3 Inequalities in the utilisation of health care services

This chapter turns to the question of whether health systems treat people with comparable needs equally irrespective of their income. It measures income-related inequalities in health care services utilisation, adjusted for needs where relevant, based on national health survey data for 33 EU and OECD countries carried out between 2014 and 2017. It investigates inequalities in doctor visits, hospital admissions, as well as preventive care such as cancer screening, flu vaccination, and dental care. Summary measures of inequality are derived to compare results across the various health care services and countries.

Note by Turkey:
The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union:
The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

3.1. Introduction

One of the pathways to improving health and overcoming inequalities is for health systems to ensure access to quality services irrespective of people's socio-economic circumstances. Measuring within and across health systems whether the care received by patients is commensurate to need and of quality presents considerable methodological challenges. As people typically turn to the health system when sick, the volume of services used gives an indication of their ability to access it. However, a more important question is whether people's utilisation is commensurate to their needs. One strategy to answer this question consists in examining whether, for a given health status – a proxy of need – people have a comparable level of utilisation of the health system.

Recognising that no measure of access is perfect, the main question of interest in this chapter is whether systematic differences across socio-economic groups in the level of utilisation of care can be detected within EU and OECD countries. Using micro-level data, Section 3.2 measures the extent to which, within countries, access to health care services (physician and hospital care) varies across people with comparable needs but different income. Section 3.3 explores whether utilisation of preventive services – such as cancer screening, dental care and vaccination- differs across income groups. Section 3.4 concludes with key findings and presents a summary measure of inequalities in health care services utilisation by clustering countries into groups that display comparable levels of inequalities in service utilisation.

The following two chapters (Chapters 4 and 5) will look into complementary aspects of access to care, namely whether inequalities across socio-economic groups exist for unmet needs and the financial protection against the costs of care. Together, these three chapters allow for a comprehensive analysis of the extent to which health systems treat all patient equally regardless of income.

3.2. Income-related inequalities exist in the utilisation of some – but not all – health care services across EU and OECD countries

Determining whether access to health care services is similarly distributed within a population irrespective of income requires factoring in health care needs. As shown in Chapter 2, poor health is concentrated among the least well-off in all countries. Consequently, a simple comparison of utilisation across income groups could obscure or underestimate inequalities. Using individual-level data, this section therefore seeks to determine whether, once need is taken into account, within-country patterns of access to care are comparable across income levels, according to a well-established methodology.

More specifically, the analysis reviews patterns of access to GP and specialist consultations as well as hospital admissions. National health survey data from 33 EU and OECD countries are used for this analysis (the 2014 European Health Interview Survey wave 2 for European countries, the Canadian Community Health Survey 2015-16, the Chilean National Socio-Economic Characterization Survey 2017, and the US Medical Expenditure Panel Survey 2016) (see Box 2.2 in Chapter 2 for a brief description). Table 3.1 provides more information about the variables used and the method is detailed in Box 3.1, which also provides a numerical example of the difference between simple and needs-adjusted probabilities highlighting why such an adjustment is necessary.

Table 3.1. Variables used and coverage of the population to analyse differences in the utilisation of health care services

	Description of variables and coverage of the population
Dependent variables	Doctor visit: Dummy variable describing whether people have visited a doctor in the past 12 months or not (in EHIS this variable is constructed by combining responses on GP and specialists visits).
	GP visit: Dummy variable describing whether people have visited a GP in the past 12 months or not.
	Frequency of GP visits: Number of GP visits in the past 4 weeks (for only those who visited a GP in the past 12 months)
	Specialist visit: Dummy variable describing whether people have visited a specialist in the past 12 months or not.
	Frequency of specialist visits: Number of specialist visits in the past 4 weeks (for only those who visited a specialist in the past 12 months)
	Hospitalisation: Dummy variable identifying people who had an inpatient hospital admission in the past 12 months, versus those who did not.
	Cervical cancer screening: Dummy variable identifying women aged 20-69 who had a Pap Smear test in the past 3 years versus those who did not.
	Breast cancer screening: Dummy variable identifying women aged 50-69 who had a mammography in the past 2 years versus those who did not.
	Colorectal cancer screening: Dummy variable identifying persons aged 50-74 who had a Faecal Occult Blood Test in the past 2 years or a colonoscopy in the past 10 years versus those who did not.
	Dental visit: Dummy variable identifying people who had a dentist visit in the past 12 months versus those who did not.
	Flu vaccination: Dummy variable to identify people aged 65 and over who had flu vaccination in the past 12 months versus those who did not.
Explanatory variables	Income level: Categorical variable with income quintiles from the lowest income Q1 to the highest income Q5 (accounting for household size).
Needs variables	Gender, Age group
	Self-assessed health status: Categorical variable with very poor, poor, fair, good or very good health status.
	Limitations in daily activities: Categorical variable with severely limited, limited, or not limited.
Countries included	30 European countries (Belgium did not enquire about the number of physician visits in the previous month), Canada, Chile, and the United States.
Covered population	The age was restricted to the population over 18 years of age, unless otherwise mentioned for preventive care.

Note: For general information about national surveys used, please refer to Box 2.2 in Chapter 2. For descriptive statistics, see Annex Table 3.A.1 and Annex Table 3.A.8-9. The description of variables in the above table refers to EHIS used for 30 of the 33 countries studied. The main differences with other national surveys were as follows: the United States survey does not enquire separately about GP and specialists. In Chile, the recall period of physician and dentist visits is 3 months for the probability and the number of visits. In Canada, the recall period for the number of visits is 12 months.
Source: Authors.

Box 3.1. Estimating need-adjusted utilisation across income groups: Methodology

The method used in this chapter to measure inequalities in health care services utilisation is well established (van Doorslaer and Masseria, 2004[1]; OECD, 2003[2]; O'Donnell et al., 2008[3]).

Indirect standardisation for health care needs

Visits to doctors, GPs and specialists, and inpatient hospital admissions are standardised for health care needs, while the probabilities of using preventive care (cancer screening, dental care and flu vaccination) are not, as explained in Section 3.3.

The need for medical care is proxied by age, gender, and health status variables (self-assessed health and activity limitation).

An indirect standardisation is used to predict the probability of use of medical services, adjusted for health care needs in a series of country-specific regressions (O'Donnell et al., 2008[3]). A logistic regression model is used to estimate the probability of the use of each type of health care services and a linear model to estimate the frequency of visit to GPs and specialists. The health regression estimates the following:

$$[1] \quad \boldsymbol{Y_i} = \boldsymbol{\alpha} + \boldsymbol{\beta}\,\boldsymbol{X_i} + \boldsymbol{\delta}\,\boldsymbol{Z_i} + \boldsymbol{\varepsilon_i}$$

where Y denotes the dependent variable (e.g. doctor visits of individual in a given period), X a set of need indicator variables including demographic and morbidity variables (age, gender, self-assessed health and activity limitation), and Z a set of non-need control variables (education, marital status, occupational status, income, size of household, urbanisation level, variables used to control for, in order to estimate partial correlations with the need variables), α, β and δ are parameters vectors, and ε an error term.

Estimations are produced for each country. Equation 1 can be used to generate need-predicted, or X-expected, values of Y. $\boldsymbol{Y_i^X}$ represents the amount of medical care an individual i would have received if she/he had been treated as others with the same need characteristics, on average:

$$[2] \quad \mathbf{Y_i^X} = \hat{\boldsymbol{\alpha}} + \hat{\boldsymbol{\beta}}\,\mathbf{X_i} + \hat{\boldsymbol{\delta}}\,\overline{\mathbf{Z}}_\mathbf{i}$$

where $\overline{\boldsymbol{Z}}$ refers to the sample mean values.

Estimates of the indirectly needs-standardised utilisation, $\boldsymbol{Y_i^{IS}}$, are then obtained as the difference between actual and x-expected utilisation, plus the sample mean $\overline{\boldsymbol{Y}}$:

$$[3] \quad \boldsymbol{Y_i^{IS}} = \boldsymbol{Y_i} - \boldsymbol{Y_i^X} + \overline{\boldsymbol{Y}}$$

For each level of income, the value of $\boldsymbol{Y_i^{IS}}$ can be interpreted as the level of health care utilisation one would find if needs were equally distributed across income groups.

Concentration index

The concentration index (CI) of health care utilisation measures the degree of inequality across the income distribution. The concentration index of a variable Y can be computed using a simple "convenient covariance" formula:

$$[4] \quad CI = \frac{2 \times cov_w(yi, Ri)}{\mu}$$

where μ is the weighted sample mean of Y, cov_w denotes the weighted covariance and Ri is the (representatively positioned) relative fractional rank of the i^{th} individual in the income distribution. The Stata command concindc is used to calculate the CI and its confidence interval (Chen, 2007[4]).

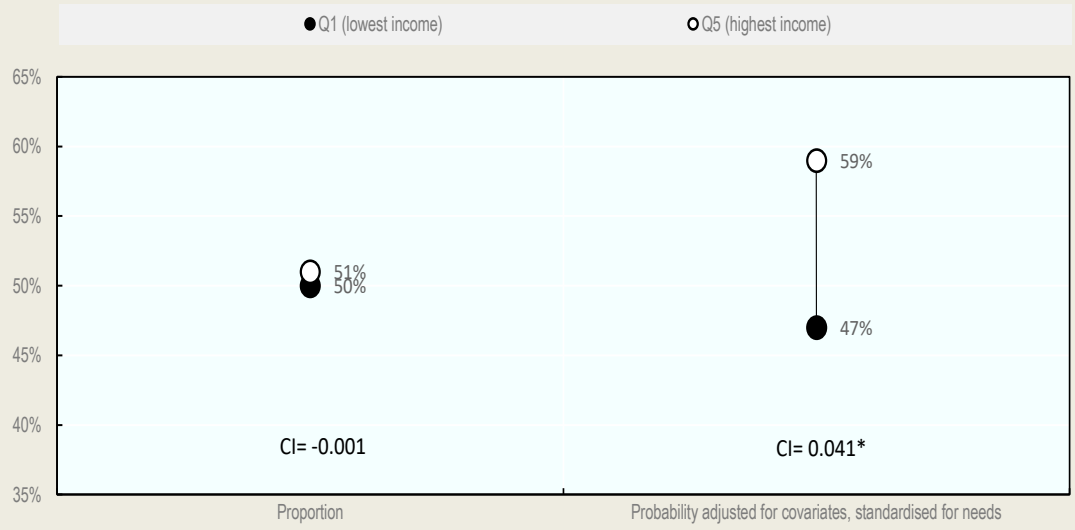
If the concentration index is significantly above (or below) 0, high-income people are more (or less) likely to access medical care services than low-income people. If the 95% confidence intervals of the concentration cross the 0 line, there is no significant inequality.

For preventive services and for unmet needs variables presented in the next chapter, all binary variables, the generalised concentration index (GCI) is used in order to measure absolute inequalities taking into account the overall level of the variable of interest (Yi). The GCI is derived from the standard concentration index by multiplying it with the mean of Yi. As a result, for instance, if two countries have the same level of relative inequality in cancer screening (measured by the CI), the inequality between rich and poor will be deemed higher in the country with the higher prevalence. Using an analogy with the RII and SII discussion in earlier chapters, a similar ratio between the prevalence of the low and high income groups translates into larger absolute differences between these groups when the average is higher. The GCI captures absolute inequalities and also leads to the same ranking of countries irrespective of whether the inequality in having received the service or not having received the service is measured. The Stata command conindex is used to calculate the GCI and its confidence interval (O'Donnell et al., 2016[5]).

The importance of adjusting for need: a numerical example

The example below illustrates the effect of the needs-standardisation procedure. Figure 3.1 shows the proportion of the population visiting a specialist in Estonia and the calculated probability after standardisation for health care needs. The observed probabilities of a low or high income person visiting a specialist are virtually identical. However, once the differences in health care needs are taken into account, the probability of a visit increases by 8 percentage points in the highest quintile (Q5), and reduces by 3 percentage point in the lowest quintile (Q1). So while high and low-income people see specialists as frequently, the latter's health status is worse on average. The standardisation erases this difference and shows that, with equal health, a person in the top income quintile has a 12% higher likelihood to see a specialist than one in the bottom quintile. As a result, the concentration index (CI) - which was small and not significant before standardisation- becomes larger, positive and significant after needs-standardisation indicating a distribution in favour of the better-off.

Figure 3.1. Probability of a specialist visit in Estonia, with and without needs-standardisation



Note: * means significant at 5%.
Source: OECD estimates based on EHIS-2.

