World Health Organization

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Healthy, prosperous lives for all:

the European Health Equity Status Report Executive Summary

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Abstract
The adoption of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals have provided a framework within which to strengthen actions to improve health and well-being for all and ensure no one is left behind. Despite overall improvements in health and well-being in the WHO European Region, inequities within countries persist. This report identifies five essential conditions needed to create and sustain a healthy life for all: good quality and accessible health services; income security and social protection; decent living conditions; social and human capital and decent work and employment conditions. Policy actions are needed to address all five conditions. The Health Equity Status Report also considers the drivers of health equity, namely the factors fundamental to creating more equitable societies: policy coherence, accountability, social participation and empowerment. The report provides evidence of the indicators driving health inequities in each of the 53 Member States of the Region as well as the solutions to reducing these inequities.

Keywords
HEALTH INEQUITIES
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List of abbreviations

CVD	cardiovascular disease
EQLS	European Quality of Life Survey
ESS	European Social Survey
EU-SILC	European Union Statistics on Income and Living Conditions
GDL	Global Data Lab
GDP	gross domestic product
HBSC	Health Behaviour in School-aged Children
HESR(i)	Health Equity Status Report (initiative)
LMPs	labour market policies
MICS	Multiple Indicator Cluster Surveys
NCDs	noncommunicable diseases
OECD	Organisation for Economic Co-operation and Development
OOP	out-of-pocket (payment/spending)
PPP	purchasing power parity
TB	tuberculosis
UHC	universal health coverage
WVS	World Values Survey

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Foreword

The WHO European Region has a long history and tradition of upholding universal policies, welfare and rights-based approaches to health, and to prioritizing the conditions needed to live a healthy life. Inspired by the Health 2020 goal to reduce health inequities, many countries, regions and communities have taken actions to reduce health gaps.

However, the trends in reducing health gaps are mixed, the rate of improvement is slower than anticipated and new groups are emerging with disproportionately higher risk of poor health and premature morbidity. The result is that many in our societies continue to lag behind in health and well-being, and this in turn holds back their opportunities to live full and prosperous lives.

The polarizing effects of major gaps in health and well-being within all countries across the WHO European Region threaten the very core of European values of solidarity and stability, upon which prosperity and peace are built. We need a better understanding of what is driving gaps in health over time and clearer signposting to the policies and approaches that will produce the best results for equity in health. This knowledge is crucial to foster political support for action, to focus government attention on solutions and to enable honest and inclusive dialogue with the public on why reducing health inequities matters for the health and well-being of everyone in Europe in the 21st century.

The Health Equity Status Report has been written with these goals in mind. It brings forward innovations in the analysis of the relationships between health status and the security and quality of the conditions which are essential for every child or adult to be able to live a healthy life. It goes beyond describing the problem and shows how policies and investment decisions are having an impact, positively or negatively, on achieving equity in health and well-being across the life-course. Never before have we had such a clear picture of the factors that drive and compound health inequities in our societies or of the policy options and solutions that can deliver positive changes.

A comprehensive basket of interventions that are delivered as part of mainstream public policies has the highest chance of succeeding to level up health status between social groups and between girls and boys, women and men, within all of our countries. The Health Equity Status Report demonstrates that this approach can deliver reductions in health inequities even within 2–4 years; the same time frame of a typical government mandate. There is also overwhelming empirical evidence showing how the basket of interventions that will increase equity in health comprises the same interventions for achieving inclusive growth. This means our efforts to increase equity in health are investments in the well-being and development of all of society, in line with realizing the United Nations Goals for Sustainable Development by 2030.

Real progress means engaging new partners and breaking down the key barriers to progress. Our most important partner is the child, the young person, the woman or man who is not able to thrive and prosper. It is their voice, their lived experience, their passion, drive and resilience that we must nurture to make equitable progress in health and for sustainable development.

This WHO European report on healthy, prosperous lives for all is above all a valuable tool to inform debates, inspire action and strengthen alliances for health equity within and across countries of the WHO European Region.

Dr Zsuzsanna Jakab
WHO Regional Director for Europe

Executive summary

- The Health Equity Status Report (HESR) is a comprehensive review of the status and trends in health inequities and of the essential conditions needed for all to be able to live a healthy life in the WHO European Region.
- Improving health and well-being for all, reducing health inequities and ensuring no one is left behind will bring wider economic, social and environmental benefits to Member States.
- This report seeks to change the common perceptions that health inequity is too complex to address and that it is unclear what actions to take and which policies and approaches will be effective.
- The HESR captures the progress made in implementing a range of policies with a strong effect on reducing inequities and demonstrates the link between levels of investment, coverage and uptake of these policies, as well as the gaps in the essential conditions needed to live a healthy, prosperous life.
- The report is part of the HESR initiative (HESRi), which includes new evidence and tools for Member States to use to accelerate progress in reducing health inequities.

Health equity and prosperity

The HESR analysis reinforces evidence on how health and prosperity are strongly linked and highlights the imperative to ensure the social values of solidarity, equity and rights are brought into fiscal and growth policies

- In many communities the effects of deindustrialization and globalization have not led to success for all, but instead to high unemployment levels, rising inequalities, and poor health outcomes. This is visible at all stages throughout the life-course.

Efforts to reduce health inequities are core investments for achieving inclusive growth and vice versa

- A scenario of a 50% reduction in inequities in life expectancy between social groups would provide monetized benefits to countries ranging from 0.3% to 4.3% of gross domestic product (GDP). Interventions to remove the barriers created by poor health and well-being are good for both human and economic well-being.

The health sector is pivotal to driving equity, prosperity and inclusive economies but many other sectors, such as finance, housing, employment and education, also have important roles to play

- If health systems are partners when economic development plans are created and monitored, this can drive virtuous circles of inclusive growth and equity. Responsible practices by the health system in the areas of employment and the purchasing of goods and services are generating good jobs, new employment and directly contributing to income security, gender equity and increased human capital at the local and national levels.

There is strong support from the public for a more equal society and to invest in the necessary conditions to enable all people to prosper and flourish in life and health

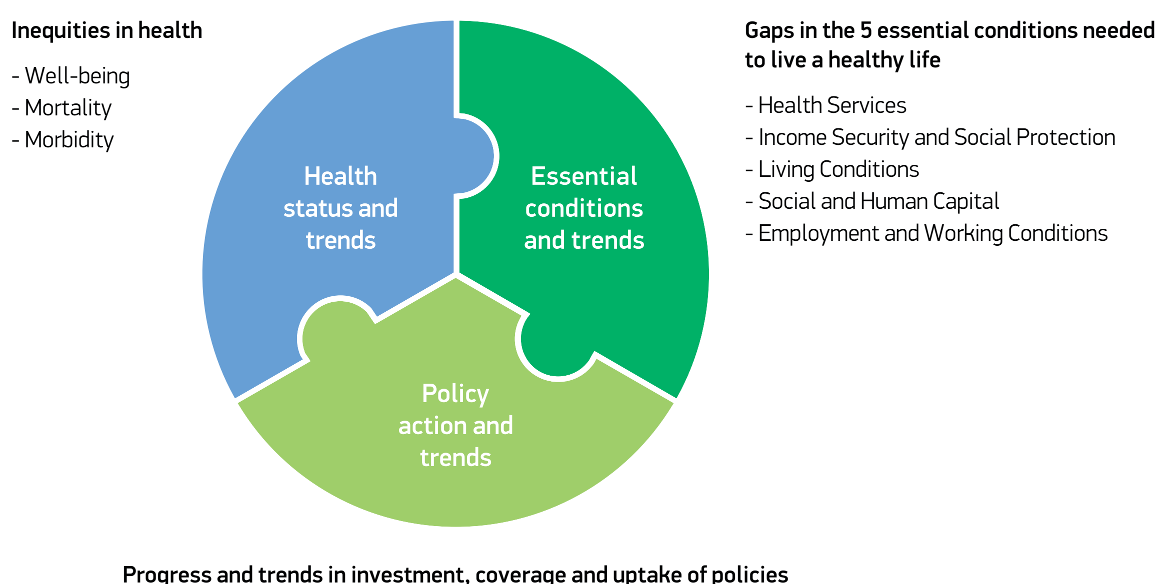
- In the WHO European Region the majority of people want to live in a more equitable society. They believe income differences in their countries are too great and that reducing income inequalities should be a priority for national governments.
- Those who are being left behind are feeling just that: left behind. Not having the same opportunities, stigmatization and living in a chronic state of insecurity (whether social, financial and/or cultural) increases stress and anxiety and reduces the sense of trust and belonging in society. This has impacts on all of society.

HESRi innovations

- The HESR analysis and findings are generated from a new dataset. It brings together three types of data (Fig. 0.1) and uses innovations in analytical methodologies to provide a better understanding of health equity, the pathways that generate equity and inequities, and how policy interventions are associated with the rate of progress to reduce gaps in health and well-being, across the countries of the WHO European Region (Annex 1).
- The HESR data and analysis provide the following benefits.

1. Country-specific data allow governments to strengthen decision-making, tailoring their action and investment for health equity accordingly.
2. Analysis supports ministries of health to demonstrate how decisions made in other sectors contribute to and interact with inequities in health and well-being.
3. Evidence enables national and subnational governments and health authorities to improve policy coherence, leading to improved equity in health and in life chances.

