level; and 15 saw their levels decrease. Nearly half of all countries (25, or 47%) had implemented more than 80% of PM indicators at least partly, while six had implemented all PM indicators at least partly. Only two countries implemented less than half of PM indicators at least partly. Most of the countries showing low implementation of PM indicators were small countries and countries in south-eastern Europe.

### 3.3 Comments on implementation of PM indicators

Modest improvements in implementation of PM indicators were achieved between 2017 and 2019, and all countries can substantially improve their policy response to NCDs. The level of at least partial implementation of policies was relatively high.

The analysis has also shown that economic and political unions with legislative power, such as the EU and the Eurasian Economic Union, can play a key role in policy response to NCDs. They can play a positive part, as was apparent in the quality and scheduling of cause-of-death data, tobacco control and trans-fat elimination. But they can also have a negative impact, or no impact at all, as was seen in the area of alcohol policies and risk factor surveys.

There is also wide variation between levels of implementation of policies by policy area. Alcohol policies tend to have the lowest levels of full implementation. It should be noted that efforts needed to achieve individual PM indicators differ widely and that indicator criteria are often not aligned between different areas. For example, while adoption of targets and indicators aligned with WHO guidance can be achieved through a normative act issued by the Ministry of Health, achieving optimal levels of alcohol or tobacco taxation could result in considerable changes in national tax income structures and requires complex legislative changes and whole-of-government action, involving multiple stakeholders. This requires dealing with powerful industries that have pervasive strategies, so strong legislation needs to be considered, as well as multisectoral and innovative approaches to reduce availability, access and exposure. While in the area of tobacco the Framework Convention on Tobacco Control (52) provides a legally binding treaty, no comparable instrument exists in the area of alcohol.

It should also be noted that the existence of policies is only the first step towards effective implementation. The policies need to be enforced and their implementation monitored in order to have the desired impact.

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Implementation of cost-effective policies such as the WHO “best buys” should be increased.

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## 4

## Discussion and conclusion

This publication synthesized the latest available data on the main NCDs, their risk factors and the policy response in the WHO European Region and provides an update to previous assessments (13, 14, 16, 53).

In 2018 every fifth man and every 10th woman in the WHO European Region was dying before their 70th birthday from four major NCDs, and those deaths were largely avoidable (preventable and/or amenable to health care). Reduction in premature NCD mortality had been observed since 2010 and the Region was just on track to reach the GMF and EAP premature mortality targets by 2025 and 2030, respectively. Most countries (28 of 46 countries, or 61%) with recent data were on track to achieve the GMF and EAP targets. However, in the Region and in most countries and country groups (with the exception of the CIS), the distance above the target line was far from comfortable and the path to the 2030 target still very long, with less than a decade to go to 2030. On a more positive note, most countries could still reach the premature mortality targets if they intensify their efforts, as only four countries had a delay of 5 years or more to the target line.

Based on trends between 2000 and 2015, when the decline in mortality was very fast but only 18% of countries were able to achieve the more ambitious SDG target, it seems unlikely that this target, which is also proposed for the NCD implementation roadmap (19), can be achieved by 2030 in the WHO European Region. The reasons for this are twofold. First, it is likely that the current COVID-19 pandemic will have a detrimental effect on the small gains that have been achieved so far. Second, in recent years a slowdown in the reduction of premature mortality rates has been observed in many countries with relatively low levels of premature NCD mortality, as cancers take the place of CVD as the leading causes of premature death. These countries were the ones with the fastest reductions in the past.

While all countries can substantially benefit from efforts to reduce cancer mortality, action against cancer will be of particular importance in reaching the target for countries with higher levels of premature mortality. Therefore, the United Action Against Cancer movement (54) will play an instrumental role not only in reducing the overall cancer burden but also in achieving the premature mortality target. Previously formulated strategies to fast-track action on NCDs in the WHO European Region by focusing on reducing CVD, particularly through action on hypertension, in countries with high excess CVD mortality (for instance, in the CIS and EU13), and gender-sensitive approaches, remain valid as very impactful strategies. New WHO guidelines on hypertension management (55) and the WHO series devoted to gender and NCD analysis (56), which have revealed large gender-specific health inequalities within countries, further underline the importance and impact of such approaches and add new impetus to their implementation.

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Management of hypertension is an effective strategy to reduce premature mortality due to CVD, particularly when coupled with gender-sensitive approaches.

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Inequalities in premature NCD mortality between countries are substantial, with a nearly fourfold differential between the highest and lowest. Between-country variations in premature mortality are driven mainly by two factors: mortality due to CVD (with a 26-fold differential between countries) and male mortality (with a ninefold differential between countries), with excess mortality being especially prominent in CIS countries and countries in eastern and central Europe.

It should be noted that premature mortality represents only the tip of the NCD burden in Europe, as more than two thirds of deaths occur after the age of 70. A slowdown of premature mortality declines or even increases in mortality at all ages in recent years have been reported in high-income countries (57). Although the causes still remain to be determined, increases in overweight, diabetes and widening inequalities have been postulated as possible factors.

Decreasing mortality trends were accompanied by decreases in most risk factors, with the exception of obesity. Although falling, levels of tobacco and alcohol use were still high. It is unlikely that the WHO European Region will reach the target of a 30% reduction in tobacco use by 2025 if efforts are not intensified substantially. The decline is particularly slow among women, which calls for a gender-sensitive approach to reducing tobacco use. The relatively modest target of a 10% alcohol reduction was achieved well in advance, and a more ambitious target of a 20% reduction by 2030 has been proposed for the NCD implementation roadmap (19). Hypertension is falling but still slightly off track. The target is within reach if efforts to prevent and control hypertension, particularly through salt reduction, are intensified. The new hypertension guidelines (55) and the country support package for salt reduction (58) are important resources in this regard. Obesity is increasing fast in all countries in Europe, and the prospects of achieving the target of no increase by 2025 or even by 2030, as proposed for the NCD implementation roadmap, are out of reach. As of 2021, data are still not available to assess progress towards many GMF targets in the WHO European Region (areas such as salt reduction, physical activity, treatment for CVD in high-risk individuals and availability of medicines, to name but a few). Therefore, it is important to increase investment in surveillance of NCDs and the main risk factors. Innovative approaches, including big data, could provide viable proxies of agreed indicators in many cases and should be explored (59).

Analysis of PM indicators showed that all countries could further increase their levels of implementation of policies and other recommended interventions for prevention and control of NCDs. Therefore, there is substantial room for stepping up leadership in improving population health in the years to come. The policy response to NCDs in Europe should go beyond PM indicators, as they are mostly based on “best buys”, which are defined as highly cost-effective interventions in low- and middle-income countries (12). Many effective interventions for prevention and control of NCDs were not included in the best buys, as data on their cost-effectiveness in low- and middle-income countries were not available. As 33 of 53 countries in the WHO European Region are high-income countries, the

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Given the high prevalence of multiple risk factors, such as alcohol and smoking, there is a need for integrated strategies that can be tailored to maximize health gains.

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issue of cost-effectiveness in low- and middle-income countries should not be the only relevant question to guide policy decisions. The menu of policy responses needs to be modified according to new evidence, as is periodically done by WHO, but it should also take into account new developments related to NCDs, such as novel tobacco products (23, 60, 61), online marketing of unhealthy commodities (62) and the emergence of digital health (59), to name but a few.

It should be noted that CIS countries and selected countries in the eastern part of the Region have made large advances in improving their policy response to NCD prevention and control, have reduced alcohol and tobacco consumption considerably, and have stepped up risk factor surveys. The same group of countries is reporting large decreases in premature mortality. By contrast, progress has been much slower in some of the EU countries.

The COVID-19 pandemic has brought unprecedented challenges to our societies and communities worldwide, and in Europe in particular, and has caused significant health, social and economic impacts. More than 66 million people have been infected in the WHO European Region, with many becoming seriously ill, requiring hospitalization and dying (63). When they acquire COVID-19, people living with NCDs have a higher probability of suffering more severe health outcomes, including hospitalization and death (64, 65). As a result, the toll of the pandemic has been exacerbated by the epidemic of NCDs. If NCD prevention and control measures had been implemented promptly, it is likely that the toll of the COVID-19 pandemic would have been smaller. People living with NCDs are especially vulnerable to the effects of emergencies in health service provision, and numerous NCD-related services have been severely disrupted during the COVID-19 pandemic (66). Recent information in this report on trends in and causes of NCD mortality, key risk factors, and countries' policies and response capacities for prevention and control of NCDs should give countries additional support when they come to consider the implications of NCD and COVID-19 interactions.

Although substantial progress has been made, 10 years after the Moscow Declaration (17) and the United Nations First High-level Meeting on NCDs (6), much remains to be done in the WHO European Region to fulfil the commitments that were made. As a consequence of the Region's large disease burden and the inequalities that exist within and between countries, as well as the links with many areas of sustainable development, action against NCDs remains central to achievement of the SDGs and EPW (9, 10). Interlinkages between COVID-19 and NCDs are complex and deadly, and it is likely that the pandemic will have a detrimental effect on NCDs (65). The EPW motto – "United Action for Better Health in Europe" – is particularly relevant to NCDs, where we urgently need to step up whole-of-government action in order to ensure UHC.

