European Commission

The non-material dimensions of young people's quality of life in Europe

Research note no. 5/2016

May 2017

APPLICA

TÁRKI Social Research Institute Inc.

EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs and Inclusion
Directorate A — Employment & Social Governance
Unit A4 – Thematic analysis

Contact: Katarina Jaksić
E-mail: Katarina.JAKSIC@ec.europa.eu

European Commission
B-1049 Brussels

EUROPEAN COMMISSION

SOCIAL SITUATION MONITOR

APPLICA (BE), ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS (EL),
EUROPEAN CENTRE FOR SOCIAL WELFARE POLICY AND RESEARCH (AT),
ISER – UNIVERSITY OF ESSEX (UK) AND TÁRKI (HU)

The non-material dimensions of young people's quality of life in Europe

Research note 5/2016

Bori Simonovits and András Gábos (TÁRKI)

May 2017

Directorate-General for Employment, Social Affairs and Inclusion

2017

Europe Direct is a service to help you find answers to your questions about the European Union.

Freephone number (*)**:**

00 800 6 7 8 9 10 11

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

Table of Contents

Abstract

The situation of adolescents and young adults is of particular interest in the European Union, since these groups are at high risk of poverty and poor labour market entry, and have also been the target of recent policy initiatives, like the Youth Strategy and the Youth Guarantee scheme. While the well-being of children provides the focus for various organisations (e.g. UNICEF, OECD), relatively little is known about the quality of life of European young people. In this research note, we make extensive use of the IPOLIS indicator database to provide a cross-country comprehensive overview of the non-material quality of life of young adults.

There are important patterns visible in the non-material quality of life outcomes of young European people in terms of geographical region, sex and social status. Northern and Western European countries do better than their Southern and Central and Eastern European counterparts in the case of educational outcomes and civic participation (e.g. volunteering and political participation), while face-to-face contact with parents (henceforth abbreviated to 'contact') is more regular in Central and Eastern Europe (except for the Baltic states) and in the Southern Member States than it is in Northern and Western Europe. Health and risk behaviour results are more blurred, and some of the subjective/self-reported indicators require further research (on the role of cultural and institutional differences) in order to arrive at a valid interpretation of the results. In the majority of countries, young women tend to perform better in education than do men, and they are also less exposed to the risk of smoking, drinking and obesity. The prevalence of regular physical activity is higher among young men than among women. There are large differences in the prevalence of obesity and hazardous alcohol consumption by income position, and moderate country differences by income position in regular physical activity and smoking habits. Both unpaid voluntary work and political participation of young people seem to be positively correlated with educational attainment in those countries included in the analysis.

From a methodological point of view, we found that the use of adult surveys to assess the quality of life of young people in certain domains has serious limitations, if the analysis seeks to go beyond a description of the total young population or to assess differences by sex. With a few exceptions among EU Member States, the young cohort sub-samples are too small to provide robust estimates in sub-groups like income quartiles or those defined by parental education. There is a need, therefore, to have (at least from time to time) enlarged sub-samples of young people in the major cross-country comparative surveys in the European Union. That would allow for a much more detailed analysis of underlying social processes.

Acknowledgements

We are grateful to Donika Limani for the research assistance she provided. The usual disclaimer applies.

1. Introduction and background

This paper was commissioned by the European Commission within the framework of the Social Situation Monitor project. Under this project, reports are produced by a research consortium made up of Applica (Brussels), ISER (University of Essex, Colchester), TÁRKI Social Research Institute (Budapest) and the European Centre for Social Policy Research (Eurocentre, Vienna). This particular paper responds to a request to provide a cross-country comparative overview of young people's outcomes in the fields of education, health and risk behaviour, and social connectedness and participation. It also indicates problems related to the monitoring tools and the underlying data infrastructure.

The situation of adolescents and young adults (European citizens aged 15–29) is of particular interest at this time. In the European Union, the risk of poverty among young people is higher than the population average, and it increased considerably during the Great Recession (from 17.9 per cent in 2005 to 20.1 per cent in 2011). These poverty rates vary greatly across countries, and this variation is dependent on several factors, including differences in young people's living arrangements and activity status (Aaasve et al. 2006). The unfavourable conditions that young people experience in entering the labour market and in gaining financial and residential independence in order to form their own households (as well as the long-term consequences of these problems), place the situation of young people in the focus of policy making at both the national and the EU level.

Parents may provide financial support via inter-household transfers or give support in the form of intergenerational co-residence, coupled with either intra-household sharing or an intra-household flow of resources (from parents to children) (most recently Gökşen et al. 2016; Filandri et al. 2016). The support, however, is often of too short a duration to provide a smooth transition to adulthood, and this in itself creates grounds for public policy interventions. Moreover, the influence of family of origin in these transitions lies at the core of social inequalities and intergenerational mobility (Sirniö et al. 2017; Berloffa et al. 2015), which again makes a strong case for policies to be developed in this field. At the EU level, the Youth Guarantee scheme and the Youth Employment Initiative, which supports the integration of young people into the labour market, provide the most relevant examples of such policies.

Policy making targeted at young people, at either the national or the EU level, requires good monitoring tools. While the European Commission (EU Task-Force 2008; TÁRKI-Applica 2010; European Commission 2013) and various other international organisations (e.g. UNICEF, OECD) focus on the poverty and well-being of children, relatively little is known about the quality of life of European young adults. Yet this is an important transition age, and the situation in which they find themselves is likely to have a significant effect on the future chances of young people. While their employment and study patterns are known and are well researched,[1] less is known in comparative terms about their non-material well-being: what the main health and risk behaviour patterns among them are, how their relationships are with their family and peers, etc. Cross-country differences on these issues are likely to be large, creating scope for further investigation.

In this research note we provide a cross-country comprehensive overview of the non-material *quality of life* (QoL) of young adults. The note includes a review of the monitoring initiatives of young people's quality of life and well-being. Both quality of life and well-being are multidimensional concepts. QoL comprises objective measures, as well as people's perceptions of certain factors (economic, social, etc.) – that is, subjective measures of objective substances (Joint Research Centre – IPSC 2012: 17). In line with that the QoL concept for IPOLIS was defined similarly: it includes objective living conditions (including material and non-material aspects, such as income, material deprivation, quality of housing, education, health, etc.) and subjective perceptions

[1] For the most recent results, see for example the publications of the ongoing EU-funded research STYLE (Strategic Transitions for Youth Labour in Europe) and NEGOTIATE (Overcoming early job-insecurity in Europe).

about these factors (e.g. subjective income position, self-reported health status). (See Gábos and Kopasz 2014 for more details.) Subjective measures are thus expected to be used here only in order to describe objective circumstances better. *Well-being* seeks to capture both objective and subjective aspects of people's well-being, and thus well-being indicator systems use both objective and subjective indicators (Gábos and Kopasz 2014).

The EU dashboard of youth indicators, developed in 2011, is also built on a multidimensional approach and includes not only material domains (social inclusion, employment and entrepreneurship), but also non-material domains (e.g. education and training, health and youth participation).

The present research note focuses on the non-material QoL domains. In a cross-European cross-country perspective, these are monitored to a lesser extent and in less detail, not least because of shortcomings in the available data infrastructure. We present the situation as it pertains to European young people's quality of life in a cross-country comparative perspective in the following domains: (i) education and training, (ii) health and risk behaviour and (iii) social connectedness and participation. Also, inequalities by socio-demographic status (e.g. sex, level of education, income) are assessed wherever possible (i.e. if sources of data are available). However, even by narrowing the focus to non-material domains of quality of life, our analysis cannot fully explore these topics. Instead, our intention is to shed light on important cross-country differences and inequalities in outcomes that point to the issues that require further investigation and policy intervention. Moreover, to some extent this report seeks to address the problems relating to the available data infrastructure. Accordingly, we conclude with some ideas for future development in this field.

The paper is structured as follows: first there is a brief introduction featuring a review of the literature on methodology and data sources (Section 2); then conceptual and methodological issues surrounding the quality of life indicators of young people are discussed, focusing on the above-mentioned QoL domains (Section 3); and empirical results of the data analysis are presented (Section 4). Section 5 provides our conclusions.

The proposed methodology and indicators are based on the work of Gábos and Kopasz (2014, 2015) and Schäffer et al. (2015), elaborated within the framework of the InGRID (Integrating Expertise in Inclusive Growth) project. The data analysis is based on the Integrated Poverty and Living Conditions Indicator System, hereafter referred to as IPOLIS.

2. Literature review

This section reviews what has been done so far to monitor the quality of life and well-being of young people. It also provides a short overview of what we know of the quality of life of young Europeans according to indicators of non-material domains. A detailed review of the literature in these domains would go well beyond the scope of this research note. Our aim, therefore, is not to provide a comprehensive literature review on the quality of life of young people and on the main determinants, but to summarise the main initiatives in monitoring this field and to create an inventory of reports that provide either a comprehensive overview of the situation of young people or a domain-specific picture.

2.1 Prior initiatives to monitor the quality of life of young people

Gábos and Kopasz (2014) reviewed the most relevant prior initiatives (at national, EU and international level) measuring the well-being of young people. They pointed to the following limitations relating to the monitoring process:

- compared to the field of child well-being (see Gábos and Kopasz 2015 for a comprehensive overview), there are only a few international and national initiatives that focus on the age groups covering young people;
- only scant attention has so far been paid to young people in the Social Open Method of Coordination (OMC): unlike the situation for older people and children, breakdowns by age for young people are not provided, except for certain youth-specific indicators – e.g. those young people not in education, employment or training).

Gábos and Kopasz (2014) highlighted the following positive achievements too:

- a joint report by the Council of the European Union and the EU Commission was published in 2012 – the EU Youth Report;
- as part of the EU Youth Strategy, an EU dashboard of youth indicators was developed by an expert group (however, this indicator set was found to be strongly data driven and theoretically less supported).

Schäffer et al. (2015: 11) summarise the most important initiatives aimed at monitoring the quality of life of young people in a cross-country comparative way and conclude that 'little effort has been made' up to now. Table 1 summarises the three sets of indicators, as well as their shortcomings.

As Table 1 indicates, the main shortcoming of the above-mentioned initiatives is that they are not even disaggregated by the basic socio-demographic characteristics, although young people represent a heterogeneous group in many respects. According to Schäffer et al. (2015), ongoing and recently launched projects on young people, focusing on marginalised groups and social inclusion (and financed by the Socio-economic Sciences and Humanities programme of the EU's seventh framework programme for research), suggest that statistical visibility can be assured through a set of EU-wide indicators, complemented by qualitative data and knowledge building.

In a major policy step to combat high youth unemployment, on 22 April 2013 EU Member States committed themselves to implementing the Youth Guarantee (see Council Recommendation 2013/C 120/01). According to this initiative, Member States need to ensure that, within a period of 4 months of becoming unemployed or leaving formal education, all young people under 25 receive:

- a good-quality offer of employment;
- continued education;
- an apprenticeship; or
- a traineeship.

The initiative requires strong cooperation between stakeholders (public authorities, employment services, career guidance providers, education and training institutions,

youth support services, business, employers, trade unions, etc.). In terms of finance, the EU tops up national budgets through the European Social Fund and the Youth Unemployment Initiative (YEI). As well as improving young people's chances of a better start in the labour market (which in itself is beneficial from a long-term career perspective), participation in schemes under the Youth Guarantee (which supports the integration of young people into the labour market) can also contribute to the social inclusion of young people in other domains (e.g. health status, health and risk behaviour, social participation, etc.).

Table 1 Summary of main international initiatives to monitor the quality of life of young people

Name	Source	Covered time period	Main focus	Shortcomings
EU *Dashboard of Youth Indicators*	EU Youth Strategy 2010–2018	up until 2011	Social inclusion and participation	Contains data gaps in core youth policy areas (e.g. youth participation, volunteering, creativity)
OECD *Scoreboard for Youth*	OECD	2001, 2011	Labour market attachment and education for all OECD member states	Very limited number of indicators and only available for the age group 15–24 and only for the years 2001 and 2011
Indicators for the World Programme of Action for Youth	United Nations	2012	Wider and more in-depth dimensions of poverty and social inclusion (poverty, hunger, health, drug abuse, juvenile delinquency, etc.)	Measures have not yet been transferred into publicly available indicators

Source: Schäffer et al. (2015).

2.2 Young people's quality of life – a short overview of monitoring reports

The *EU Youth Report* (European Commission 2012) was the first monitoring report under the EU Youth Strategy. It was followed by a second report (European Commission 2015). The aim of having regular, three-yearly reports is twofold: to evaluate progress and to serve as a basis for establishing a set of priorities for the coming work cycle. The youth reports consist of the joint report by the Council and the Commission on implementation of the renewed framework for European cooperation on young people, and two accompanying Commission staff working documents. One deals with the actions taken under the renewed framework; the other – drawing on the EU Dashboard of Youth Indicators (European Commission 2011) – reviews the status and situation of young people in the EU (European Commission 2012, 2015). In general, the youth reports provide a comprehensive overview of what has been done in this field in terms of both EU-level policy making and monitoring.

The youth reports present the situation of young people in Europe across nine domains: demography, youth employment and entrepreneurship, education and training, social inclusion, health and well-being, youth participation, voluntary activities, culture and creativity, and youth and the world. In total, 41 indicators are used to summarise the situation of young people in these various domains.

The youth reports include indicator totals and breakdowns by sex and age (where relevant), but breakdowns by social status (education, income position, etc.) are less in evidence.

In some cases, the three-year gap in the reports makes it difficult to report on certain indicators from the same data source. This is most acute in the domain of health and risk behaviour, due to the five-year time span of the European Health Interview Survey (EHIS). To bridge the gap, the reports make use of other sources, like OECD data and available national sources.

The main findings of the *Youth Report 2015* are summarised below (European Commission 2015).

Education

- Young people are increasingly highly educated. The share of young Europeans attaining upper secondary qualifications has increased in the period preceding the report: in 2013 in the EU-28, 81.1 per cent of young people aged 20–24 had completed at least upper secondary education.
- A rising proportion of young Europeans is gaining a tertiary degree. On average, over a third of Europeans aged between 30 and 34 hold a tertiary degree. The figure is higher among women than among men.
- On average, in 2014 about 11 per cent of Europeans aged 18–24 left education after completing lower secondary education at most. In the EU, the proportion of early school leavers is declining. In most European countries, fewer people left education prematurely between 2011 and 2014. Again, men perform worse than women.
- While the transition from education to employment continues to take place between 20 and 24 years of age, the share of young Europeans staying in education has increased since 2011. Consequently, a smaller share of those aged 20–24 is entering the labour market without continuing their education.

Health and risk behaviours

- Young people feel healthier than older age groups. The proportion of young people aged 16–24 in the EU-28 who perceive their health to be 'bad' and 'very bad' is 8.4 percentage points lower than for the general population.
- Despite their generally good health, young people are more prone to risk behaviour than older age groups.
- While the proportion of young people smoking daily has been in decline since the early 2000s (though not in all countries), a relatively large percentage still smokes daily. Daily smoking is more prevalent among young men than among young women.
- In almost all countries with available data, more than half of young people reported having drunk alcohol in the past month. As with smoking, drinking alcohol is more widespread among men than women.
- Young people are more likely to use cannabis than older age groups. Again, young men are more prone to substance use than young women.
- Both fertility rates and the percentage of legally induced abortions are decreasing among girls aged 15–19.

Social participation

- Traditional forms of political engagement – such as voting or political party membership – have limited appeal for young citizens. Half of young people in the EU consider elections to be one of the most valuable ways of expressing their political preferences. Only 13 per cent of young people consider joining a political party to be an effective way of channelling their views.

- About 60 per cent of young respondents in the EU as a whole voted in an election between 2011 and 2014. Higher levels of education are associated with higher turnout in elections in general. Voting turnout is higher among males than females, in all types of election.
- Many young people use the Internet and its social media to interact with public authorities and to exchange opinions on political issues. In 2014, about 50 per cent of young Europeans used the Internet to contact or interact with public authorities, while 18 per cent exchanged political opinions through messages and posts on websites.
- Around one young European in four engages in voluntary activities. The younger groups of young people tend to be more active in this respect.

Another comprehensive, cross-European comparative monitoring report on the social situation of young people in Europe was prepared by Eurofound (Eurofound 2014). The policy brief highlights youth-specific findings from the European Quality of Life Survey (EQLS) in the domains of family and living arrangements, employment, family and social life, social exclusion, mental well-being, participation in society, political activities and trust in political institutions, interpersonal trust and social tensions, and optimism about the future. In particular, the policy brief emphasises the differentials between those still living in the parental home and those who have already left, as well as social participation. It compares the quality of life of European young people in 2007 and 2011. In the non-material domains of quality of life, the policy brief concludes (Eurofound 2014: 5):

- In 2011, more young people lived with their parents than in 2007; young men are more likely to do so.
- Young people have more face-to-face and phone or email contact with friends and family than do older groups. In addition, young people in all life circumstances are more satisfied with their life in general, their social life and family life than are people in older age groups.
- Unemployed and inactive young people are more likely than others to feel socially excluded, to feel lonely, to face a lack of social support, and to have lower levels of mental well-being.
- Young people are less likely to trust institutions in 2014 than earlier (in 2007).