Fig. 0.1. Piecing together three types of information in the HESR



- The HESR uses a range of data analysis and visualizations to support a robust understanding of the current status of health inequities within countries. It also captures whether there have been significant reductions or increases in these inequities over a period of 10–15 years (trend analysis data) (Annex 1).
- **Gradient charts** are used to show the socioeconomic gradient for an indicator, such as life expectancy, by examining how levels of the indicator vary between subgroups of people. Either three or five subgroups are defined, according to markers of socioeconomic status; for example, number of years of education (Fig. 0.2), or levels of income or wealth. For people belonging to each subgroup, the average level of the indicator is calculated and represented in the chart by a different coloured dot.
- **Gap charts** are used to show the difference, or gap, in average levels of the indicator in the most advantaged subgroup compared to the most disadvantaged subgroup. For example, the charts show the difference between those in the highest and lowest income quintiles or between those with most years of education (university level) and those with least years (lower-secondary level). The traffic light symbols in these figures also show whether the size of the gap for each country has narrowed, widened, or stayed the same over a specified time frame (e.g. Fig 0.3).

- **Summary wheel charts** are used to summarize the inequities for several indicators for countries across the WHO European Region, providing a profile of the average magnitude of inequities in Member States. While the gap charts use the **difference** in levels of indicators between subgroups, the summary wheel charts use the **ratio** of levels of indicators between subgroups to make side-by-side comparisons of different indicators easier to interpret.
- **Decomposition charts** are used to show how shortcomings in each of the five essential conditions, when combined, contribute to the gap for a given health indicator, such as mental health or limiting illness. The decomposition charts enable policy-makers to see more clearly the relative weight of each condition in contributing to (in)equity in a specific health indicator (Annex 2).

Health equity status and trends

Fig. 0.2. Life expectancy at birth, by education level, 2016 (or latest available year)

Notes. F = females. M = males. Data for Malta are from 2011. High education level data are missing for Malta.
Source: authors' own compilation based on data extracted from Eurostat.

Average life expectancy across the Region is increasing but in every country health inequities remain between adults from different social groups

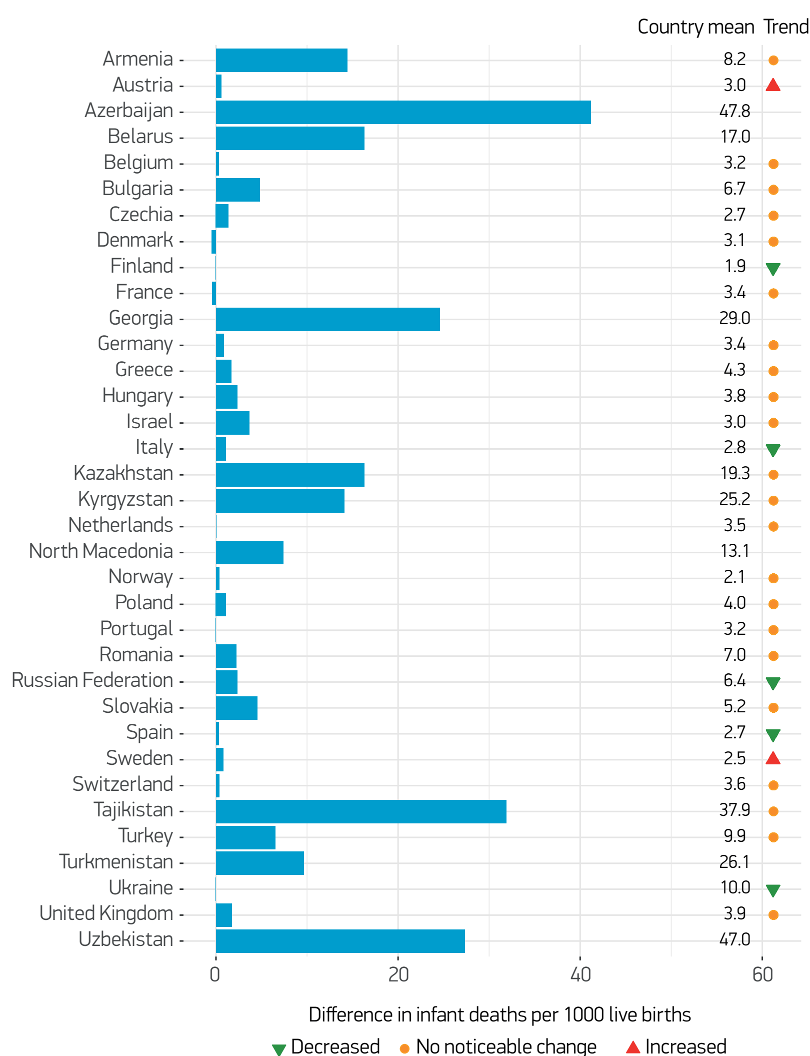
- Average life expectancy in the WHO European Region increased from 76.7 years in 2010 to 77.8 years in 2015. However, this obscures within-country differences, as shown in Fig. 0.2 for 19 countries (with education-disaggregated data).
- Table 0.1 summarizes the data presented in Fig. 0.2, showing how life expectancy and gaps in life expectancy by education level differ between men and women within those 19 countries.

Table 0.1. Averages and ranges for life expectancy and the gaps in life expectancy for 19 countries of the WHO European Region, 2016 (or latest available year)

	Life expectancy (years)		Gaps in life expectancy (years)	
	Average	Range	Average	Range
Women	82.0	78.1–86.0	3.9	2.3–7.4
Men	76.2	71.1–81.8	7.6	3.4–15.5

Source: authors' own compilation based on data extracted from Eurostat.

Fig. 0.3. The difference in infant deaths per 1000 live births in the most disadvantaged subnational regions compared to the most advantaged subnational regions, 2016 (or latest available year; with trends since 2005)



Notes. Most recent data year for most countries was 2016, with the following exceptions: Azerbaijan 2006; Belarus 2005; Georgia 2005; Kyrgyzstan 2014; Kazakhstan 2015; North Macedonia 2005; Russian Federation 2015; Tajikistan 2015; Ukraine 2012; Uzbekistan 2006.

Sources: authors' own compilation based on data extracted from Eurostat, the Organisation for Economic Co-operation and Development (OECD) and the Global Data Lab (GDL).

- The average life expectancy across these 19 countries is lower for men than for women and the gap in life expectancy for men of different social groups is wider than for women.
- Gaps in life expectancy between women with most and fewest years of education remained the same or increased in all 19 countries between 2013 and 2016. For men, the gaps remained the same in almost all countries.

There are large gaps in life expectancy between men of different social groups and between women of different social groups, within the same country (Fig. 0.2)

- Women with fewer years of education are likely to die between 2.3 and 7.4 years earlier than women with more years of education.
- Men with fewer years of education are likely to die between 3.4 and 15.5 years earlier than men with more years of education.
- In four countries, men with lower-secondary education live more than 10 years less than those with university education.

Where you are born and live in a country can influence your chance of thriving, even in the early years of life

- The severity of geographical inequities in infant mortality varies widely across countries of the WHO European Region.
- Based on infant mortality data for 35 countries, Fig 0.3 shows that for every 1000 babies born, as many as 41 more babies do not survive their first year if born in the most deprived areas, compared to those born in the most advantaged ones.
- These inequities are comparable in magnitude to the absolute rates of infant mortality across the Region: average infant mortality rates within WHO European Region countries range from 1.9 to 47.8 deaths per 1000 live births.
- There are notable differences in infant mortality levels between geographical areas when comparing countries with similar economies and cultural traditions. This shows that inequities in infant mortality are avoidable.

In many countries, the gaps in infant mortality remain the same as they were in the late 2000s

- In 23 out of 35 countries across the WHO European Region, these gaps in infant mortality rates between the most disadvantaged and most advantaged subnational regions stayed the same or widened between 2005 and 2016 (Fig. 0.3).

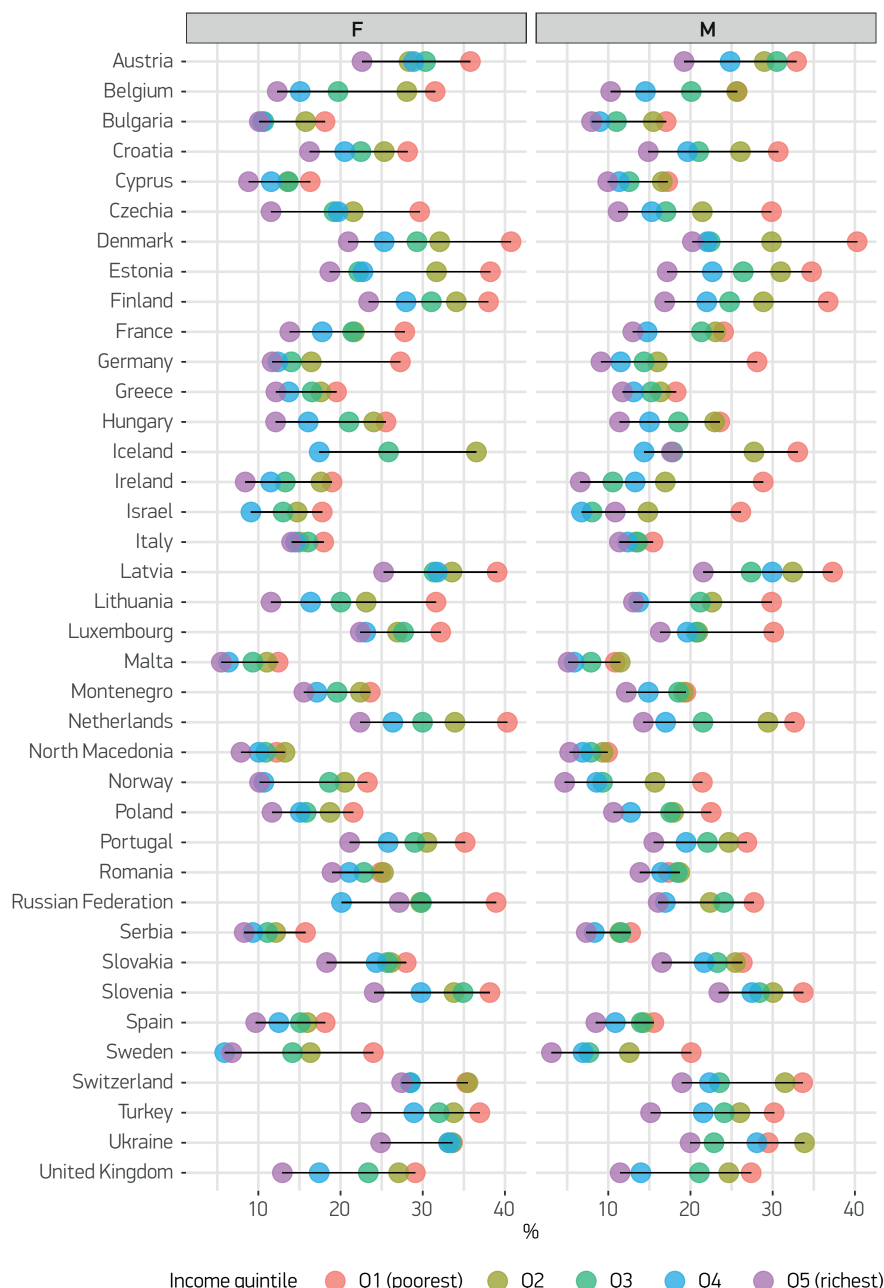
Inequities in long-standing illness limit participation in daily activities and hold many adults back from being able to live a decent life