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Although substantial progress has been made, much remains to be done to fulfil the NCD related commitments. Action against NCDs remains central to achievement of the SDGs and EPW.

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# Annex 1. Noncommunicable disease (NCD) progress monitor (PM) indicators, by category, country and year

Table A1. Demographic and socioeconomic context and premature mortality

Country	Demographic and socioeconomic context				Premature mortality						
	Mid-year population (000s)	GNI in PPP\$ per capita	Annual growth rate of GNI (%)	Unemployment rate, % of total labour force	% of deaths before age 70	Unconditional probability (%) of dying between ages 30 and 69 from ...					
						four major NCDs			cardiovascular disease (CVD)		
						Both sexes	Men	Women	Both sexes	Men	Women
2018	2019	2019	2020	2019	2019	2019	2019	2019	2019	2019	
Albania	2903.70 <sup>d</sup>	13 817.76 <sup>a</sup>	3.95 <sup>b</sup>	11.70	32.36 <sup>d</sup>	8.38 <sup>d</sup>	10.59 <sup>d</sup>	6.12 <sup>d</sup>	4.87 <sup>d</sup>	6.17 <sup>d</sup>	3.55 <sup>d</sup>
Andorra	80.24 <sup>b</sup>	–	–	–	32.61 <sup>d</sup>	7.38 <sup>d</sup>	10.13 <sup>d</sup>	4.20 <sup>d</sup>	0.83 <sup>d</sup>	1.57 <sup>d</sup>	0.00 <sup>d</sup>
Armenia	2962.48	13 284.16 <sup>a</sup>	-10.58 <sup>a</sup>	20.21	37.07	18.99	27.17	12.14	10.87	17.01	5.86
Austria	8877.64	55 097.46 <sup>a</sup>	2.39	5.77	21.34	9.81	12.14	7.57	3.17	4.65	1.75
Azerbaijan	9868.45 <sup>d</sup>	14 451.98 <sup>a</sup>	2.71 <sup>d</sup>	6.27	–	–	–	–	–	–	–
Belarus	9483.50 <sup>b</sup>	20 199.70 <sup>a</sup>	-2.34 <sup>a</sup>	5.28	39.47 <sup>b</sup>	23.97 <sup>b</sup>	36.07 <sup>b</sup>	13.59 <sup>b</sup>	16.19 <sup>b</sup>	25.79 <sup>b</sup>	8.27 <sup>b</sup>
Belgium	11 352.26 <sup>d</sup>	51 968.19 <sup>a</sup>	1.51	6.01	23.37 <sup>d</sup>	10.24 <sup>d</sup>	12.65 <sup>d</sup>	7.86 <sup>d</sup>	2.94 <sup>d</sup>	4.13 <sup>d</sup>	1.78 <sup>d</sup>
Bosnia and Herzegovina	3511.37 <sup>d</sup>	15 611.79 <sup>a</sup>	-3.35 <sup>a</sup>	16.85	32.78 <sup>d</sup>	19.25 <sup>d</sup>	24.88 <sup>d</sup>	13.97 <sup>d</sup>	9.83 <sup>d</sup>	13.45 <sup>d</sup>	6.49 <sup>d</sup>
Bulgaria	7 025.04 <sup>d</sup>	24 367.32 <sup>a</sup>	-4.32 <sup>a</sup>	5.71	31.22 <sup>b</sup>	23.00 <sup>b</sup>	30.80 <sup>b</sup>	15.45 <sup>b</sup>	15.23 <sup>b</sup>	21.68 <sup>b</sup>	9.06 <sup>b</sup>
Croatia	4124.53 <sup>c</sup>	28 503.88 <sup>a</sup>	-6.10 <sup>a</sup>	7.20	25.92 <sup>c</sup>	16.60 <sup>c</sup>	22.53 <sup>c</sup>	10.92 <sup>c</sup>	6.66 <sup>c</sup>	10.08 <sup>c</sup>	3.45 <sup>c</sup>
Cyprus	875.90 <sup>b</sup>	38 458.19 <sup>a</sup>	-6.63 <sup>a</sup>	7.21	23.53 <sup>b</sup>	8.96 <sup>b</sup>	11.23 <sup>b</sup>	6.73 <sup>b</sup>	3.38 <sup>b</sup>	4.99 <sup>b</sup>	1.82 <sup>b</sup>
Czechia	10 669.32	41 737.42 <sup>a</sup>	1.38	2.94	27.12	13.83	18.24	9.56	5.71	8.52	3.01
Denmark	5788.92 <sup>b</sup>	60 398.45 <sup>a</sup>	-2.98 <sup>a</sup>	5.66	22.59 <sup>b</sup>	10.32 <sup>b</sup>	11.85 <sup>b</sup>	8.81 <sup>b</sup>	2.67 <sup>b</sup>	3.74 <sup>b</sup>	1.61 <sup>b</sup>
Estonia	1309.10 <sup>d</sup>	38 394.92 <sup>a</sup>	4.28	6.46	27.78	16.47 <sup>d</sup>	24.08 <sup>d</sup>	10.15 <sup>d</sup>	8.31 <sup>d</sup>	13.43 <sup>d</sup>	4.12 <sup>d</sup>
Finland	5515.52 <sup>b</sup>	51 089.79 <sup>a</sup>	-2.33 <sup>a</sup>	7.83	22.59 <sup>b</sup>	9.81 <sup>b</sup>	12.76 <sup>b</sup>	6.91 <sup>b</sup>	4.08 <sup>b</sup>	6.33 <sup>b</sup>	1.86 <sup>b</sup>
France	64 668.13 <sup>d</sup>	46 226.95 <sup>a</sup>	1.15	8.62	24.21 <sup>d</sup>	9.89 <sup>d</sup>	13.14 <sup>d</sup>	6.78 <sup>d</sup>	2.30 <sup>d</sup>	3.49 <sup>d</sup>	1.18 <sup>d</sup>
Georgia	3720.16	14 863.02 <sup>a</sup>	-6.37 <sup>a</sup>	12.05	35.16	19.43	27.56	12.23	11.05	17.27	5.61
Germany	83 092.96	53 694.35 <sup>a</sup>	-4.93 <sup>a</sup>	4.31	21.40	10.85	13.53	8.24	3.57	5.24	1.95
Greece	10 732.90 <sup>b</sup>	28 463.79 <sup>a</sup>	2.34	16.85	19.20 <sup>b</sup>	11.54 <sup>b</sup>	15.95 <sup>b</sup>	7.38 <sup>b</sup>	4.53 <sup>b</sup>	7.18 <sup>b</sup>	2.08 <sup>b</sup>
Hungary	9771.14	33 084.10 <sup>a</sup>	5.82	4.35	32.92	21.99	29.59	15.07	10.03	15.14	5.51
Iceland	360.56	55 216.03 <sup>a</sup>	–	5.01	23.84	8.17	9.65	6.64	2.74	4.22	1.19
Ireland	4713.99 <sup>d</sup>	93 612.17 <sup>a</sup>	1.69	5.92	26.35 <sup>d</sup>	10.42 <sup>d</sup>	12.32 <sup>d</sup>	8.51 <sup>d</sup>	3.39 <sup>d</sup>	4.90 <sup>d</sup>	1.88 <sup>d</sup>
Israel	9054.03	41 854.93 <sup>a</sup>	1.08	4.61	26.05 <sup>b</sup>	7.81 <sup>b</sup>	9.57 <sup>b</sup>	6.19 <sup>b</sup>	1.93 <sup>b</sup>	2.93 <sup>b</sup>	1.02 <sup>b</sup>
Italy	60 536.71 <sup>c</sup>	41 839.99 <sup>a</sup>	-8.45 <sup>a</sup>	9.31	16.53 <sup>c</sup>	9.08 <sup>c</sup>	11.38 <sup>c</sup>	6.90 <sup>c</sup>	2.67 <sup>c</sup>	3.95 <sup>c</sup>	1.46 <sup>c</sup>
Kazakhstan	18 037.78 <sup>c</sup>	26 728.54 <sup>a</sup>	2.97	6.05	54.03 <sup>c</sup>	19.55 <sup>c</sup>	27.40 <sup>c</sup>	13.19 <sup>c</sup>	10.20 <sup>c</sup>	15.51 <sup>c</sup>	5.93 <sup>c</sup>