3. Data and methods

In this section, after a brief introduction on conceptual and methodological issues related to young people, we present the underlying data infrastructure in more detail, as well as the main problems related to it.

The main part of the present analysis is undertaken using the IPOLIS indicator database. IPOLIS (an outcome of the InGRID project) is a platform to improve infrastructure for monitoring, analysing and evaluating the situation of the most vulnerable groups in Europe. The indicator database contains measures of quality of life for three vulnerable groups in European societies: children (0–17 years), young people (15–29) and older people (65+). The multidimensional approach applied in IPOLIS covers six domains of quality of life: material well-being, employment, education, health and risk behaviour, family relationships and social connectedness, and environmental quality and physical safety (Gábos and Kopasz 2014). IPOLIS is presented in more detail in the Annex to this research note.

3.1. Conceptual issues on the quality of life of young people

There is no generally accepted age definition of young people, as the notion is socially constructed, rather than biologically determined. The nature of 'youth' varies according to economic and socio-cultural factors (Williamson 2002). Due to its vague definition, different EU initiatives operate with various official definitions of 'being young': e.g. while the *Youth in Action Programme 2010–2013* targets young people aged 13–30

(European Commission 2006: 9), the *New Impetus for European Youth* defines youth as 'the period from 15 to 25 years of age' (European Commission 2001: 6). Different EU surveys also use different age bands to define young people, and the definition may vary across Member States, especially as Member States do not all have the same upper limit for compulsory school attendance.

This research note, following the IPOLIS Youth Module, uses a rather broad definition, focusing on the 15–29 age range; it distinguishes the life phases and corresponding transition issues within various age bands, as summarised in Table 2.

As the group of young people is very heterogeneous, not all indicators are appropriate for each age group (e.g. home ownership or voting turnout are not appropriate for the young population under 18 years). Therefore, in the IPOLIS Youth Module, the breakdowns by age group sometimes differ, and they are defined either by the requirements of the specific indicator or by the constraints imposed by the variable structures of the data sources used.

Table 2 Age bands, transition phases and transition issues among young people addressed in IPOLIS

Growth phase	Early adolescence: 15/16–19 years	Adolescence: 20–24 years 18–24 years	Late adolescence: 25–29 years
Transition issues	Early prevention of social risks	- Life management - Labour market integration - Risk prevention, harm reduction	- Independence - Facility formation - Labour market stabilisation

Source: Schäffer et al. (2015: 32), based on Siurala (2006: 10).

Box 1 Definition of young people

In our analysis, we use a flexible definition of young people, depending on the data source applied, as listed below.

- European Union Statistics on Income and Living Conditions (EU-SILC): 16–29
- EHIS: either 15–29 or 15–34, depending on the specific indicator
- EQLS: 18–34
- European Social Survey (ESS): 18–29.

3.2. Indicators

Table 3 summarises indicators by domain and component used in this research note, to describe young people's QoL in Europe. Since inequalities in outcomes are of major interest, Table 3 also lists the variables used as breakdowns.

Table 3 Non-material QoL indicators and breakdowns used in this research note by domain and component

Domain	Component	Indicator	Breakdown
Education and training	*Access to and quality of education*	Highest education attainment level: tertiary education (levels 5–8)	age, sex
		Non-formal education and training	sex
	Educational achievement	No longer in education and training	sex
Health and risk behaviour	*Health status*	Self-perceived health	sex, income position
		Longstanding illness or health problem	sex, income position
	Health behaviour	Physical activity	sex, income position
		Obesity	sex, income position
	Risk behaviour	Daily smoking	sex, income position
		Hazardous alcohol consumption	sex, income position
Social connectedness and civic participation	*Family and peer relationships*	Contact with parents	sex, income position
	Civic participation	Occasionally unpaid voluntary work	sex, parental education
		Non-voting rate	sex, income position
		Trade union membership	sex, parental education

Note. Income position is measured by either income quintiles or quartiles and is based on the yearly equivalent income of the household.

3.3. Methods

This research note will use mainly descriptive outcome statistics. Inequalities in outcomes by main individual and household characteristics will be measured, where available and where they are suitable for producing robust estimates.

We present our results based on an analysis of cross-country differences in outcomes and by main socio-demographic variables: age, sex, either own or parental education, income position (either quartiles or quintiles of household income calculated from EHIS 2008, ESS 2012 and EQLS 2012 data). In order to achieve this, we developed indices that present inequalities in outcome by income situation in the following way: for those indicators where the lower values mean a lower level of health status or social connectedness, we divided the bottom quintile by the top quintile or the lowest level of educational attainment (ISCED 0–2) by the highest level (ISCED 5–6); for those indicators where positive values are associated with higher levels of health status, health behaviours, or lower levels of health-related risk or social connectedness, the reverse procedure was carried out (the numerator is the top quintile and the denominator is the bottom quintile). In this way, inequalities by income level are measured in the same direction: the higher the value of the index, the higher is the level of inequality in the given outcome by educational status or income position. Value 1 of the index means 'perfect equality' in outcomes by income position (see Table 5 and Table 7 for further details).

Box 2 Measuring inequalities in outcomes

In our analysis, we use two different measures to assess inequalities in different outcomes of young people.

1. The *difference* in the share of young people affected by an outcome. This measure is used to assess differences by sex, and in all cases is measured as the difference between the value of the indicator calculated/estimated for men and the value of the indicator calculated/estimated for women.
2. The *risk* of a specific outcome by a selected individual- or household-level characteristic (e.g. income or level of education attained, depending on the information available in the data source used to provide the given indicator). For example, the inequality by income level of being in 'very bad' or 'bad' self-reported health is calculated as follows:

   Inequality in bad health by income level = Share of young people reporting bad health with income in bottom quintile/Share of young people reporting bad health with income in top quintile

   When the value of this indicator is equal to 1, there is no difference in outcome between low- and high-income young people. If its value exceeds 1, then the higher the value, the greater the level of inequality in bad health between low-income and high-income young people. Values below 1 indicate that high-income people are more strongly affected by bad health in that given country than are their low-income counterparts. The same applies for all other outcomes and breakdowns.

3.4. The underlying data infrastructure and its limitations

The present research note, following the IPOLIS Youth Module, mainly relies on the European Statistical System. The main data sources used for IPOLIS were: the European Union Labour Force Survey (EU-LFS), the European Union Statistics on Income and Living Conditions (EU-SILC), the UNESCO/OECD/Eurostat (UOE) data collected on education, and the European Health Interview Survey (EHIS). In addition, data from the European Social Survey (ESS), the World Development Indicators (WDI – The World Bank), the Community Survey on information and communication technology (ICT) usage, and the European Quality of Life Survey (EQLS) were also included. Table 4 summarises the main characteristics of those datasets that are relevant from the point of view of this research note.

The data infrastructure available to produce statistically robust indicators of young people's quality of life in a multidimensional approach suffers from several shortcomings that are specific to this field.

- Unlike the situation for children, there are no specific cross-country comparative surveys conducted among young people. Even those surveys of the adolescent population that exist – such as the Programme for International Student Assessment (PISA), the European School Survey Project on Alcohol and Other Drugs (ESPAD) and the Health Behaviour in School-aged Children (HBSC) – restrict their investigations to a specific age group (15–16 years), which is at the bottom of the age range that defines young people.
- Instead, young people form part of adult surveys, which are numerous even within the European Statistical System. Consequently, there is a large set of quality of life indicators available for young people. However, in many domains, there is limited availability of indicators that are suitable not only to show national averages in outcomes, but also to produce socio-demographic inequalities in these outcomes (for further details see Tables 5 and 6 below).

- Young people are usually underrepresented in surveys, since they are less accessible to interviewers than are the elderly, for example. Weighting procedures may remedy this problem if the number of cases in the sample is large enough; but this cannot solve the problem of statistical robustness, since for this purpose unweighted case numbers should be considered.

Table 4 Country and time coverage of various surveys relevant to this research note

Survey	Country coverage	Covered time period	Missing countries by year
EU-SILC (European Union Statistics on Income and Living Conditions)	EU-28	2004–2014/2015*	BG, RO: 2004–2005; CZ, DE, CY, LV, LT, HU, MT, NL, PL, SI, SK, UK: 2005; HR: 2004–2009
EHIS (European Health Interview Survey)	12 EU Member States	2008	BE, DK, DE, EE, IE, HR, IT, LT, LU, NL, PT, FI, SE, UK: 2008
ESS (European Social Survey)	25 EU Member States	2004, 2006, 2008, 2010, 2012	EL, LV, MT, RO, UK: completely missing; BG: 2004; CZ: 2006; HR: 2004, 2006; IT: 2006, 2008, 2010; LT: 2004, 2006, 2008; LU: 2006, 2008, 2010, 2012; AT: 2008, 2010, 2012
EQLS (European Quality of Life Survey)	EU-28	2011	There are no missing countries

Source: own computation.

Table 5 provides a meta-overview of the statistical robustness of health and risk behaviour domain indicators by presenting information for countries where sub-group marginals exceed 50 cases.[2] Sub-group marginals should be understood here as the number of observations in a sub-group, defined by specific breakdowns – for example, young males aged 15–34 in the case of physical activity (the third row of Table 5).

According to the criteria set for this paper, when inequality indicators are computed, for example as risks, the number of observations in both categories should exceed 50.

The EHIS sub-samples of young people aged 15–34 vary from 433 (the Czech Republic) to 8,537 (Poland) (the second-largest sub-sample is in France – 3,483). These figures are suitable for estimating overall figures among young people, as well as breakdowns by sex, but the number of countries in the analysis declines sharply when other breakdowns are considered. Therefore, a serious limitation of our analysis based on EHIS data is the restricted number of countries for which reliable estimates that meet the above criteria can be provided. Following this rule, the number of countries included in the analysis fell to 7–10 (depending on the specific indicator) from the original 15 countries in which research was conducted.[3] Consequently, there is no room for further analysis (e.g. clustering of countries) based on these indicators of health and risk behaviour.

Furthermore, we should bear in mind that most of the health-related indicators in EHIS are based on self-perception or self-declaration; thus the differences measured cannot

[2] Indicators of the education and training domain in this report come from EU-LFS data, and specifically from the Eurostat database. As such, this report does not discuss statistical robustness issues regarding these indicators.

[3] A detailed analysis of the overall youth sub-samples and further selected (by sex, age, education, income position, etc.) sub-samples has been carried out on the EHIS data. On request, the authors will provide these tables to readers who are interested in this issue.

be decomposed into 'objective' and 'subjective' components of young people's health status.

Table 5 An overview of health and risk behaviour indicators, measures of inequalities in outcomes and country coverage

	Definition	Measures of inequalities in outcomes by income position	Countries in analysis*
Self-perceived health status (EU-SILC)	The share of young people (16–29) who perceives their general health to be bad or very bad, in relation to all young people (16–29)	sex: female/male, income position: top/bottom income quintile	EU-27 (missing: HR)
Longstanding illness or health problem (EU-SILC)	The share of young people (16–29) who declare that they suffer from a longstanding illness (lasting at least 6 months) or health problem, in relation to the total population of the same age	sex: female/male, income position: top/bottom income quintile	EU-28
Physical activity (EHIS)	Share of young people (15–34) engaging in at least 30 min/day physical activity, in relation to the total population of young people (15–34)	sex: female/male, income position: top/bottom income quintile	AT, BG, CY, EL, ES, HU, LV, PL, SK
Obesity (EHIS)	Share of young people (15–29) whose self-reported body mass index (BMI) is greater than 30, in relation to the total population of young people (15–29)	sex: female/male, income position: top/bottom income quintile	AT, BE, BG, CY, EL, ES, HU, LV
Daily smoking (EHIS)	Share of young people (15–29) who smoke cigarettes daily, in relation to the total population of young people (15–29)	sex: female/male, income position: top/bottom income quintile	AT, BE, BG, CY, EL, ES, HU, SK
Hazardous alcohol consumption (EHIS)	Share of young people (15–34) who declare that they have hazardous patterns of alcohol consumption in relation to the total population of young people (15–34)	sex: female/male, income position: top/bottom income quintile	AT, BE, BG, EL, FR, HU, PL
Psychological distress (EHIS)	Score on a scale of 0 to 100, where 100 represents optimal mental health (15–34)	sex: female/male, income position: top/bottom income quintile	AT, BG, CY, EL, ES, HU, MT, PL, SK

Note. *Sub-sample marginals (total country N in given sub-groups) ≥ 50.

Source: own computation.

The situation is even worse when we turn to the domain of social connectedness and civic participation (Table 6). Indicators for this domain are computed on the basis of two major cross-country comparative surveys: the European Social Survey and the European Quality of Life Survey. These surveys are conducted on a smaller sample than the EHIS. For example, the young people's (15–29) sub-sample in the 2012 ESS varies from 196 (Ireland) to 489 (Hungary). The sub-sample for the EQLS 2011 wave for young people aged 15–34 ranged from 110 (Denmark) to 398 (Germany). The problem of small sub-samples is reflected in the sub-group marginals, which form the basis of estimates. Consequently, one limitation of our work is that we have to eliminate from our analysis those countries with extremely small numbers of cases. Therefore, the

number of countries included in the analysis decreases to 4–6, depending on the specific indicator.[4]

Table 6 An overview of social connectedness and participation indicators and of inequalities in outcomes by social status (education and income)

	Definition (short)	Measures of inequalities in outcomes by socio-demographic variables	Countries in analysis*
Contact with parents (EQLS)	Share of young people aged 18–34 who have face-to-face contact with mother or father at least once a week	Bottom/top income quartile	DE, IT, FR, ES, PL, LV
Non-voting rate (ESS)	Share of young people (18–29) declaring that they did not vote in the last election in relation to the total population of young people (18–29)	Low (ISCED 0–2)/high (ISCED 5–6) parental education	DE, IT, FR, ES, PL
Occasionally unpaid voluntary work (EQLS)	Share of young people (15–29) reporting at least occasionally unpaid voluntary work, in relation to the total population of young people (15–29)	Bottom/top income quartile	DE, FR, ES, PL
Trade union membership (ESS)	Share of young people (15–29) who have belonged to a trade union or similar organisation in the past 12 months, in relation to the total population of young people (15–29)	Low (ISCED 0–2)/high (ISCED 5–6) parental education	BE, UK, NL, PL

Note. *Sub-sample marginals (total country N in given sub-groups) ≥ 50.

Source: own computation.

4. Analysis of non-material quality of life dimensions of young people in Europe

This section provides a detailed description of young people's quality of life, along the above-mentioned three non-material domains (education and training, health, social connectedness and participation), based on the indicators suggested by Gábos and Kopasz (2014, 2015) and Schäffer et al. (2015).

4.1 Education and training

The domain *education and training* also relates to the EU Youth Strategy target to support accessibility to education and training at all levels, as well as to provide the opportunity for lifelong learning for young people (European Commission 2011). Both access to education and training and lifelong learning could facilitate the achievement of other economic and non-economic outcomes (OECD 2013: 23, 184f), for example entry into the labour market. Hence, education addresses young people's

[4] A detailed analysis of the overall youth sub-samples and further selected sub-samples (by sex, age, education, income position, etc.) has been carried out on ESS and EQLS datasets. On request, the authors will provide these tables to readers who are interested.

unemployment and reduces the risk of poverty and social exclusion. Under this domain, we analyse four indicators, summarised in Table 7.

Table 7 An overview of education and training indicators and measures of inequalities in outcomes

	Definition	Measures of inequalities in outcomes	Data source
Highest education attainment level: tertiary education (levels 5–8)	The share of young people (aged 15–29) who have successfully completed ISCED level 5–8 of education, in relation to the total population of the same age group who have successfully completed any ISCED education level (%)	sex: female/male	Eurostat (EU-LFS)
Students in tertiary education	The share of students (20–24) enrolled in tertiary education (ISCED 5–8) in the reference year, in relation to all people of the same age group (%)	sex: female/male	UOE
Non-formal education and training	The share of young people (15–29) who participated in non-formal education or training in the 4 weeks before the interview, in relation to the total population of the same age group (%)	sex: female/male	Eurostat (EU-LFS)
No longer in education or training (early school leavers)	The share of young people (18–24) who have finished no more than lower secondary education (ISCED 0, 1, 2 or 3c short) and were not involved in further education or training in the 4 weeks preceding the survey (%)	sex: female/male	Eurostat (EU-LFS)

Source: own computation.