- Inequities in limiting illness impact not only on opportunities to live a high-quality home and family life, but also on the overall productivity of a country's workers and therefore its economic performance.
- Inequities in limiting illness are prevalent among all countries across the WHO European Region. Among the 38 countries in Fig. 0.4, the percentage of both women and men reporting limitations in being able to carry out daily activities due to poor health follows a strong social gradient by income quintile.
- Data for the 38 countries show that out of every 100 women, between four and 20 more women in the lowest income quintile report limitations in daily life due to poor health compared to those in the highest income quintile.
- For men, between four and 22 more men in every 100 in the lowest income quintile report such limitations, compared to the highest income quintile.
- The gaps in limiting illness have remained the same or increased for women between 2005 and 2016 in 32 of the 38 countries in Fig. 0.4, and in 31 of the 38 countries for men.

Gaps in self-reported health and well-being are the early warning signs of the unequal risk of becoming ill

- Gaps in self-reported health and well-being exist across all stages of the life-course, and trends show the gaps between social groups in the same country are widening.
- Self-reported measures of health and well-being are increasingly recognized as early detectors of mortality and morbidity risk, and are widely regarded as reliable indicators of objective health status.
- Percentages of children, working-age adults, and adults aged 65 years and over reporting poor health, disaggregated by household income or affluence level, show that the socioeconomic gradient in health widens over the progressive stages of the life-course.
- Data for the 38 countries studied show that out of every 100 girls, there are on average six more girls in the lowest income quintile reporting only poor or fair health compared to the highest income quintile. For boys, there are on average five more boys in every 100 in the lowest income quintile compared to the highest income quintile.
- For working-age adults, these gaps increase. On average 19 more women and 17 more men out of every 100 in the lowest income quintile report only poor or fair health, compared to the highest income quintile.

Fig. 0.4. Percentage of adults reporting long-standing limitations in daily activities due to health problems (age adjusted), by income quintile

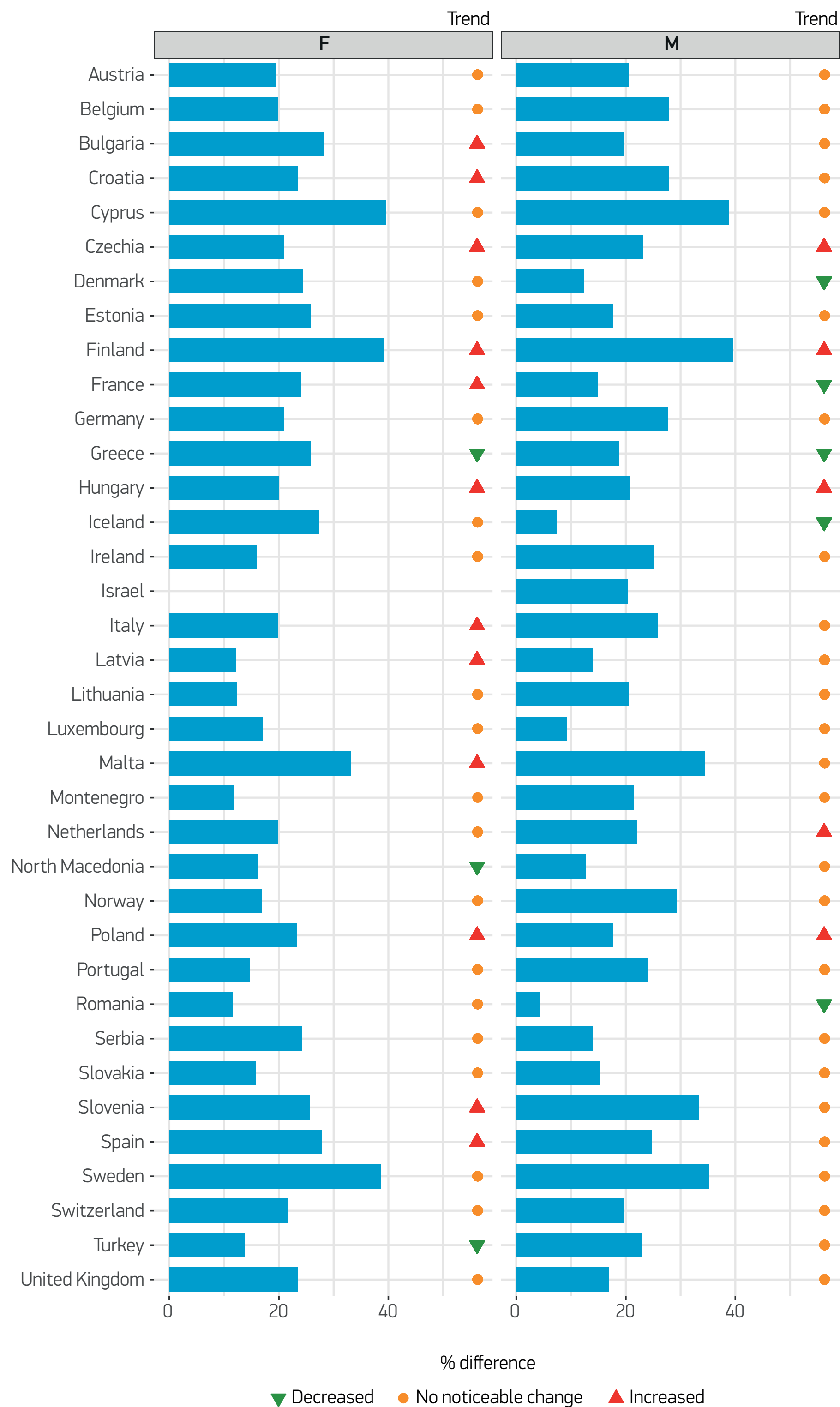


Notes. F = females. M = males. Data missing due to small sample size for women in Iceland (Q1 and Q5) and Israel (Q5).
Sources: authors' own compilation based on data extracted for the years 2012–2017 from the European Union Statistics on Income and Living Conditions (EU-SILC) survey and the European Social Survey (ESS).

Without effective interventions, the gaps in health persist and widen into later life

- This is of increasing concern given the demographic shifts towards ageing societies that are taking place across the WHO European Region. For adults aged 65 years and over, the above-mentioned gaps increase again to an average of 22 more women and 21 more men out of every 100 in the lowest income quintile reporting only poor or fair health, compared to the highest income quintile (Fig. 0.5).
- Although these data originate from different individuals at different stages of life at a given point in time, rather than the same individuals over time, it is evident from this static snapshot of the life-course that inequities become wider as the stages of life progress.
- These equity gaps throughout the life-course represent a missed opportunity to enable people to prosper and flourish.

Fig. 0.5. The percentage difference in adults aged 65 years or over reporting poor or fair health per 100 people in the lowest income quintile compared to the highest income quintile, 2017 (and trends since 2005)



Notes. F = females. M = males.

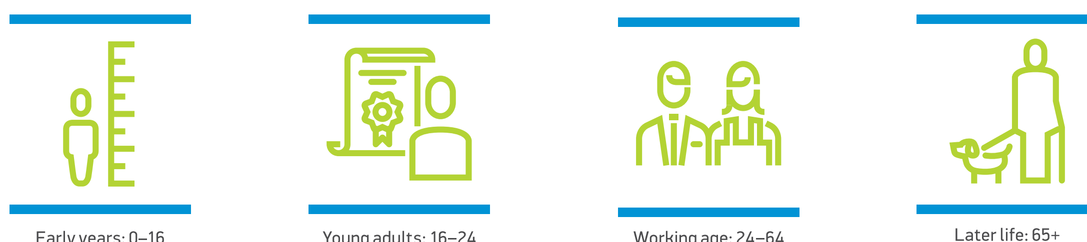
Sources: authors' own compilation based on 2017 data extracted from the EU-SILC survey and the ESS.

Left unchecked, inequities in health accumulate across the life-course

- Table 0.2 shows the gaps in numbers of people reporting poor health between the highest and lowest income quintiles at different stages throughout the life-course (out of every 100 people).