Kyrgyzstan	6456.52	4965.03 <sup>a</sup>	-5.39 <sup>a</sup>	7.89	60.14	21.91	29.00	15.71	15.41	21.68	9.96
Latvia	1927.17 <sup>b</sup>	32 019.22 <sup>a</sup>	2.97	8.19	32.11 <sup>b</sup>	21.82 <sup>b</sup>	31.18 <sup>b</sup>	13.95 <sup>b</sup>	12.71 <sup>b</sup>	19.98 <sup>b</sup>	6.66 <sup>b</sup>
Lithuania	2794.14	38 734.73 <sup>a</sup>	4.19	8.43	31.73	19.12	28.26	11.45	10.33	17.05	4.81
Luxembourg	607.95 <sup>b</sup>	118 359.53 <sup>a</sup>	-0.37 <sup>b</sup>	6.96	22.95 <sup>b</sup>	6.89 <sup>b</sup>	3.92 <sup>b</sup>	9.89 <sup>b</sup>	4.05 <sup>b</sup>	2.66 <sup>b</sup>	5.51 <sup>b</sup>
Malta	468.06 <sup>c</sup>	42 640.12 <sup>a</sup>	-12.23 <sup>a</sup>	4.09	24.81 <sup>c</sup>	10.16 <sup>c</sup>	12.51 <sup>c</sup>	7.80 <sup>c</sup>	3.57 <sup>c</sup>	4.96 <sup>c</sup>	2.16 <sup>c</sup>
Monaco	37.86 <sup>d</sup>	–	–	–	–	–	–	–	–	–	–
Montenegro	626.10 <sup>d</sup>	20 566.64 <sup>a</sup>	-14.00 <sup>a</sup>	15.86	–	–	–	–	–	–	–
Netherlands	17 316.41 <sup>b</sup>	59 228.83 <sup>a</sup>	0.27	4.09	22.16 <sup>b</sup>	9.79 <sup>b</sup>	10.99 <sup>b</sup>	8.59 <sup>b</sup>	2.42 <sup>b</sup>	3.34 <sup>b</sup>	1.50 <sup>b</sup>
North Macedonia	2081.01 <sup>d</sup>	16 926.62 <sup>a</sup>	-3.74 <sup>a</sup>	18.40	34.45 <sup>d</sup>	19.82 <sup>d</sup>	24.59 <sup>d</sup>	15.09 <sup>d</sup>	10.85 <sup>d</sup>	14.06 <sup>d</sup>	7.71 <sup>d</sup>
Norway	5271.96 <sup>d</sup>	63 197.98 <sup>a</sup>	-0.12 <sup>a</sup>	4.62	21.64 <sup>d</sup>	8.80 <sup>d</sup>	10.28 <sup>d</sup>	7.29 <sup>d</sup>	2.46 <sup>d</sup>	3.51 <sup>d</sup>	1.38 <sup>d</sup>
Poland	37 948.14 <sup>b</sup>	34 264.76 <sup>a</sup>	-1.72 <sup>a</sup>	3.55	35.64 <sup>b</sup>	16.22 <sup>b</sup>	21.56 <sup>b</sup>	11.25 <sup>b</sup>	7.11 <sup>b</sup>	10.88 <sup>b</sup>	3.64 <sup>b</sup>
Portugal	10 283.82 <sup>b</sup>	34 495.92 <sup>a</sup>	-6.78 <sup>a</sup>	7.20	20.76 <sup>b</sup>	10.54 <sup>b</sup>	14.76 <sup>b</sup>	6.70 <sup>b</sup>	3.20 <sup>b</sup>	4.88 <sup>b</sup>	1.70 <sup>b</sup>
Republic of Moldova	3545.12 <sup>b</sup>	13 001.55 <sup>a</sup>	-6.43 <sup>a</sup>	4.71	49.15 <sup>b</sup>	24.18 <sup>b</sup>	33.39 <sup>b</sup>	16.24 <sup>b</sup>	15.46 <sup>b</sup>	21.84 <sup>b</sup>	10.15 <sup>b</sup>
Romania	19 476.71 <sup>b</sup>	31 945.75 <sup>a</sup>	-3.74 <sup>a</sup>	4.84	34.10 <sup>b</sup>	21.05 <sup>b</sup>	28.75 <sup>b</sup>	13.61 <sup>b</sup>	11.38 <sup>b</sup>	16.60 <sup>b</sup>	6.49 <sup>b</sup>
Russian Federation	146 764.66	28 213.45 <sup>a</sup>	-1.81 <sup>a</sup>	5.73	44.97	22.86	33.19	14.37	14.57	22.80	7.92
San Marino	33.48	63 420.33	–	–	17.27 <sup>c</sup>	7.14 <sup>c</sup>	8.70 <sup>c</sup>	5.64 <sup>c</sup>	2.00 <sup>c</sup>	2.55 <sup>c</sup>	1.49 <sup>c</sup>
Serbia	7020.86 <sup>c</sup>	19 230.63 <sup>a</sup>	2.01 <sup>a</sup>	9.08	30.64 <sup>c</sup>	20.67 <sup>c</sup>	26.31 <sup>c</sup>	15.31 <sup>c</sup>	9.74 <sup>c</sup>	13.68 <sup>c</sup>	6.07 <sup>c</sup>
Slovakia	5429.42 <sup>d</sup>	31 832.39 <sup>a</sup>	2.62 <sup>c</sup>	6.79	37.14 <sup>d</sup>	17.77 <sup>d</sup>	24.38 <sup>d</sup>	11.66 <sup>d</sup>	8.07 <sup>d</sup>	12.33 <sup>d</sup>	4.22 <sup>d</sup>
Slovenia	2055.17	39 593.31 <sup>a</sup>	2.46	5.17	24.81	10.77	13.78	7.72	3.03	4.56	1.50
Spain	46 532.87 <sup>c</sup>	38 334.61 <sup>a</sup>	1.19	15.67	19.67 <sup>c</sup>	9.48 <sup>c</sup>	12.78 <sup>c</sup>	6.27 <sup>c</sup>	2.72 <sup>c</sup>	4.12 <sup>c</sup>	1.37 <sup>c</sup>
Sweden	10 175.21 <sup>b</sup>	54 563.12 <sup>a</sup>	-3.32 <sup>a</sup>	8.45	17.97 <sup>b</sup>	8.34 <sup>b</sup>	9.61 <sup>b</sup>	7.06 <sup>b</sup>	2.93 <sup>b</sup>	4.16 <sup>b</sup>	1.69 <sup>b</sup>
Switzerland	8575.28	71 352.35 <sup>a</sup>	3.11	4.94	19.58 <sup>c</sup>	7.60 <sup>c</sup>	9.40 <sup>c</sup>	5.83 <sup>c</sup>	2.08 <sup>c</sup>	3.11 <sup>c</sup>	1.06 <sup>c</sup>
Tajikistan	8646.98 <sup>c</sup>	3858.43 <sup>a</sup>	5.83 <sup>d</sup>	7.50	57.43 <sup>c</sup>	23.12 <sup>c</sup>	26.30 <sup>c</sup>	20.00 <sup>c</sup>	17.13 <sup>c</sup>	20.38 <sup>c</sup>	13.94 <sup>c</sup>
Turkey	82 579.44	28 119.45 <sup>a</sup>	1.15 <sup>a</sup>	13.92	37.53	12.54	16.79	8.29	5.93	8.03	3.87
Turkmenistan	5438.67 <sup>d</sup>	16 195.54	–	4.38	69.60 <sup>d</sup>	26.93 <sup>d</sup>	32.99 <sup>d</sup>	21.59 <sup>d</sup>	21.40 <sup>d</sup>	27.33 <sup>d</sup>	16.18 <sup>d</sup>
Ukraine	41 858.17	13 056.70 <sup>a</sup>	-4.73 <sup>a</sup>	9.48	39.46	24.56	35.47	15.44	17.40	26.61	9.85
United Kingdom	65 648.05 <sup>d</sup>	44 916.23 <sup>a</sup>	0.41	4.34	23.37 <sup>d</sup>	11.01 <sup>d</sup>	12.98 <sup>d</sup>	9.10 <sup>d</sup>	3.60 <sup>d</sup>	5.06 <sup>d</sup>	2.17 <sup>d</sup>
Uzbekistan	33 580.39	7378.25 <sup>a</sup>	3.69 <sup>d</sup>	5.97	59.62	22.21	26.52	18.14	16.72	21.14	12.53
WHO European Region	914 218.12 <sup>d</sup>	35 441.81 <sup>a</sup>	1.73	7.59	32.63 <sup>b</sup>	15.61 <sup>b</sup>	20.76 <sup>b</sup>	10.87 <sup>b</sup>	8.02 <sup>b</sup>	11.65 <sup>b</sup>	4.74 <sup>b</sup>