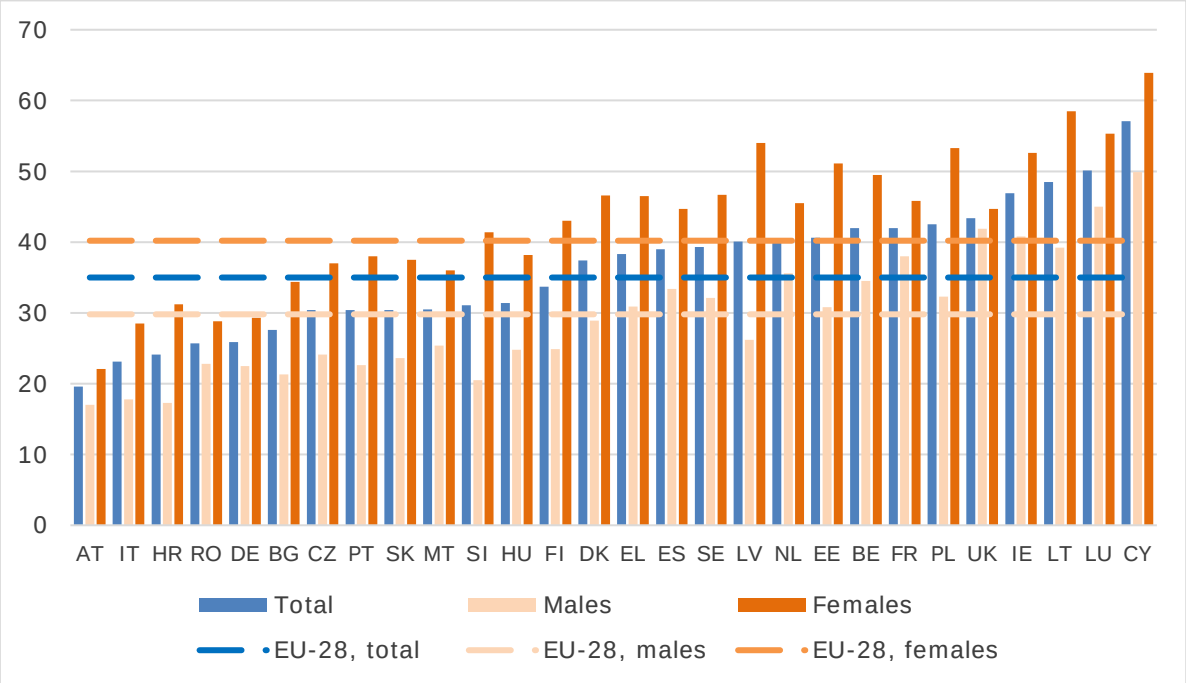
Figure 1 presents differences by sex in the highest education attainment level achieved by 25–29-year-olds in all EU Member States.

To gain a better understanding of cross-country differences, we limit the scope of our analysis specifically to those aged 25–29, since respondents in that age group – at least theoretically – should have completed their graduate courses. In this specific age group, cross-country differences are significant, and the difference between the best and worst performing countries is large: the smallest share of tertiary education attainment was found in Austria (20 per cent) and Italy (23 per cent) and the largest share is in Luxembourg and Cyprus (at least 50 per cent). The overall average for the EU-28 is 35 per cent.

Regarding differences by sex, in all the countries examined the proportion of those with tertiary education is much larger among females (40 per cent) than among males (30 per cent). The most significant differences by sex were found in Latvia, Slovenia and Croatia: in these three countries, at least twice as many women as men have tertiary education. By contrast, only minor differences by sex were found in the UK and France.

Enrolment of young people in tertiary education is defined as the share of young people (aged 20–24) enrolled in tertiary education (ISCED 5–8) in relation to all young people in the same age group.

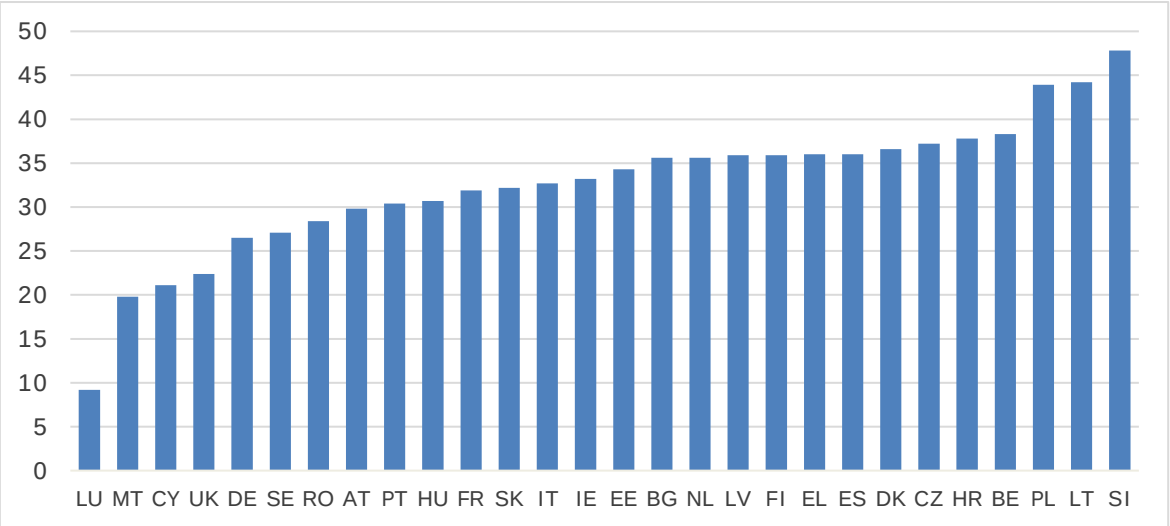
Figure 1 Share of young people (25–29 years) with completed tertiary education (ISCED level 5–8) as highest education attainment level, total (ranking criteria) and by sex, EU Member States, 2012, per cent



Source: EU-LFS, downloaded from IPOLIS database.

Figure 2 summarises cross-country results, with the lowest figure registered in Malta (20 per cent) and the highest in Slovenia, where the proportion of those aged 20–24 and enrolled in tertiary education is very close to half of the total population aged 20–24.[5] Some of these country-specific findings call for a better understanding of the institutional context and of the cross-country comparison of data-collection processes.

Figure 2 Share of young people (aged 20–24) enrolled in tertiary education, EU Member States, 2013, per cent

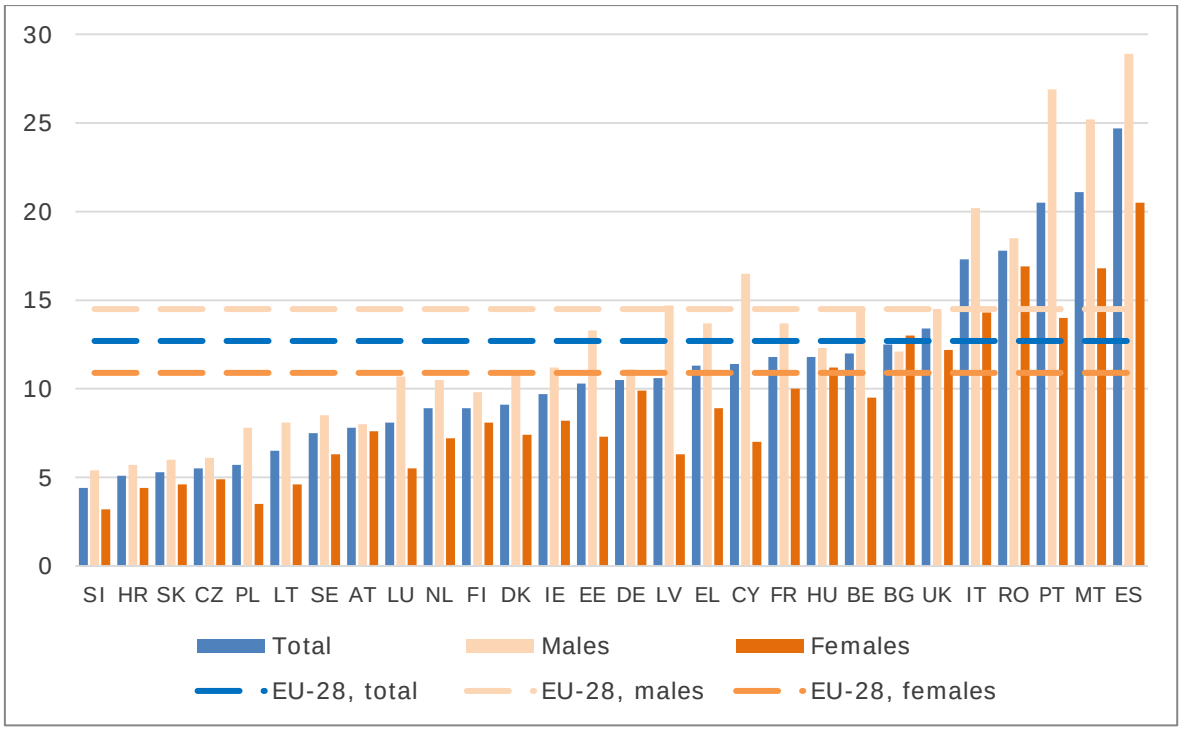


Source: joint UNESCO Institute of Statistics (UIS)/OECD/Eurostat (UOE) database, downloaded from Eurostat webpage on 29/3/2017.

[5] In Luxembourg, the proportion of young people enrolled in tertiary education is extremely low compared to other countries (only 9 per cent), possibly due to the lack of universities inside the country until recent years.

No longer in education or training is defined as the share of young people (aged 18–24) who have finished no more than lower secondary education (ISCED 0, 1, 2 or 3c short) and were not involved in further education or training in the 4 weeks preceding the survey (early school leavers).

Figure 3 The share of young people (18–24 years) who are no longer in education or training, total (ranking criteria) and by sex, EU Member States, 2012, per cent



Source: EU-LFS, downloaded from IPOLIS database.

Country-specific results and differences by sex for early school leavers are summarised in Figure 3. The differences across Member States are rather significant (ranging from 4 per cent to 25 per cent around an EU average of 12.5 per cent), with outstanding values found in three Southern European countries: Portugal, Malta and Spain, where the proportion of early school leavers is at least 20 per cent in the cohort 18–24 years. The lowest levels of early school leaving were found in certain post-socialist countries: Croatia, Slovenia, Slovakia, the Czech Republic and Poland, where the share was around 5 per cent.

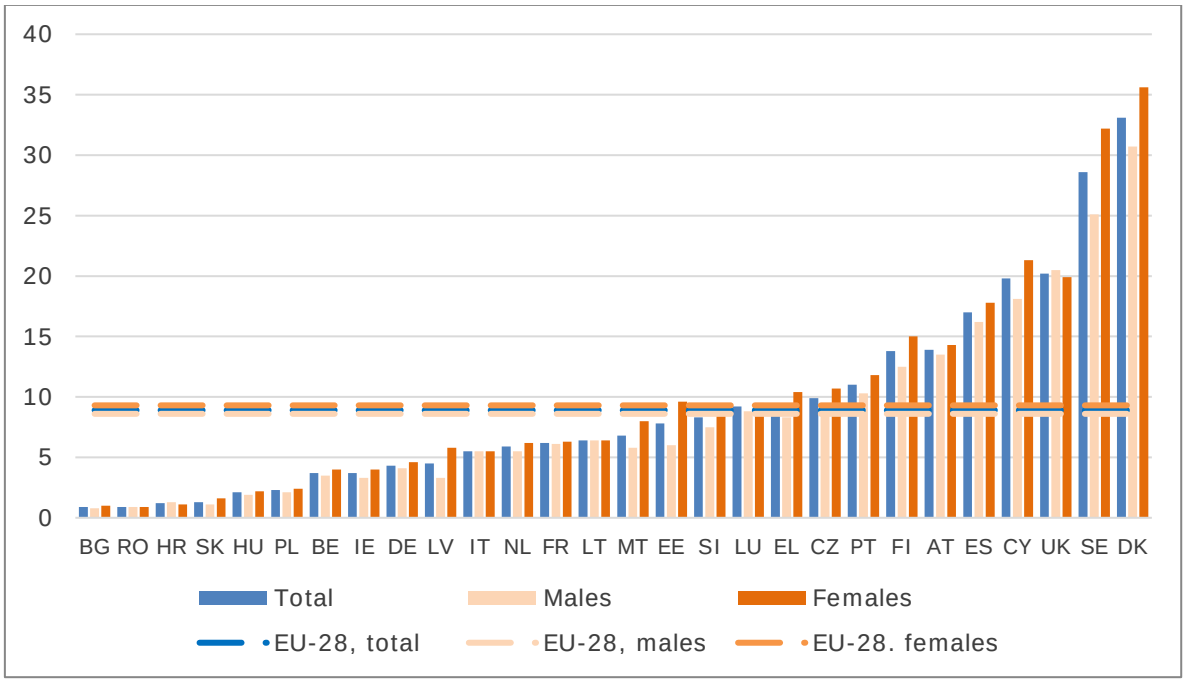
Differences by sex in this respect are in line with the above-mentioned differences: young people no longer in education or training are more likely to be found among males (EU average: 14.5 per cent) than among females (EU average: 10.9 per cent), except for Bulgaria.

The level of non-formal education and training is defined as the share of young people (aged 15–29) who participated in non-formal education or training in the 4 weeks prior to the interview, in relation to the total population of the same age group (Figure 4).

The share of young people (aged 15–29) who participated in non-formal education or training in 2012 varies widely across EU Member States (ranging from 1 per cent to 33 per cent, the EU average being 8.9 per cent). While in most post-socialist countries (e.g. Romania, Bulgaria, Croatia, Slovakia, Hungary, Poland) and in Belgium and Ireland, the share of young people in non-formal education or training is less than 4 per cent, in Cyprus, the UK, Sweden and Denmark this proportion is larger than 20 per cent. Low participation in non-formal education and training in Belgium and Ireland might be related to high enrolment rates in tertiary education, while there might be problems related to institutions and labour market structure in the Central and Eastern European countries. Differences by sex are less notable than on the previous indicators (males:

8.6 per cent vs. females: 9.3 per cent); however, it is in line with the general trend in most of the countries examined: females are more likely to participate in non-formal education and training than are males, except for in the UK, Lithuania and Italy.

Figure 4 The share of young people (aged 15–29) in non-formal education and training, total (ranking criteria) and by sex, EU Member States, 2012, per cent



Source: EU-LFS, downloaded from IPOLIS database.

4.2 Health and risk behaviours

As highlighted by Schäffer et al. (2015), health is not only intrinsically relevant to an individual's quality of life, but also enables an individual's participation in social activities and therefore social inclusion (OECD 2013: 23; European Commission 2012). According to the EU Youth Strategy, the 'The health and well-being of young people should be supported, with a focus on the promotion of mental and sexual health, sport, physical activity and healthy life styles, as well as the prevention and treatment of injury, eating disorders, addictions and substance abuse' (European Commission 2011: 7).

Table 5 provides an overview of this section by presenting information on the definition of the indicators used in the analysis and on the measures used to capture inequalities in outcomes by main socio-demographic characteristics.

Health status

Indicators of health status are often self-reported measures, which are therefore subjective assessments of one's own objective status. Indicators based on this concept can be used to evaluate general health status, health inequalities and health care needs at the population level. At a very general level, however, cross-country comparative results based on subjective/reported indicators are affected by social and cultural factors (OECD 2014), including health awareness, problem-perception thresholds, and culture of open discussion of illnesses.

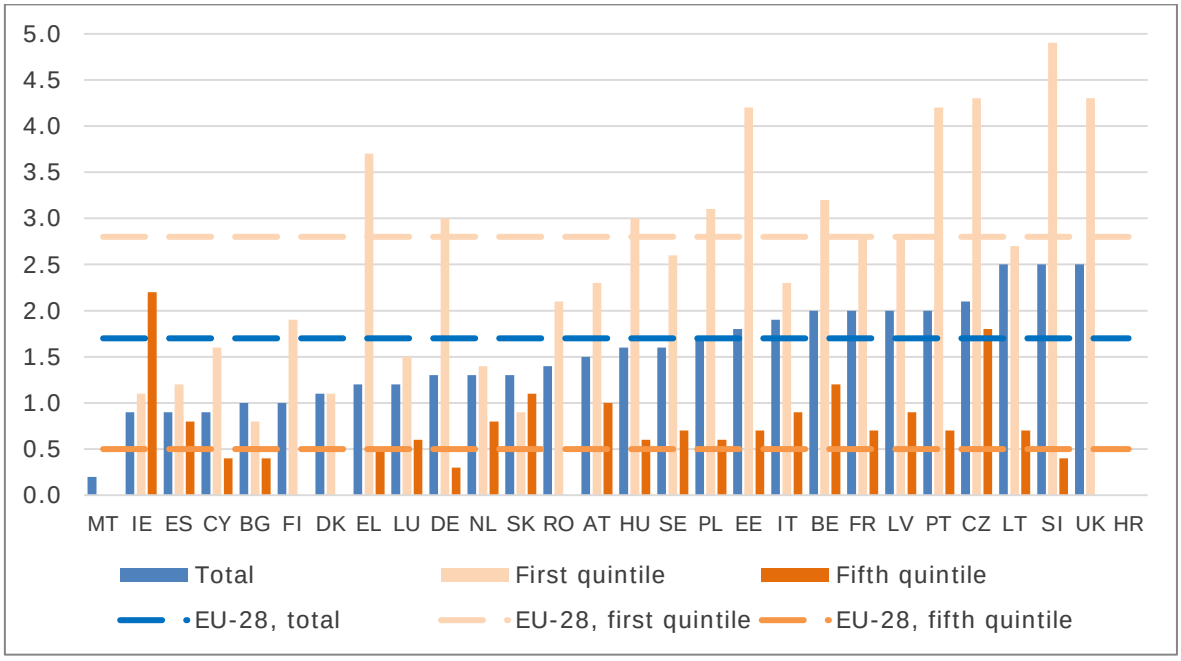
Self-perceived health status looks at how young people (16–29 years) perceive their general health. The concept is operationalised by a question on how a person perceives his/her health in general, using one of the answer categories very good/good/fair/bad/very bad. The results on self-perceived health status across the EU Member States (except for Croatia and Malta), overall and by the top and bottom income quintiles are reported in Figure 5.