Table 0.2. Gaps in numbers of people reporting poor health between the highest and lowest income quintiles, per 100 people

	Childhood	Working years	Later life
Women	6	19	22
Men	5	17	22



Sources: authors' own compilation based on data from the 2014 Health Behaviour in School-aged Children (HBSC) survey for children; and data for the years 2012–2017 from the EU-SILC survey and the ESS for adults.

Inequities in mental health are just as prevalent in the WHO European Region as inequities in physical health

- Men and women living on the lowest incomes within countries across the Region are, on average, twice as likely to report poor mental health compared to those with the highest incomes.
- Mental health is a major public health priority because of its co-morbidity rates with cardiovascular disease (CVD) and communicable diseases such as tuberculosis (TB).
- Depression and anxiety disorders are among the top five causes of the overall disease burden in the Region (measured in terms of disability-adjusted life years).
- Analysis of the data for the 35 countries used to compile Fig. 0.6, grouped by clusters of countries with similar policy and political landscapes (Annex 3), shows that out of every 100 women, between 12 and 16 more women in the lowest income quintile report poor mental health compared to women in the highest income quintile. For men, between 9 and 17 more men in every 100 in the lowest income quintile report poor mental health compared to those in the highest income quintile.

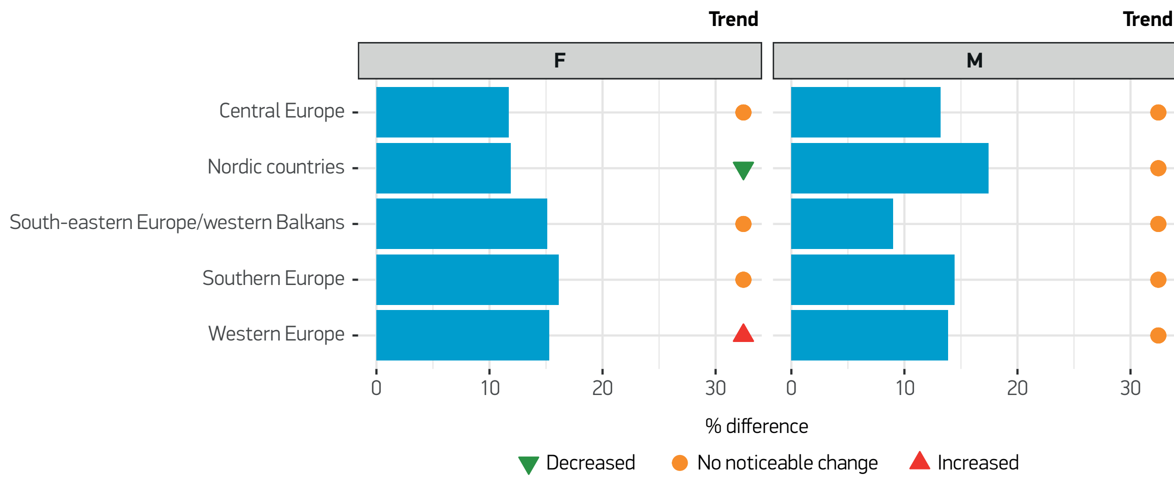
Gender differences in inequities in mental health vary in different parts of the WHO European Region and have not decreased significantly from 2007 to 2016

- The clustering of countries used in Fig. 0.6 highlights that gender differences in the severity of mental health inequities vary in different parts of the Region.

Inequities in noncommunicable diseases (NCDs) and the associated risk factors exist across the Region

- Inequities in 4 out of 5 risk factors for NCDs follow a socioeconomic gradient (Fig. 0.7).
- The progressively more social and economic resources and opportunities a person has, the lower the likelihood of developing a risk factor for NCDs (with the exception of alcohol consumption).
- Fig. 0.7 compares the average inequities in several indicators of NCDs and risk factors between men and women with most and fewest years of education (university and lower-secondary level education, respectively) within countries across the WHO European Region.
- The additional risk of CVD, diabetes, obesity and smoking among women with the fewest years of education compared to those with the most years of education is more pronounced than the additional risk among men, when making the same comparison between education levels.
- On average across the Region, women with the fewest years of education are almost twice as likely to have diabetes as women with the most years of education, while this ratio is less than 1.5 times for men. Diabetes is reported among 4.3% of women with the fewest years of education and among 2.2% with the most years of education. For men, these rates are 3.8% and 2.8%, respectively.

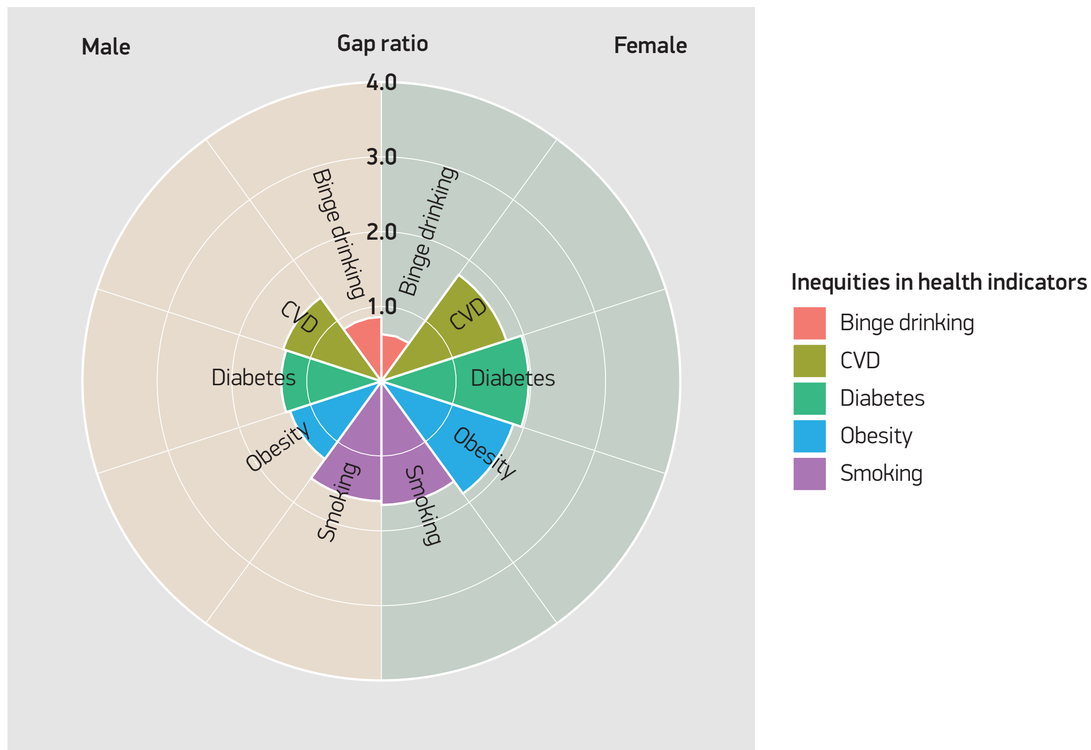
Fig. 0.6. The percentage difference in adults reporting poor mental health on the WHO-5 Well-Being Index per 100 adults in the lowest income quintile compared to the highest income quintile (various years and trends), by country cluster



Notes. F = females. M = males.

Source: authors' own compilation based on data extracted for the years 2007–2016 from the European Quality of Life Survey (EQLS).

Fig. 0.7. Average within-country inequities in NCDs and NCD risk factors (gap ratio between the highest and lowest number of years in education)



Source: authors' own compilation using the Health Equity Dataset.

Understanding the gaps: what is contributing to health inequities within countries of the WHO European Region?

The HESR uses new methods to understand what is driving the trends and status of health inequities within countries across the Region

- Measuring health status and trends is important, but without understanding what factors and decisions are driving inequities, the focus would remain on describing the problem, not on identifying solutions and taking action.
- The HESR has captured and analysed for the first time the relationships between health inequities, the conditions that are essential to be able to live a healthy life, and the degree of investment, coverage and uptake of policies that influence health equity outcomes.
- This is a major advancement in being able to accelerate systematic, whole-of-government and whole-of-society action to increase equity in health.
- The HESR has identified five conditions (Fig. 0.8) that have impacts on health equity; shortcomings in each of the areas are significant in their own right in explaining health inequities between men and women across social groups and geographical areas.

Fig. 0.8. HESR health equity conditions

To increase equity in health within countries, actions are needed across all five conditions through a combination of targeted and universal policy approaches

- Combining policy interventions that are proportionate to the degree of inequity between social groups has the effect of improving the health of all, while at the same time accelerating the rate of improvement for those who would otherwise be left behind.
- Fig. 0.9 shows the relative contribution of shortcomings in each of the five essential conditions to explaining health inequities within countries for three major public health priorities that are relevant across the whole WHO European Region.