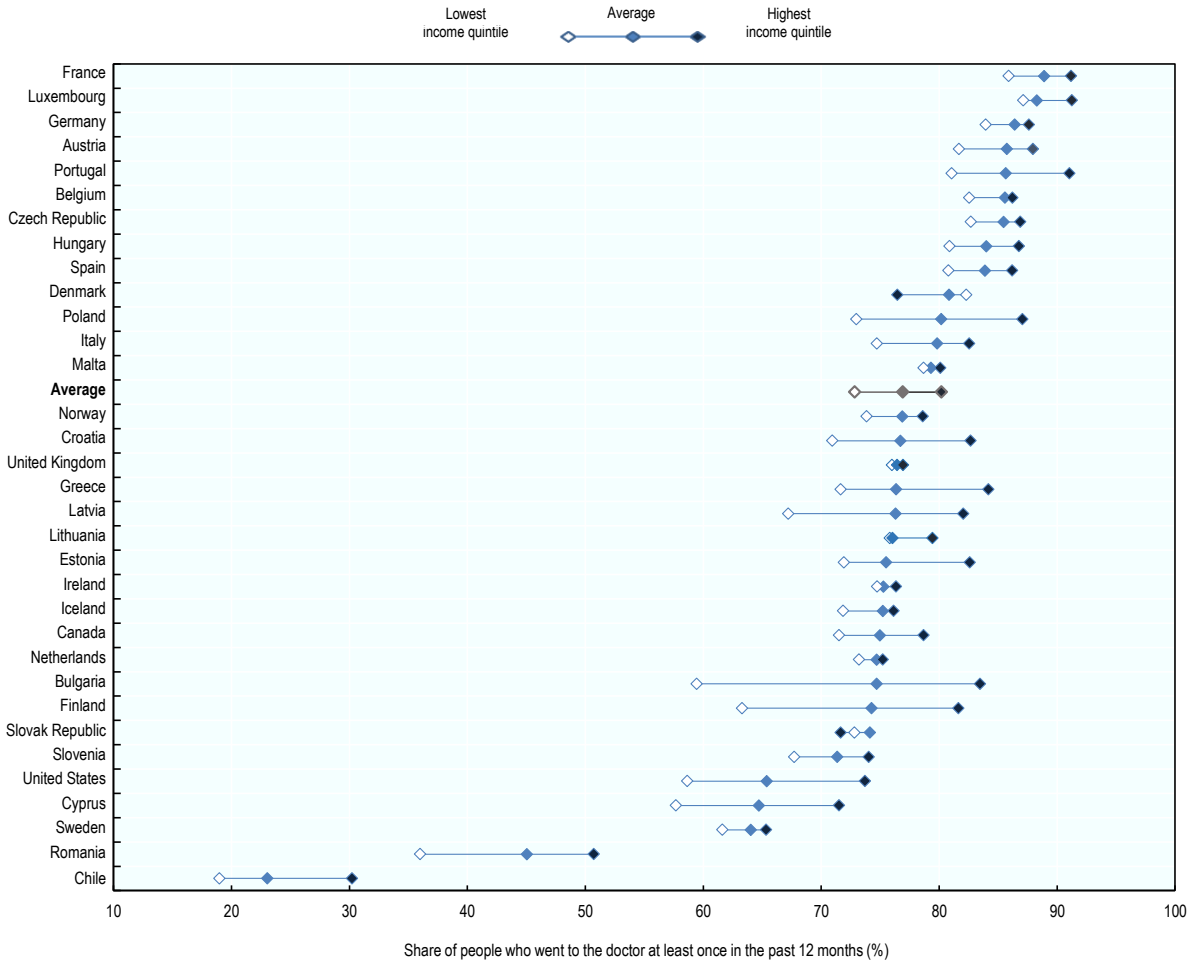
3.2.1. In most countries, for a given level of needs, access to the doctor increases with income level but less so for GPs

Higher income translates into a higher needs-adjusted probability of seeing a doctor

In the vast majority of countries, for a comparable level of needs, low-income people are less likely to have seen a physician in the past 12 months than high-income people. The varying levels of predicted probabilities across countries confirm that differences in utilisation patterns remain large even when need is taken into account. The need-standardised probability of reporting a doctor's visit in the past 12 months in the total adult population ranges from 45% in Romania to 89% in France (Chile's much lower average corresponds to a 3 months reporting period). More importantly, the probability of seeing a doctor, for a given level of needs, is higher for those in the highest quintile than in the lowest in all countries except in Denmark, and Slovak Republic (Figure 3.2).

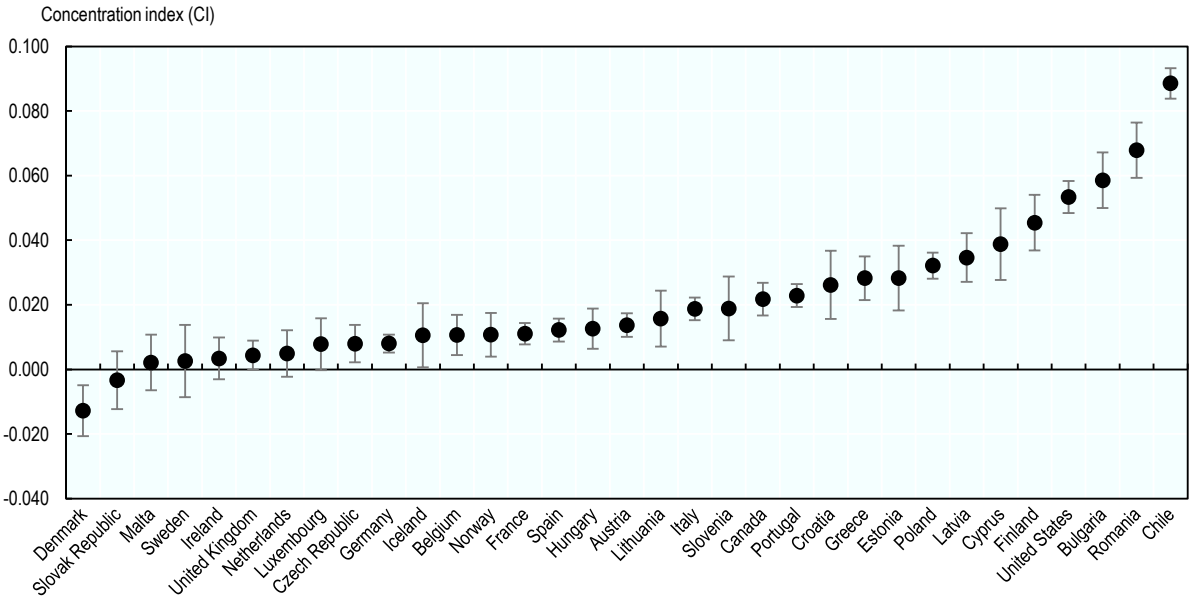
Overall, statistically significant pro-rich inequalities in access to physicians exist in three quarters of EU and OECD countries. The concentration index provides a summary measure of inequalities across the entire population in a country (Figure 3.3). The income-related gradient of inequality is positive and significant in 25 out of 33 countries. In these countries, the higher people's income is, the more likely they are to visit a doctor for the same level of need. However, the gradient is reversed in Denmark. Only seven countries provide the same level of access to their population irrespective of income (the Slovak Republic, Malta, Sweden, Ireland, the United Kingdom, the Netherlands and Luxembourg) as differences are not statistically significant.

Figure 3.2. Needs-standardised probability of a doctor visit in the past 12 months, by income quintile



Note: A visit to a doctor refers to a visit to a generalist or specialist. In Chile, visits refer to the past 3 months only and Chile is not included in the average. Probabilities are indirectly standardised for health care needs as described in Box 3.1. The confidence intervals are available in Annex Figure 3.A.3 and Annex Figure 3.A.4.
Source: OECD calculations based on national health surveys.

Figure 3.3. Inequality levels in the probability of a doctor visit

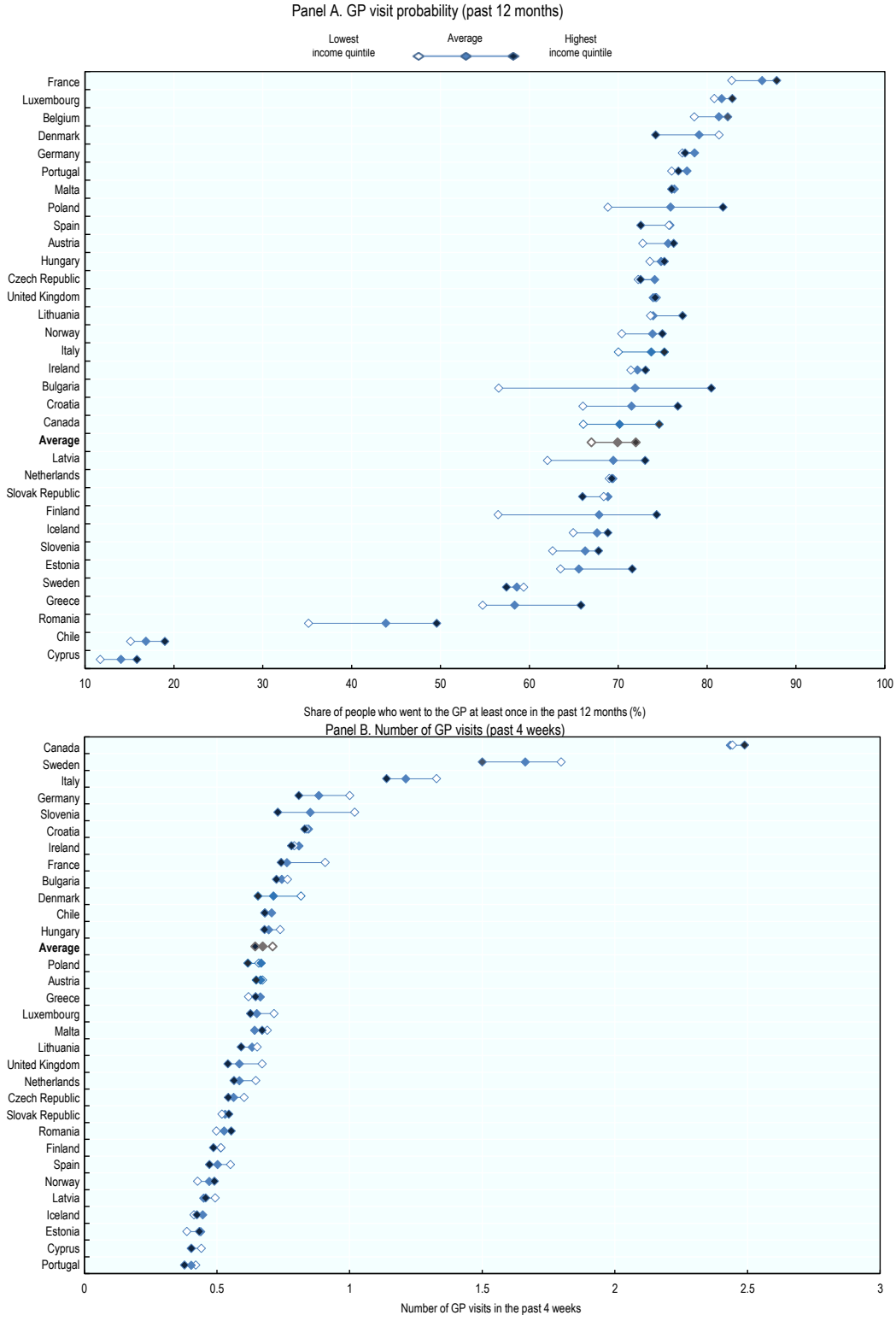


Note: The concentration index measures the degree of income-related inequalities in the probability of a doctor visit across the entire income spectrum. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, the variable is disproportionally concentrated among the (low) high-income people and inequalities are pro-rich (pro-poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Once access to a GP is secured, low-income patients have at least as many if not more visits to the GP than the rich in all but one country

Access to primary care services varies by country, and more importantly across income levels. Taking into account differences in needs, the probability of having visited a General Practitioner (GP) in the last 12 months among the total adult population varies across countries, from 14% in Cyprus to 86% in France. It also varies with income: 67% of people with lower-income have seen a GP in the past 12 months compared to 72% in the higher-income group, on average across EU and OECD countries (Figure 3.4, Panel A). The difference between the needs-adjusted probabilities of seeing a GP is more than 10 percentage points in seven countries (Bulgaria, Croatia, Finland, Greece, Latvia, Poland and Romania). The overall gradient of inequality (which takes into account the full distribution of GP visits across income levels, measured by the concentration index) is positive and significant in 17 out of 32 countries. In these countries, the higher people's income is, the more likely they are to visit a GP for the same level of needs. In contrast, Denmark and Spain display inequalities in favour of people with lower income. The 13 remaining countries show no significant inequalities in the probability of having a GP visit across income levels (see concentration index in Annex Table 3.A.2).

Figure 3.4. Needs-standardised probability and frequency of a GP visit, by income quintile



Note: Chile: visits refer to the past 3 months; Chile excluded from both averages. Canada: 12 months recall period for number of visits; excluded from average number of visits. Probabilities are indirectly standardised for health care needs (Box 3.1). Confidence intervals available in Annex Table 3.A.2 and Annex Table 3.A.3.
Source: OECD calculations based on national health surveys.