The share of those who report their health to be bad or very bad is very low among young people, varying between 0.9 per cent and 2.5 per cent (the EU-28 average being 1.7 per cent): in Ireland, Spain, Cyprus, Bulgaria and Finland no more than 1 per cent of young people perceived their health status to be bad or very bad; in Belgium, France, Latvia, Portugal, the Czech Republic, Lithuania, Slovenia and the UK the figure was at least 2 per cent (but no more than 2.5 per cent).

When looking at differences in self-reported health status by income position, the share of young people who report bad or very bad health and who have income in the bottom quintile is 2.8 per cent, whereas among those with income in the top quintile the figure is 1.5 per cent, indicating that, generally speaking, income level seems to be a crucial factor in the explanation of self-perceived health – and vice versa: poor health status could be an important reason behind lower levels of income.

Regarding cross-country differences by income quintiles, we found large variance in both the lowest and the highest income quintiles. In the overwhelming majority of countries examined, those with income in the bottom quintile are more likely to evaluate their health as worse than average, while those with income in the top quintile tend to evaluate their health as better than average. The largest differences in self-perceived health by income level can be found in Slovenia and Germany: in these countries, those with income in the bottom quintile were at least 10 times more likely to report their health status as 'bad' or 'very bad' than those with income in the top quintile (4.9 per cent vs. 0.4 per cent in Slovenia and 3 per cent vs. 0.3 per cent in Germany, respectively). In Hungary, Poland, Estonia and Portugal, there are also relatively large differences between the bottom and top quintiles: at least five times more people report bad health in the bottom income quintile than in the top quintile. And in Denmark, Finland and Romania, no one in the top quintile assessed his/her health as 'bad' or 'very bad'.

Figure 5 The share of young people (16–29 years) reporting bad or very bad health status, total and by lowest and highest income quintiles, EU Member States, 2012, per cent



Source: EU-SILC, downloaded from IPOLIS database.

Longstanding illness or health problem is defined as the share of young people (16–29 years) who declare that they suffer from a longstanding illness or health problem (of at least 6 months).

Cross-country differences based on reported long-lasting illness or health problems across the EU Member States by top and bottom income quintiles are reported in Figure

6. These cross-country findings, based on EU-SILC data, prove counter-intuitive, displaying a negative correlation with the level of living standards in the Member States. Nevertheless, we present these results below, though we call for caution in interpretation and for further research to explore determinants of cross-country differences other than socio-economic.

Overall, we found a much broader range than for the indicator of self-perceived health status. The share of those who reported longstanding illness or health problems varied from 2.5 per cent (Romania) to 22.9 per cent (Finland) in 2012 (EU-28 average was 11.3 per cent). We found that the proportion of people suffering from longstanding illness or health problems is lowest in certain Southern and Eastern European countries (less than 4 per cent in Romania, Bulgaria and Greece); while the highest proportions of young people who suffer from longstanding illnesses were found in the Nordic countries: in Sweden and Finland, but also in Estonia, roughly a fifth of young people report that they suffer from a longstanding illness or health problem.

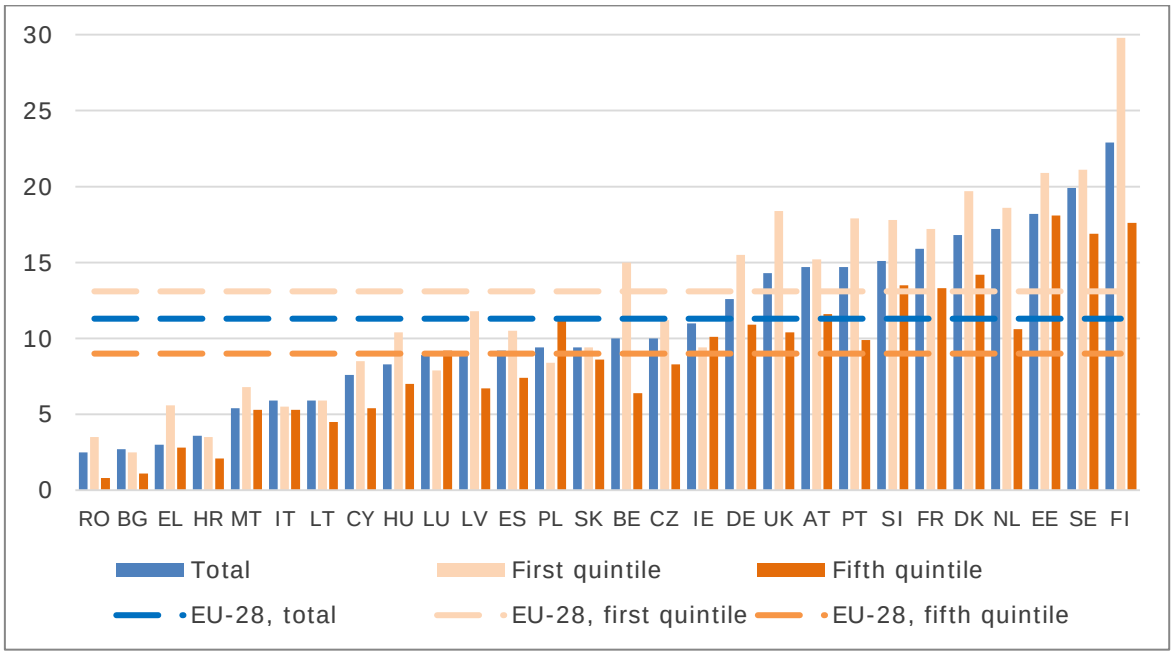
Generally, those with income in the bottom quintile tend to have higher scores for self-perceived longstanding health problems (the EU-28 average being 13.1 per cent); and in line with that, those with income in the top income quintile tend to have lower than average scores for self-perceived long-lasting health problems (the EU-28 average being 9 per cent). The largest differences in self-perceived long-lasting illness and health problems by income level can be found in Belgium (15 per cent vs. 6.4 per cent).[6] Italy, Luxembourg, Slovakia and Ireland seem to be the exceptions, as in those countries young people with income in the bottom quintile were no more likely than average to report having longstanding illness. In Poland, young people with income in the bottom quintile tended to report a lower incidence of longstanding illness than their counterparts with income in the top quintile.

The interpretation of the inconsistencies across countries between indicators of self-reported health and the living standard, needs further research. What can be observed at a very descriptive level, is that the same relationship cannot be observed for all age groups. As presented in Figure 6a below, among older people the above-described relationship strongly differs to what is observed among young people: the share of persons aged 65+ reporting long-standing illness is the lowest in Luxembourg, Denmark, Belgium, Sweden, Italy, and the Netherlands, while the highest in Estonia, Cyprus, Hungary, Latvia and Poland. We need to mention however that here there are some inconsistencies, too: Bulgaria is part of the former group, while Finland of the latter.

Here we only report on these inconsistencies and also to possible methodological problems related to the health module of the EU-SILC. While self-perceived health status and its strong individual level correlation with objective health conditions is well-researched and widely shared by the literature (e.g. De Salvo et al. 2005; Bond et al. 2006; OECD 2014), less is known about the long-standing illness indicator. At a very general level, cross-country comparative results based on subjective/reported indicators are affected by social and cultural factors (OECD 2014). As so, perceptions of long-standing health problems are also rather subjective and the respondents' perceptions may strongly depend both on their personal and country-level health consciousness. On the other hand, certain differences in the diagnostic abilities of the various health systems, also exist. In other words, there are certain health problems which may not be perceived as serious (and not diagnosed) in one country and might be perceived as serious (and diagnosed) in another country. (e.g. allergic type of illnesses, as hay fever might be well-controlled and managed by treatment in a more developed country and might be neglected in a less developed one).

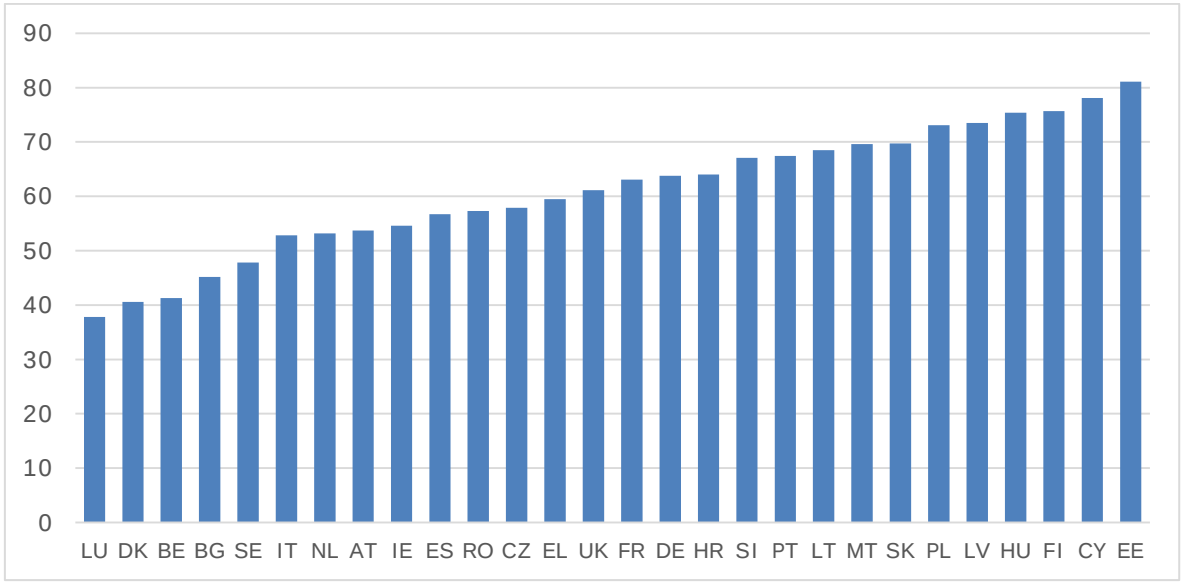
[6] The ratio between the share of those with reported longstanding illness in the bottom quintile and those in the top quintile is also high in Bulgaria, Greece and Romania, but the incidence of the indicator is very low (2.7 per cent, 3 per cent and 2.5 per cent, respectively) in these countries, therefore, estimated ratios might lead to misinterpretation.

Figure 6 The share of young people (16–29 years) reporting longstanding illness or health problems, total and by income quintiles, EU Member States, 2012, per cent



Source: EU-SILC, downloaded from IPOLIS database.

Figure 6a The share of elderly (aged 65+) reporting longstanding illness or health problems, EU Member States, 2012, per cent



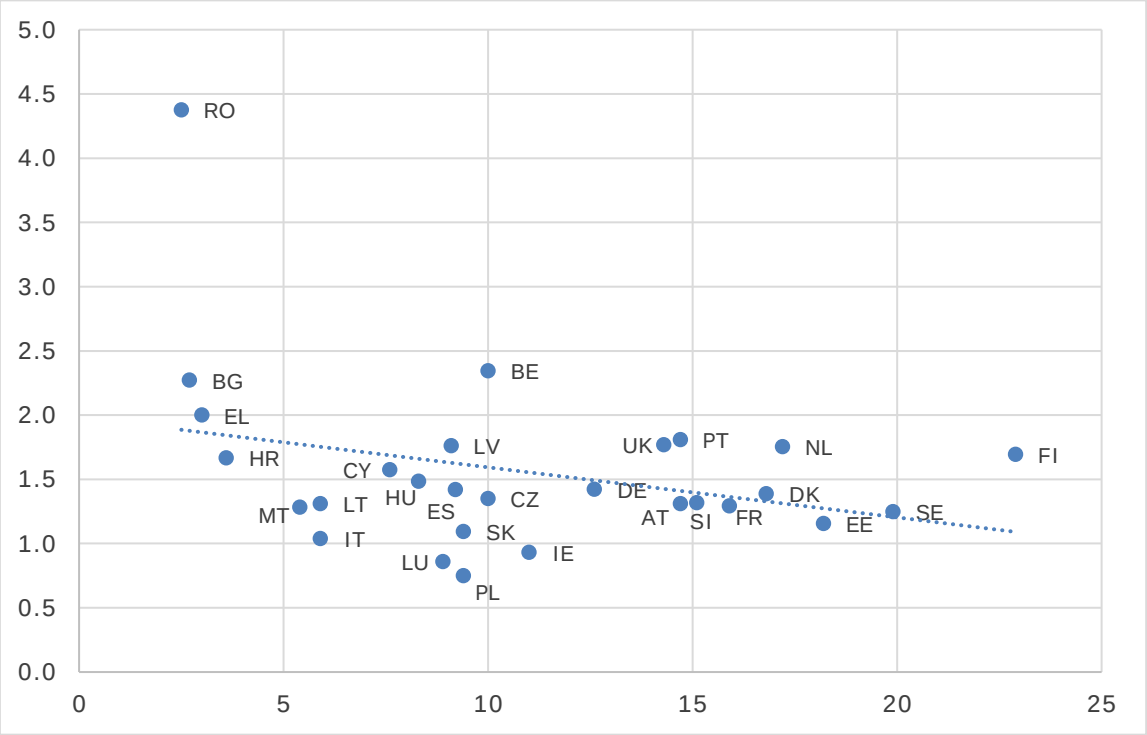
Source: EU-SILC, downloaded from IPOLIS database.

These results are based on EU-SILC data. As Arora et al. (2015) concluded, although the EU-SILC has attracted growing attention from health researchers 'it has a set of weaknesses that needs to be acknowledged and addressed in future research: general data quality, lack of detailed health metrics, linkage between cross-sectional and longitudinal components and representativeness of samples in select countries' (Arora et al. 2015: 452).

As a next step, we plotted the incidence of longstanding illness or health problems among European young people against the level of within-country inequalities in this outcome by income level. To capture the latter, we computed the risk of suffering from

longstanding illness or health problems while having low income (bottom income quintile) compared to having high income (top quintile). Figure 7 shows that there is at best weak[7] negative correlation between the extent of reported long-run health problems and inequality: a given extent of longstanding illness is associated with very different levels of inequality by income status, looking either at the bottom, the middle or the top of the distribution.

Figure 7 The share of young people (16–29 years) reporting longstanding illness or health problem (X axis) plotted against the ratio of the share of young people reporting longstanding illness in the bottom and the top quintile (Y axis), EU Member States, 2012, per cent



Note. The share of those with reported longstanding illness in Bulgaria, Greece, Croatia and Romania is very low (less than 5 per cent), which calls for caution when results in this graph are interpreted.
Source: own calculations based on IPOLIS (EU-SILC data).

Health and risk behaviours

In this section, we analyse the cross-country differences according to the following indicators:

- *physical activity,* defined as the percentage of the youth population aged 15–34, practising at least 30 minutes of physical activity (moderate or intense) per day;
- *obesity,* defined as the share of young people (15–29) who have a self-declared BMI greater than 30, in relation to the total population of young people (15–29);
- *daily smoking*, defined as the share of young people (15–29) who smoke cigarettes daily, in relation to the total population of young people (15–29);
- *hazardous alcohol consumption* (binge drinking), defined as the share of young people (15–34) who admit to hazardous patterns of alcohol consumption, in relation to the total population of young people (15–34);
- *psychological distress*, defined as the country-level average score on a scale of 0 to 100, where 100 represents optimal mental health, among young people (15–34).

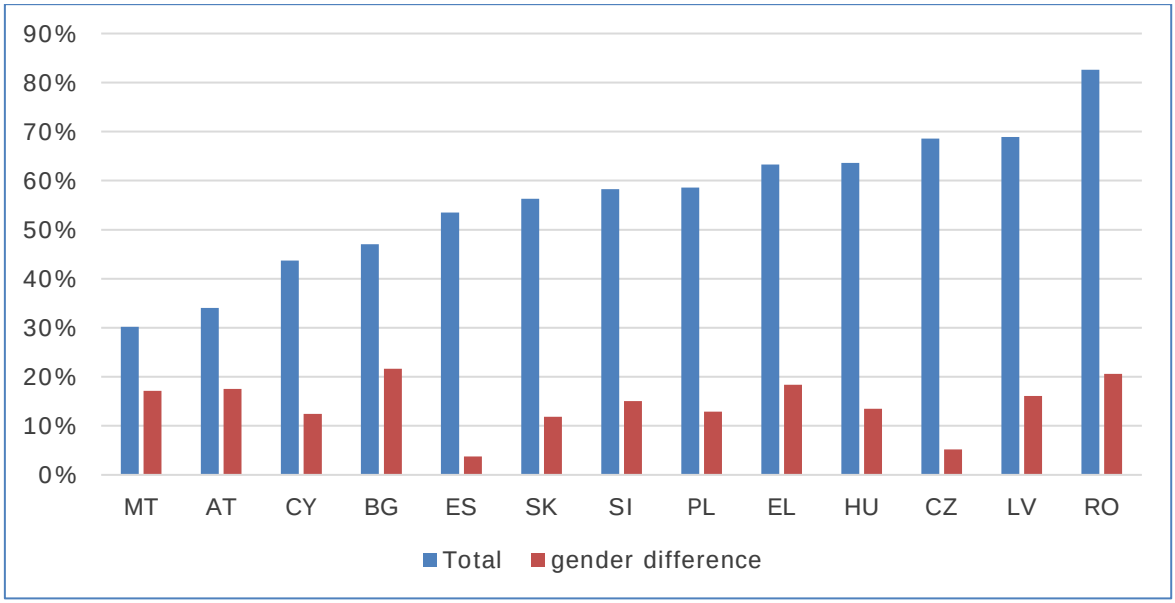
[7] Considering also the outlier position of Romania: dropping it from analysis, would make the displayed trendline even less steep.