These five essential conditions are needed for people to live healthy, prosperous lives, and public policies contribute to creating these conditions

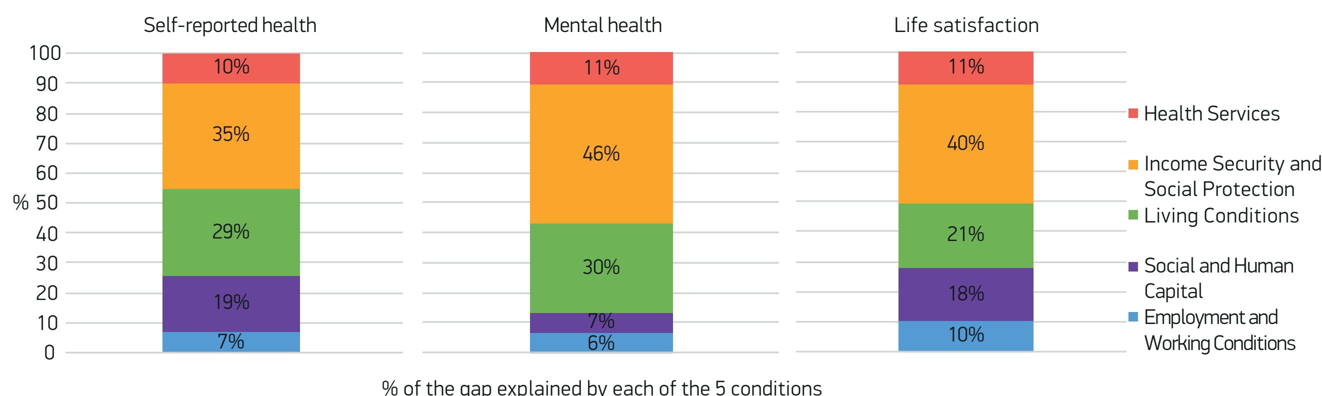
- The HESR uses decomposition analysis to quantify the (extent of the) contribution of each of the five conditions to health inequities, relative to each other. Given the data available, the analysis shows that all five conditions are statistically significant in contributing to the inequities in the three health indicators, and that the relative size of their contributions are largely consistent across the indicators.[1]
- Differences between socioeconomic groups in terms of *Income Security and Living Conditions* are the largest contributors to inequities in self-reported health, mental health and life satisfaction within countries of the WHO European Region,

[1] Due to demanding data requirements for the decomposition analysis, some factors influencing health equity are not captured (e.g. it was not possible to include a direct measure of job quality or working conditions; only whether individuals work excessive hours) (see Annex 2).

contributing to almost 2/3 of the health inequities between socioeconomic groups within countries (Annex 4).

- Each of these five essential conditions needed to create and sustain a healthy life for all are individually explored in detail in the pages that follow.

Fig. 0.9. The five conditions' contributions to inequities in self-reported health, mental health and life satisfaction (EU countries)



Note. Analysis controls for age and sex of individuals.
Source: authors' own compilation, based on 2003–2016 data from the EQLS.

Achieving health equity in the short term is possible, even within political cycles

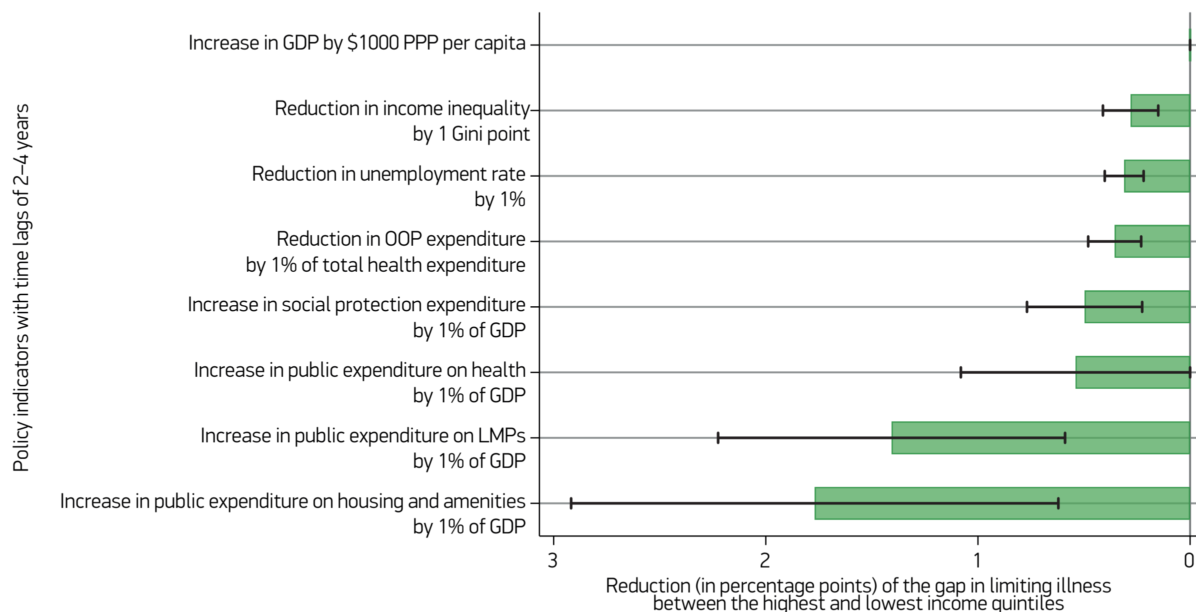
The HESR models the solutions needed to reduce health inequities by examining the relationship between health equity and the implementation, coverage and uptake of key public policies over time

- The gaps in health between socioeconomic groups can be reduced, even within political mandates of 2–4 years (Fig. 0.10). Policy-makers can feel confident that with the right investments and interventions it is possible to reduce inequities in health, even in the short term.
- A scenario of a 50% reduction in inequities in life expectancy between social groups would provide monetized benefits to countries ranging from 0.3% to 4.3% of GDP. Interventions to remove the barriers created by poor health and well-being are good for both human and economic well-being.
- Fig. 0.10 shows the potential effects of eight macroeconomic policies in reducing health inequities. The improvement is measured by the percentage reduction in limiting illness reported among adults in the highest and lowest income quintiles (within countries).
- The green bars represent the average reductions in health inequities that have been achieved 2–4 years after countries have implemented each of the eight policies listed on the left side of the chart. More detail can be found in Section 3.1.

Seven of the policies show a positive association with reductions in health inequities

- Increasing per-capita income is the only policy which shows no association with reducing health inequities.
- The magnitude of the association with health inequity of each of these policies is different.
- Six of the policies each have statistically significant potential to reduce inequities in limiting illness among adults in the short term: increasing public expenditure on housing and community amenities; increasing expenditure on labour market policies (LMPs); reducing income inequality; increasing social protection expenditure; reducing unemployment; and reducing out-of-pocket (OOP) payments for health.
- It is important to note that this is not a causal analysis or predictive model.

Fig. 0.10. The potential for 8 macroeconomic policies to reduce inequities in limiting illness among adults with a time lag of 2–4 years in 24 countries

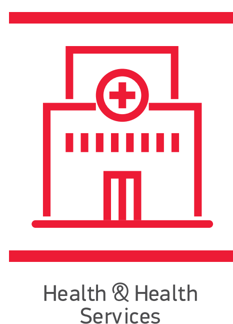


Note. PPP: purchasing power parity.

Source: authors' own compilation, based on data for 2008–2014 from the Health Equity Dataset.

The five essential conditions for creating and sustaining a healthy life for all – solutions and policy progress

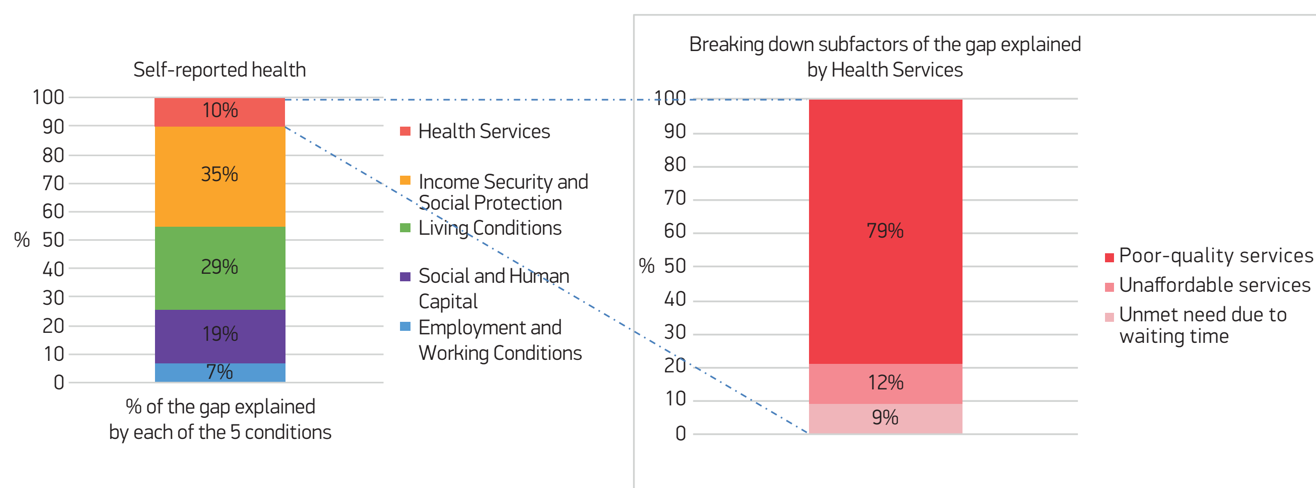
Health and *Health Services*



On average, 10% of the inequity in self-reported health between the most and least affluent 20% of adults within European countries is the result of systematic differences in the quality, availability and affordability of health services (Fig. 0.11)

- Inequities in unmet need for health care have not changed significantly since the late 2000s. In the majority of countries across the WHO European Region, inequities in unmet need for health care either remained unchanged or increased between 2008 and 2017. The mean difference in rates of unmet need for health care between men and women with the most and fewest years of education in countries across the Region was 2.7% in 2017, while in 2008 it was 2.6%.
- The drive for universal health coverage (UHC) is a vital step towards reducing health inequity.
- This means ensuring that every child, woman and man can have access to and be guaranteed the quality of health services they need, without experiencing financial hardship.