In most countries, once they get a first contact with a GP, the poor have the same number of GP visits as the rich, after health care needs are taken into account. Figure 3.4 (Panel B) presents the frequency of GP visits in the past four weeks for people who had a first contact with a GP during the year. In nine countries, for a given level of need, the number of visits to the GP is disproportionally concentrated among those with lower income (the Czech Republic, Denmark, France, Germany, Italy, Portugal, Slovenia, Spain and the United Kingdom) (Annex Table 3.A.3). Conversely, in Romania, the higher the income of people, the greater their number of GP consultations. No significant inequalities in the number of GP visits across income levels can be observed in the remaining 21 countries.

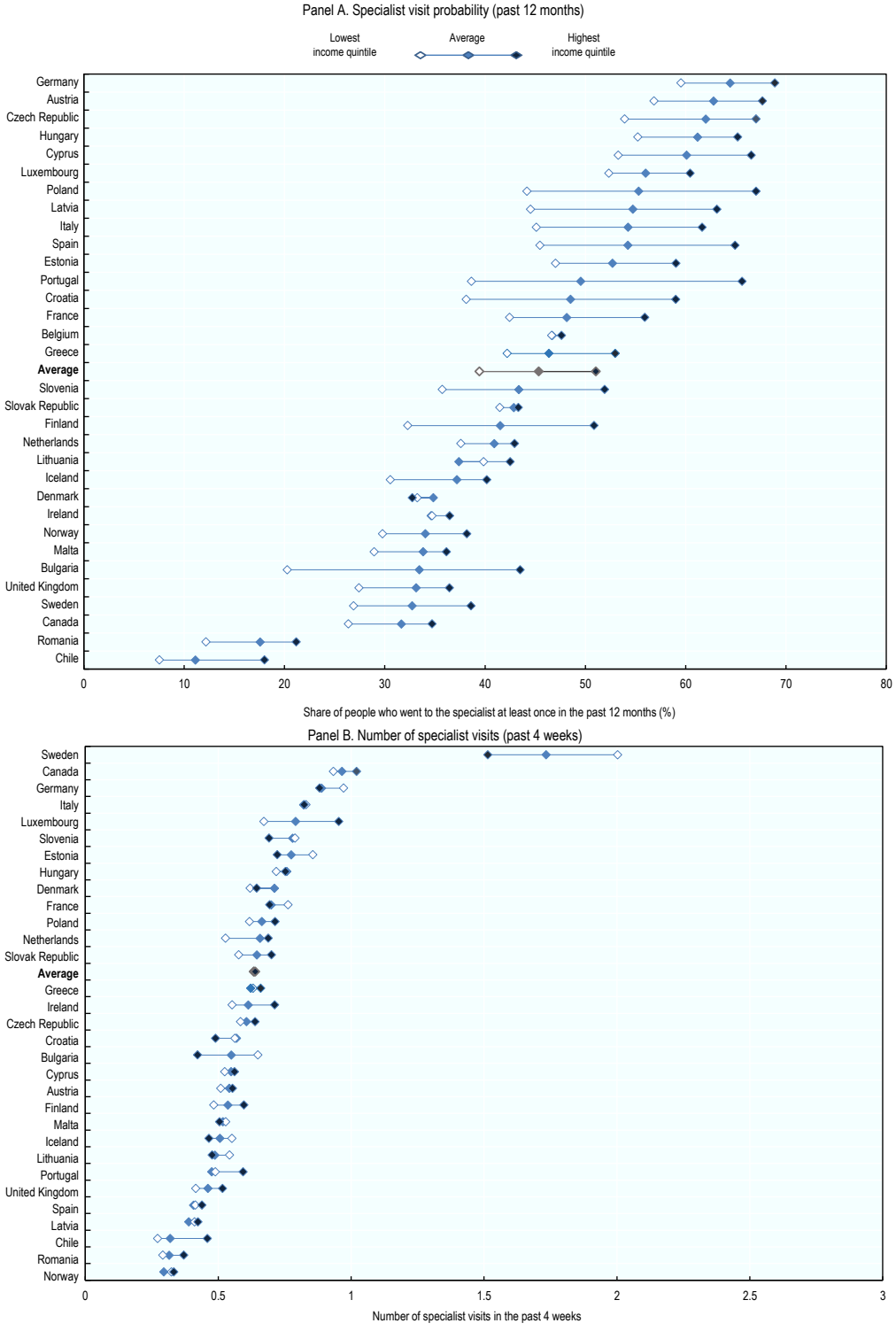
Results on the probability of a medical visit and the conditional number of visits provide complementary information. It is interesting to differentiate the probability of at least one visit in the past year and the number of visits (conditional on the first medical contact), under the assumption that the decision of initiating use is more patient-driven and the decision about continued use more doctor-driven as suggested by Van Doorslaer and Masseria (2004[1]). Results in that study show that the patterns are not identical for these two parts of the utilisation. Overall, in the majority of countries, richer patients are more likely to turn to the system and seek out the services of a physician. On the other hand, the fairly equal distribution of the number of visits across income groups suggests that (if the doctor-driven decision hypothesis was confirmed) the doctor see richer patients as often as poorer patients based on their medical need (and not based on financial conditions). However, this interpretation is only tentative[1].

The higher people's income, the more likely they are to see a specialist, for a given level of needs, in 29 out of 32 countries

The probability of visiting a specialist varies across countries, and more importantly, there are inequalities across income levels within countries. The needs-adjusted probability of having visited a specialist in the last 12 months among the total adult population ranges between 18% in Romania and 64% in Germany. In the vast majority of countries, for the same level of needs, the better-off have a higher probability of visiting a specialist than lower-income people (Figure 3.5, Panel A). The overall gradient of inequalities (measured by the concentration index) confirms this finding, and shows significant pro-rich inequalities in 29 countries. Only in three countries (Denmark, Ireland, and the Slovak Republic), access to specialist care is effectively irrespective of people's income level (see concentration index in Annex Table 3.A.4 and Annex Figure 3.A.3). In comparison with GP visits, the probability of a specialist visit shows much larger degrees of income-related inequality in most countries.

Once people get access to specialist care, the poor and the rich have –for the same level of need– the same number of specialist visits in the majority of countries. Figure 3.5 (Panel B) presents the number of specialist visits in the past four weeks for people who had a first contact with a specialist in the past year, once health care needs are taken into account. At population level, in 18 countries, the number of specialists visits is not linked to income once need is factored in. Eleven countries show pro-rich inequalities, where the higher the income, the greater the number of specialist visits for the same level of need. In contrast, in Bulgaria and Sweden the inequality pattern is in favour of the poor (Annex Table 3.A.5, Annex Table 3.A.4).

Figure 3.5. Needs-standardised probability and frequency of a specialist visit, by income quintile



Note: Chile: visits refer to the past 3 months; Chile is not included in any average. Canada: recall period for the number of visits is 12 months; excluded from average. Probabilities are indirectly standardised for health care needs (Box 3.1). Confidence intervals available in Annex Table 3.A.4 and Annex Table 3.A.5.

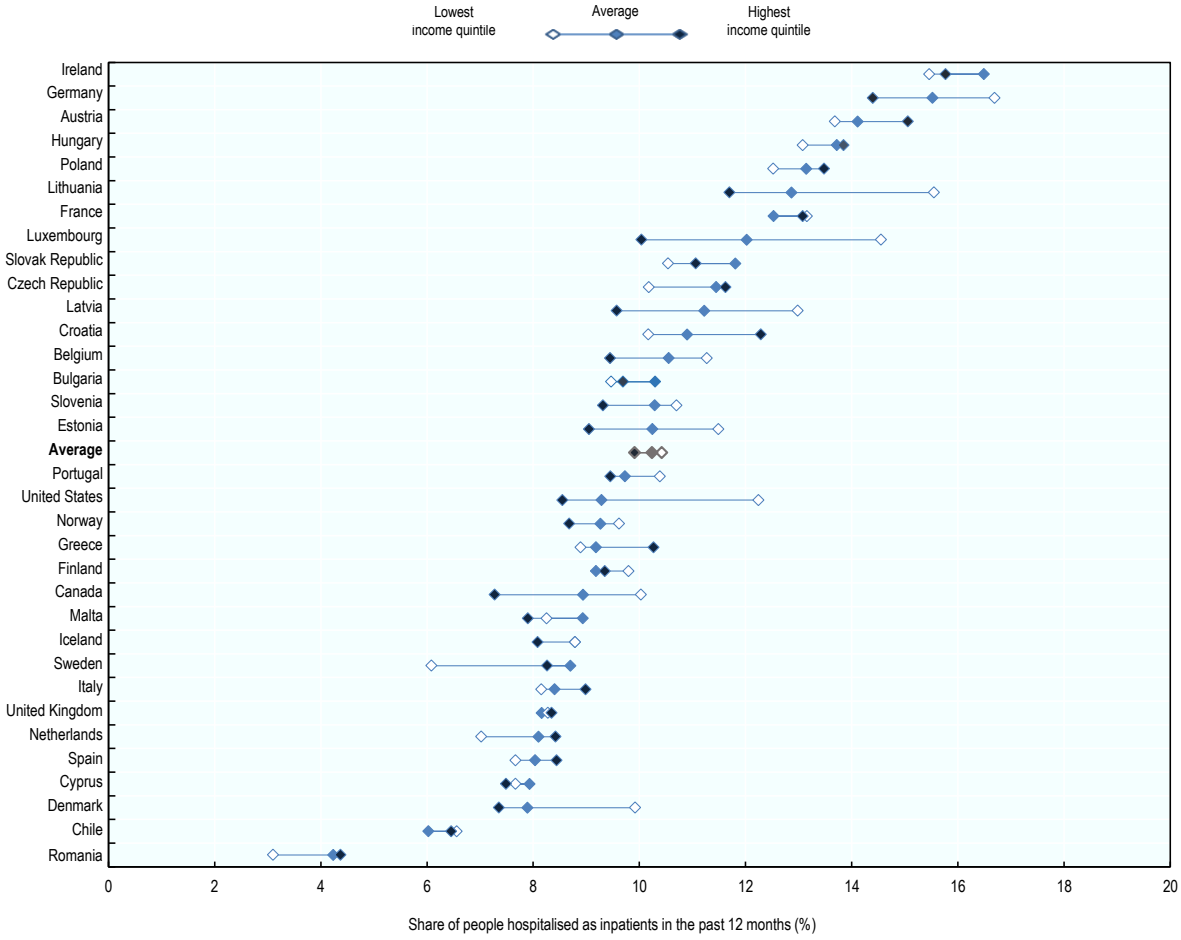
Source: OECD calculations based on national health surveys.

3.2.2. Access to hospital services does not depend on income in most countries

The frequency of hospital admissions also varies considerably across countries. On average, one in ten adults in EU and OECD countries were hospitalised in the 12 months prior to the survey. The needs-standardised probability of having an inpatient hospital admission in the past 12 months ranges between 4% in Romania and 16% in Ireland (Annex Table 3.A.7).

The majority of countries provide equal access to hospital services irrespective of income. On average across EU and OECD countries, the probability of hospital admissions are almost identical for the highest and lowest income quintiles. A handful of countries display fairly large gaps in the predicted probability of admission between the lowest and highest income quintile, which in most cases suggests that people belonging to the lowest income group are more frequently hospitalised. However, across the entire income distribution, the overall gradients of inequality (measured with the concentration index presented in Annex Table 3.A.7) show no income-related differences in hospitalisations in 25 out of 33 countries. In six countries (Canada, Estonia, Luxembourg, the United States, Latvia and Germany) however, the probability of being hospitalised decreases when income rises. Conversely, the better-off are more likely to be admitted into a hospital in Romania and Italy.

Figure 3.6. Needs-standardised probability of a hospitalisation in the past 12 months, by income quintile



Note: Inpatient hospitalisation only. Probabilities are standardised for health care needs. Confidence intervals are available in Annex Table 3.A.7.
Source: OECD calculations based on national health surveys.

3.2.3. Summary of inequalities in utilisation of curative services

Overall, once adjusted for health care needs, the differences in probabilities of having a doctor, GP or specialist visit for various income groups point to inequalities in access to care in favour of high-income people in most EU and OECD countries although the pattern is less frequent for GP visits (Table 3.2). When it comes to the number of visits to a GP or a specialist and the probability of having a hospital admission, differences between income groups are much less pronounced. For the number of GP consultations, there are more countries where the inequalities in utilisation appear to be pro-poor than countries where the opposite is the case.