Overall results and risks by income position (as a ratio of the lowest to the highest income quintile – or the reverse, where appropriate) are provided (see Box 2 above for further details). Results are based on EHIS data from 2008.[8]

The structure of how we present our results is as follows: first, the country averages are presented for all countries included in the EHIS survey, complete with differences by sex (calculated as the difference in prevalence between male and female respondents); then risks by income level are plotted against the prevalence in the total cohort.

The proportion of young people engaging in at least 30 minutes of physical activity per day varied a lot across the countries examined. Whereas in Malta and Austria around a third of the youth population declared that they spent at least 30 minutes a day doing physical activity, the proportion was more than double that in Greece, Hungary, the Czech Republic, Latvia and Romania. Regarding differences by sex, in all the countries examined men were more likely than women to declare that they had at least 30 minutes of physical activity a day. Only minor differences were found in the Czech Republic and Spain (Figure 8).

Figure 8 Reported physical activity among young people (15–34 years) and differences by sex (difference between the share of males and females, in percentage points), EU Member States, 2008



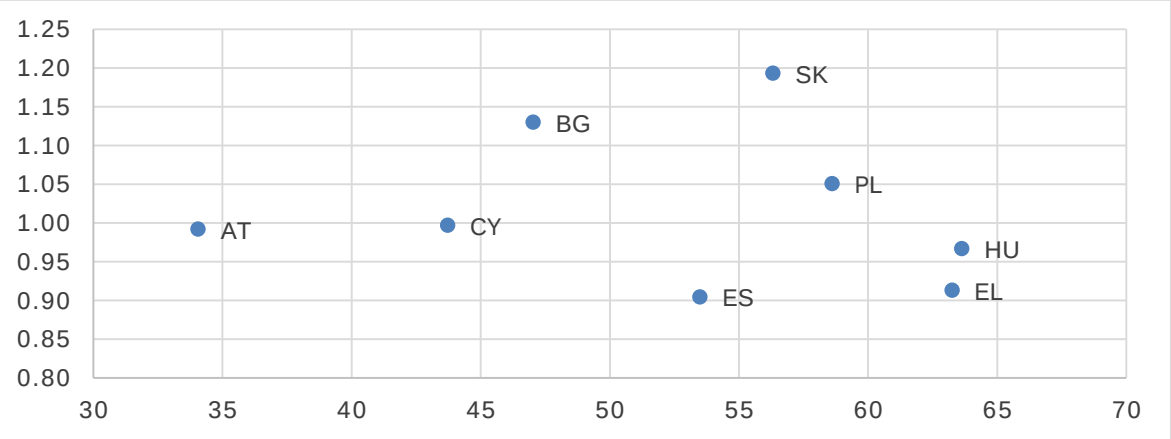
Source: own estimates on EHIS 1st wave data.

As for the relationship between the physical activity of young people and disparities by income level in these outcomes, Figure 9 indicates a weak relationship. The range of the value of the risk measure by income level varies from 0.9 (Estonia) to 1.3 (Latvia), indicating moderate inequalities in physical activity by income status in the European countries examined. Young people with income in the top quintile are more likely to engage in physical activity daily than are their counterparts in the bottom quintile in Latvia, Slovakia and Bulgaria (with values of the risk measure higher than 1.1), while no inequalities by income level were found in the rest of the countries (Figure 9).

[8] The first (pilot) wave of The European Health Interview Survey 1 was conducted between years 2006 and 2009 without any binding Commission regulation, including 17 Member States in total. The surveys are foreseen to be run every 5 years and these waves are already regulated by Commission legislation, covering all Member States. The second wave of the survey was held in 2014. For more information see: http://ec.europa.eu/eurostat/web/microdata/european-health-interview-survey

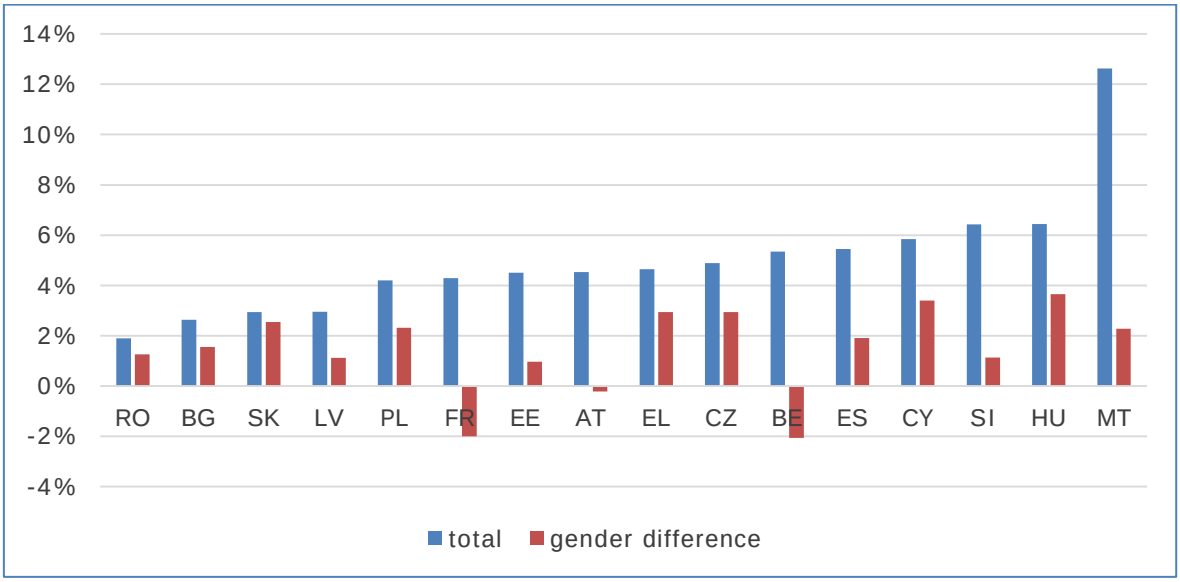
At the preparation of the present research not, the second wave micro dataset of EHIS was not available for researchers.

Figure 9 Reported physical activity among young people (aged 15–34) (X axis) plotted against the ratio of the share of young people engaging in daily physical activity between the top and the bottom quintile (Y axis), EU Member States, 2008



Source: own estimates on EHIS 1st wave data.

Figure 10 The share of self-reported obese young people (15–29 years) and differences by sex (difference between the share of males and females, in percentage points), EU Member States, 2008



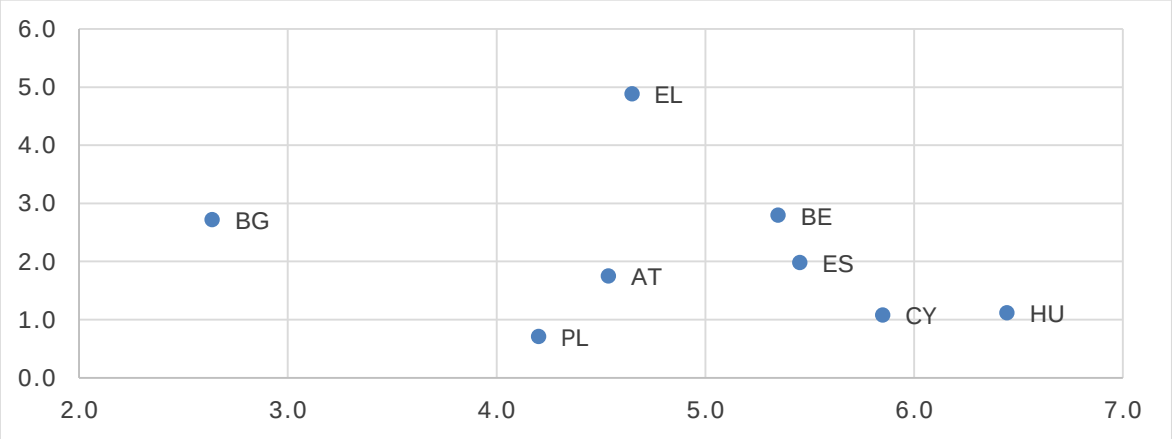
Source: own estimates on EHIS 1st wave data.

The proportion of obese young people based on self-reported BMI varied considerably but stayed below 7 per cent in the countries examined – except for Malta, where the proportion of obese people was at least double that of the other countries. Whereas in Bulgaria, 3 per cent of young people are obese (according to self-reported BMI), this proportion was estimated to be more than 12 per cent in Malta. In the rest of the countries examined, 4–6 per cent of young people are considered obese. As far as differences by sex are concerned, except for Belgium and France, young males are more likely to be obese than are their female counterparts (Figure 10).

The relationship between the obesity rate and the difference in the obesity rate by income status (measured as the ratio of the obesity rate in the top vs. the bottom income quintile) is somewhat negative: higher obesity rates are associated with lower inequalities in obesity by income status. The obesity risk of those in the top income quintile relative to those in the bottom quintile is higher or the same in all the countries for which data are available, except for Poland. This measure varies from 0.7 (in Poland)

to 4.9 (in Greece), indicating serious inequalities by income in certain European countries (in Belgium, Bulgaria and Spain, as well as Poland) (see Figure 11).

Figure 11 The share of self-reported obese young people (15–29 years) (X axis) plotted against the ratio of the share of obese young people in the top quintile and the share of obese young people in the bottom quintile (Y axis), EU Member States, 2008

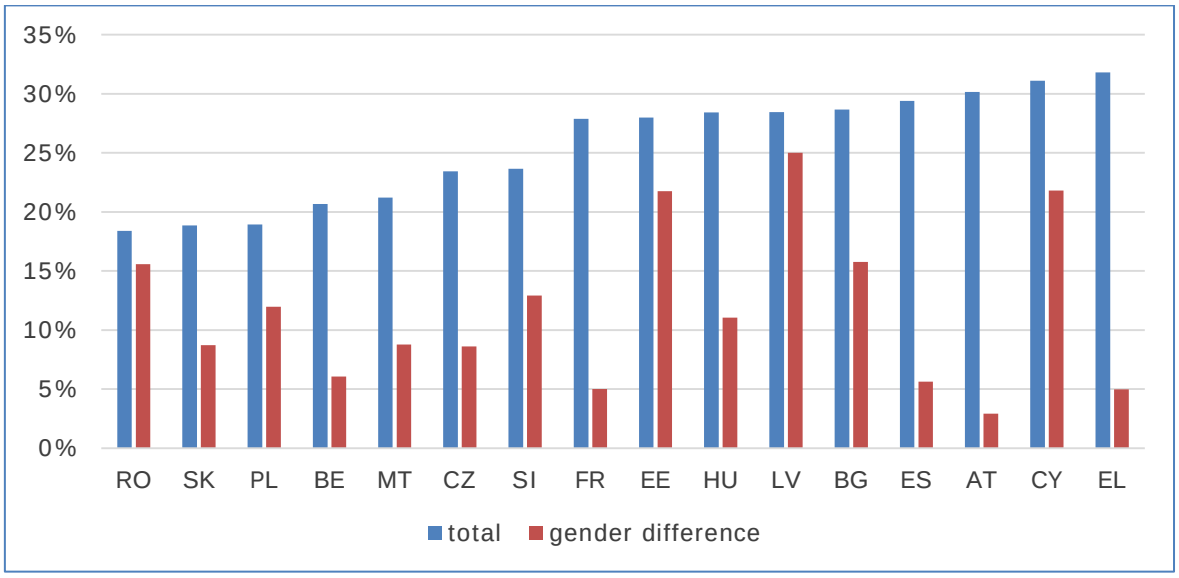


Source: own estimates on EHIS 1st wave data.

The proportion of young daily smokers varied considerably across countries, according to 2008 EHIS data. About a third of young people in Greece, Cyprus and Austria declared themselves to be daily smokers, while less than a fifth of young people did so in Romania, Slovakia and Poland. In the rest of the countries examined, the proportion of young people who smoke regularly was measured at 20–30 per cent. Regarding differences by sex, in all the countries examined, men were more likely than women to declare that they smoked daily. Huge (more than 20 percentage points) differences by sex were found in Estonia, Latvia and Cyprus (Figure 12).

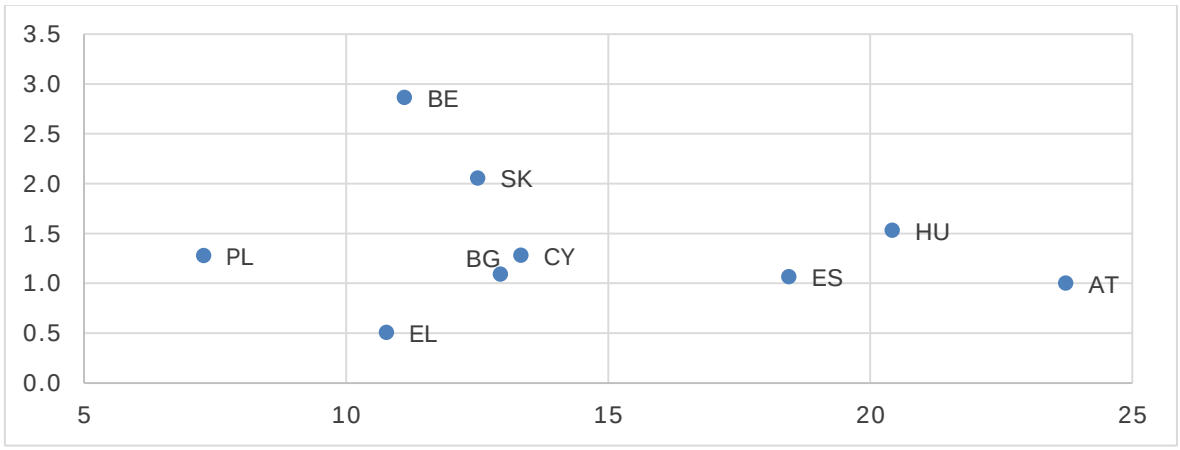
Figure 13 displays the incidence of daily smoking among young people against the inequality in daily smoking by income level, measured as the ratio between the share of daily smokers with income in the top quintile and in the bottom quintile. The range of this measure of inequality varied from 0.5 (in Greece) to 2.9 (in Belgium), indicating significant disparities in smoking habits by income level in certain European countries. Interestingly, whereas in Greece twice as many young people in the top income quintile smoke daily as in the bottom quintile, in Belgium the opposite tendency was found: membership of the bottom income quintile considerably increases the chances of being a daily smoker (the proportion of smokers in the bottom quintile is almost three times that in the top quintile). In the rest of the countries examined, either (as in Belgium) lower income level is associated with a higher proportion of daily smokers (in Slovakia, Hungary, Poland and Cyprus) or else there were practically no differences in smoking by income levels (in Austria, Bulgaria and Spain). An explanation for these results might be found in the different social norms and attitudes towards smoking, while regulation in policies and in taxes related to tobacco goods may also play a role.

Figure 12 The share of young daily smokers (15–29 years) and difference by sex (difference between the share of males and females, in percentage points), EU Member States, 2008



Source: own estimates on EHIS 1st wave data.

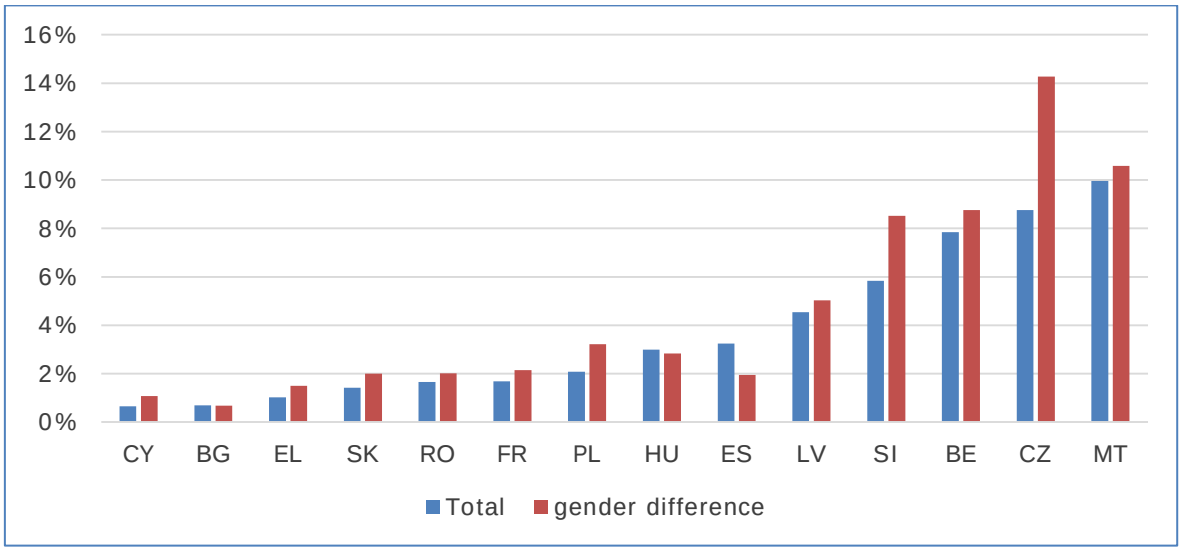
Figure 13 The share of daily smokers among young people (15–29 years) (X axis) plotted against the ratio of the share of daily smokers with income in the top quintile and the bottom quintile (Y axis), EU Member States, 2008



Source: own estimates on EHIS 1st wave data.