Fig. 0.11. Health Services' contribution to inequities in self-reported health (EU countries)



Source: authors' own compilation based on data extracted for the years 2003–2016 from the EQLS.

Solutions and policy progress

- Reductions in OOP payments for health have a statistically significant association with reduced inequities in limiting illness between adults in the highest and lowest income quintiles over a period of 2–4 years (Fig. 0.10).
- However, reforms to reduce unmet need for health care can increase OOP payments for health; therefore, it is important to ensure that policies to improve access to health services do not also lead to increased financial hardship, particularly for those who are already being left behind.
- Countries can reduce unmet need for health care and financial hardship by identifying and addressing gaps in the coverage of universal health services and implementing interventions proportionate to need to ensure everyone has equitable access to good-quality health care services.

- In the WHO European Region, levels of OOP payments for health range from 7.1% to 80.6% of current total health expenditure. In over half of the Region's countries, OOP payments for health as a proportion of current health expenditure increased or remained similar between 2000 and 2016.

- Expenditure on health as a percentage of GDP ranges from 2.1% to 11.9% across the Region. This expenditure increased in 32 of the 53 countries between 2005 and 2014, but in 13 countries expenditure on health did not change, and in eight countries spending decreased.

- Similarly, there is a mixed picture for trends in expenditure on public health. Levels of public health expenditure in the Region range from 0.03% to 0.5% of GDP and, while nearly half of countries increased their expenditure among the 34 countries for which data were available between 2000 and 2017, in the other half of those countries, public health budgets have not risen to meet increasing needs.

Health and *Income Security and Social Protection*

Health & Income Security and Social Protection

On average, 35% of the inequity in self-reported health between the most and least affluent 20% of adults within European countries is due to systematic differences in risk and exposure to income insecurity and the lack or inadequacy of social protection

- The struggle to make ends meet, including being able to afford to pay for the goods and services considered essential to living a dignified, decent and independent life (such as fuel, food and housing) is a major factor explaining inequities in self-reported health between social groups in countries across the WHO European Region.

- The risk of poverty is directly correlated with early-onset morbidity and premature mortality. Young people, those in temporary or part-time employment, individuals with caring responsibilities, and older people are at higher risk of poor health associated with poverty risk *(1, 2)*.

- The risk of living in poverty influences mental health and psychosocial pathways. Research repeatedly links income inequality with worse health and social capital outcomes.

- The effects of living in poverty during the early years and childhood are strongly associated with increased risks of adopting health-harming behaviours, such as smoking, harmful alcohol consumption and drug use during adolescence. This association extends to increased development of chronic ill health, including diabetes, cancer, CVD and respiratory disease in later life.

Child poverty is still a problem across the WHO European Region

- Across 34 countries for which data were available in the WHO European Region, children are more likely to live in poverty than adults *(3)*. On average 20 in every 100 children live in relative poverty, compared to an average of 17 in every 100 adults.

Solutions and policy progress

Reductions in income inequality and relative poverty, as well as investments in social protection expenditure have a statistically significant association with reduced inequities in limiting illness between adults in the lowest and highest income quintiles over a period of 2–4 years (Fig. 0.10)

- Non-stigmatizing social protection policies have positive effects on reducing health inequities relating to income insecurity and poverty. Robust, multilevel, inclusive income security systems – with an unconditional tier at the base and supplemented by state-supported contributory schemes – have the highest effect in terms of reducing health inequities. These schemes include well-designed parental leave policies, statutory pensions, social protection for early years and families, and unemployment benefits.

In the majority of WHO European Region countries, trends in social protection spending have not significantly changed or have worsened over recent years

- Between 2000 and 2012, the average country expenditure on social protection fell from 12.9% to 6.1% of GDP. This represents an average 50% reduction in countries' expenditure on social protection as a proportion of GDP across the Region over a decade.

- In 2017, on average 17 in every 100 people lived in relative poverty across the Region; an increase from 15 in every 100 in 2005.

- Social protection expenditure on people of working age (family allowance and unemployment benefits) also decreased, from an average of 3.8% of GDP across the Region in 2008 to 1.6% in 2011 (the most recent year for which data were available).

- Changes to mechanisms for receiving social welfare payments in many countries have given rise to delays and conditionalities, which have increased financial insecurity for families and contributed to increased rates of poor well-being and mental illness (often manifesting in stress, anxiety and depression).

There is wide variation between countries in the levels and trends in progress to reduce income inequality

- In the 35 European countries for which 2017 data were available, between nine and 26 people out of every 100 live in relative poverty (as measured by the percentage of the population living below 60% of median equalized disposable income).
- In 15 countries, such income inequality increased from 2005 to 2017, while it decreased in only six countries.
- For 14 countries, including some among the western Balkans, central Asian countries and the Caucasus, where poverty is measured using national poverty lines, between three and 31 out of every 100 people live below that line.
- In eight of these 14 countries, these poverty rates declined between 2005 and 2016. However, these trends are not directly comparable to the trends in relative poverty, which are better able to capture those left behind relative to the middle of the population.

Health and *Living Conditions*

On average, 29% of the inequity in self-reported health between the most and least affluent 20% of adults within European countries is the result of systematic differences in people's living environment and conditions

- Insecure housing tenure, poor-quality homes, fuel deprivation, unsafe neighbourhoods and lack of community amenities are all statistically significant in explaining inequities in health within countries across the WHO European Region (Fig. 0.12).

- Shelter is a fundamental human need, and poor-quality homes and poor health are inextricably linked. People in low-income households are more likely to face multiple housing problems; that is, they are not only cold in the winter, they are also more likely to have mould growing indoors and poor indoor air quality.

- Across the Region, there is a strong association between countries with higher rates of housing deprivation and lower life expectancy.

- Those living in economically underdeveloped areas within countries have disproportionately higher exposure to air pollution (indoor and outdoor), flooding, noise pollution and high road traffic density.

- Inequities in sanitation and water scarcity between income quintiles persist in some countries of the Region.

- Out of every 100 households, on average 20 more with the lowest 20% of incomes experience food insecurity than among households with the highest 20% of incomes. People in these poorer households are unable to afford a protein-rich meal every other day.

Solutions and policy progress

Housing is more than where you live; it provides a sense of belonging, and feelings of safety, security and privacy

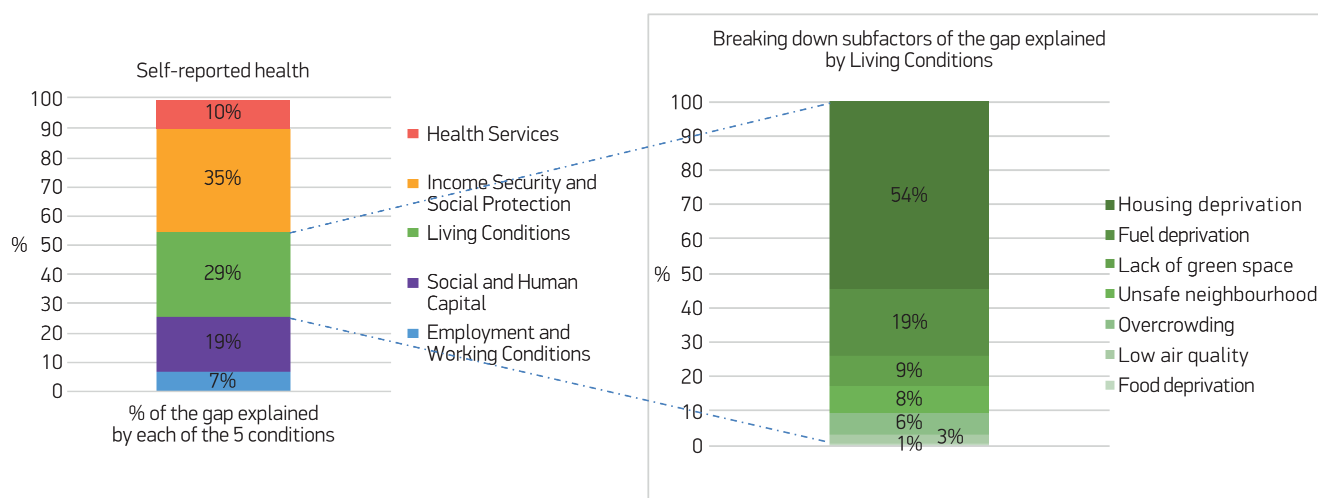
- Increases in public expenditure on housing and community amenities, such as street lighting, green spaces and public facilities, have a statistically significant association with reduced inequities in limiting illness between adults in the lowest and highest income quintiles over a period of 2–4 years (Fig. 0.10).

- Housing can be insecure for many reasons: costs, weak security of tenure, fuel deprivation, and overcrowding (4, 5).

- Increasing the availability of good-quality, affordable new homes benefits the health of everyone. When policy-makers invest in the provision of new housing in low-resource areas and involve local people and communities in the development process, this produces an accelerated effect in terms of helping to reduce health inequities for those falling behind.

- Setting standards, through laws and regulations together with incentives – including subsidies to homeowners and landlords to improve housing availability, affordability, tenure and quality – are effective solutions to reducing health inequities.

Fig. 0.12. Living Conditions' contribution to inequities in self-reported health (EU countries)



Source: authors' own compilation based on data extracted for the years 2003–2016 from the EQLS.

- Compared to the highest income quintile, people in the lowest income quintile are: almost eight times more likely to suffer from severe housing deprivation; more than twice as likely to live in an overcrowded home; and more than five times more likely to suffer from fuel insecurity.

- Expenditure on housing and community amenities in the WHO European Region (including street lighting, safety, green spaces, and public facilities) ranged from €39 per head to €543 per head in 2017.