GNI = gross national income; PPP\$ = purchasing power parity; – = no data available; a = 2020; b = 2018; c = 2017; d = 2016–2010

Table A2. Premature mortality and cancer incidence

Country	Premature mortality					Cancer incidence			
	Unconditional probability (%) of dying between ages 30 and 69 from ...					Cancer incidence per 100 000 population			
	Both sexes	cancers		CRD	diabetes	Men	Women	Lung	Female breast
	2018	2019	2019	2019	2019	2016	2016	2016	2016
Albania	3.59 <sup>d</sup>	4.54 <sup>d</sup>	2.61 <sup>d</sup>	0.11 <sup>d</sup>	0.01 <sup>d</sup>	155.46	116.03	15.02	30.80
Andorra	5.94 <sup>d</sup>	7.91 <sup>d</sup>	3.71 <sup>d</sup>	0.53 <sup>d</sup>	0.16 <sup>d</sup>	–	–	–	–
Armenia	8.29	11.11	6.10	0.28	0.62	299.21	259.85	45.03	69.60
Austria	5.97	6.76	5.24	0.61	0.32	487.51	424.67	55.20	123.41
Azerbaijan	–	–	–	–	–	103.36	107.69	11.89	34.95
Belarus	8.79 <sup>b</sup>	12.96 <sup>b</sup>	5.62 <sup>b</sup>	0.40 <sup>b</sup>	0.13 <sup>b</sup>	551.62	480.12	45.51	85.21
Belgium	6.68 <sup>d</sup>	7.83 <sup>d</sup>	5.56 <sup>d</sup>	0.70 <sup>d</sup>	0.20 <sup>d</sup>	651.07	558.58	75.37	183.42
Bosnia and Herzegovina	8.86 <sup>d</sup>	11.32 <sup>d</sup>	6.69 <sup>d</sup>	0.41 <sup>d</sup>	1.33 <sup>d</sup>	277.57	268.50	31.76	49.69
Bulgaria	8.34 <sup>b</sup>	10.51 <sup>b</sup>	6.46 <sup>b</sup>	0.35 <sup>b</sup>	0.56 <sup>b</sup>	476.42	419.48	45.04	103.54
Croatia	9.57 <sup>c</sup>	12.37 <sup>c</sup>	7.03 <sup>c</sup>	0.52 <sup>c</sup>	0.67 <sup>c</sup>	593.75	491.52	72.98	126.52
Cyprus	5.19 <sup>b</sup>	5.72 <sup>b</sup>	4.70 <sup>b</sup>	0.14 <sup>b</sup>	0.47 <sup>b</sup>	415.09	350.31	38.40	122.42
Czechia	7.49	9.08	6.02	0.70	0.52	917.79	857.49	59.50	130.85
Denmark	6.61 <sup>b</sup>	7.02 <sup>b</sup>	6.22 <sup>b</sup>	0.96 <sup>b</sup>	0.39 <sup>b</sup>	753.58	692.94	89.73	166.92
Estonia	8.36 <sup>d</sup>	11.40 <sup>d</sup>	6.04 <sup>d</sup>	0.31 <sup>d</sup>	0.27 <sup>d</sup>	692.75	614.38	62.46	104.02
Finland	5.42 <sup>b</sup>	6.09 <sup>b</sup>	4.78 <sup>b</sup>	0.35 <sup>b</sup>	0.24 <sup>b</sup>	602.54	580.71	47.90	180.44
France	7.35 <sup>d</sup>	9.41 <sup>d</sup>	5.41 <sup>d</sup>	0.21 <sup>d</sup>	0.25 <sup>d</sup>	673.23	526.42	70.19	163.37
Georgia	8.41	11.05	6.30	0.35	0.77	239.32	274.42	22.23	94.56
Germany	6.54	7.48	5.66	0.75	0.33	639.97	558.38	66.35	173.97
Greece	6.84 <sup>b</sup>	8.77 <sup>b</sup>	5.09 <sup>b</sup>	0.22 <sup>b</sup>	0.31 <sup>b</sup>	–	–	–	–
Hungary	11.14	14.26	8.52	1.79	0.64	1021.20	985.07	119.93	158.46
Iceland	5.23	5.22	5.25	0.30	0.08	468.63	441.71	53.50	123.34
Ireland	6.67 <sup>d</sup>	7.13 <sup>d</sup>	6.21 <sup>d</sup>	0.52 <sup>d</sup>	0.14 <sup>d</sup>	478.66	421.93	50.45	129.49
Israel	5.11 <sup>b</sup>	5.62 <sup>b</sup>	4.65 <sup>b</sup>	0.33 <sup>b</sup>	0.61 <sup>b</sup>	322.46	375.38	29.63	105.32
Italy	6.04 <sup>c</sup>	6.99 <sup>c</sup>	5.17 <sup>c</sup>	0.22 <sup>c</sup>	0.35 <sup>c</sup>	629.84	542.71	63.23	181.13
Kazakhstan	6.57 <sup>c</sup>	8.52 <sup>c</sup>	5.19 <sup>c</sup>	2.87 <sup>c</sup>	1.27 <sup>c</sup>	191.86	222.50	22.46	48.50
Kyrgyzstan	6.04	7.24	5.14	0.93	0.81	82.44	100.89	8.07	18.65
Latvia	9.45 <sup>b</sup>	12.48 <sup>b</sup>	7.24 <sup>b</sup>	0.47 <sup>b</sup>	0.61 <sup>b</sup>	591.79	540.30	50.97	109.18
Lithuania	9.00	12.35	6.47	0.35	0.52	659.64	537.12	47.56	94.69
Luxembourg	2.34 <sup>b</sup>	0.86 <sup>b</sup>	3.84 <sup>b</sup>	0.38 <sup>b</sup>	0.26 <sup>b</sup>	491.84	448.56	37.93	156.60
Malta	5.92 <sup>c</sup>	6.73 <sup>c</sup>	5.15 <sup>c</sup>	0.27 <sup>c</sup>	0.70 <sup>c</sup>	489.22	470.03	49.13	146.86
Monaco	–	–	–	–	–	–	–	–	–
Montenegro	–	–	–	–	–	410.78	378.70	53.93	114.88
Netherlands	6.71 <sup>b</sup>	7.03 <sup>b</sup>	6.40 <sup>b</sup>	0.64 <sup>b</sup>	0.25 <sup>b</sup>	718.21	669.44	75.86	198.84
North Macedonia	8.56 <sup>d</sup>	10.62 <sup>d</sup>	6.64 <sup>d</sup>	0.48 <sup>d</sup>	1.16 <sup>d</sup>	–	–	–	–
Norway	5.71 <sup>d</sup>	6.11 <sup>d</sup>	5.31 <sup>d</sup>	0.65 <sup>d</sup>	0.19 <sup>d</sup>	669.92	585.51	58.48	132.47
Poland	8.93 <sup>b</sup>	10.80 <sup>b</sup>	7.31 <sup>b</sup>	0.42 <sup>b</sup>	0.54 <sup>b</sup>	424.94	398.82	56.59	87.37
Portugal	7.00 <sup>b</sup>	9.51 <sup>b</sup>	4.76 <sup>b</sup>	0.25 <sup>b</sup>	0.38 <sup>b</sup>	507.21	382.01	35.82	118.62
Republic of Moldova	9.29 <sup>b</sup>	13.35 <sup>b</sup>	6.08 <sup>b</sup>	0.54 <sup>b</sup>	0.58 <sup>b</sup>	285.38	249.45	25.04	54.16
Romania	9.90 <sup>b</sup>	13.07 <sup>b</sup>	7.06 <sup>b</sup>	0.73 <sup>b</sup>	0.39 <sup>b</sup>	352.39	272.11	43.43	64.01
Russian Federation	8.41	11.66	6.10	0.60	0.81	398.10	406.42	41.22	84.79
San Marino	4.98 <sup>c</sup>	6.31 <sup>c</sup>	3.68 <sup>c</sup>	0.00 <sup>c</sup>	0.28 <sup>c</sup>	699.30	404.66	56.18	0.00
Serbia	10.57 <sup>c</sup>	12.61 <sup>c</sup>	8.75 <sup>c</sup>	0.80 <sup>c</sup>	0.92 <sup>c</sup>	531.97	460.37	73.15	100.85
Slovakia	9.69 <sup>d</sup>	12.59 <sup>d</sup>	7.17 <sup>d</sup>	0.46 <sup>d</sup>	0.50 <sup>d</sup>	–	–	–	–
Slovenia	7.45	8.96	5.96	0.32	0.25	731.42	605.41	63.47	120.64
Spain	6.49 <sup>c</sup>	8.35 <sup>c</sup>	4.72 <sup>c</sup>	0.32 <sup>c</sup>	0.18 <sup>c</sup>	–	–	–	–
Sweden	4.96 <sup>b</sup>	5.03 <sup>b</sup>	4.90 <sup>b</sup>	0.34 <sup>b</sup>	0.30 <sup>b</sup>	700.95	640.02	43.13	193.33
Switzerland	5.16 <sup>c</sup>	5.91 <sup>c</sup>	4.44 <sup>c</sup>	0.35 <sup>c</sup>	0.15 <sup>c</sup>	522.99	442.85	48.39	145.13
Tajikistan	3.76 <sup>c</sup>	3.88 <sup>c</sup>	3.66 <sup>c</sup>	0.62 <sup>c</sup>	3.00 <sup>c</sup>	29.17	42.47	1.60	11.06
Turkey	5.56	7.59	3.60	0.88	0.67	238.59	191.11	28.29	41.26
Turkmenistan	5.28 <sup>d</sup>	6.02 <sup>d</sup>	4.71 <sup>d</sup>	0.28 <sup>d</sup>	1.57 <sup>d</sup>	68.80	90.74	4.91	18.94
Ukraine	8.13	11.20	5.90	0.36	0.23	324.33	305.55	30.16	61.42
United Kingdom	6.70 <sup>d</sup>	7.25 <sup>d</sup>	6.18 <sup>d</sup>	0.89 <sup>d</sup>	0.18 <sup>d</sup>	555.26	523.52	70.09	163.53
Uzbekistan	4.36	4.54	4.23	0.37	1.96	58.62	76.75	4.43	18.53
WHO European Region	7.24 <sup>b</sup>	9.10 <sup>b</sup>	5.67 <sup>b</sup>	0.60 <sup>b</sup>	0.54 <sup>b</sup>	462.03	416.23	48.54	110.14