The proportion of binge drinkers varied between 3 per cent and 11 per cent in the countries examined. In most Member States, the proportion of young people who admitted to hazardous alcohol consumption patterns was around 3 per cent, according to the 2008 EHIS data. In Malta, 1 young person in 10 admitted to being a binge drinker. In all the countries examined, male respondents admitted to drinking much more than females (Figure 14).

Figure 14 Share of binge drinkers (hazardous alcohol use) among young people (15–34 years) and the difference by sex (difference between the share of males and females, in percentage points), EU Member States, 2008

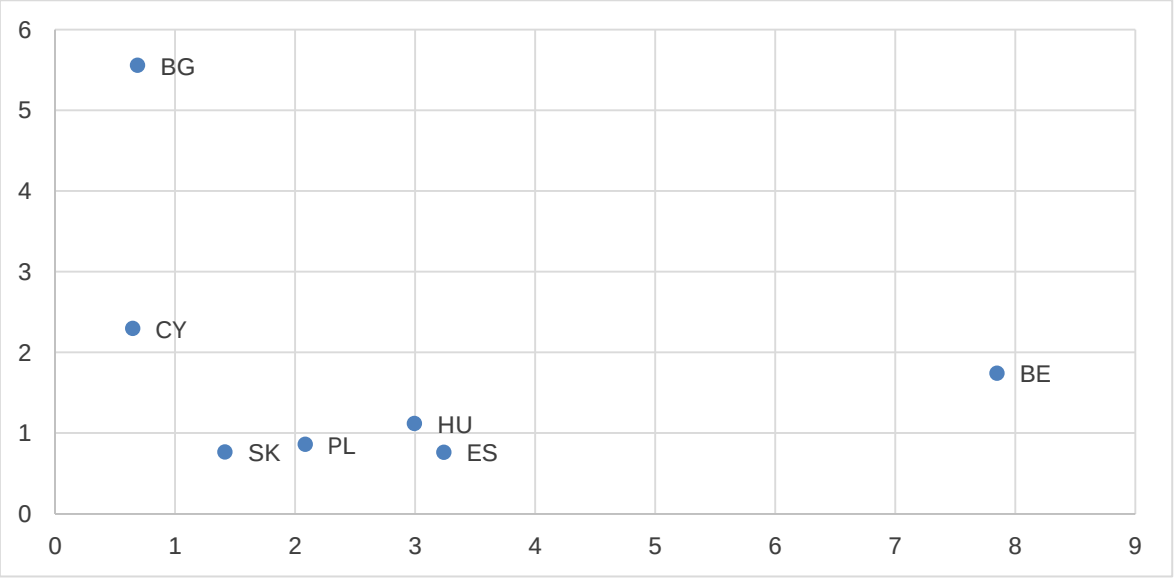


Source: own estimates on EHIS 1st wave data.

Regarding the risk of being a binge drinker in the top income quintile relative to the bottom quintile, the range of this risk varied from 0.8 (in Slovakia) to 5.6 (in Bulgaria), indicating huge differences in the level of inequalities in drinking habits by income level in most of the European countries examined. In Spain, Slovakia and Poland, the higher the household's income level, the greater the probability of hazardous patterns of alcohol consumption; meanwhile the opposite was found in Bulgaria and Cyprus (and to some extent in Belgium). It should be borne in mind, however, that in the case of Bulgaria and Cyprus, these relationships need to be interpreted with caution, due to the extremely low prevalence of hazardous alcohol consumption. In Hungary, there are practically no differences in drinking habits by income level (Figure 15). As with smoking habits, this may be related to differing social norms and attitudes towards drinking, as well as to regulation in terms of policies and taxes.

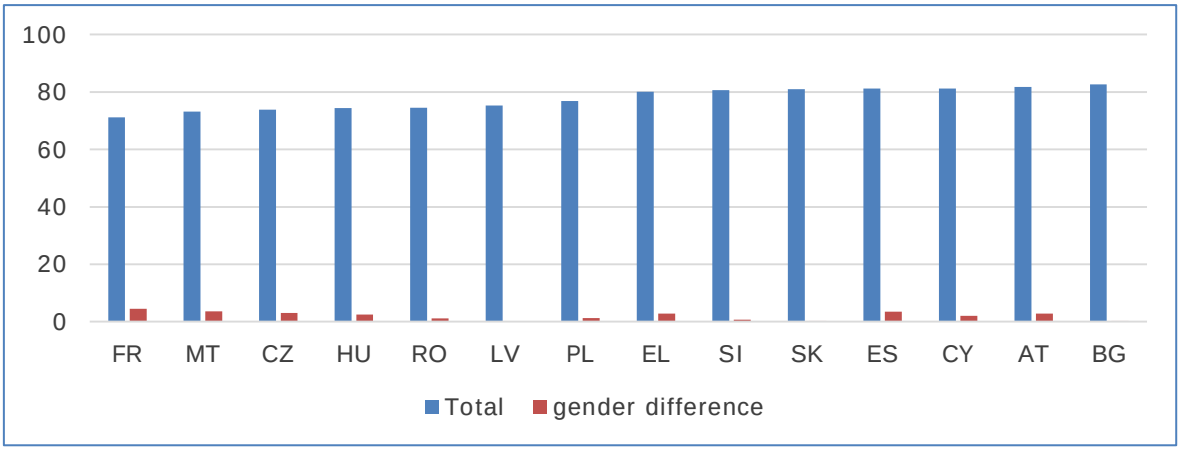
To sum up what we have learned from the country comparisons on obesity, smoking and drinking, on the one hand there are certain countries (Slovakia and Romania) where the prevalence of all the social risk behaviours examined is very low; on the other hand, we did not find any country – of those examined – where all three indicators of risk behaviour were high. While obese young people are most likely to be found in Slovenia, Hungary and Malta, the proportion of young daily smokers is highest in Austria, Cyprus and Greece, and the highest share of binge drinkers is found in Belgium, Malta and the Czech Republic. There are certain countries in between (France, Poland and Latvia) that are characterised by moderate risk behaviour on all three indicators. To conclude, we could not identify a clear pattern of risk behaviours across the European countries examined. It should be mentioned, however, that our analysis was performed at the macro-level, and so correlation between these phenomena should be further examined at the individual level, based on the EHIS dataset.

Figure 15 Share of binge drinkers (hazardous alcohol use) among young people (15–34 years) (X axis) plotted against the ratio of the share of binge drinkers among young people in the top quintile and the share of binge drinkers among young people in the bottom quintile (Y axis), EU Member States, 2008



Source: own estimates on EHIS 1st wave data.

Figure 16 Share of young people (15–29 years) reporting psychological distress and differences by sex (difference between the share of males and females, in percentage points), EU Member States, 2008

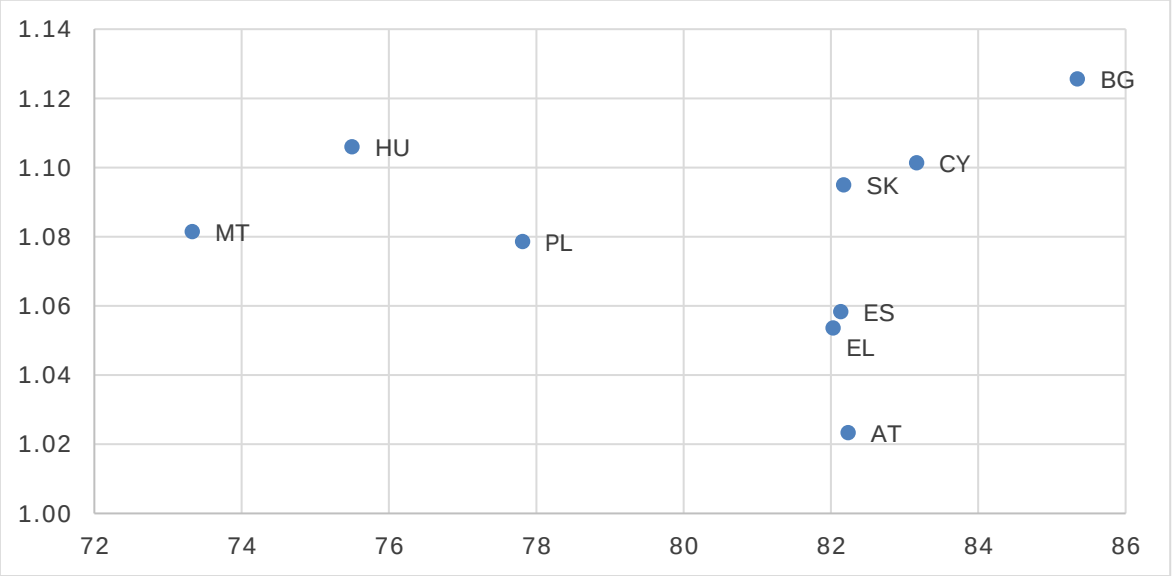


Source: own estimates on EHIS 1st wave data.

The proportion of young people with psychological distress did not display any significant variation in the countries examined; this finding might be related to the nature of the scale used – a scale of 0 to 100 points, where a score of 100 represents optimal mental health. Our estimates varied between France (71) and Bulgaria (85). Only minor differences by sex were found (Figure 16).

As Figure 17 shows, we could find hardly any difference in the mental health status of young people by income level: the indicator varied from 1.02 to 1.13, meaning that higher income levels are positively and slightly correlated with higher levels of mental health.

Figure 17 Share of young people (aged 15–29) reporting psychological distress (X axis) plotted against the ratio between young people reporting psychological distress in the top quintile and in the bottom quintile) (Y axis), EU Member States, 2008



Source: own estimates on EHIS 1st wave data.

4.3 Social connectedness and participation

Social connectedness and civic participation refers to the embeddedness in social networks and social activity of the young population. Social connectedness makes up a considerable part of an individual's quality of life, since each person can draw on his/her network resources to find a job, for instance, or receive support in time of need, or surround himself with companions in periods of distress (OECD 2013: 23, 187f). Moreover, civic participation is a sign of involvement in, and contribution to, political decisions that also influence people's individual lives.

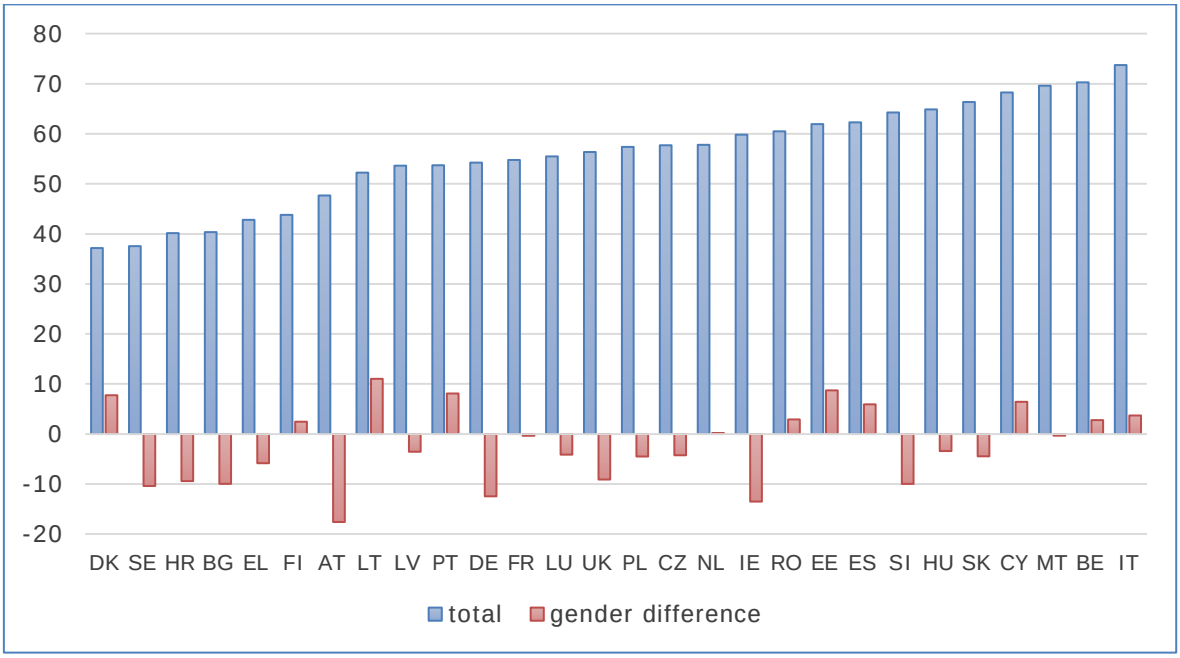
First, we present cross-country disparities, as well as differences by sex in the examined indicators of social connectedness and participation; then we show our results on the inequalities in outcomes: in the case of ESS data by parental educational attainment; for EQLS data by income quartile. For this exercise, we include a restricted number of countries, where sample sizes allow for such analysis.

Main outcomes and differences by sex

Among young people aged 18–34, there was little country variation in terms of contact with parents at least once a week. Figure 18 shows that the share of young people having contact with their parents regularly is smallest in Denmark and Sweden (less than 40 per cent), and largest in Malta, Belgium and Italy (70 per cent or higher). As a general tendency, the Nordic (Denmark, Sweden, Finland) and Baltic countries (Lithuania and Latvia) see small shares of young people having regular contact with their parents, while most of the Southern European countries are at the other end of the scale (Cyprus, Malta and Italy). Continental countries are scattered around the medium values of the scale: in Germany, France, the UK, Ireland, Luxembourg and the Netherlands, roughly 54–58 per cent of the examined cohort had weekly (or even more intensive) contact with their parents. The regular contact rate in the Central and Eastern European countries varied considerably: whereas Croatian and Bulgarian young people tend to have less regular contact with parents (around the same level as their Danish and Swedish counterparts), in Slovenia, Hungary and Slovakia two out of every three respondents meet their parents at least once a week. These cross-country patterns are in line with – and are very likely closely related to – the patterns of staying in the parental home (see Aasve et al. 2006; Gökşen et al. 2016).

Regarding differences by sex, young men tend to meet their parents more often than do young women (the difference being at least 10 per cent in this regard) in Sweden, Croatia, Austria, Bulgaria, Germany, Ireland and Slovenia. At the same time, women are overrepresented among those with regular contact with their parents in Denmark, Lithuania, Portugal and Estonia (Figure 18).

Figure 18 Share of young people (18–34 years) who have face-to-face contact with mother or father at least once a week (%) and differences by sex (difference between the share of young males and young females having face-to-face contact with mother or father at least once a week, in percentage points), EU Member States, 2012



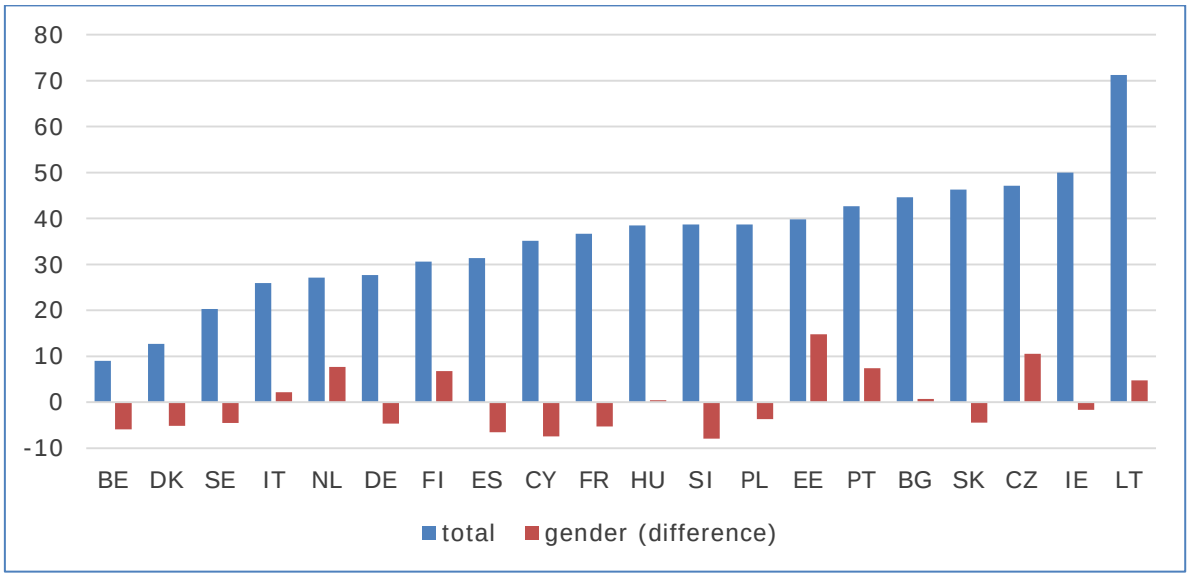
Source: own estimates on EQLS data.