- In the majority of countries, expenditure on housing and community amenities remained the same or decreased between 2006 and 2017 (Fig. 0.13).

Policies aiming to increase the affordability of homes with fuel-efficient heating systems and indoor sanitation facilities are key to reducing inequities in mental health, respiratory illnesses and waterborne infections across the social gradient

- Using an equity formula to guide the provision and maintenance of essential public services for clean water, fuel and sanitation can ensure that investments benefit those most at risk and will contribute to accelerating improvements in health equity related to living conditions.

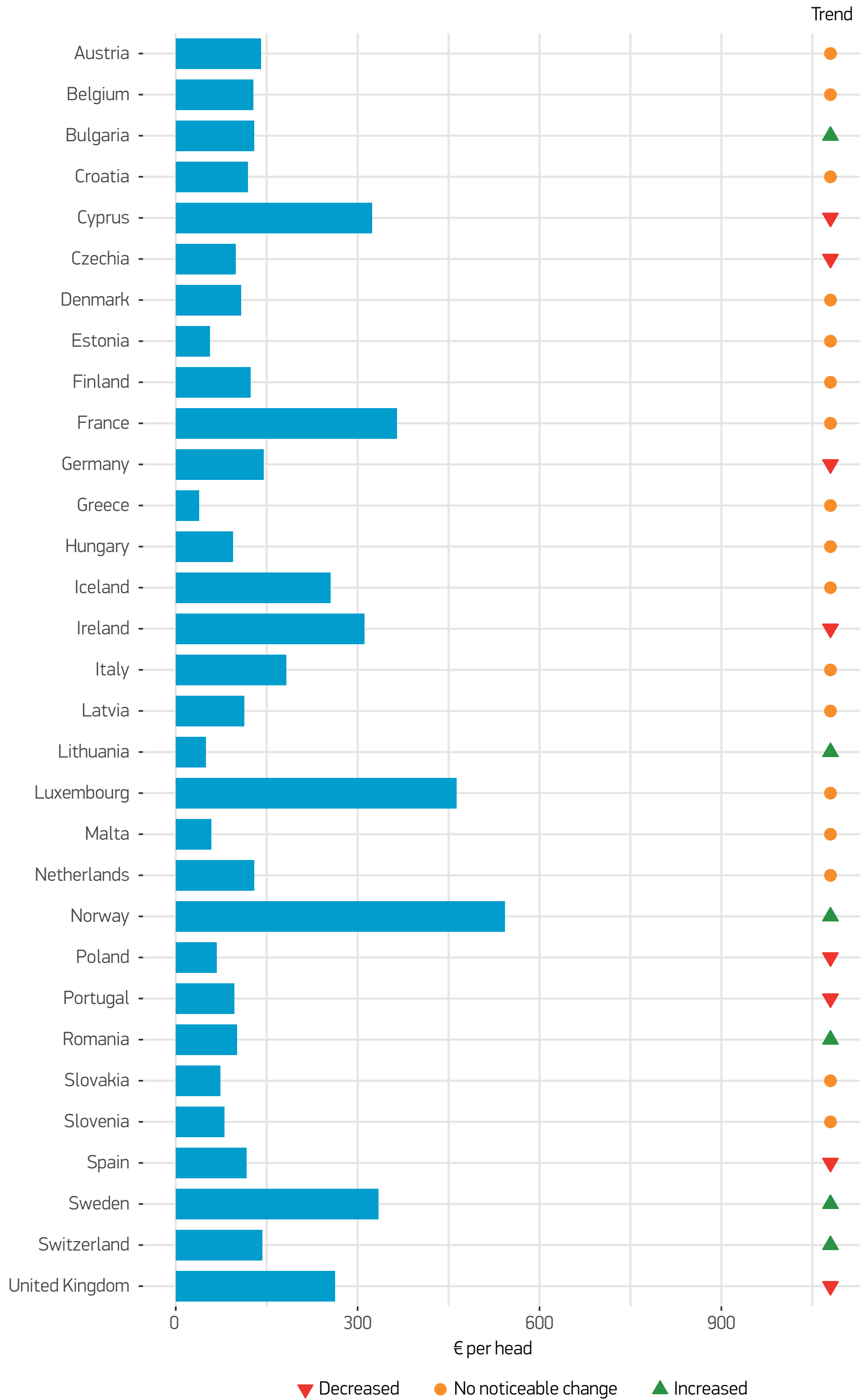
Regulating commercial interests is key to reducing inequities related to fuel insecurity and inadequate water and sanitation services

- The provision and pricing of essential services such as fuel, water, and sanitation can draw on the lessons learned from the approach used for the pricing of essential medicines.

- Inequities in basic drinking-water and sanitation services persist in some countries in the Region. In 11 transition economies for which wealth-disaggregated data were available, people in the lowest wealth quintile are least likely to have access to basic drinking-water services.

- In nine of these 11 transition economies, families in the lowest wealth quintile are least likely to have access to basic sanitation services.

Fig. 0.13. Government expenditure per head on housing and community amenities, 2017 (and trends since 2006)



Source: authors' own compilation based on 2017 data from Eurostat.

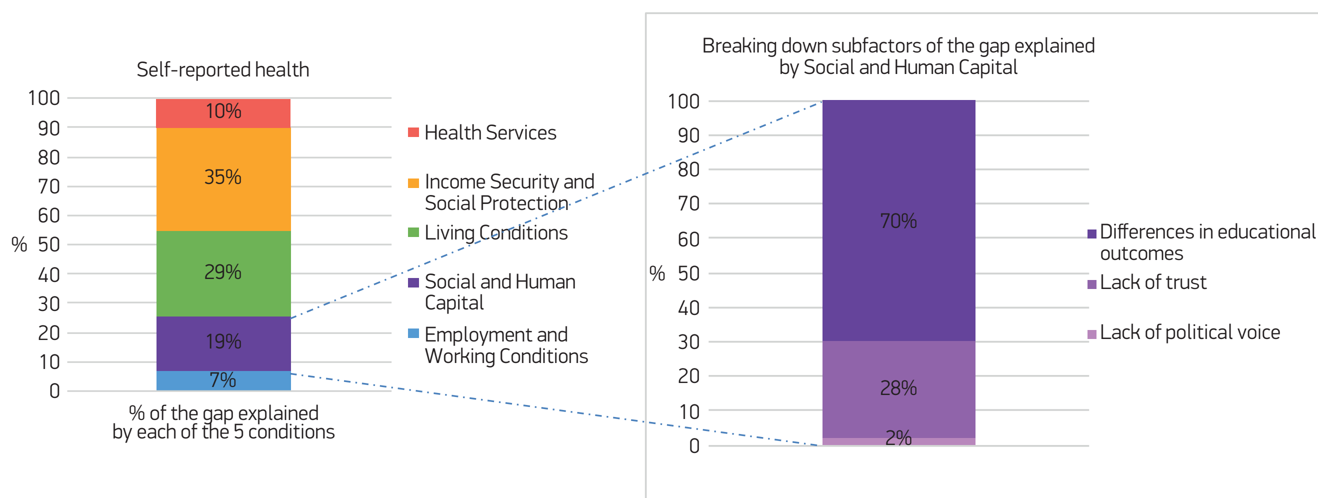
Health and *Social and Human Capital*

Health & Social and Human Capital

Lack of control, trust in others and low educational outcomes, when combined, are statistically significant in explaining 19% of the gap in poor health between the most and least affluent 20% of adults within European countries (Fig. 0.14)

- Educational outcomes, levels of trust in others and a sense of control over the factors that influence a person's opportunities and choices in life are critical to well-being and health.
- Exposure to low-trust environments – characterized by higher risk of crime, social isolation, not having someone to ask for help, and a lack of voice – are strongly associated with poor mental health and higher risk of morbidity.

Fig. 0.14. Social and Human Capital's contribution to inequities in self-reported health (EU countries)



Source: authors' own compilation based on data extracted for the years 2003–2016 from the EQLS.

Solutions and policy progress

Policies that work to increase educational opportunities and reduce gaps in education outcomes from early years into later life are crucial to achieving greater health equity

- Policy actions to break the intergenerational transmission of education differences can also help to break the subsequent transmission of differences in well-being, such as targeted investment in early childhood education and in the provision of appropriate and accessible learning for adults having had limited formal education in early life.
- Across the WHO European Region, the children of parents with the fewest years of education are much less likely to meet minimum proficiency levels in mathematics and reading at the age of 15 years, compared with the children of parents with the most years of education.
- The gap in rates of proficiency across the Region range from 10.6% to 67.7% for girls, and 12.6% to 51.8% for boys.
- Government expenditure on pre-primary education rose in two thirds of countries (21/32), where data were available, between 2012 and 2015 (see Section 2.5).
- When increasing expenditure rates, it is important to understand if there are inequities in the allocation of investments, as resource-poor geographical areas often receive less investment than resource-rich areas.

- Adults who have the most years of formal education are also most likely to participate in learning throughout life, such as vocational training, informal learning and adult education. This impacts social and health literacy, sense of control over destiny, and ability to cope with economic and social shocks (such as loss of employment).

- In more than two thirds of countries with available data, the gap between socioeconomic groups in rates of participation in formal and informal education and training stayed the same or increased between 2005 and 2017. For women, this gap is observed in 23 out of 31 countries and for men it is evident in 21 out of 31 countries.

Policies promoting social capital contribute to improved health and well-being, strengthen communities and reduce corruption and social isolation

- Meaningful participation in society, trust in others, and ability to influence decisions contribute to stronger individual and social resilience, higher levels of mental well-being, and lower levels of morbidity.