Table 3.2. Summary of inequalities in doctor visits and hospitalisations

Once need is taken into account ↓	Increases as your income becomes higher	Does not differ across income groups	Decreases as your income becomes higher
Probability of doctor visit… →	CZE, DEU, ISL, BEL, NOR, FRA, ESP, HUN, AUT, LTU, ITA, SVN, CAN, PRT, HRV, GRC, EST, POL, LVA, CYP, FIN, USA, BGR, ROU, CHL	SVK, MLT, SWE, IRL, GBR, NLD, LUX	DNK
Probability of visit to the GP →	FRA, AUT, NOR, BEL, ITA, LTU, SVN, HRV, EST, CAN, LVA, POL, GRC, CHL, FIN, CYP, BGR, ROU	SWE, SVK, MLT, NLD, DEU, CZE, PRT, GBR, HUN, IRL, LUX, ISL	ESP, DNK
Number of visits to the GP →	ROU	LVA, LUX, BGR, SWE, LTU, FIN, HUN, IRL, CHL, NLD, POL, ISL, CYP, AUT, EST, SVK, MLT, GRC, NOR, HRV, CAN	PRT, FRA, CZE, ESP, ITA, DEU, GBR, DNK, SVN
Probability of visits to a specialist →	BEL, NLD, LUX, DEU, HUN, LTU, AUT, CZE, CYP, EST, GRC, GBR, NOR, MLT, ISL, CAN, FRA, ITA, SWE, SVN, LVA, ESP, POL, HRV, FIN, PRT, ROU, BGR, CHL	DNK, IRL, SVK	
Number of visits to a specialist →	AUT, POL, SVK, NLD, IRL, GBR, FIN, ROU, PRT, LUX, CHL	EST, HRV, ISL, LTU, SVN, MLT, DEU, FRA, DNK, HUN, ITA, CZE, GRC, CYP, ESP, LVA, NOR, CAN	SWE, BGR
Probability of hospitalisation →	ITA, ROU	DNK, LTU, BEL, ISL, SVN, PRT, GBR, FRA, CHL, MLT, FIN, IRL, BGR, NOR, HUN, SWE, AUT, POL, CZE, NLD, CYP, ESP, SVK, HRV, GRC	DEU, LVA, USA, LUX, EST, CAN

Note: Countries are ranked from lowest to highest degree of inequality (based on the Concentration Index).
Source: OECD estimates based on national surveys data.

The findings presented here are generally consistent with previous studies on inequalities in health care utilisation. Previous work by the ECuity project group, which mostly covered Western and Southern Europe, generally found no difference by income level in the probability of a GP visit, for the same level of needs, whereas in the present study the probability of a GP visit disproportionally favours the better off in more than half of the countries. But, aligned with the results of this chapter, the ECuity project group also found that when they started to see a GP, low-income people had more GP visits than high-income people in some countries. High-income people were more likely to see a specialist than low-income people (for

the same level of health care needs), and they were often visiting these specialists more (Doorslaer, Koolman and Jones, 2004[6]; van Doorslaer and Masseria, 2004[1]). Two other studies of European countries also showed pro-rich inequalities in specialist visits once standardised for needs, whereas the picture for GP visits was less clear-cut with some evidence for pro-poor inequalities (Or, Jusot and Yilmaz, 2008[7]; Bago d'Uva, Jones and van Doorslaer, 2009[8]). A range of studies in Latin America found more systematic evidence of a distribution of utilisation favouring the better-off. In Mexico, higher-income people used more curative and hospital care then lower-income people both in 2000 and 2006, with a slight decrease in inequalities in curative care over time (Barraza-Lloréns, Panopoulou and Díaz, 2013[9]). A study on Colombia and Brazil showed that 20 years after the introduction of reforms to improve access, income-related inequalities persisted in both countries (for specialist care in Brazil, and for primary, secondary and emergency care in Colombia) (Garcia-Subirats et al., 2014[10]). In Chile, once adjusted for needs, high-income people had a higher probability and intensity of use of GPs and specialists. Low-income people used emergency care more frequently, partly because of the cost associated with GP and specialist visits. For hospitalisation, high-income people tended to use the system more frequently in Chile, but low-income people stayed longer once they used it. This suggests that people with low income are hospitalised at a later stage, when the medical condition is already more critical. These patterns of inequality appeared to have become more pronounced over time (Vásquez, Paraje and Estay, 2013[11]).

The results presented here suggest that inequalities in the probability of a doctor visit have remained stable since the latest OECD study (Devaux and de Looper, 2012[12]). Comparing 16 countries that are included in both analyses, results show that, for GP visits, the degree of inequality remains constant for 13 countries. Only Finland displays increasing inequalities[2], while they decreased in Denmark and the Slovak Republic. Regarding the probability of a specialist visit, most countries show no change in the degree of inequality over time. However, inequalities decreased in four countries (Belgium, Canada, Demark, and France), whereas Finland, Slovenia, and the United Kingdom display rising inequalities. The present analysis adds 17 new countries to the 2012 study, of which 14 show pro-rich inequalities in GP visits. When it comes to specialist visits, data for all new countries display pro-rich inequalities.

There are various explanations for income-related inequalities in health care services utilisation. First, these inequalities can be driven by financial barriers to health care access, in particular in countries where the depth, breadth and height of coverage are low, or where private health care services play an important role in the health care system (see Chapter 5). Although most EU and OECD countries have achieved universal coverage for at least a core set of services, there are caveats (such as partial set of services covered, role of private health insurance, high cost-sharing) that makes access dependent on income. Second, health literacy and information about health care, such as awareness about availability and efficacy of health care services, may vary across population groups (Goddard and Smith, 2001[13]). People with a better understanding of the health care options and pathways can navigate the health care system more easily. Third, availability and quality of care may contribute to these inequalities as well (Goddard and Smith, 2001[13]). Availability of health care services may vary across population groups, or clinicians may have different propensities to offer treatment to patients from different population groups, even where they have identical needs.

3.3. Lower income people use preventive services less frequently

Few would argue against providing preventive and screening services (in relevant target groups) to detect the early onset of diseases to patients irrespective of income. Moreover, given again the higher burden of diseases of disadvantaged people, providing universal access to these services, especially cancer screening, is particularly important for health systems to effectively reduce inequalities in health outcomes.

In most countries, national authorities determine who should have access to screening services (see Box 3.2). They also have dedicated programmes to raise awareness about them. Service use may be free

of cost to the people in the target group and service providers may even be incentivised to ensure their patients receive them. Immunisation against seasonal flu for the elderly and regular dental check-ups are slightly different in nature. Although they may be desirable and are certainly seen as preventive services, they may not be as actively promoted or available free of charge.

This section examines inequalities in the take-up of preventive services across income groups using generalised concentration indices as described in Box 3.1.

Box 3.2. Recommendations for preventive care

Preventive care such as cancer screening, annual dental check-ups, and flu vaccination are recommended by national health authorities to all people in particular target age groups. National recommendations may vary across countries, but the following rule applies in a number of countries where, most often, cancer screening programmes are delivered free of charge.

- For cervical cancer screening, Pap Smear tests are recommended every 3 years in women aged 20-69.
- For breast cancer screening, mammography is recommended every 2 years in women aged 50-69.
- For colorectal cancer screening, Faecal Occult Blood Tests are recommended every 2 years in adults aged 50-74.
- Flu vaccination is recommended every year for people aged over 65.
- Dental examination is recommended once a year for the general population but more frequently among high-risk individuals (Kay, 1999[14]; ADA, 2013[15]).

As preventive services are mostly targeted to specific populations determined by their age and sex and take up should not depend on health status, inequalities in this section are measured on observed value (and not standardised as for curative services analysed in the previous section).

Although most countries have adopted population-based cancer screening programmes as an effective way for detecting diseases early, some questions emerge about the effectiveness of increasing coverage of mammography screening. This debate is related to recent progress in treatment outcomes and concerns about false-positive results, over-diagnosis and overtreatment. In high-income countries, WHO now recommends organised population-based mammography screening for women aged between 50 and 69, if specific criteria are met such as whether women are able to make an informed decision based on the benefits and risks of mammography screening (WHO, 2014[16]). Hence, increasing coverage of breast cancer screening is not by itself an objective for health care systems.

3.3.1. In virtually all countries, cancer screening is less frequently availed by people with lower income

There are large variations in cancer screening rates across EU and OECD countries and across different types of cancer. The national health surveys inquire whether people in the target groups have received cervical, breast or colorectal cancer screenings. The data on screening rates show:

- Colorectal cancer screening is less common than other types of cancer screening. On average in EU and OECD countries, 71% of targeted women were screened for cervical cancer and 66% for breast cancer, while only 38% people in the target group underwent colorectal cancer screening in the recommended time period.

- The variations in cancer screening rates across countries are large. The rates of cervical cancer screening range from 27% in Romania to 87% in the Czech Republic. For breast cancer, they vary from 7% in Romania to 91% in Sweden, and they stand between 6% in Bulgaria and 74% in Germany for colorectal cancer.
- Screening rates are generally correlated within countries but in some countries coverage performance depends on the type of cancer. Romania, Bulgaria, Estonia, Latvia, Cyprus, Malta and Poland are characterised by fairly low cancer screening rates across the three types of cancer. The opposite is true for France, Austria, Germany, the United States, Luxembourg and the Czech Republic. There are no clear patterns in other countries: Finland has one of the highest screening rate for breast and cervical cancer, but a low one for colon cancer. On the other hand, Denmark's screening rate is much higher than average for colon and breast cancer but below average for cervical cancer.

Overall, across EU and OECD countries, the less well-off have a lower probability of screening for all three types of cancer. For instance, only 61% of poor women had cervical cancer screening compared to 78% of women with high income. Figure 3.7 presents the rate of cervical cancer screening, showing large income-related inequalities in screening uptake in many countries.

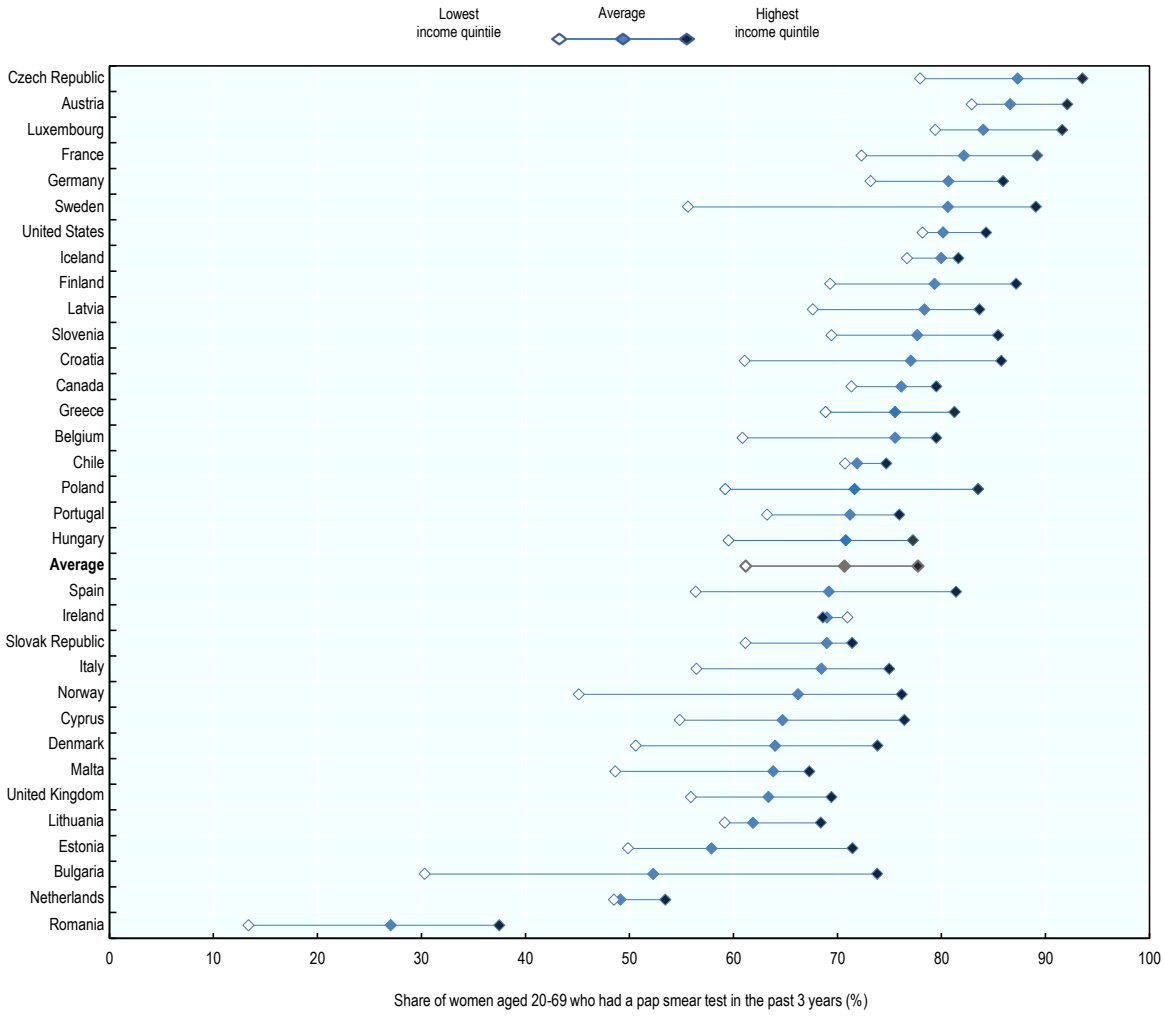
When comparing the richest and poorest income quintiles, only few countries manage to ensure that high- and low-income groups have similar access to cancer screening. The distribution of cervical cancer screening is biased towards higher-income women who are more likely to have cervical cancer screening than lower-income women in virtually all countries. Only in Ireland is the uptake of cervical cancer screening similar across income groups. Comparable patterns of inequality are found in breast and colorectal cancer screening, with richer people having greater access to screening services in the vast majority of countries.