Figure 19 shows that the voting participation rate of young people varies considerably across the countries examined. In Belgium, only 9 per cent of the 18–29 cohort declared that they did not vote in the last election, but the proportion was seven times greater (more than 70 per cent) in Lithuania. Most Central and Eastern European countries and certain Southern European countries and Ireland are characterised by relatively low levels of voting activity.

At least 40 per cent of the young population did not vote in the last election in Estonia, Portugal, Bulgaria, Slovakia, the Czech Republic and Lithuania; meanwhile the highest levels of voting were in certain Nordic countries (Sweden and Denmark) and certain Western European countries (Germany, the Netherlands, Italy and Belgium). In these countries, the level of political participation was over 70 per cent. In Belgium and Italy, the relatively high turnout by young people can be strongly related to the fact that participation in elections is compulsory.

The countries examined did not vary that much in terms of differences by sex. However, in the Czech Republic and Estonia, the voting rate in the last election prior to the survey was 10 percentage points higher among young men than among young women, whereas in Spain, Cyprus and Slovenia the difference was about 7–8 percentage points. In the rest of the countries examined, differences by sex were lower.

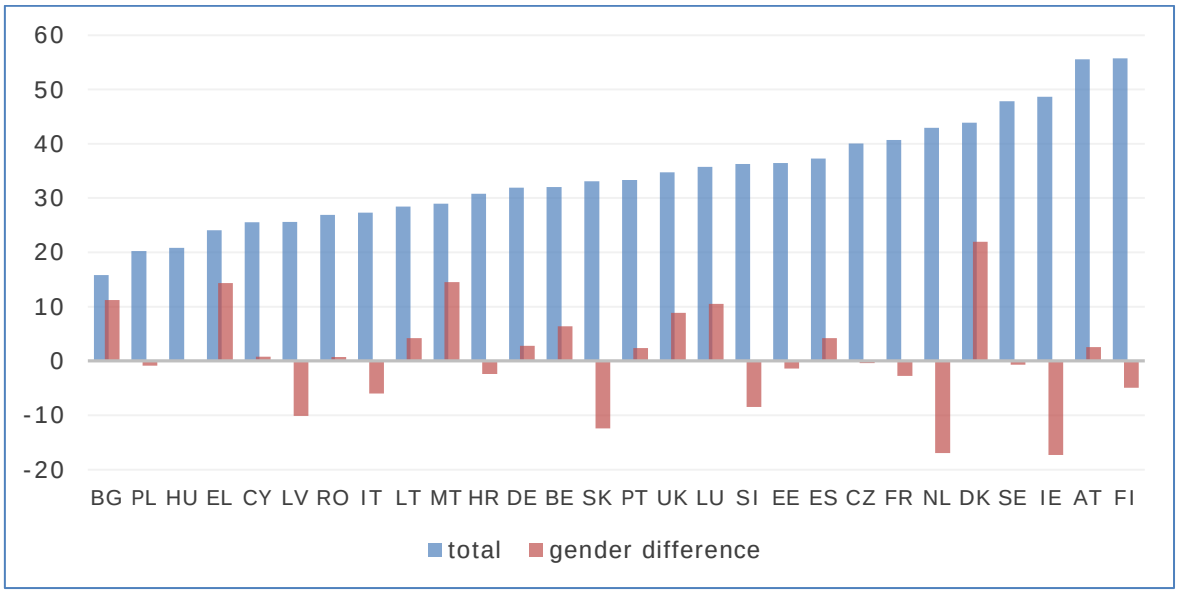
Figure 19 Share of non-voting young people (18–29 years) and differences by sex (difference between the share of non-voting young males and young females, in percentage points), EU Member States, 2012



Source: own estimates on ESS data.

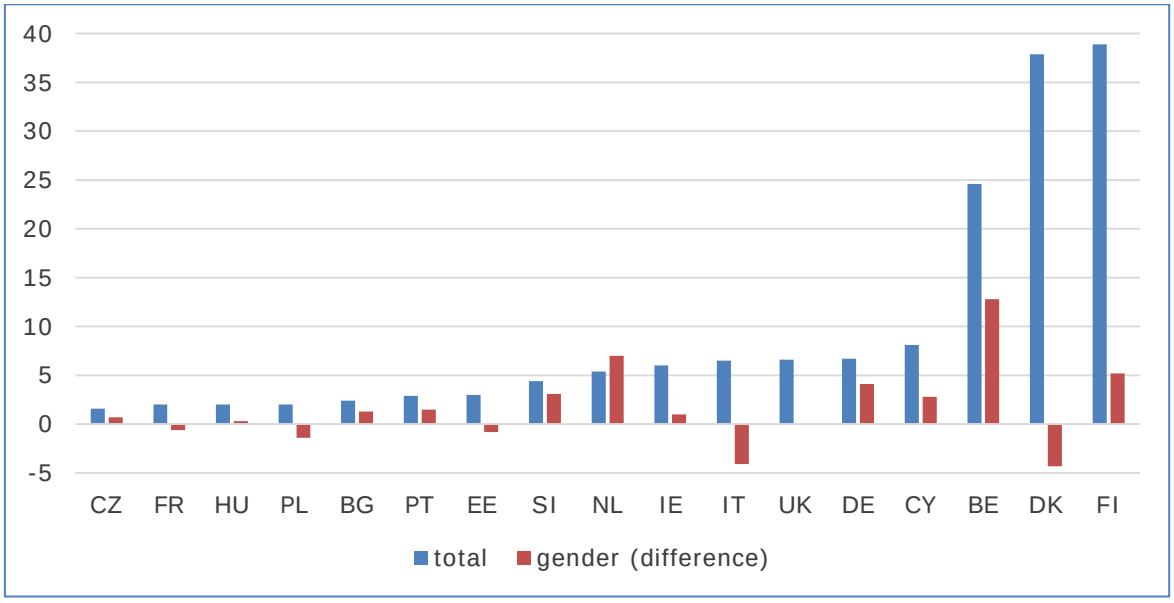
According to Figure 20, participation in voluntary work varies greatly by country. While the share of young people taking up voluntary work at least occasionally is 16 per cent in Bulgaria, the figure is 56 per cent in Finland. While certain Central and Eastern European and Southern European countries showed relatively low levels of voluntary work (less than a quarter of young people worked at least occasionally on a voluntary basis in Bulgaria, Poland, Hungary, Greece, Cyprus, Latvia and Romania), a higher share of voluntary participation was detected in most Nordic countries (Finland, Sweden and Denmark), certain Western European countries (France, the Netherlands, Ireland and Austria) and the Czech Republic. In these countries, two out of five young people did unpaid voluntary work at least occasionally. Differences in the level of social capital may partly explain these patterns of cross-country differences in young people's participation in voluntary work. The countries examined showed great variability in terms of differences by sex. In Bulgaria, Greece, Malta and Denmark, significantly more men than women participated in voluntary work in 2012 (the difference was at least 10 percentage points), whereas in Latvia, Slovakia, the Netherlands and Ireland the opposite was the case. In the rest of the countries examined, differences by sex were less than 10 percentage points.

Figure 20 Share of young people (15–29 years) participating occasionally in unpaid voluntary work and differences by sex (difference between the share of young males and females participating occasionally in unpaid voluntary work, in percentage points), EU Member States, 2012



Source: own estimates on EQLS data.

Figure 21 Trade union membership among young people (15–29 years) and differences by sex (difference between the share of young trade unionist males and females, in percentage points), EU Member States, 2012



Source: own estimates on ESS data.

Trade union membership among young people aged 15–29 varied greatly by country. Figure 21 shows that the lowest level of trade union membership was found in the Czech Republic (less than 2 per cent), while the highest levels were in Denmark and Finland (almost 40 per cent). We found again that Nordic countries (Denmark, Finland) have the highest levels of social participation in this respect, while the Central and Eastern European countries and France have the lowest. In the Czech Republic, France, Hungary and Poland, trade union membership was measured at less than 2 per cent, while in Bulgaria, Estonia, Portugal, and Slovenia it varied between 2 per cent and 5 per cent. The rest of the countries examined (all Western European) ranged from 5 per cent to 25 per cent of trade union membership. However, it should be mentioned here that we only have data for 17 of the 28 Member States.

There are no significant differences between men and women, except for in the Netherlands, Germany, Belgium and Finland (where men are significantly more likely than women to be members of trade unions), and in Italy and Denmark (where more young females join trade unions). These results should be interpreted bearing in mind the broader picture. Although there is considerable cross-country variation, union density has almost universally declined across Europe in recent decades (Scheuer 2011). Moreover, recent research evidence (Vandaele 2018 forthcoming) points out that over the past decade, youth unionisation has either declined or else the gap in unionisation between young people and adults has grown (or both) in most European countries. Therefore, most unions are nowadays struggling to organise new labour market entrants.

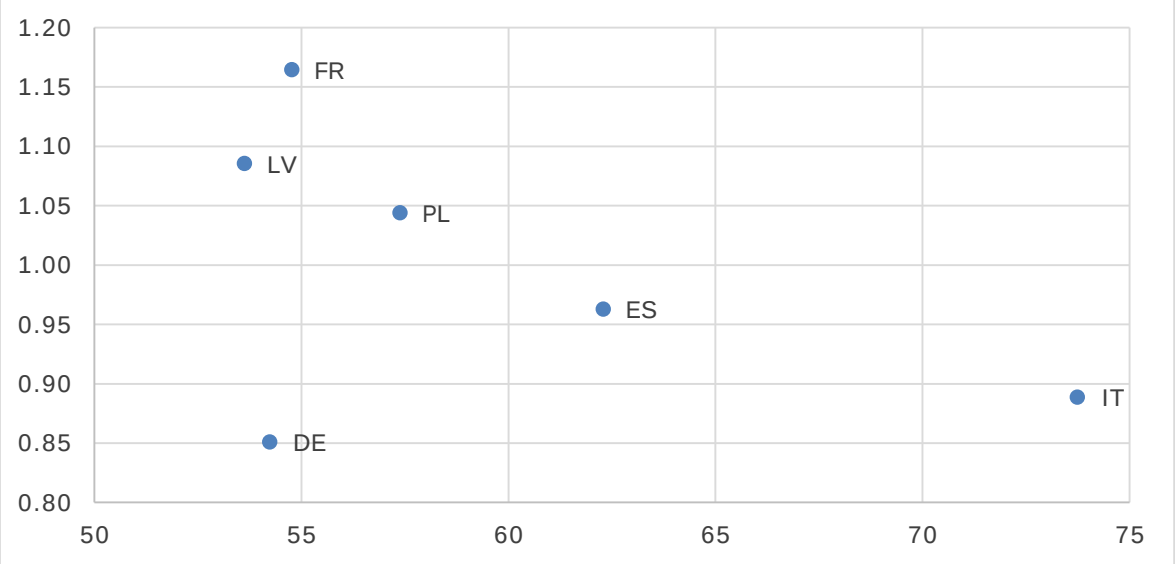
Differences by parental education and income

As highlighted earlier, adult population surveys (EHIS, ESS, EQLS) fail to provide reliable estimates for certain socio-demographic sub-groups of young people in most of the Member States. This shortcoming made it impossible to carry out systematic cross-country comparative analysis of inequalities in outcomes by social status (proxied either by parental education or equivalised household income). In what follows (Figures 22–24), we present our results for those countries where the estimates met the criteria of statistical robustness (number of cases in a certain social group among young people is higher than 50).

There are no major differences by income status in the patterns of young adults having regular contact with their parents. As Figure 22 shows, the figures for the share of young people who have contact their parents regularly and who have an income in the bottom quartile, relative to those with an income in the top quartile, vary from 0.8 to 1.2 in the countries examined.

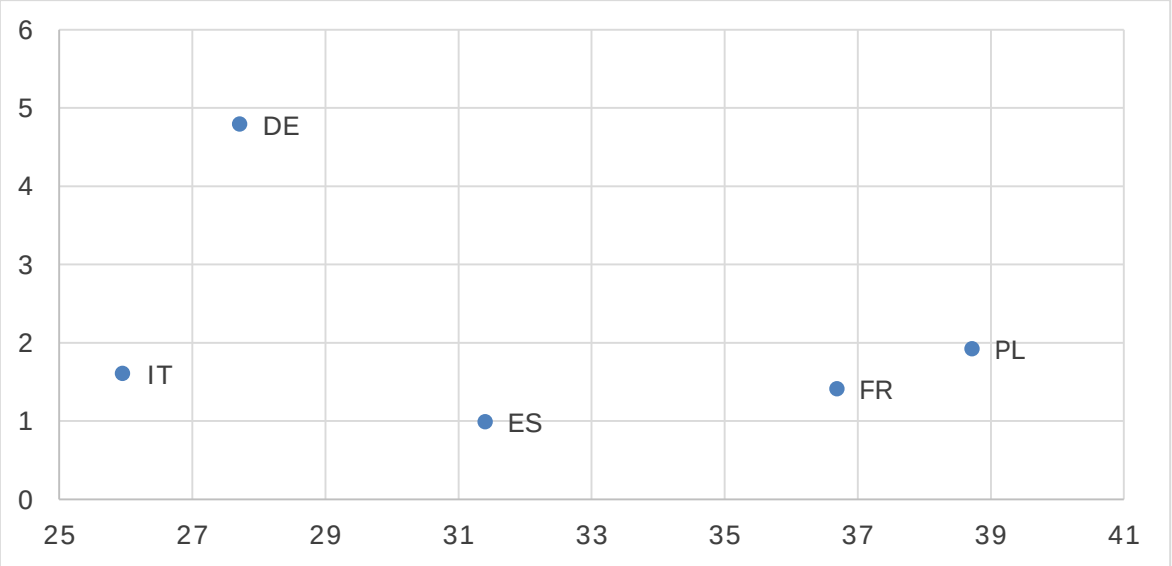
According to Figure 23, voting is closely related (as might be expected) to parental educational attainment, especially in Germany, where the non-voting rate is five times higher among those respondents whose parents have a low level of education (ISCED 0–2) than among respondents with well-educated parents (ISCED 5–6). In Spain, Italy and France, this risk is considerably weaker (less than twice as great).

Figure 22 Share of young people (15–34 years) in regular face-to-face contact with their parents (father or mother) (X axis), plotted against the differences by income quartiles (difference between the share of young people regularly contacting their parents with income in the bottom and the top quartile) (Y axis), EU Member States, 2011



Source: own estimates on EQLS data.

Figure 23 Share of non-voting young people (18–29 years) (X axis) plotted against the differences by parental education (differences in the share of non-voting young people with low and highly educated parents) (Y axis), EU Member States, 2012



Source: own estimates on ESS data.

To sum up, we found relatively large cross-country differences in the prevalence of volunteering and voting participation among young people, and moderate cross-country differences in contact with parents.

As far as young people's participation in voluntary work and their participation in the most recent elections is concerned, we found relevant differences by regions: most Central and Eastern European countries and some Southern European countries are characterised by relatively low levels of voluntary work and low levels of political activity, whereas higher values on both indicators characterise most of the Nordic countries and certain Western European countries.

The share of young people who have regular contact with their parents varied moderately across countries. As a general tendency, however, we may conclude that in Nordic and Baltic countries, young people are more likely to have lower levels of contact, while in most Southern European countries and in certain Central and Eastern European countries we found higher levels of contact. These patterns are in line with (and are very likely to be closely related to) the cross-country patterns of staying in the parental home.

As far as differences by sex are concerned, the countries examined showed great variance on most of the selected indicators. The most significant differences by sex were found in the indicator measuring contact with parents. Whereas in Sweden, Croatia, Austria, Bulgaria, Germany, Ireland and Slovenia young men were more likely to see their parents than were young women, in Denmark, Lithuania, Portugal and Estonia women were overrepresented among those who had regular contact with their parents. By contrast, the political participation of males and females did not differ that much across countries.

Analysing cross-country differences by social status, unpaid voluntary work and participation in voting among young people are both positively correlated with parental educational attainment.

5 Summary and conclusions

In this research note we have provided a cross-country overview of the non-material quality of life of young adults in three domains: (i) education and training, (ii) health and risk behaviour and (iii) social connectedness and civic participation.

Prevalence and differences by sex were examined consistently across countries in all three domains, while the analysis of differences by social status (measured either by parental education or equivalised household income) had to be restricted to a small group of countries due to problems related to statistical robustness of the estimates. A further limitation of our analysis was that data on parental educational or income were only available for the domains of health and social connectedness. Below, we summarise our results by prevalence, differences by sex and inequalities in outcomes by either income status or parental educational attainment.

Education and training

The domain *Education and training* relates to the EU Youth Strategy target to support accessibility to education and training at all levels, as well as the opportunity for lifelong learning among young people. The following indicators were considered: (i) highest educational attainment level: tertiary education; (ii) enrolment of young people in tertiary education; (iii) non-formal education and training; (iv) no longer in education or training (early school leaving).

Both the share of young people with completed tertiary education and the share of those in non-formal education and training is lower in the new Member States (Romania, Bulgaria, Croatia, Slovakia, Hungary, Poland) than in Nordic and Western European countries, though this is not the case for early school leaving rates. There are especially large cross-country differences in non-formal education and training: the proportion of young people (15–29) participating in 2012 ranged from 1 per cent to 33 per cent.

Generally speaking, young females perform better than their male counterparts.