– = no data available; a = 2020; b = 2018; c = 2017; d = 2016–2010



**Table A3.** Behavioural risk factors: harmful alcohol use, tobacco smoking, lack of physical activity

Behavioural risk factors								
Country	Harmful use of alcohol			Age-standardized prevalence of current tobacco use among people aged 15 and over (WHO estimates) (%)			Prevalence of insufficient physical activity among adults (%)	
	Total alcohol consumption (litres per capita aged 15 and over)	Age-standardized prevalence of heavy episodic drinking in the past 30 days (%)			Both sexes	Men		Women
		2019	Both sexes	Men				
Albania	6.80	24.60	39.70	10.10	29.20	50.50	7.90	-
Andorra	12.30	34.90	51.90	17.40	33.80	38.10	29.50	38.40
Armenia	4.70	11.50	20.80	3.60	26.70	51.80	1.60	22.60
Austria	11.90	37.70	55.30	20.00	29.10	30.40	27.70	30.10
Azerbaijan	1.00	8.20	14.40	2.10	19.60	39.00	0.20	-
Belarus	11.00	28.20	42.30	15.00	26.60	42.80	10.40	14.10
Belgium	10.80	36.60	54.10	19.00	25.00	26.90	23.10	35.70
Bosnia and Herzegovina	7.80	22.70	36.40	8.60	38.30	46.30	30.20	25.50
Bulgaria	12.50	38.70	56.60	20.60	38.90	42.50	35.30	38.60
Croatia	8.70	32.10	49.10	15.20	36.60	37.90	35.30	31.10
Cyprus	10.80	30.00	45.50	13.30	36.70	50.10	23.30	44.40
Czechia	14.30	47.00	65.30	28.60	31.50	35.60	27.30	31.10
Denmark	10.10	34.00	51.00	16.90	18.60	18.40	18.70	28.50
Estonia	10.80	47.40	66.20	29.60	30.50	36.90	24.10	32.00
Finland	10.70	33.30	50.10	16.20	19.70	21.00	18.30	16.60
France	12.20	36.00	53.70	18.70	34.60	36.00	33.20	29.30
Georgia	9.50	18.50	30.90	6.70	29.70	54.20	5.20	18.00
Germany	12.80	39.70	57.60	21.80	28.00	29.90	26.00	42.20
Greece	10.50	28.20	44.00	12.50	39.10	45.30	32.80	37.70
Hungary	11.10	37.90	56.10	20.20	30.60	34.80	26.40	38.50
Iceland	9.20	30.60	46.70	14.10	13.80	13.90	13.70	-
Ireland	12.70	40.50	58.50	22.60	23.60	26.10	21.20	32.70
Israel	4.40	18.40	30.40	6.40	25.50	35.20	15.80	-
Italy	8.00	25.00	39.70	10.30	23.40	27.10	19.60	41.40
Kazakhstan	5.00	19.90	33.30	7.50	24.40	42.20	6.60	27.50
Kyrgyzstan	4.90	11.10	19.40	3.20	26.60	49.70	3.40	13.90
Latvia	13.20	50.20	69.10	32.90	36.70	49.50	24.00	29.50
Lithuania	12.80	54.90	73.40	38.20	27.10	35.30	19.00	26.50
Luxembourg	12.40	51.20	68.90	33.20	21.70	23.60	19.80	28.40
Malta	8.30	25.60	40.10	10.40	25.10	27.80	22.50	41.70
Monaco	-	-	-	-	-	-	-	-
Montenegro	12.20	26.90	42.40	11.40	-	-	-	-
Netherlands	9.70	31.60	48.00	14.90	23.40	25.60	21.30	27.20
North Macedonia	6.40	26.50	41.80	11.10	-	-	-	-
Norway	7.10	35.40	52.20	17.90	18.40	19.10	17.70	31.70
Poland	11.90	38.90	57.10	21.00	26.00	30.30	21.60	32.50
Portugal	12.10	31.30	48.60	15.20	27.90	33.30	22.40	43.40
Republic of Moldova	12.90	28.60	45.10	13.00	25.30	44.60	6.00	11.50
Romania	12.30	39.00	57.20	21.10	25.50	35.20	15.80	35.40
Russian Federation	10.50	38.80	49.80	29.10	28.30	40.90	15.70	17.10
San Marino	-	-	-	-	-	-	-	-
Serbia	8.90	32.90	50.00	15.80	40.60	40.00	41.20	39.50
Slovakia	11.10	39.20	57.50	21.30	32.30	38.60	26.00	34.90
Slovenia	12.10	42.30	60.30	23.70	22.70	25.10	20.30	32.20
Spain	12.70	29.70	45.80	13.50	27.90	29.10	26.70	26.80
Sweden	9.00	32.40	48.90	15.50	16.90	17.00	16.90	23.10
Switzerland	11.20	39.90	57.70	22.00	25.10	27.80	22.50	23.70
Tajikistan	0.90	7.90	13.90	2.00	-	-	-	29.30
Turkey	1.80	1.50	2.90	0.20	29.30	41.50	17.00	30.60
Turkmenistan	3.10	13.30	23.00	4.10	-	-	-	-
Ukraine	8.30	20.20	31.60	9.50	25.50	41.00	9.90	19.60
United Kingdom	11.40	33.70	50.90	16.70	19.20	21.10	17.30	35.90
Uzbekistan	2.60	7.90	14.00	2.00	12.30	23.30	1.30	19.10
WHO European Region	9.35	29.32	42.81	16.21	26.68	33.81	19.37	29.27