Taking account of the distribution across the entire population, pro-rich inequalities in access to cancer screening exist in the vast majority of EU and OECD countries. Inequalities in favour of people with higher income, measured across the entire population using generalised concentration indices, are significant in 31 countries for cervical cancer screening, and in 26 countries for breast cancer (out of 33). Colorectal cancer screening is somewhat less unequally distributed: the GCIs are positive and significant in 18 countries (out of 32), not significant in 12 and the distribution favours lower income groups in Sweden and the United Kingdom (Annex Table 3.A.8, Annex Table 3.A.9-11). Overall, the less well-off display a lower cancer screening uptake, despite the fact that these programmes are organised and provided at no cost in the majority of countries (Ponti A et al., 2017[17]). Limitations in health literacy among people with lower income may partly explain these inequalities. However, countries could also investigate the design of these programmes; whether the existing communication strategies are effective or whether they need to be tailored to populations groups with different socio-economic backgrounds.

There are no discernible patterns of inequalities in cancer screening, suggesting that efforts to improve utilisation need to be designed on a country-by-country and cancer-by-cancer basis. The correlation between countries' screening rates and inequalities levels for any given cancer is weak. In other words, for a given screening rate, inequalities can be high or low in two different countries[3]. For instance, Denmark and the United States have comparable and relatively high levels of breast cancer screening (82% and 80%) but in the former country, inequalities are very low while the United States belong to the high inequality group. In Spain and Sweden, colorectal cancer screening is mediocre (around 25% for an average across countries of 38%), but the respective levels of inequalities are high in Spain and low in Sweden. Additionally, inequalities in coverage vary across types of cancer within countries. In Greece, for instance, inequalities are high for breast cancer screening, low for cervical and intermediate for colorectal cancers. In Portugal, they are respectively low (breast), intermediate (cervical) and high (colorectal). Overall, for all three types of cancer screening, Cyprus and Hungary display very high inequalities while they are very low in the Netherlands and Ireland.

Figure 3.7. Prevalence of cervical cancer screening, by income quintile

Share of women aged 20-69 who had a Pap smear test in the past 3 years



Note: Small sample size in Bulgaria (about 300 individuals per income group for this analysis).
Source: OECD calculations based on national health surveys.

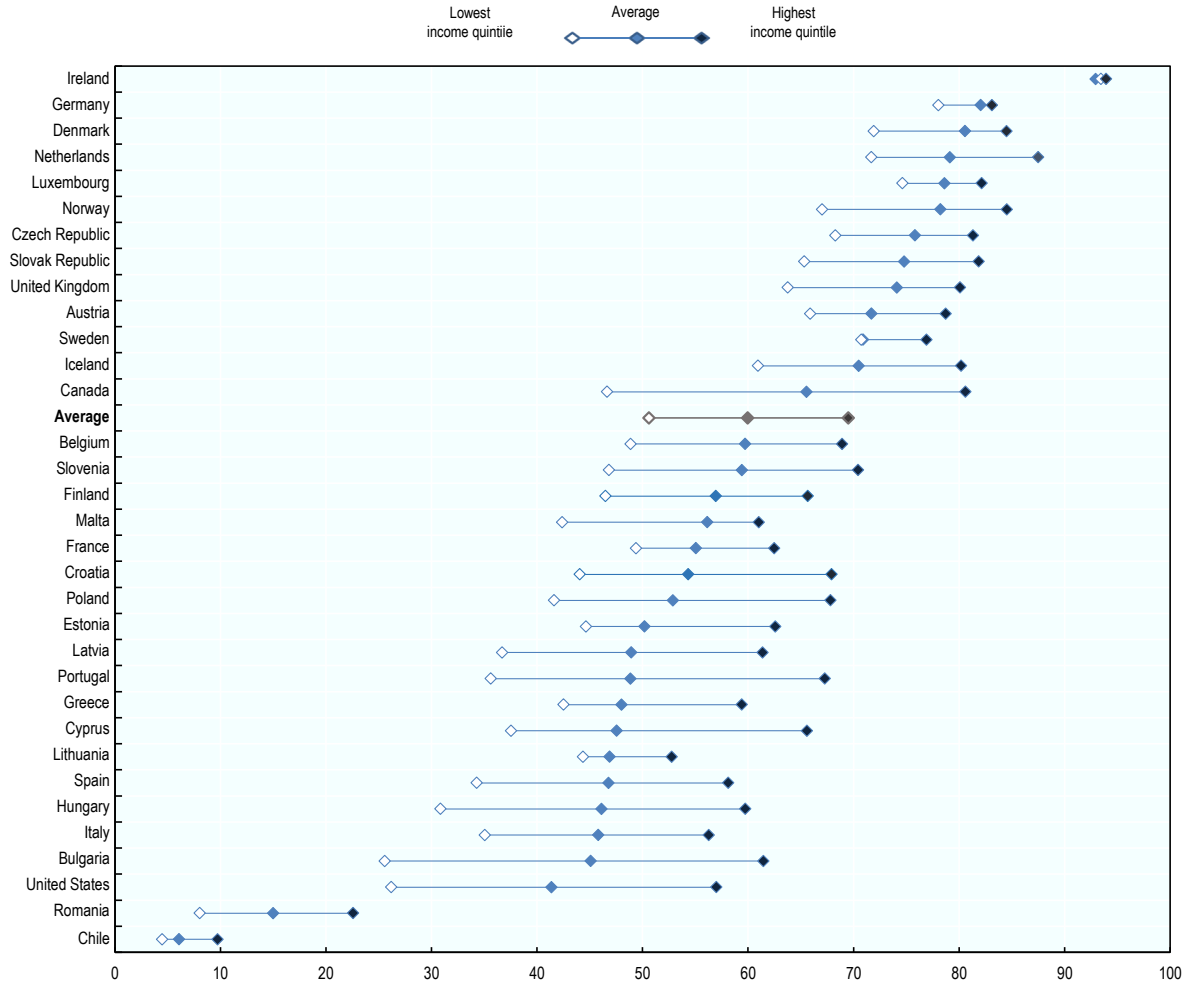
3.3.2. All countries, except Ireland, show inequalities in dentist visits in favour of people with higher income

The proportion of people who see a dentist annually varies by country, and across socio-economic groups within countries. On average, 60% of adults in EU and OECD countries had at least one dental consultation in the 12 months prior to the survey, with this share ranging from 15% in Romania to 93% in Ireland (Figure 3.8). Inequalities across income levels are apparent in all countries and the average difference between low and high income groups is close to 20 percentage points.

Income-related inequalities for dental consultations exist in all but one country and they favour the rich. With the exception of Ireland, the overall gradient of inequality taking into account the full distribution of dental visits across incomes groups (measured with the generalised concentration index) is significant in all countries (Annex Table 3.A.9 and Annex Table 3.A.7). Inequalities are also generally higher than for other preventive services.

These high levels of inequalities may be partially related to the benefit-design of collectively-financed health care goods and services. Unlike hospital care or visits to GP and specialists, the costs of dental care are much less well protected in many EU and OECD countries (see Chapter 5). As a result, poorer people may not be able to afford these services.

Figure 3.8. Probability of a dental visit in the past 12 months, by income quintile



Note: In Chile, visits refer to the past 3 months and Chile is not included the average.
Source: OECD calculations based on national health surveys.

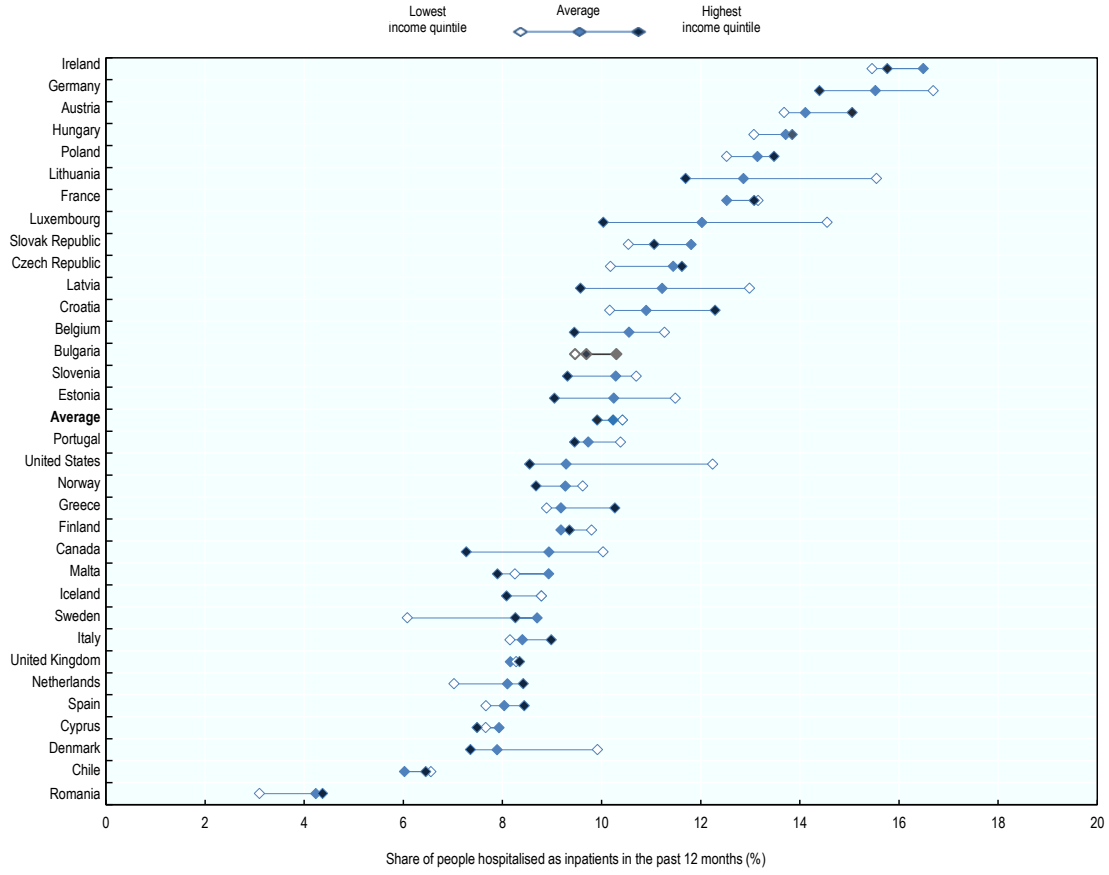
3.3.3. Flu vaccination among the elderly seems more evenly distributed among income groups than other preventives services

The vaccination rates against the flu among people aged 65 and over vary greatly across countries. On average, 39% of the elderly were vaccinated against the flu in the year preceding the survey across 30 EU and OECD countries (Figure 3.9). The variation between countries was more than 90-fold: this share stood as high as 91% in Finland but was as low as 1% in Estonia.

Immunisation against the flu does appear to be more evenly distributed across income levels than other preventive services. Compared to those for other preventive services Figure 3.9 displays relatively small gaps in vaccination rates between the higher and lower income groups, however, due to the relatively

small sample size the probabilities of being immunised represented on the chart are those of the two lowest and two highest income quintiles. The GCIs are generally lower for flu immunisation than other preventive services and they are only significant in 9 out of 30 countries. However, this result is also likely to be partly driven by the relatively small number of people 65 and over in the surveys (which leads to large confidence intervals pictured in Annex Table 3.A.8). The distribution is significantly biased towards the better off in 8 countries while in the Netherlands immunisation is more concentrated among the lower income groups (Annex Table 3.A.9).

Figure 3.9. Probability of flu vaccination, by income quintile



Note: Due to small sample sizes, the bottom two and the top two income quintiles were grouped.
Source: OECD calculations based on national health surveys.

3.3.4. Summary of inequalities in utilisation of preventive services

Overall, the observed differences in the probabilities of cancer screening, dental care and flu vaccination across income groups suggest inequalities in favour of the better-off in the vast majority of EU and OECD countries. Table 3.3 illustrates whether countries display inequalities in favour of the rich or the poor, or whether no socio-economic differences in access to preventive services can be detected.

Evidence from the health service research literature confirms the findings of mostly pro-rich inequalities in preventive care use. Socio-economic inequalities in breast and cervical cancer screening have been documented in a number of European countries (Devaux and de Looper, 2012[12]; Sirven and Or, 2011[18]). Interestingly, countries which offer nationwide population-based screening programmes have more equal

access to these services, irrespective of income, compared to those countries where cancer screening happens in an opportunistic (and less organised) manner (Palencia et al., 2010[19]). Higher use of dental care utilisation with rising income is also confirmed in a number of studies (Palència et al., 2014[20]; Devaux and de Looper, 2012[12]; Listl, 2011[21]; Tchicaya and Lorentz, 2014[22]).