Health and risk behaviours

The domain *Health and risk behaviours* refers to the support of young people's health and well-being: under this domain we discussed different measures of objective and subjective health status, as well as indicators of health and risk behaviours. For the latter group of indicators, EHIS data from 2008 were used.

Prevalence

There are large cross-country differences in *obesity* and *hazardous alcohol consumption* and moderate country differences in *regular physical activity* and *smoking habits*. We did not find, however, any significant cross-country differences related to the self-perceived psychological distress of young people.

The share of obese people (the measurement was based on self-reported BMI) in the young-age cohorts is largest in Malta (13 per cent), and smallest in Romania (2 per cent). The proportion of binge drinkers also varied greatly: between 1 per cent in Cyprus and 11 per cent in Malta. In line with the above-mentioned differences, Malta had the worst results in terms of regular physical activity*:* whereas in Malta and Austria around a third of the youth population claimed to engage in at least 30 minutes of physical activity a day, in Romania more than 8 young people out of 10 reported the same*.*

The proportion of young daily smokers did not vary much by country, with the smallest share in Romania (18 per cent) and the largest in Greece (32 per cent).

The proportion of young people with psychological distress did not vary significantly across countries; this may also be related to methodological issues (to the type of scale used to compute the indicator).

Differences by sex

In general, young women lead healthier lives than young men. In all the countries examined, more male than female young respondents reported smoking and drinking alcohol daily. Furthermore, in all of the countries examined, more males than females claimed to engage in physical activity daily. In most of cases (except for Belgium and France), young males were more likely to declare themselves obese than were their female counterparts.

Cross-country differences in prevalence by income status

Measuring the relationship between the prevalence of health indicators and the differences in these outcomes by income status, we found large country differences in *obesity* and *hazardous alcohol consumption*, and moderate country differences in *regular physical activity* and *smoking habits*.

Concerning inequality in the self-reported body mass index of young people by income position, the risk among those in the bottom income quintile of being obese, relative to those in the top quintile, varied between 0.7 (in Poland) and 4.9 (in Greece).

Large differences in the level of inequalities in drinking habits by income level were found in most of the European countries examined. The risk of binge drinking among those in the lowest income quintile, relative to those in the highest quintile, varied from 0.8 (in Slovakia) to 5.6 (in Bulgaria).

Moderate differences were found regarding inequalities in daily smoking by income level. The risk of being a daily smoker in the bottom quintile, relative to those in the top quintile, ranges from 0.5 in Greece to 2.9 in Belgium, reflecting a quite surprising difference between these two countries. Whereas in Greece twice as many young people smoke daily in the top income quintile than in the bottom quintile, in Belgium the opposite tendency was found: membership of the bottom income quintile seriously increases the likelihood of being a daily smoker.

Even *smaller inequalities* characterise physical activity among young people by income status, as the range of the share of those engaging in at least 30 minutes of physical activity on a daily basis and with income in the bottom quintile, relative to those with income in the top quintile, varies from 0.9 (Estonia) to 1.3 (Latvia). Finally, there is hardly any difference in the mental health status of young people by income level.

Summing up, we found significant cross-country differences in *obesity* and *hazardous alcohol consumption* and moderate cross-country differences in *regular physical activity* and *smoking habits*, both by sex and income position.

Social connectedness and participation

As *Social connectedness and civic participation* refers to the embeddedness in social networks and social activity of the young population, it makes up a considerable part of an individual's quality of life. We have examined the situation of young people according to this domain on a restricted number of indicators.

Prevalence

There are relatively large cross-country differences in the prevalence of *unpaid volunteering* and *political participation* among young people, and moderate cross-country differences in *contact with parents.*

Young people's participation in voluntary work varied to a large extent in the EU Member States (ranging from 16 per cent to 56 per cent); most of the Central and Eastern European countries (Bulgaria, Poland, Hungary, Latvia and Romania) and some of the Southern European countries (Greece and Cyprus) are characterised by relatively low levels of voluntary work, whereas higher values characterise most of the Nordic countries (Finland, Sweden and Denmark) and certain other EU-15 countries (France, the Netherlands, Ireland and Austria), but also the Czech Republic.

There are similar differences between the old and new Member States in terms of young people's participation in the most recent elections: while most Central and Eastern European countries, certain Southern European Member States (e.g. Portugal) and Ireland feature relatively low levels of political activity, high values (above 70 per cent) of political participation were detected in certain Nordic countries (Sweden and Denmark) and in certain Western European countries (Germany, the Netherlands, Italy and Belgium). In both cases (participation in unpaid voluntary work and voting in elections), the level of social capital might be one of the main determinants of cross-country differences. In the case of the voting rates, institutional characteristics (such as obligatory participation in elections) may also play an important role.

The share of young people aged 18–34 in regular contact with their parents varies moderately across countries, with the highest figure being about twice the size of the lowest. As a general tendency, the Nordic and Baltic countries are more likely to have lower levels of contact, while most of the Southern European countries and the remainder of the Central and Eastern European countries are at the opposite end of this range; while Western European countries are placed in between. These patterns are in line with (and are very likely closely related to) the cross-country patterns of staying in the parental home.

Differences by sex

The countries examined showed great variance on most of the selected indicators. In some countries, more women than men are engaged in voluntary work, in trade union membership and had regular contact with parents, while the opposite is true in other countries. The most remarkable differences by sex were found in the case of regular contact with parents. In Sweden, Croatia, Austria, Bulgaria, Germany, Ireland and Slovenia, young men are more likely to see their parents than are young women. In Denmark, Lithuania, Portugal and Estonia, women are overrepresented among those who have regular contact with their parents. By contrast, the political participation of males and females did not differ too much across countries.

Cross-country differences by social status

Participation of young people in elections is positively correlated with parental educational attainment. There are no major differences by income status in the patterns of regular contact with parents.

Limitations of the analysis

One major finding of this research note is that the use of adult surveys in assessing the quality of life of young people has serious limitations in certain domains, when analysis aims to go beyond describing the total young population or simply assessing differences by sex. With a few exceptions among the EU Member States (e.g. Germany, France, Spain, Poland), the young cohort sub-samples are too small to provide robust estimates in sub-groups like age-groups, income quartiles or those defined by parental education.

Monitoring young people's quality of life and well-being in a multidimensional frame and tackling enlarged inequalities in these outcomes by social background might be of accentuated policy interest in the European Union from a social inclusion and social investment point of view. Recent initiatives, like the Youth Strategy or – most recently – the Youth Guarantee, aim to provide better chances of an independent life for young people. From this point of view, our finding calls for a reconsideration of the available data infrastructure. There is therefore a need at least from time to time to have enlarged sub-samples of young people on the major cross-country comparative surveys in the European Union; this would allow for a more detailed analysis of underlying social processes.

As far as the health indicators are concerned, we should also bear in mind that the health-related indicators we used (from EHIS 2008) are based on self-perception or self-declaration; hence the differences measured might be biased due to different country-level contextual factors (e.g. in institutional and policy settings or in cultural norms). There is therefore a need to investigate further what factors (other than standard socio-economic and demographic characteristics) are behind the sometimes surprising and counter-intuitive cross-country patterns or some countries' outlier positions. These factors might be related to the data-collection process (sample design, sample realisation, item non-response) or to the institutional and cultural factors already mentioned.

References

Aasve, A., M. Iacovou and L. Mencarini (2006). Youth poverty and transition to adulthood in Europe. *Demographic Research*, 15(2): 21–50.

Arora, V.S., M. Karanikolos, A. Clair, A. Reeves, D. Stuckler and M. McKeev (2015). Data Resource Profile: The European Union Statistics on Income and Living Conditions (EU-SILC). *International Journal of Epidemiology*, 44 (2): 451–461.

Berloffa, G., M. Filandri, E. Matteazzi, T. Nazio, N. Negri, J. O'Reilly, P. Villa and C. Zuccotti (2015). Work-poor and work-rich families: Influence on youth labour market outcomes. *STYLE Working Papers*, STYLE WP8.1 CROME, University of Brighton.

Bond, J., H.O. Dickinson, F. Matthews, C. Jagger and C. Brayne (2006). Self-rated health status as a predictor of death, functional and cognitive impairments: a longitudinal cohort study. *European Journal of Ageing*, 3: 193–206.

De Salvo, K.B., V.S. Fan, M.B. McDonell and S.D. Fihn (2005). Predicting mortality and health utilization with a single question. *Health Services Research*, 40: 1234–1246.

Eurofound (2014). *Social situation of young people in Europe*, Publications Office of the European Union, Luxembourg.

European Commission (2001). Communication to the Council on A New Impetus for European Youth – White Paper. COM (2001) 681. Brussels, 21.11.2001, at http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52001DC0681

European Commission (2006). C1 Decision No. 1719/2006/EC, of the European Parliament and of the Council of 15 November 2006, establishing the 'Youth in Action' programme for the period 2007 to 2013, (OJ L 327, 24.11.2006, p. 30), at http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02006D1719-20061214&rid=7

European Commission (2011). Commission Staff Working Document on EU indicators in the field of youth. Brussels, 25.03.2011, SEC(2011) 401 final, at http://ec.europa.eu/youth/library/publications/indicator-dashboard_en.pdf

European Commission (2012). *EU Youth Report 2012*. Luxembourg: Publications Office of the European Union, at http://ec.europa.eu/assets/eac/youth/library/reports/eu-youth-report-2012_en.pdf

European Commission (2013). Communication to the Council on Towards Social Investment for Growth and Cohesion – including implementing the European Social Fund 2014-2020. COM(2013) 83. Brussels, 20.2.2013.

European Commission (2015). *EU Youth Report 2015*. Luxembourg, Publications Office of the European Union, at http://ec.europa.eu/assets/eac/youth/library/reports/eu-youth-report-2012_en.pdf

EU Task-Force (2008). Child poverty and child well-being in the EU. Current status and way forward. European Commission, Directorate-General for Employment, Social Affairs and Equal Opportunities, Social Protection Committee, Brussels.

Filandri, M., A. Gábos, M. Medgyesi, I. Nagy and T. Nazio (2016). The role of parental material resources in adulthood transitions. *STYLE Working Papers*, STYLE WP 8.4 CROME, University of Brighton, Brighton, at http://www.style-research.eu/publications/working-papers

Gábos, A. and M. Kopasz (2014). For an integrated poverty and living conditions indicator system (IPOLIS) database, at http://inclusivegrowth.be/downloads/output/d20-1-ipolis-concept-paper.pdf

Gábos, A. and M. Kopasz (2015). Methodological and data infrastructure report on children, at http://inclusivegrowth.be/downloads/output/ms20-6-mdir-on-children-eind.pdf

Gökşen, F., D. Yükseker, A. Filiztekin, I. Öker, S. Kuz, F. Mazzotta and L. Parisi (2016). Leaving and returning to the parental home during the economic crisis. *STYLE Working Papers*, STYLE WP8.3 CROME, University of Brighton, Brighton, at http://www.style-research.eu/publications

Joint Research Centre – IPSC (2012). Quality of Life at the sub-national level: an operational example for the EU.

OECD (2009). *Doing Better for Children*. OECD, Paris.

OECD (2011). How's Life? Measuring well-being. Technical report, OECD Better Life Initiative.

OECD (2013). How´s Life 2013. Measuring Well-Being, at http://www.oecd-ilibrary.org/docserver/download/3013071e.pdf?expires=1417614047&id=id&accname=ocid53017056&checksum=8E65722356C020334B01EDAC54B76AE3

OECD (2014). *Health at a Glance: Europe 2014*. OECD, Paris.

Schäffer, A., A. Zentarra and O. Groh-Samberg (2015). Methodological and data infrastructure report on youth, at http://inclusivegrowth.be/downloads/output/wp20-ms20-7-methodological-and-data-infrastructure.pdf

Scheuer, S. (2011). Union membership variation in Europe: A ten-country comparative analysis. *European Journal of Industrial Relations*, 17(1): 57–73.

Sirniö, O., T.M. Kauppinen and P. Martikainen (2017). Cohort differences in intergenerational income transmission in Finland. *Acta Sociologica*, 60(1): 21–39. DOI: https://doi.org/10.1177/0001699316649649

Siurala, L. (2006). A European framework for youth policy, Council of Europe Publishing, Strasbourg, at http://pjp-eu.coe.int/documents/1017981/3084919/COE_european_framework_4YP_EN.pdf/998de93b-bc9d-475f-bf27-d6fd9a810fed

TÁRKI (2011). Child well-being in the European Union: Better monitoring instruments for better policies. KIM–TÁRKI, Budapest.

TÁRKI-Applica (2010). Child poverty and child well-being in the European Union. Report prepared for the DG Employment, Social Affairs and Equal Opportunities (Unite E.2) of the European Commission, Budapest.

UNICEF (2007). Child poverty in perspective: An overview of child well-being in rich countries. *Innocenti Report Card 7*. UNICEF Innocenti Research Centre, Florence.

UNICEF (2010). The children left behind. *Innocenti Report Card 9*. UNICEF Innocenti Research Centre, Florence.

UNICEF (2013). Child well-being in rich countries. A comparative overview. *Innocenti Report Card 11*. UNICEF Innocenti Research Centre, Florence.

UNICEF (2016). Fairness for Children: A league table of inequality in child well-being in rich countries. *Innocenti Report Card 13.* UNICEF Office of Research – Innocenti, Florence.

Vandaele, K. (2018 forthcoming). How can trade unions organize the next generation of young workers? In: J. O'Reilly, J. Leschke, R. Ortlieb, M. Seeleib-Kaiser and P. Villa (eds), *Youth Labour in Transition*. Oxford University Press, New York.

Williamson, H. (2002). Supporting young people in Europe: Principles, policy and practice. The Council of Europe international reviews of national youth policy 1997–2001 – a synthesis report, at http://www.coe.int/t/dg4/youth/Source/IG_Coop/YP_Supporting_young_people_Vol_I_en.pdf

Annex – An overview of IPOLIS (Integrated Poverty and Living Conditions Indicator System)

The general structure of IPOLIS Youth Module

The general structure of IPOLIS is based on the concept of quality of life (QoL) and was set up by Gábos and Kopasz (2014). Domains, components and sub-components have been defined to provide a comprehensive monitoring framework of QoL for all social groups at high risk of poverty or social exclusion. Within this framework, Schäffer et al. (2015) proposed a specific set of indicators for young people.

Table A1 below describes the structure of the IPOLIS Youth Module by domains, components and sub-components. As mentioned earlier, the focus is on three of the six quality of life domains of IPOLIS: education and training, health and risk behaviours, and social connectedness and participation.

Main characteristics of IPOLIS

The target population is young people aged 15–29 years (in some cases the lower age is 16 or 18 years, depending on the data source). Where possible, age-group-specific analysis is carried out for those aged 15–19, 20–24 and 25–29. For some indicators, the relevant age group is 25–34. For those aged 15–19, there is some overlap between initiatives that focus on children (e.g. OECD 2009, 2011; UNICEF 2007, 2010, 2013, 2016; TÁRKI 2011; Gábos and Kopasz 2015) and those that focus on young people (e.g. European Commission 2011; Schäffer et al. 2015).

The country coverage is the whole European Union (EU-28). Different data sources vary greatly in terms of their country coverage, while for some indicators sample sizes are not suitable to provide desired breakdowns for all countries (see section 3.4 of this research note).

The time period covered is from 2004 (major EU enlargement) to 2014 (or the latest year for which data are available). Most of the data sources are regular, though data collection is not always annual (or even every two years). While these data sources provide a basis for a cross-time comparison, they do not permit time-series analysis. Different data sources vary greatly in terms of their time coverage. Overall, the time coverage of the data infrastructure that provides indicators for non-material domains of quality of life is narrower than for material domains.

Table A1 The structure of the IPOLIS Youth Module (domains, components and sub-components)

Domain	Component	Sub-component
1. Material living conditions	1.1 Poverty	a. Extent of poverty b. Depth of poverty c. Persistence of poverty
	1.2 Material deprivation	
	1.3 Housing	a. Overcrowding b. Housing costs c. Housing deprivation
	1.4 Poverty and social exclusion (EU 2020)	
2. Labour market attachment and work-life balance	2.1 Labour market attachment	a. Employment b. Precarious employment c. Self-employment d. Unemployment e. Labour market attachment of households
	2.2 Work-life balance	a. Work and leisure b. Work and care
3. Education and training	3.1 Access to and quality of education	a. Educational attainment b. Lifelong learning
	3.2 Educational achievement	a. Achievement in basic skills b. Early school leaving
4. Health and risk behaviours	4.1 Health status	a. Objective health status b. Subjective health status
	4.2 Health behaviours	a. Physical activity b. Obesity
	4.3 Risk behaviours	a. Smoking b. Alcohol consumption c. Illicit drugs d. Teenage births/Pregnancy e. Psychological distress f. Suicide
5. Social connectedness and civic participation	5.1 Family and peer relationships	a. Family relationships
	5.2 Civic participation	a. Voting/Voter turnout b. Volunteering c. Group membership d. Internet use
6. Environmental quality and physical safety	6.1 Environmental quality	a. Outside air pollution b. Noise
	6.2 Physical safety	

Note. Blue cells indicate domains, components and sub-components addressed by the present research note.

Source: Gábos and Kopasz (2014: 20, 30–35); Schäffer et al. (2015: 31).