- = no data available

**Table A4.** Biological risk factors: raised blood pressure, raised blood glucose, overweight and obesity

Biological risk factors									
Age-standardized prevalence (%) among persons aged 18 and over of ...									
Country	Raised blood pressure (RR ≥ 140/90 mmHg)			Raised blood glucose (plasma glucose ≥ 7.0 mmol/L or on medication)		Overweight (BMI ≥ 25 kg/m <sup>2</sup> )		Obesity (BMI ≥ 30 kg/m <sup>2</sup> )	
	Both sexes	Men	Women	Men	Women	Men	Women	Men	Women
	2015	2016	2016	2016	2016	2016	2016	2016	2016
Albania	29.00	33.00	25.00	7.70	7.10	64.40	51.10	21.60	21.80
Andorra	18.70	23.20	14.20	8.10	5.80	70.30	56.90	25.90	25.30
Armenia	25.50	27.80	22.90	11.00	12.00	54.20	54.40	17.10	23.00
Austria	21.00	25.20	16.80	5.40	3.20	61.80	46.80	21.90	18.30
Azerbaijan	24.50	25.80	23.00	11.60	13.00	52.90	54.10	15.80	23.60
Belarus	27.10	33.00	21.60	8.00	7.50	62.60	56.30	22.10	26.30
Belgium	17.50	22.40	12.60	5.70	3.50	67.60	51.40	23.10	21.00
Bosnia and Herzegovina	30.80	34.00	27.60	8.00	6.90	59.70	47.00	17.10	18.40
Bulgaria	28.40	33.60	23.00	8.40	6.90	68.90	54.40	25.50	24.30
Croatia	32.40	38.40	26.30	8.40	6.30	66.20	53.00	24.10	24.50
Cyprus	19.80	23.90	15.50	8.30	5.70	65.20	52.70	21.90	21.60
Czechia	27.90	34.40	21.20	8.40	6.60	69.50	55.00	26.40	25.40
Denmark	20.60	26.50	14.80	5.40	3.30	63.60	47.30	22.30	17.00
Estonia	27.40	34.30	20.90	7.70	6.50	59.60	51.90	20.30	21.80
Finland	19.40	24.00	14.70	6.40	4.30	65.60	50.00	23.70	20.60
France	22.00	27.70	16.40	7.50	4.40	66.90	52.20	22.00	21.10
Georgia	26.30	28.90	23.80	13.30	12.10	54.60	53.50	19.20	23.80
Germany	19.90	24.30	15.50	6.00	3.90	64.90	48.50	24.20	20.40
Greece	19.10	22.80	15.40	7.20	6.00	68.20	56.20	24.20	25.40
Hungary	30.00	36.10	24.00	8.90	6.70	69.60	53.80	28.20	24.60
Iceland	19.70	26.20	13.00	7.60	4.20	67.50	50.50	24.20	19.40
Ireland	19.70	22.80	16.50	7.30	5.10	66.10	55.20	25.10	25.50
Israel	16.60	20.60	12.80	7.10	5.80	70.90	57.80	25.90	26.20
Italy	21.20	25.20	17.10	7.10	4.60	65.30	51.50	20.10	19.50
Kazakhstan	27.10	30.40	23.90	12.40	11.40	54.30	52.60	18.90	22.70
Kyrgyzstan	26.70	27.40	25.70	9.90	10.80	47.40	48.80	14.00	18.60
Latvia	29.40	36.40	22.90	7.80	6.60	60.90	54.90	21.60	25.10
Lithuania	29.30	36.10	23.10	8.90	7.10	62.60	56.50	24.20	27.80
Luxembourg	21.90	27.80	15.90	7.00	3.90	66.80	50.60	24.50	20.70
Malta	19.40	24.30	14.30	9.00	6.40	73.00	59.60	29.20	28.50
Monaco	-	-	-	-	-	-	-	-	-
Montenegro	29.10	34.40	23.80	7.60	6.60	66.30	52.50	23.30	23.10
Netherlands	18.70	23.10	14.30	5.20	3.50	65.40	50.20	20.80	20.00
North Macedonia	28.50	32.70	24.10	7.60	6.80	64.90	51.20	22.60	22.10
Norway	19.70	24.60	14.70	6.20	3.90	65.00	51.40	23.60	22.50
Poland	28.70	34.60	23.00	8.40	7.00	65.60	51.10	23.70	22.20
Portugal	24.40	29.30	19.60	8.40	5.30	63.10	52.00	20.30	21.20
Republic of Moldova	29.80	33.60	26.20	7.80	8.40	53.50	50.10	16.20	21.10
Romania	30.00	34.70	25.20	7.30	6.40	64.30	51.10	23.40	21.60
Russian Federation	27.20	32.60	22.30	7.40	8.00	58.20	55.70	18.10	26.90
San Marino	-	-	-	-	-	-	-	-	-
Serbia	29.50	33.80	25.20	7.30	6.50	63.80	50.50	21.10	21.80
Slovakia	28.50	34.30	22.80	8.20	6.30	63.60	48.80	21.00	19.90
Slovenia	30.50	35.80	24.90	7.30	7.00	62.10	49.90	19.40	21.00
Spain	19.20	23.50	14.70	8.50	5.70	68.90	54.10	24.60	22.80
Sweden	19.30	24.10	14.40	5.80	4.00	64.20	48.50	23.10	18.10
Switzerland	18.00	22.30	13.70	5.30	2.80	62.60	45.90	22.20	16.90
Tajikistan	26.10	26.40	25.70	10.30	9.90	44.20	46.30	11.60	16.70
Turkey	20.30	20.30	20.10	13.00	14.20	64.00	69.30	24.40	39.20
Turkmenistan	25.40	26.60	24.10	12.40	12.00	52.00	51.50	15.90	20.90
Ukraine	27.10	32.30	22.30	7.40	7.20	61.40	55.50	22.00	25.70
United Kingdom	15.20	17.90	12.40	6.60	4.90	68.60	58.90	26.90	28.60
Uzbekistan	25.60	26.50	24.40	10.50	10.70	47.30	48.90	13.80	19.00
WHO European Region	23.16	27.11	19.20	8.08	6.97	62.94	54.32	21.84	24.48

- = no data available

Table A5. PM indicators: governance-related

PM indicators: governance-related								
Country	Indicator 1. Member State has set time-bound targets and indicators based on WHO guidance		Indicator 2. Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis		Indicator 3. Member State has a STEPS survey or a comprehensive health examination survey every five years		Indicator 4. Member State has an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors	
	2017	2019	2017	2019	2017	2019	2017	2019
Albania	!	✓	!	!	!	!	✓	✓
Andorra	✗	✗	!	!	!	!	✗	✗
Armenia	✓	✓	✓	✓	✓	✓	✓	✓
Austria	✗	✗	✓	✓	!	!	✗	✗
Azerbaijan	✓	!	!	!	✓	✓	✓	✓
Belarus	!	!	✓	✓	✓	✓	✓	✓
Belgium	✗	✗	✓	✓	!	✓	✗	✗
Bosnia and Herzegovina	◉	✗	!	!	!	!	✓	✓
Bulgaria	✓	✓	✓	✓	!	!	✓	✓
Croatia	✗	✗	✓	✓	!	!	✗	✗
Cyprus	✗	✗	!	!	!	!	✗	✗
Czechia	!	!	✓	✓	!	✓	✓	✓
Denmark	✗	✗	✓	✓	!	!	✓	✓
Estonia	✓	✓	✓	✓	!	!	!	!
Finland	✗	✓	✓	✓	✓	✓	✓	✓
France	◉	!	✓	✓	!	!	✓	✓
Georgia	✓	✓	!	!	✓	✓	✓	✓
Germany	!	!	✓	✓	!	!	✓	✓
Greece	✗	✗	✓	✓	!	✓	✗	✗
Hungary	✗	✗	✓	✓	!	!	✓	✗
Iceland	✗	✗	✓	✓	!	!	✗	✗
Ireland	✗	!	✓	✓	!	!	✗	✓
Israel	✗	✗	✓	✓	!	!	✓	✓
Italy	!	!	✓	✓	!	!	✓	✓
Kazakhstan	✗	✓	✓	✓	✗	✓	✓	✓
Kyrgyzstan	✓	✓	✓	✓	!	!	✓	✓
Latvia	✓	✓	✓	✓	!	!	✓	✓
Lithuania	✓	✓	✓	✓	!	!	✓	✓
Luxembourg	✗	✗	✓	✓	!	✓	✗	✗
Malta	✓	✓	✓	✓	!	!	✓	✓
Monaco	✗	✗	!	!	✗	✗	✗	✗
Montenegro	✓	✓	!	!	✓	!	✓	✓
Netherlands	✗	!	✓	✓	!	!	✓	✗
North Macedonia	✗	✗	✓	!	!	!	✗	✗
Norway	✓	✓	✓	✓	!	✓	✓	✓
Poland	✗	✗	✓	✓	!	!	!	!
Portugal	✓	✓	✓	✓	✓	✓	✓	✓
Republic of Moldova	✓	✓	✓	✓	!	!	✓	✓
Romania	✗	✗	✓	✓	!	!	✓	✓
Russian Federation	✓	✓	!	✓	✓	✓	✓	!
San Marino	!	✗	✓	✓	✗	✗	✓	✓
Serbia	✗	✗	✓	✓	!	!	✓	✓
Slovakia	✗	✓	✓	✓	!	!	!	!
Slovenia	!	✓	✓	✓	!	!	✓	✓
Spain	✗	✗	✓	✓	!	!	✓	✗
Sweden	✗	✗	✓	✓	!	!	✗	✗
Switzerland	✗	✗	✓	✓	!	!	✓	✗
Tajikistan	✓	✓	!	!	!	✓	✓	✓
Turkey	✓	✓	✓	✓	!	✓	✗	✓
Turkmenistan	!	✓	✓	✓	✓	✓	✓	✓
Ukraine	✗	✓	✓	✓	✗	✓	✗	✓
United Kingdom	!	!	✓	✓	✓	✓	✓	✓
Uzbekistan	!	✓	✓	✓	!	✓	!	✓
<b>% countries at least partly achieving</b>	49%	60% ↑	100%	100% →	92%	96% ↑	74%	72% ↓
<b>% countries fully achieving</b>	30%	43% ↑	81%	81% →	19%	36% ↑	66%	64% ↓