Table 3.3. Summary of inequalities in cancer screening, dental care and vaccination

Looking at preventive care	Increases as your income becomes higher	No significant difference across income groups	Decreases as your income becomes higher
Probability of cervical cancer screening… →	CHL, NLD, USA, CAN, AUT, SVK, GBR, GRC, DEU, BEL, PRT, SVN, LUX, LTU, CZE, HUN, LVA, FRA, MLT, FIN, ITA, EST, HRV, CYP, POL, DNK, ESP, ROU, SWE, NOR, BGR	IRL, ISL	
Probability of breast cancer screening… →	IRL, SWE, ROU, FIN, LTU, FRA, GBR, SVN, CHL, CAN, AUT, NOR, SVK, BEL, ESP, POL, USA, CZE, LVA, ITA, HUN, GRC, MLT, HRV, BGR, CYP	DNK, LUX, EST, PRT, DEU, NLD, ISL	
Probability of colorectal cancer screening… →	ROU, BGR, DEU, POL, GRC, AUT, LVA, CYP, CAN, LUX, PRT, ISL, FRA, HRV, ESP, SVN, ITA, USA	NOR, EST, NLD, LTU, HUN, IRL, SVK, FIN, DNK, MLT, CZE, BEL	GBR, SWE
Probability of dentist visit… →	CHL, DEU, SWE, LUX, DNK, LTU, AUT, FRA, ROU, GRC, CZE, NOR, GBR, SVK, EST, NLD, FIN, MLT, ISL, ITA, BEL, SVN, ESP, HRV, LVA, POL, CYP, HUN, PRT, USA, CAN, BGR	IRL	
Probability of flu vaccination… →	LVA, ROU, GRC, HUN, CAN, USA, AUT, POL	MLT, DNK, BEL, DEU, GBR, PRT, FRA, FIN, IRL, ITA, EST, HRV, LTU, NOR, CZE, LUX, ISL, SWE, SVN, SVK, CYP	NLD

Note: Countries are ranked from lowest to highest degree of inequality using the generalised concentration index.
Source: OECD estimates based on national health survey data.

3.4. Synthesis and conclusion

3.4.1. With differences in needs factored in, the utilisation of curative and especially preventive services is generally more concentrated among high income groups

This chapter provides new evidence on the degree of income-related inequalities in health care services utilisation across 33 EU and OECD countries, based on national health survey data. Results clearly show that, consistently, but to an extent that varies across countries, people with different incomes for a given level of needs are not treated equally.

Income-related inequalities exist in the utilisation of some – but not all – curative health care services across EU and OECD countries:

- When controlling for differences in health care needs, people with lower income are less likely to visit a doctor in three quarters of EU and OECD countries.
- Inequalities in access to doctors are for a large part driven by access to specialist care: corrective for need, a person with low-income is 12 percentage points less likely than a person with high income to see a specialist. The summary measures of inequality show that the probability of a specialist visits is disproportionately concentrated among the better-off in all but three counties and the inequalities are larger than for GPs.

- Inequalities are somewhat less pronounced for access to a GP. On average, low-income people are 5 percentage point less likely to see a generalist than high-income people but the gap in the needs-adjusted probability is more than 10 percentage points in seven countries (Bulgaria, Croatia, Finland, Greece, Latvia, Poland and Romania). The summary measure of inequality shows that in a bit more than half of the countries (18 out of 32) the probability of seeing a GP in a year is more concentrated among higher income groups. The reverse is true in Denmark and Spain. In the 12 remaining countries, the summary measure of inequalities is not significant.
- Once access to a GP is secured, low-income patients have at least as many if not more visits to the GP than the rich in all but one country. Similarly, the number of visits to the specialists is equally distributed in the majority of countries.
- An intuitive – if not perfectly rigorous – interpretation of these findings is that lower-income people struggle more to reach the system but that once they have, they are in general likely to receive the same level of care as their higher-income counterparts.
- In the majority of countries, the probability of hospital admission is not associated with income levels.

Despite fairly low inequalities in access to a GP, lower-income people consistently have a lower utilisation of preventive services in virtually all countries suggesting problems in the provision of comprehensive primary care for the entire population.

- In general, access to preventive services varies greatly across countries. For instance, among the three categories of cancer screening reviewed, cervical cancer screening has the highest coverage on average (71%) - yet it ranges from 27% in Romania to 87% in the Czech Republic. Moreover, across OECD and EU countries, four in ten persons above 65 are immunised against the flu but this ratio is as low as 1% in Estonia and as high as 90% in Finland.
- For cervical, breast and colorectal cancers, the probabilities that the low-income people in the target population will have undergone screening in the recommended period is 17, 13 and 6 percentage points lower than that of the high-income people. The summary measures show that inequalities in favour of the rich prevail in the majority of countries but are slightly less systematic or marked for colorectal cancer (which has the lowest coverage rate – 38% of the target population). The data also show that for a given level of screening rate, inequalities can be high or low in two different countries. Within one country, the level of inequality in screening rates for different types of cancer can also vary considerably. Any policy aimed at improving utilisation should therefore factor in the inequality dimension to the extent it is relevant for a particular service in a given country.
- People in the lowest income quintile are nearly 20 percentage points less likely to have seen a dentist in the year. Summary inequalities are very high and detrimental to the poor in all but one country (Ireland). On the other hand, flu immunisation among the elderly is the least unequally distributed service among the preventive activities considered in this chapter, but given the small size of the samples for that population in various countries, these results would need to be confirmed.

The large differences in cancer screening rates between the rich and the poor in some countries suggest that current screening programmes and primary health care models are not succeeding in delivering recommended preventive care to the entire population. A reconfiguration of primary health care delivery towards more patient-centred models may be needed to better reach out to population groups of lower socio-economic status who frequently live in disadvantaged areas (OECD, forthcoming[23]).

3.4.2. Some countries are better at ensuring a more equal distribution of various types of care than others

Considering jointly the degree of income-related inequalities for all types of health care services described above, some general patterns emerge. A clustering aimed at dividing countries in three comparable-sized groups of high, low and intermediate inequalities was elaborated. It is based on the average rank of each country's inequality index across seven services (GP visit, specialist visit, dentist visit, hospitalisation, as well as cervical, breast and colorectal cancer screenings). Countries are clustered into groups reflecting the overall level of inequalities in the utilisation of these preventive and curative services[4]:

- the lowest levels of inequalities are found in Denmark, Estonia, Germany, Ireland, Lithuania, Luxembourg, the Netherlands, the Slovak Republic, Sweden, and the United Kingdom.
- the highest levels of inequalities are observed in Bulgaria, Croatia, Cyprus, Finland, Greece, Italy, Latvia, Poland, Romania, Slovenia, Spain and the United States.
- The intermediate group comprises Austria, Belgium, Canada, the Czech Republic, France, Hungary, Iceland, Malta, Norway and Portugal.

3.4.3. Inequalities in the utilisation of care is only one aspect of the access question

This publication underlines the importance of addressing inequalities in health but this should obviously be done in conjunction with other policies aimed at improving people's health.

To start with, in some circumstances, improving utilisation may be more of a priority than reducing inequalities. This can be particularly relevant for preventive services. It may be more desirable for a country to have high overall cancer screening rates with moderate inequality across socio-economic groups than displaying low screening rates where uptake is distributed evenly. Taking the example of preventive services, Estonia presents a good example: it belongs to the group of countries where inequalities in access to care are lowest – but at the same time, after Romania and Bulgaria and generally on par with Latvia, it has very low coverage for the preventive services analysed in this chapter. In other words, in the context of a health system performance assessment, inequalities and utilisation rates both need to be analysed jointly.

Furthermore, ensuring equality in the utilisation of services is good but not sufficient for modern, person-centred health systems. The fact that people can reach care providers is only one part of the equation: a contact with the system can only translate into better health outcomes if service provision is aligned with best practice. Similarly, if patients are harmed in the process of care, which is not rare, additional health system resources have to be mobilised and, very frequently, both the harm and the induced cost could have been avoided. In other words, for health systems to deliver results, high quality of care is paramount.

Yet, the data used to analyse inequalities in the utilisation of curative services in this chapter does not allow to assess whether the services provided have all been of good quality. Patients reporting a visit to the GP are typically not in a position to evaluate whether the treatment was in line with best practice. So it may be the case that there is an additional dimension of inequality across income groups pertaining to the quality of curative treatment. For preventive service, the situation is a bit different. Service such as cancer screening and flu vaccination are based on clinical recommendation and thus can be used to some extent to measure the quality of health systems. They contribute effectively to better health outcomes. Hence, by looking at access to preventive services, this chapter touches upon the question of health care quality. However, this approach is not comprehensive since quality of care is a multi-dimensional concept[5] that is difficult to assess and country's health systems deliver very unevenly on all dimensions. Although beyond the scope of this report, a more detailed analysis of differences in the quality of the care people received is warranted.

From a policy perspective, the results presented in this chapter open the question of what countries should do to ensure that health care services are accessible by everyone who has needs for health care,

independently of the income level. At the same time, utilisation of services is only one dimension when it comes to measuring access to care and related inequalities. The following two chapters which explore differences in unmet need for care and in the financial protection for health care costs help understanding barriers in access. For example, geographical barriers to care are a reason for higher unmet need among the poor but can also lead to reduced service utilisation. The same is true if lacks in financial coverage exist for disadvantaged population groups. Taken together, these elements provide the ground for a more complete discussion of the policy options to redress inequalities in access to care.

References

ADA (2013), *American Dental Association Statement on Regular Dental Visits*, https://www.ada.org/en/press-room/news-releases/2013-archive/june/american-dental-association-statement-on-regular-dental-visits (accessed on 11 October 2018). [15]

Bago d'Uva, T., A. Jones and E. van Doorslaer (2009), "Measurement of horizontal inequity in health care utilisation using European panel data", *Journal of Health Economics*, Vol. 28/2, pp. 280-289, http://dx.doi.org/10.1016/j.jhealeco.2008.09.008. [8]

Barraza-Lloréns, M., G. Panopoulou and B. Díaz (2013), "Income-related inequalities and inequities in health and health care utilization in Mexico, 2000 - 2006", *Revista Panamericana de Salud Pública*, Vol. 33/2, pp. 122-130, http://dx.doi.org/10.1590/S1020-49892013000200007. [9]

Carinci, F. et al. (2015), "Towards actionable international comparisons of health system performance: Expert revision of the OECD framework and quality indicators", *International Journal for Quality in Health Care*, http://dx.doi.org/10.1093/intqhc/mzv004. [24]

Chen, Z. (2007), *CONCINDC: Stata module to calculate concentration index with both individual and grouped data*, Boston College Department of Economics, https://ideas.repec.org/c/boc/bocode/s456802.html (accessed on 27 November 2018). [4]

Devaux, M. and M. de Looper (2012), "Income-Related Inequalities in Health Service Utilisation in 19 OECD Countries, 2008-2009", *OECD Health Working Papers*, No. 58, OECD Publishing, Paris, https://dx.doi.org/10.1787/5k95xd6stnxt-en. [12]

Doorslaer, E., X. Koolman and A. Jones (2004), "Explaining income-related inequalities in doctor utilisation in Europe", *Health Economics*, Vol. 13/7, pp. 629-647, http://dx.doi.org/10.1002/hec.919. [6]

Garcia-Subirats, I. et al. (2014), "Inequities in access to health care in different health systems: a study in municipalities of central Colombia and north-eastern Brazil.", *International journal for equity in health*, Vol. 13, p. 10, http://dx.doi.org/10.1186/1475-9276-13-10. [10]

Goddard, M. and P. Smith (2001), "Equity of access to health care services: Theory and evidence from the UK", *Social Science & Medicine*, Vol. 53/9, pp. 1149-1162, http://dx.doi.org/10.1016/S0277-9536(00)00415-9. [13]

Kay, E. (1999), "How often should we go to the dentist?", *BMJ (Clinical research ed.)*, Vol. 319/7204, pp. 204-5, http://www.ncbi.nlm.nih.gov/pubmed/10417062 (accessed on 11 October 2018). [14]

Listl, S. (2011), "Income-related inequalities in dental service utilization by Europeans aged 50+.", *Journal of dental research*, Vol. 90/6, pp. 717-23, http://dx.doi.org/10.1177/0022034511399907. [21]

O'Donnell, O. et al. (2016), *Conindex: Estimation of concentration indices*, https://folk.uib.no/secaa/Public/Undervisning/ECON220/Kap05_ci_Lorenz.pdf (accessed on 27 November 2018). [5]

O'Donnell, O. et al. (2008), *Analyzing Health Equity Using Household Survey Data A Guide to Techniques and Their Implementation Analyzing Health Equity Using Household Survey Data*, World Bank Group, Washington D.C, http://dx.doi.org/10.1596/978-0-8213-6933-3. [3]