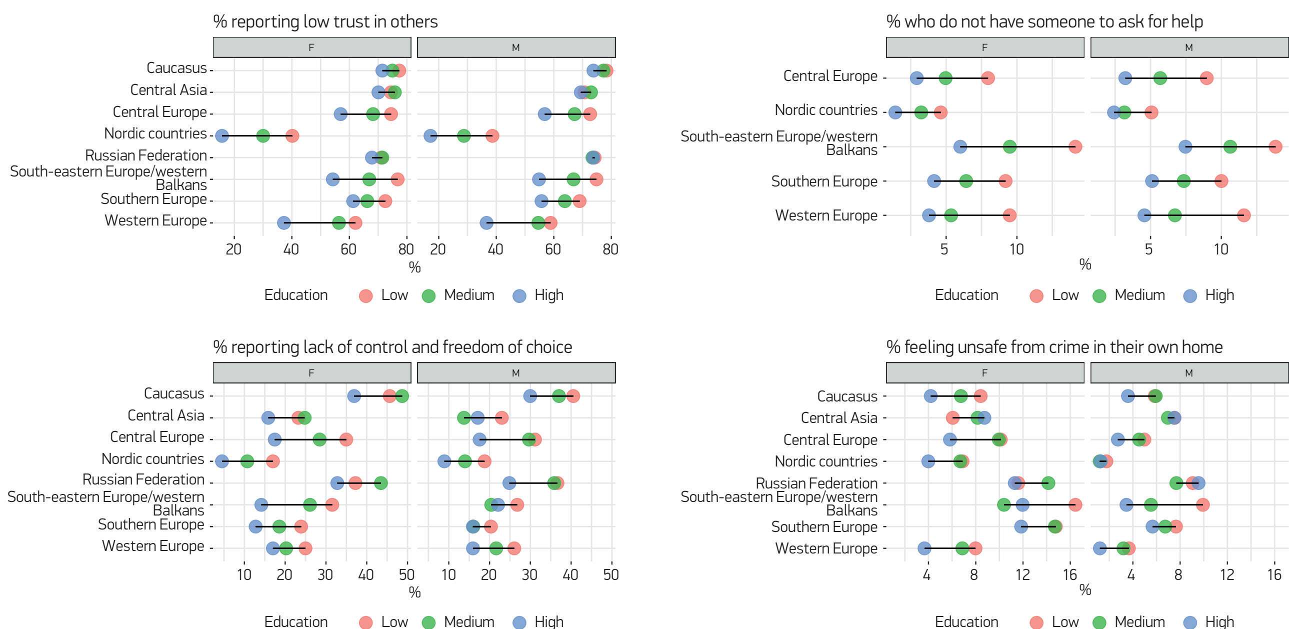
- Trust is one of the most widely used measures of social capital and is a strong marker of well-being at both individual and society levels.

- Higher levels of trust are found in societies in which physical and mental health are better for all and where incomes are more equally distributed.

- Lack of trust in others accounts for 28% of the health inequities explained by the essential condition of *Social and Human Capital*.

- In most countries, grouped by clusters of countries with similar policy and political landscapes (Annex 3), men and women with the fewest years of education are most likely to report low feelings of trust and safety, lack of someone to ask for help, and lack of choice and control over life (Fig. 0.15).

Fig. 0.15. Percentages of adults reporting experiences of poor social capital, as measured by lack of trust, agency, safety, and sense of isolation, various years, by education level and by country cluster



Notes. F = females. M = males.

Sources: authors' own compilation based on data extracted for the years 2005–2016 from the EQLS, the ESS, the EU-SILC survey and the World Values Survey (WVS).

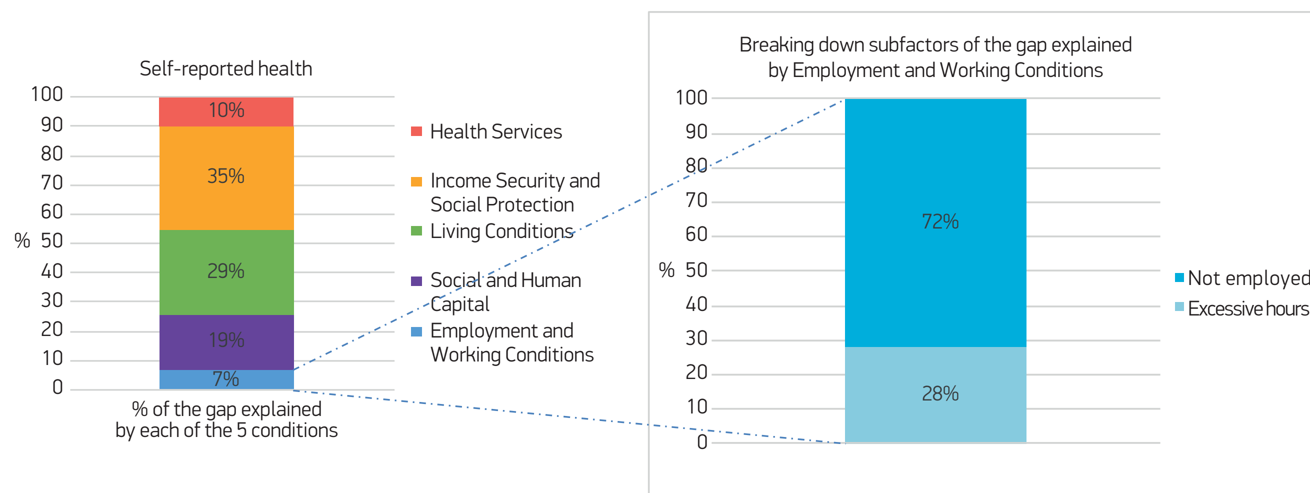
Health and *Employment and Working Conditions*

Health & Employment and Working Conditions

On average, 7% of the inequity in self-reported health between the most and least affluent 20% of adults within European countries is due to systematic differences in employment and working conditions (Fig. 0.16)

- Job insecurity, temporary employment and poor working conditions are associated with poor mental health, self-reported ill health, and increased risk of fatal and non-fatal cardiovascular events. These work-related stressors follow a social gradient.
- Exclusion from good-quality work can significantly affect health and well-being. The largest contributor to the gap in self-reported health status linked to employment and working conditions is explained by differences in employment status.
- Being out of employment, training or education when aged between 18 and 28 years is a risk factor for poor mental health and early-onset CVD in later life.
- However, being in employment is not necessarily sufficient to reduce health-harming conditions. Working excessive hours and the quality of work also substantially influence health inequities.

Fig. 0.16. Employment and Working Conditions' contribution to inequities in self-reported health (EU countries)



Source: authors' own compilation based on data extracted for the years 2003–2016 from the EQLS.

Solutions and policy progress

Reductions in unemployment, together with increases in expenditure on LMPs, have statistically significant associations with reduced inequities in limiting illness between the highest and lowest income quintiles within European countries over a period of 2–4 years

- Improving wages improves health and reduces inequities. Income support and financial protection mechanisms, such as social transfers, enable people earning low wages to reduce their risk of poverty and social exclusion. In addition, decent minimum wages guarantee those in employment a basic level of resources for meeting health and other basic needs, reducing stress and improving well-being and mental health.
- Good-quality active LMPs and effective lifelong learning and vocational training, along with equitable employment legislation and adequate social security systems can improve health equity, as well as increase employment and contribute to economic growth.
- Expenditure on LMPs across the WHO European Region ranges from 0.5% to 3.2% of GDP. In 19 of the 25 countries for which data were available, expenditure on LMPs either stayed the same or decreased between 2005 and 2016.

- Men tend to benefit more from LMPs than women across the Region. In 28 countries for which sex-disaggregated data were available, out of every 100 people wanting work, on average 35 are male LMP programme participants, whereas only 30 are female LMP programme participants.

Social values and impacts need to be systematically addressed in decisions made nationally and at the pan-European level

- Decisions taken at the pan-European level have significant impacts within countries. For example, the deregulation of employment contracts (circa 2008) was primarily designed to stimulate the growth of new jobs. This did happen; however, more than 50% of all the new jobs created are classified as temporary or insecure contractually and the majority of these poor-quality, low-paid or insecure positions have been occupied by individuals who were already falling behind, both economically and in terms of health.

References

1. Lundberg O, Dahl E, Fritzell J, Palme J, Sjöberg O. Social protection, income and health inequities. Final report of the Task group on GDP, taxes, income and welfare. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0006/302874/TG-GDP-taxes-income-welfare-final-report.pdf?ua=1, accessed 1 April 2019).
2. Review of social determinants and the health divide in the WHO European Region: final report. Copenhagen: WHO Regional Office for Europe; 2014 (http://www.euro.who.int/__data/assets/pdf_file/0004/251878/Review-of-social-determinants-and-the-health-divide-in-the-WHO-European-Region-FINAL-REPORT.pdf, accessed 1 April 2019).
3. Child poverty in Europe and central Asia region: definitions, measurement, trends and recommendations. New York (NY): United Nations Children's Fund; 2017 (https://www.unicef.org/eca/media/3396/file, accessed 1 April 2019).
4. Clair A, Reeves A, McKee M, Stukler D. Constructing a housing precariousness measure for Europe. J Eur Soc Policy 2018;29(1):13–28 (https://doi.org/10.1177/0958928718768334, accessed 1 April 2019).
5. WHO housing and health guidelines. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/276001/9789241550376-eng.pdf?ua=1, accessed 1 April 2019).

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.

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World Health Organization Regional Office for Europe
UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark
Tel.: +45 45 33 70 00   Fax: +45 45 33 70 01
Email: eurocontact@who.int