✓ Fully achieved / ! Partly achieved / ✗ Not achieved / ◉ Not known/No reply

Table A6. PM indicators: tobacco-related

PM indicators: tobacco-related										
Indicator 5. Member State has implemented demand-reduction measures of the WHO Framework Convention on Tobacco Control (FCTC) at the highest level of achievement to:										
Country	(a) reduce affordability of tobacco products by increasing tobacco excise taxes		(b) create by law completely smokefree environments in all indoor workplaces, public places and public transport		(c) warn people of the dangers of tobacco and tobacco smoke through effective health warnings and mass-media campaigns		(d) ban all forms of tobacco advertising, promotion and sponsorship		(e) create mass-media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke	
	2017	2019	2017	2019	2017	2019	2017	2019	2017	2019
Albania	!	!	✓	✓	!	!	✓	✓	!	✗
Andorra	!	✓	!	!	✗	✗	✗	✗	✗	✗
Armenia	✗	✗	!	!	✓	✓	✗	✗	●	●
Austria	✓	✓	✗	✗	✓	✓	!	!	✓	✓
Azerbaijan	✗	✗	!	!	!	!	!	✓	✗	!
Belarus	✗	!	✗	✗	✓	✓	!	!	●	✓
Belgium	✓	✓	!	!	✓	✓	!	!	!	✗
Bosnia and Herzegovina	✓	✓	✗	✗	✗	✗	!	!	●	✗
Bulgaria	✓	✓	✓	✓	✓	✓	!	!	✗	✗
Croatia	✓	✓	!	!	!	✓	!	!	✗	✗
Cyprus	✓	!	!	!	!	✓	!	!	!	✓
Czechia	✓	✓	!	!	✓	✓	!	!	✗	!
Denmark	!	!	✗	✗	✓	✓	!	!	✓	!
Estonia	✓	✓	✗	✗	✓	✓	!	!	✓	✓
Finland	✓	✓	✗	✗	✓	✓	!	!	●	!
France	✓	✓	!	!	✓	✓	!	!	●	✓
Georgia	!	!	!	!	!	✓	✗	!	!	✓
Germany	!	!	✗	✗	✓	✓	!	!	!	✓
Greece	✓	✓	✓	✓	✓	✓	!	!	✗	✗
Hungary	!	!	!	!	✓	✓	!	!	✗	✗
Iceland	!	!	✗	✗	!	!	!	!	✗	✗
Ireland	✓	✓	✓	✓	✓	✓	!	!	✓	✓
Israel	✓	✓	!	!	!	!	✗	✗	✗	✗
Italy	✓	✓	!	!	✓	✓	!	!	✓	✓
Kazakhstan	✗	!	!	!	✓	✓	!	!	!	●
Kyrgyzstan	✗	✗	!	!	✓	✓	!	!	●	✗
Latvia	✓	✓	!	!	✓	✓	!	!	!	✗
Lithuania	✓	!	!	!	✓	✓	!	!	✗	✗
Luxembourg	!	!	✗	!	!	✓	!	!	!	✓
Malta	✓	✓	✓	✓	✓	✓	!	!	●	●
Monaco	●	●	!	!	✗	✗	✗	✗	●	●
Montenegro	!	✓	!	!	!	!	!	!	✗	✗
Netherlands	!	!	✗	✗	✓	✓	!	!	✓	!
North Macedonia	!	✓	✓	✓	!	!	!	!	✗	✗
Norway	!	!	✓	✓	!	✓	!	!	✓	✓
Poland	✓	✓	!	!	✓	✓	!	!	!	✗
Portugal	!	!	!	!	✓	✓	!	!	✓	!
Republic of Moldova	!	!	!	!	✓	✓	✓	✓	✓	✓
Romania	!	!	✓	✓	✓	✓	!	!	!	✗
Russian Federation	!	!	✓	✓	✓	✓	✓	✓	!	✗
San Marino	!	●	!	!	✗	✗	!	!	✗	✗
Serbia	✓	✓	!	!	!	!	!	!	✗	✗
Slovakia	✓	✓	!	!	✓	✓	!	!	✗	✗
Slovenia	✓	✓	!	!	!	✓	!	✓	✗	!
Spain	✓	✓	✓	✓	!	✓	✓	✓	✗	✗
Sweden	!	!	✗	✗	✓	✓	!	!	✗	✗
Switzerland	!	!	✗	✗	!	!	✗	✗	✓	✓
Tajikistan	✗	✗	✗	✓	✗	!	!	!	✗	✗
Turkey	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Turkmenistan	✗	✗	✓	✓	✓	✓	!	!	●	✓
Ukraine	✓	!	!	!	✓	✓	!	!	✗	!
United Kingdom	✓	✓	✓	✓	✓	✓	!	!	✓	✓
Uzbekistan	✗	✗	✗	✗	!	!	!	!	✗	✗
<b>% countries at least partly achieving</b>	83%	85% ↑	74%	77% ↑	91%	92% ↑	89%	91% ↑	43%	45% ↑
<b>% countries fully achieving</b>	47%	47% →	25%	26% ↑	60%	74% ↑	9%	13% ↑	23%	30% ↑

✓ Fully achieved / ! Partly achieved / ✗ Not achieved / ● Not known/No reply

Table A7. PM indicators: alcohol-related

PM indicators: alcohol-related									
Indicator 6. Member State has implemented, as appropriate according to national circumstances, measures to reduce the harmful use of alcohol as per the WHO Global Strategy to Reduce the Harmful Use of Alcohol, including:									
Country	(a) regulations over commercial and public availability of alcohol		(b) comprehensive restrictions or bans on alcohol advertising and promotions		(c) pricing policies such as excise tax increases on alcoholic beverages				
	2017	2019	2017	2019	2017	2019			
Albania	!	!	✗	✗	!	!			
Andorra	!	!	✗	✗	!	!			
Armenia	!	!	✓	!	!	!			
Austria	✗	✗	✗	!	!	✗			
Azerbaijan	!	!	!	○	!	!			
Belarus	!	!	!	✓	✓	✓			
Belgium	!	!	✗	✗	✓	!			
Bosnia and Herzegovina	!	!	✓	✓	!	!			
Bulgaria	!	!	✓	○	✗	○			
Croatia	!	!	✗	✗	!	✗			
Cyprus	!	!	✗	○	!	✗			
Czechia	!	!	✓	✓	!	!			
Denmark	✗	!	✗	✗	!	!			
Estonia	!	!	!	✓	!	✓			
Finland	!	!	✓	✓	!	!			
France	!	!	✓	✓	!	!			
Georgia	!	!	✓	✓	!	!			
Germany	✗	✗	✗	✗	✗	✗			
Greece	!	!	✗	✗	!	!			
Hungary	!	○	!	○	!	✗			
Iceland	!	✓	!	✓	!	✓			
Ireland	✓	!	✗	✗	!	!			
Israel	!	!	!	✓	✓	!			
Italy	!	!	!	!	!	✗			
Kazakhstan	!	!	✓	✓	!	!			
Kyrgyzstan	○	!	○	✓	○	✓			
Latvia	!	!	✓	✓	!	!			
Lithuania	!	!	✓	✓	!	✓			
Luxembourg	!	!	✗	○	!	!			
Malta	!	!	✗	✗	!	!			
Monaco	!	!	✗	○	!	✗			
Montenegro	!	!	✓	✓	✗	✗			
Netherlands	!	!	✗	✗	!	!			
North Macedonia	!	!	!	✗	!	!			
Norway	!	!	✓	✓	!	✓			
Poland	!	!	✓	✓	!	✗			
Portugal	!	!	!	✓	!	!			
Republic of Moldova	!	!	✗	!	✓	✗			
Romania	!	!	✓	!	!	!			
Russian Federation	!	!	!	✓	!	!			
San Marino	!	✗	✗	✗	!	✗			
Serbia	!	!	!	○	✓	!			
Slovakia	!	!	!	✗	!	!			
Slovenia	!	!	✓	✓	!	✗			
Spain	!	!	✗	!	!	✗			
Sweden	!	!	✓	✓	!	!			
Switzerland	✗	✗	✗	✓	!	✗			
Tajikistan	!	!	!	!	!	!			
Turkey	!	!	✓	✓	✓	!			
Turkmenistan	!	✓	✓	✓	!	✓			
Ukraine	!	!	!	✓	✓	!			
United Kingdom	!	○	✗	✗	!	!			
Uzbekistan	!	!	✓	✓	!	!			
<b>% countries at least partly achieving</b>	91%	89%	↓	62%	60%	↓	92%	72%	↓
<b>% countries fully achieving</b>	2%	4%	↑	36%	47%	↑	13%	13%	→