OECD (2003), "Equity in the Use of Physician Visits in OECD Countries: Has Equal Treatment for Equal Need Been Achieved?", in *Measuring Up: Improving Health System Performance in OECD Countries*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264195950-13-en. [2]

OECD (forthcoming), *Doing Things Differently: Towards Better Primary Health Care in the 21st Century*, OECD, Paris. [23]

Or, Z., F. Jusot and E. Yilmaz (2008), "Impact of Health Care System on Socioeconomic Inequalities in Doctor Use Impact of health care system on socioeconomic inequalities in doctor use", *Working Paper*, No. DT n° 17, IRDES, http://www.irdes.fr (accessed on 7 September 2018). [7]

Palència, L. et al. (2014), "Socio-economic inequalities in the use of dental care services in Europe: What is the role of public coverage?", *Community Dent Oral Epidemiol.*, Vol. 42/2, pp. 97-105, http://dx.doi.org/10.1111/cdoe.12056. [20]

Palencia, L. et al. (2010), "Socio-economic inequalities in breast and cervical cancer screening practices in Europe: influence of the type of screening program", *International Journal of Epidemiology*, Vol. 39/3, pp. 757-765, http://dx.doi.org/10.1093/ije/dyq003. [19]

Ponti A et al. (2017), *Cancer Screening in the European Union - Report on the implementation of the Council Recommendation on cancer screening*, https://ec.europa.eu/health/sites/health/files/major_chronic_diseases/docs/2017_cancerscreening_2ndreportimplementation_en.pdf (accessed on 14 September 2018). [17]

Sirven, N. and Z. Or (2011), "Disparities in Regular Health Care Utilisation in Europe", in *The Individual and the Welfare State*, Springer Berlin Heidelberg, Berlin, Heidelberg, http://dx.doi.org/10.1007/978-3-642-17472-8_22. [18]

Tchicaya, A. and N. Lorentz (2014), *Socioeconomic inequalities in the non-use of dental care in Europe*, http://dx.doi.org/10.1186/1475-9276-13-7. [22]

van Doorslaer, E. and C. Masseria (2004), "Income-Related Inequality in the Use of Medical Care in 21 OECD Countries", *OECD Health Working Papers*, No. 14, OECD Publishing, Paris, https://dx.doi.org/10.1787/687501760705. [1]

Vásquez, F., G. Paraje and M. Estay (2013), "Income-related inequality in health and health care utilization in Chile, 2000 - 2009", *Revista Panamericana de Salud Pública*, Vol. 33/2, pp. 98-106, http://dx.doi.org/10.1590/S1020-49892013000200004. [11]

WHO (2014), *WHO position paper on mammography screening*, http://www.who. (accessed on 31 January 2019). [16]

Annex 3.A. Additional results on inequalities in utilisation of care

Utilisation of physician and hospital care

Annex Table 3.A.1. Descriptive statistics: Physician and hospital care

	Visited any doctor	Visited any GP	Visited any specialist	Number of GP visits	Number of specialist visits	Hospitalised as inpatient
EU28/27	78%	71%	47%	0.70	0.65	10%
OECD	79%	73%	47%	0.69	0.66	10%
Total	78%	70%	46%	0.68	0.63	10%
Austria	86%	76%	63%	0.65	0.53	15%
Belgium	84%	79%	48%	-	-	10%
Bulgaria	77%	74%	32%	0.75	0.56	10%
Canada♦	76%	71%	32%	2.48	1.06	8%
Chile♦	22%	16%	10%	0.69	0.31	5%
Croatia	77%	72%	48%	0.83	0.59	10%
Cyprus	66%	14%	61%	0.41	0.55	8%
Czech Republic	86%	75%	62%	0.57	0.60	12%
Denmark	83%	80%	35%	0.75	0.72	8%
Estonia	76%	66%	51%	0.47	0.71	10%
Finland	75%	68%	42%	0.52	0.53	9%
France	90%	88%	49%	0.78	0.70	12%
Germany	87%	79%	65%	0.90	0.91	15%
Greece	77%	59%	47%	0.67	0.61	9%
Hungary	84%	76%	62%	0.71	0.76	13%
Iceland	76%	68%	37%	0.45	0.50	8%
Ireland	78%	74%	35%	0.78	0.59	16%
Italy	81%	75%	55%	1.23	0.84	8%
Latvia	77%	71%	55%	0.47	0.39	11%
Lithuania	76%	74%	38%	0.66	0.50	13%
Luxembourg	88%	82%	54%	0.70	0.81	11%
Malta	79%	76%	34%	0.64	0.50	8%
Netherlands	76%	70%	42%	0.59	0.64	8%
Norway	77%	74%	33%	0.47	0.30	9%
Poland	82%	77%	56%	0.65	0.64	13%
Portugal	84%	75%	48%	0.40	0.45	9%
Romania	46%	45%	17%	0.53	0.31	4%
Slovak Republic	75%	69%	44%	0.54	0.63	12%
Slovenia	72%	66%	43%	0.86	0.77	11%
Spain	85%	77%	55%	0.50	0.37	8%
Sweden	66%	60%	34%	1.68	1.79	9%
United Kingdom	77%	74%	34%	0.59	0.46	9%
United States	65%	-	-	-	-	7%

Note: Proportion of adults who had a medical visit in the past 12 months, except in Chile♦ (in the past 3 months). Number of visits in the past 4 weeks for people who had a medical visit in the past year, except in Canada♦ (number of visits in the past 12 months). They are excluded from the averages as relevant.
Source: OECD calculations based on national health surveys.

Annex Table 3.A.2. Quintile distribution of the probability of a GP visit after needs-standardisation, inequality index

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
EU28	67	69	70	71	72	70		
OECD	70	72	73	74	74	73		
Total	67	69	70	71	72	70		
Austria	73	75	75	78	76	76	*	0.011*
	(71-74)	(74-77)	(74-77)	(77-80)	(75-78)	(75-76)		
Belgium	79	77	82	84	82	81	*	0.012*
	(76-81)	(74-80)	(80-85)	(81-86)	(80-84)	(80-82)		
Bulgaria	57	70	74	75	80	72	*	0.061*
	(54-59)	(67-73)	(72-77)	(73-78)	(78-83)	(71-73)		
Canada	66	68	70	74	75	70	*	0.026*
	(65-68)	(66-69)	(68-71)	(72-76)	(73-76)	(69-71)		
Chile♦	15	16	16	17	19	17	*	0.043*
	(15-15)	(16-16)	(16-17)	(17-18)	(19-19)	(17-17)		
Croatia	66	72	70	71	77	71		0.025*
	(63-70)	(68-75)	(67-73)	(68-75)	(73-80)	(70-73)		
Cyprus	12	13	15	14	16	14		0.050*
	(10-14)	(11-16)	(13-18)	(12-16)	(14-18)	(13-15)		
Czech Republic	72	74	77	76	73	74		0.000
	(70-75)	(72-76)	(74-79)	(73-78)	(70-75)	(73-75)		
Denmark	81	81	80	79	74	79		-0.017*
	(79-84)	(79-84)	(78-83)	(77-82)	(71-77)	(78-80)		
Estonia	64	62	65	65	72	66		0.025*
	(60-67)	(59-65)	(61-68)	(62-69)	(68-75)	(64-67)		
Finland	57	66	69	72	74	68	*	0.049*
	(54-59)	(63-69)	(67-72)	(70-75)	(72-77)	(67-69)		
France	83	86	87	87	88	86	*	0.011*
	(81-84)	(85-87)	(85-88)	(86-89)	(87-89)	(86-87)		
Germany	77	79	80	79	78	79	*	0.000
	(76-78)	(78-80)	(79-81)	(78-80)	(76-79)	(78-79)		
Greece	55	57	57	59	66	58		0.032*
	(52-57)	(55-59)	(55-60)	(56-61)	(63-68)	(57-59)		
Hungary	74	76	74	75	75	75		0.003
	(71-76)	(74-78)	(71-76)	(73-78)	(73-78)	(74-76)		
Iceland	65	69	66	70	69	68		0.010
	(62-68)	(66-72)	(62-69)	(66-73)	(66-72)	(66-69)		
Ireland	71	72	73	72	73	72		0.004
	(69-73)	(70-74)	(71-75)	(70-74)	(71-75)	(71-73)		
Italy	70	72	75	76	75	74	*	0.015
	(69-71)	(71-74)	(74-76)	(74-77)	(74-76)	(73-74)		
Latvia	62	70	70	72	73	69	*	0.027*
	(60-65)	(68-72)	(68-73)	(69-74)	(71-76)	(68-71)		
Lithuania	74	69	72	77	77	74		0.016*
	(71-76)	(67-72)	(70-75)	(74-79)	(75-80)	(73-75)		
Luxembourg	81	80	83	81	83	82		0.005
	(77-84)	(76-83)	(80-86)	(77-84)	(79-86)	(80-83)		
Malta	76	78	74	78	76	76		-0.001
	(74-78)	(75-80)	(71-77)	(74-81)	(72-80)	(75-78)		
Netherlands	69	70	69	69	69	69		0.000
	(66-72)	(67-72)	(67-72)	(67-72)	(67-71)	(68-70)		
Norway	70	74	73	76	75	74	*	0.011*
	(68-73)	(72-77)	(71-75)	(74-78)	(73-77)	(73-75)		
Poland	69	74	76	78	82	76	*	0.032*
	(67-70)	(73-75)	(74-77)	(77-80)	(80-83)	(75-76)		
Portugal	76	78	80	78	77	78	*	0.002

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
	(75-77)	(76-79)	(78-81)	(77-80)	(75-78)	(77-78)		
Romania	35	40	44	49	50	44	*	0.068*
	(34-37)	(39-42)	(43-46)	(47-50)	(48-51)	(43-45)		
Slovak Republic	68	70	71	69	66	69		-0.008
	(66-71)	(68-73)	(69-74)	(66-71)	(63-69)	(68-70)		
Slovenia	63	65	67	70	68	66		0.019*
	(60-66)	(62-67)	(64-70)	(67-73)	(65-71)	(65-68)		
Spain	76	77	78	76	73	76	*	-0.008*
	(74-77)	(76-79)	(76-79)	(75-77)	(71-74)	(75-76)		
Sweden	59	61	60	56	57	59		-0.012
	(56-62)	(58-63)	(57-63)	(53-59)	(55-60)	(57-60)		
United Kingdom	74	73	72	75	74	74		0.002
	(73-76)	(72-74)	(71-74)	(74-77)	(73-76)	(73-75)		

Notes: Probabilities are expressed in percentages and indirectly standardised for need controlling for marital status, income, education, occupational status, income size of household and urbanisation level. GS refers to the "Global Significance" of the "income" variable in the regression used for the indirect standardisation. The star (*) denotes significant at 5%. CI means concentration index.

♦ In Chile, visits refer to the past 3 months, Chile is not included in average.

Source: OECD calculations based on national health surveys.

Annex Table 3.A.3. Quintile distribution of the number of GP visits after needs-standardisation, inequality index

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
EU27	0.73	0.70	0.70	0.66	0.66	0.69		
OECD	0.72	0.70	0.69	0.65	0.65	0.68		
Total	0.71	0.68	0.68	0.65	0.64	0.67		
Austria	0.67	0.66	0.65	0.69	0.65	0.66		0.000
	(0.61-0.73)	(0.61-0.7)	(0.61-0.69)	(0.65-0.74)	(0.6-0.7)	(0.64-0.69)		
Bulgaria	0.77	0.82	0.76	0.69	0.72	0.74		-0.022
	(0.67-0.86)	(0.73-0.9)	(0.69-0.83)	(0.63-0.75)	(0.66-0.79)	(0.71-0.78)		
Canada♦	2.44	2.46	2.40	2.38	2.49	2.43		-0.000
	(2.28-2.6)	(2.32-2.6)	(2.26-2.54)	(2.27-2.5)	(2.36-2.61)	(2.37-2.5)		
Chile♦	0.68	0.79	0.70	0.68	0.68	0.71		-0.012
	(0.61-0.75)	(0.71-0.86)	(0.63-0.77)	(0.62-0.75)	(0.62-0.74)	(0.68-0.74)		
Croatia	0.84	0.69	0.93	0.92	0.83	0.85		0.018
	(0.68-1)	(0.6-0.78)	(0.77-1.09)	(0.79-1.05)	(0.73-0.93)	(0.79-0.9)		
Cyprus	0.44	0.4	0.34	0.43	0.4	0.4		-0.006
	(0.33-0.55)	(0.31-0.49)	(0.26-0.43)	(0.34-0.53)	(0.32-0.49)	(0.36-0.44)		
Czech Republic	0.6	0.58	0.61	0.5	0.54	0.56	*	-0.030*
	(0.53-0.68)	(0.52-0.64)	(0.54-0.69)	(0.45-0.55)	(0.49-0.59)	(0.53-0.59)		
Denmark	0.82	0.8	0.68	0.65	0.66	0.71		-0.051*
	(0.65-0.99)	(0.7-0.89)	(0.61-0.76)	(0.59-0.72)	(0.59-0.72)	(0.67-0.76)		
Estonia	0.39	0.49	0.47	0.41	0.43	0.44		0.001
	(0.32-0.46)	(0.41-0.57)	(0.4-0.55)	(0.34-0.47)	(0.35-0.52)	(0.4-0.47)		
Finland	0.52	0.55	0.53	0.5	0.49	0.51		-0.017
	(0.44-0.59)	(0.46-0.63)	(0.47-0.58)	(0.44-0.56)	(0.43-0.54)	(0.49-0.54)		
France	0.91	0.68	0.76	0.75	0.74	0.76	*	-0.025*
	(0.85-0.97)	(0.63-0.72)	(0.71-0.81)	(0.66-0.84)	(0.67-0.81)	(0.73-0.79)		
Germany	1.00	0.92	0.86	0.83	0.81	0.88	*	-0.043*
	(0.95-1.05)	(0.88-0.97)	(0.83-0.9)	(0.8-0.87)	(0.77-0.85)	(0.87-0.9)		
Greece	0.62	0.67	0.77	0.65	0.65	0.66		0.007
	(0.54-0.7)	(0.61-0.74)	(0.7-0.84)	(0.59-0.71)	(0.59-0.7)	(0.63-0.69)		