✓ Fully achieved / ! Partly achieved / ✗ Not achieved / ○ Not known/No reply

Table A8. PM indicators: nutrition- and physical activity-related

PM indicators: nutrition- and physical activity-related															
Country	Indicator 7. Member State has implemented/adopted the following four measures to reduce unhealthy diets:								Indicator 8. Member State has implemented at least one recent national public awareness programme on physical activity						
	(a) national policies to reduce population salt/sodium consumption		(b) national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply		(c) WHO set of recommendations on marketing of foods and nonalcoholic beverages to children		(d) legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes		2017	2019					
	2017	2019	2017	2019	2017	2019	2017	2019	2017	2019					
Albania	✗	✗	✗	✗	✗	✓	✓	✓	✗	✗					
Andorra	✗	✗	✗	✗	✗	✗	⊖	!	✓	✗					
Armenia	✗	✗	✗	!	✗	✗	✓	✓	✗	!					
Austria	✗	!	✓	✓	✗	✗	!	!	✓	✓					
Azerbaijan	✓	!	✓	✓	✓	✓	!	!	✗	!					
Belarus	!	!	✓	✓	✓	✓	✗	✗	✓	✓					
Belgium	!	✓	✗	✓	✓	✓	!	!	✓	✓					
Bosnia and Herzegovina	⊖	!	✗	✗	✓	✗	!	!	✓	✓					
Bulgaria	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
Croatia	✓	✓	✗	✓	✗	✗	!	!	✗	✓					
Cyprus	⊖	✗	✓	✓	✓	✗	!	!	✓	✓					
Czechia	!	!	✗	✓	✓	✓	!	!	✓	✓					
Denmark	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
Estonia	✓	!	✓	✓	✓	✓	!	!	✓	✓					
Finland	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
France	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
Georgia	!	!	✓	!	✓	✓	✓	✓	✓	✓					
Germany	✗	✓	✓	✓	✓	✓	!	!	✓	✓					
Greece	✓	!	✓	✓	✗	✗	!	!	✗	✓					
Hungary	!	!	✓	✓	✓	✓	!	!	✓	✓					
Iceland	✗	!	✓	✓	✓	✓	!	!	✓	✓					
Ireland	✓	✓	✗	✓	✓	✓	!	!	✓	✓					
Israel	✓	✓	✓	✓	✓	✓	!	✗	✓	✓					
Italy	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
Kazakhstan	✗	✓	⊖	✓	⊖	✓	!	!	✗	✓					
Kyrgyzstan	✓	✗	✓	✓	✗	✗	!	!	✗	✓					
Latvia	!	!	✓	✓	✓	✓	!	!	✓	✓					
Lithuania	✓	✓	✓	✓	✓	✓	!	!	✗	✓					
Luxembourg	✗	✗	✗	✓	✗	✗	!	!	✓	✓					
Malta	✓	!	✓	✓	✓	✓	!	!	✓	✓					
Monaco	✗	✗	✓	✗	✗	✗	⊖	!	✓	!					
Montenegro	!	!	✗	✗	✗	✗	⊖	✗	✗	✓					
Netherlands	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
North Macedonia	✗	✗	✗	✗	✗	✗	!	!	✓	✓					
Norway	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
Poland	✗	✓	✗	✓	✓	✓	!	!	✗	✓					
Portugal	✓	!	✗	✓	✓	✓	!	!	✓	✓					
Republic of Moldova	!	✓	✓	✓	✓	✓	!	!	✗	✓					
Romania	!	✗	✗	✓	✓	✓	!	!	✓	✓					
Russian Federation	!	!	✓	✓	✗	✗	!	!	✓	✓					
San Marino	✗	✓	✗	!	✗	✗	⊖	!	✗	!					
Serbia	✗	✗	✗	✗	✗	✗	!	!	✗	✓					
Slovakia	⊖	!	✗	✓	✗	✗	!	!	✓	✓					
Slovenia	✓	!	✓	✓	✓	✓	!	!	✓	✓					
Spain	✓	!	✓	✓	✓	✓	!	!	✓	✓					
Sweden	✓	!	✓	✓	✗	✓	!	!	✗	✓					
Switzerland	!	!	✓	✓	✓	✓	!	!	✓	✓					
Tajikistan	✓	✗	✓	✗	✓	✓	!	!	✗	✗					
Turkey	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
Turkmenistan	✓	!	✓	✓	✓	✓	!	!	✓	✓					
Ukraine	✗	✗	✗	✗	✗	✗	!	!	✓	✓					
United Kingdom	✓	✓	✓	✓	✓	✓	!	!	✓	✓					
Uzbekistan	✓	✓	✗	!	✓	✗	!	!	✗	✓					
% countries at least partly achieving	68%	77%	↑	62%	83%	↑	66%	66%	→	91%	94%	↑	70%	94%	↑
% countries fully achieving	47%	38%	↓	62%	75%	↑	66%	66%	→	6%	6%	→	70%	87%	↑

✓ Fully achieved / ! Partly achieved / ✗ Not achieved / ⊖ Not known/No reply

Table A9. PM indicators: health system-related and overall summary

PM indicators: health system-related and overall summary										
Country	Indicator 9. Member State has evidence-based national guidelines/protocols/standards for the management of major NCDs through a primary care approach, recognized/approved by government or competent authorities		Indicator 10. Member State has provision of drug therapy, including glycaemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level		Percentage of PM indicators that are fully achieved			Percentage of PM indicators that are at least partly achieved		
	2017	2019	2017	2019	2017	2019		2017	2019	
Albania	!	!	!	✗	21%	32%	↑	74%	68%	↓
Andorra	✗	✗	○	○	5%	5%	→	37%	37%	→
Armenia	!	!	!	!	37%	32%	↓	63%	74%	↑
Austria	✗	!	✓	✓	37%	37%	→	58%	68%	↑
Azerbaijan	!	✓	✗	✗	32%	32%	→	79%	84%	↑
Belarus	!	✓	✓	✓	53%	63%	↑	79%	89%	↑
Belgium	✓	✓	✓	✓	42%	53%	↑	79%	79%	→
Bosnia and Herzegovina	!	✗	✓	✓	32%	26%	↓	68%	63%	↓
Bulgaria	✓	!	✓	✓	68%	58%	↓	89%	84%	↓
Croatia	○	✓	✓	✓	21%	42%	↑	58%	68%	↑
Cyprus	!	✗	○	○	21%	21%	→	74%	58%	↓
Czechia	✓	✓	✓	✓	47%	58%	↑	89%	100%	↑
Denmark	✓	✓	✓	✓	53%	47%	↓	79%	84%	↑
Estonia	✓	✓	✓	✓	58%	63%	↑	95%	95%	→
Finland	✓	✓	✓	✓	63%	68%	↑	84%	95%	↑
France	✓	✓	○	✓	53%	63%	↑	84%	100%	↑
Georgia	✓	✓	!	!	47%	53%	↑	95%	100%	↑
Germany	✓	✓	✓	✓	42%	53%	↑	74%	79%	↑
Greece	!	✓	○	○	32%	42%	↑	63%	68%	↑
Hungary	✓	✓	✓	!	42%	32%	↓	89%	68%	↓
Iceland	✓	✓	○	✓	26%	47%	↑	68%	79%	↑
Ireland	✓	✓	✓	✓	58%	63%	↑	79%	95%	↑
Israel	✓	✗	✓	✓	53%	47%	↓	84%	74%	↓
Italy	!	!	✗	✗	47%	47%	→	95%	89%	↓
Kazakhstan	✓	✓	✓	✓	32%	63%	↑	63%	95%	↑
Kyrgyzstan	✓	✓	✗	✗	37%	47%	↑	58%	74%	↑
Latvia	✓	!	✓	✓	58%	53%	↓	100%	95%	↓
Lithuania	✓	✓	✓	✓	58%	63%	↑	89%	95%	↑
Luxembourg	✗	!	○	○	11%	32%	↑	53%	68%	↑
Malta	✗	✗	✓	✓	58%	53%	↓	84%	84%	→
Monaco	✓	✗	✓	✓	21%	5%	↓	42%	32%	↓
Montenegro	○	○	✗	✗	21%	26%	↑	58%	63%	↑
Netherlands	✓	✓	✓	✓	53%	42%	↓	84%	84%	→
North Macedonia	✓	✓	✗	✗	21%	21%	→	63%	58%	↓
Norway	✓	✓	✓	✓	63%	79%	↑	100%	100%	→
Poland	○	○	✓	✓	32%	47%	↑	74%	79%	↑
Portugal	✓	✓	✓	✓	58%	58%	→	95%	100%	↑
Republic of Moldova	✓	✓	✓	✓	58%	63%	↑	89%	95%	↑
Romania	✓	✓	✗	✗	42%	42%	→	84%	79%	↓
Russian Federation	✓	✓	✓	✓	53%	58%	↑	95%	89%	↓
San Marino	!	!	○	✓	11%	21%	↑	47%	53%	↑
Serbia	✓	✓	✓	✓	32%	32%	→	68%	68%	→
Slovakia	!	!	✗	✗	21%	32%	↑	68%	79%	↑
Slovenia	✓	✓	✓	✓	53%	63%	↑	95%	95%	→
Spain	✓	✓	✓	✓	58%	53%	↓	84%	79%	↓
Sweden	✓	✓	✓	✓	37%	42%	↑	68%	79%	↑
Switzerland	✓	✓	✓	✓	42%	42%	→	74%	68%	↓
Tajikistan	✓	✓	✗	✗	32%	32%	→	68%	68%	→
Turkey	!	!	✗	✓	68%	79%	↑	89%	100%	↑
Turkmenistan	✓	✓	!	!	58%	74%	↑	89%	95%	↑
Ukraine	✓	✓	!	!	32%	42%	↑	63%	84%	↑
United Kingdom	✓	✓	✓	✓	68%	68%	→	95%	89%	↓
Uzbekistan	✓	✓	✗	✗	26%	42%	↑	68%	74%	↑
<b>% countries at least partly achieving</b>	<b>87%</b>	<b>85%</b>	<b>↓</b>	<b>68%</b>	<b>74%</b>	<b>↑</b>				
<b>% countries fully achieving</b>	<b>68%</b>	<b>66%</b>	<b>↓</b>	<b>58%</b>	<b>64%</b>	<b>↑</b>				

✓ Fully achieved / ! Partly achieved / ✗ Not achieved / ○ Not known/No reply

### The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

### Member States

Albania	Greece	Portugal
Andorra	Hungary	Republic of Moldova
Armenia	Iceland	Romania
Austria	Ireland	Russian Federation
Azerbaijan	Israel	San Marino
Belarus	Italy	Serbia
Belgium	Kazakhstan	Slovakia
Bosnia and Herzegovina	Kyrgyzstan	Slovenia
Bulgaria	Latvia	Spain
Croatia	Lithuania	Sweden
Cyprus	Luxembourg	Switzerland
Czechia	Malta	Tajikistan
Denmark	Monaco	Turkey
Estonia	Montenegro	Turkmenistan
Finland	Netherlands	Ukraine
France	North Macedonia	United Kingdom
Georgia	Norway	Uzbekistan
Germany	Poland	

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