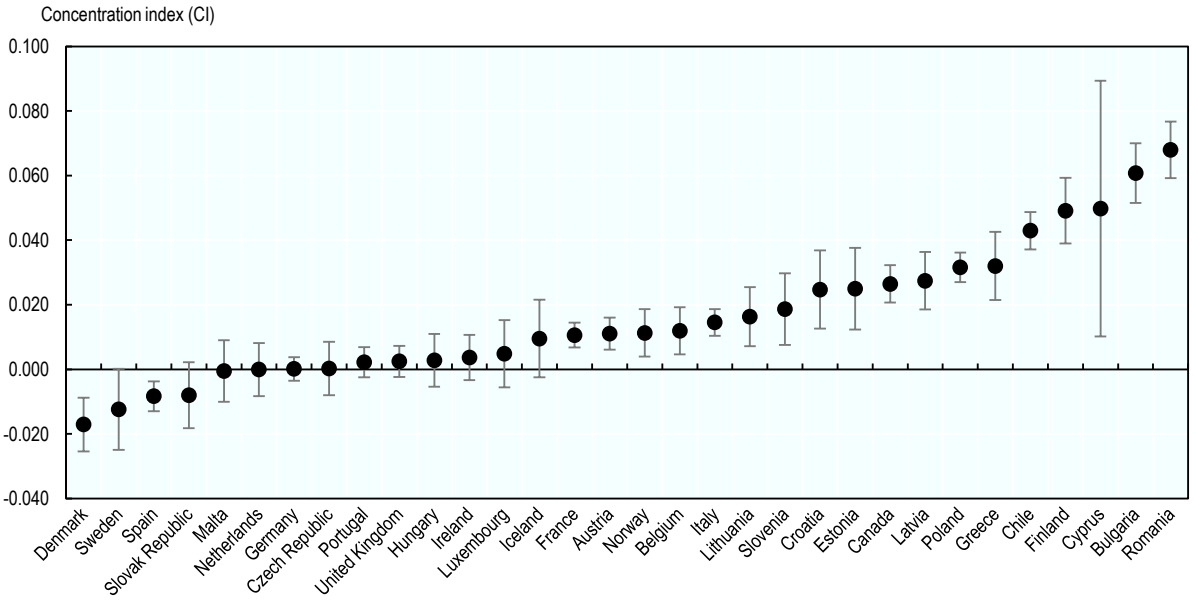
	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
Hungary	0.74	0.68	0.72	0.66	0.68	0.7		-0.016
	(0.67-0.81)	(0.62-0.74)	(0.64-0.79)	(0.58-0.73)	(0.6-0.76)	(0.66-0.73)		
Iceland	0.41	0.5	0.45	0.44	0.42	0.45		-0.007
	(0.33-0.5)	(0.43-0.57)	(0.38-0.53)	(0.38-0.5)	(0.37-0.48)	(0.41-0.48)		
Ireland	0.79	0.9	0.81	0.77	0.78	0.81		-0.015
	(0.71-0.87)	(0.82-0.98)	(0.75-0.88)	(0.7-0.84)	(0.72-0.84)	(0.78-0.84)		
Italy	1.33	1.31	1.18	1.12	1.14	1.21	*	-0.036*
	(1.27-1.39)	(1.25-1.36)	(1.13-1.23)	(1.08-1.17)	(1.09-1.19)	(1.19-1.24)		
Latvia	0.49	0.46	0.45	0.39	0.46	0.45		-0.024
	(0.44-0.54)	(0.42-0.5)	(0.41-0.5)	(0.36-0.43)	(0.41-0.5)	(0.43-0.47)		
Lithuania	0.65	0.65	0.65	0.63	0.59	0.63		-0.018
	(0.6-0.71)	(0.58-0.71)	(0.58-0.71)	(0.56-0.69)	(0.54-0.64)	(0.61-0.66)		
Luxembourg	0.72	0.63	0.66	0.61	0.63	0.65		-0.023
	(0.59-0.84)	(0.53-0.72)	(0.58-0.75)	(0.53-0.7)	(0.55-0.7)	(0.61-0.69)		
Malta	0.69	0.59	0.58	0.70	0.67	0.64		0.003
	(0.63-0.75)	(0.53-0.66)	(0.52-0.65)	(0.6-0.8)	(0.57-0.77)	(0.61-0.68)		
Netherlands	0.65	0.52	0.6	0.6	0.56	0.58		-0.010
	(0.54-0.75)	(0.46-0.59)	(0.51-0.69)	(0.55-0.65)	(0.51-0.61)	(0.55-0.62)		
Norway	0.43	0.5	0.46	0.48	0.49	0.47		0.017
	(0.38-0.48)	(0.44-0.55)	(0.41-0.5)	(0.43-0.52)	(0.45-0.54)	(0.45-0.49)		
Poland	0.66	0.67	0.69	0.7	0.62	0.67	*	-0.008
	(0.62-0.69)	(0.64-0.71)	(0.65-0.72)	(0.67-0.73)	(0.59-0.65)	(0.65-0.68)		
Portugal	0.42	0.41	0.4	0.4	0.38	0.4		-0.019*
	(0.39-0.45)	(0.39-0.44)	(0.37-0.43)	(0.38-0.43)	(0.35-0.4)	(0.39-0.41)		
Romania	0.5	0.51	0.55	0.51	0.55	0.53	*	0.017*
	(0.46-0.53)	(0.48-0.54)	(0.52-0.58)	(0.49-0.54)	(0.53-0.58)	(0.51-0.54)		
Slovak Republic	0.52	0.53	0.56	0.5	0.55	0.53		0.002
	(0.46-0.57)	(0.48-0.58)	(0.51-0.62)	(0.44-0.55)	(0.46-0.63)	(0.5-0.56)		
Slovenia	1.02	0.97	0.8	0.68	0.73	0.85	*	-0.082*
	(0.84-1.2)	(0.84-1.1)	(0.7-0.9)	(0.6-0.75)	(0.65-0.81)	(0.8-0.91)		
Spain	0.55	0.51	0.51	0.47	0.47	0.5	*	-0.032*
	(0.51-0.59)	(0.48-0.54)	(0.48-0.54)	(0.44-0.49)	(0.45-0.5)	(0.49-0.52)		
Sweden	1.8	1.62	1.75	1.65	1.5	1.66		-0.020
	(1.61-1.99)	(1.43-1.82)	(1.55-1.95)	(1.51-1.79)	(1.37-1.63)	(1.58-1.74)		
United Kingdom	0.67	0.61	0.57	0.54	0.54	0.58		-0.044*
	(0.63-0.71)	(0.57-0.65)	(0.54-0.61)	(0.51-0.57)	(0.51-0.57)	(0.57-0.6)		

Notes: The number of visits over the past 4 weeks is indirectly standardised for need controlling for marital status, income, education, occupational status, income, size of household and urbanisation level. GS refers to the "Global Significance" of the "income" variable in the regression used for the indirect standardisation. The star (*) denotes significant at 5%. CI means concentration index.

♦ In Chile (Canada), visits refer to the past 3 (12) months, Chile (Canada) is not included in average.

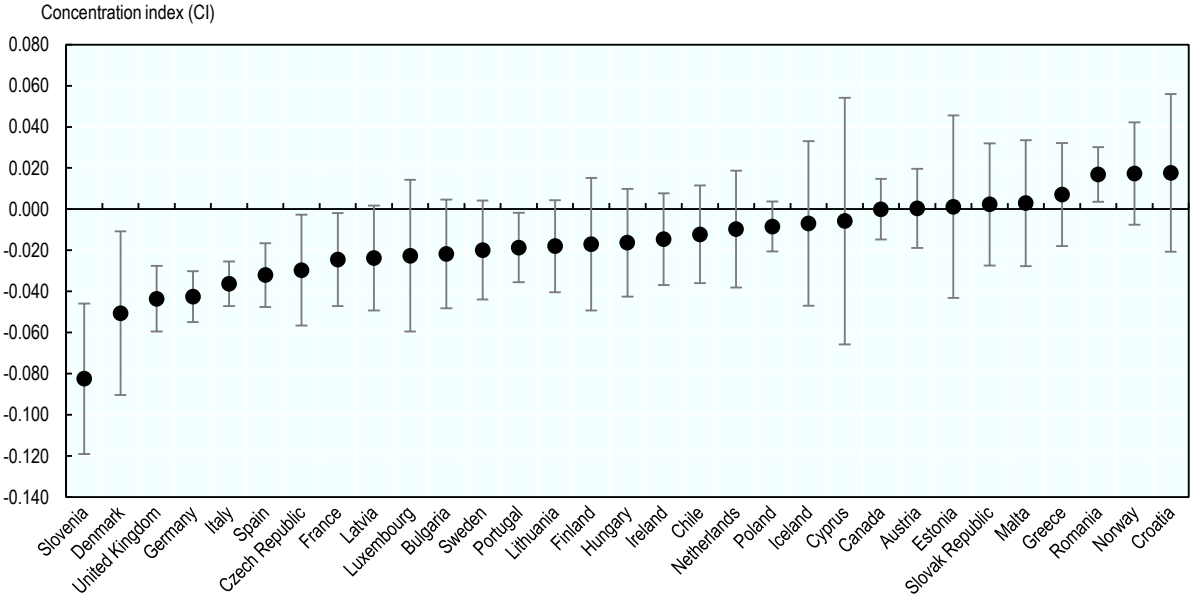
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.1. Inequality index for the probability of a GP visit after needs-standardisation



Note: The concentration index measures the degree of income-related inequalities in the probability of a GP visit. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.2. Inequality index for the number of GP visits after needs-standardisation



Note: The concentration index measures the degree of income-related inequalities in the number of GP visits. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Table 3.A.4. Quintile distribution of the probability of a specialist visit after needs-standardisation, inequality index

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
EU28	41	44	47	49	52	47		
OECD	41	44	47	49	52	47		
Total	39	43	45	47	51	45		
Austria	57	61	64	65	68	63	*	0.032*
	(55-59)	(59-63)	(62-65)	(64-67)	(66-69)	(62-64)		
Belgium	47	41	46	50	48	47	*	0.019*
	(43-50)	(37-44)	(43-49)	(47-53)	(45-50)	(45-48)		
Bulgaria	20	30	32	38	43	33	*	0.137*
	(18-23)	(26-33)	(29-35)	(35-40)	(41-46)	(32-35)		
Canada	26	30	32	36	35	32	*	0.056*
	(25-28)	(29-32)	(30-34)	(34-37)	(33-37)	(31-32)		
Chile♦	8	8	10	12	18	11	*	0.176*
	(7-8)	(8-9)	(9-10)	(11-12)	(18-18)	(11-11)		
Croatia	38	45	49	48	59	49	*	0.076*
	(35-42)	(41-49)	(45-53)	(45-52)	(55-63)	(47-50)		
Cyprus	53	60	58	63	67	60	*	0.041*
	(50-56)	(57-63)	(55-61)	(61-66)	(64-69)	(59-61)		
Czech Republic	54	63	61	63	67	62	*	0.036*
	(51-57)	(61-66)	(58-64)	(61-66)	(65-69)	(61-63)		
Denmark	33	33	36	38	33	35		0.005
	(30-37)	(30-37)	(33-39)	(35-41)	(30-36)	(33-36)		
Estonia	47	48	56	52	59	53	*	0.041*
	(43-51)	(45-52)	(53-59)	(48-55)	(56-63)	(51-54)		
Finland	32	38	41	44	51	42	*	0.083*
	(30-35)	(35-41)	(38-44)	(42-47)	(48-54)	(40-43)		
France	42	43	48	51	56	48	*	0.058*
	(41-44)	(41-45)	(46-50)	(49-52)	(54-58)	(47-49)		
Germany	60	62	66	66	69	64	*	0.029*
	(58-61)	(60-63)	(64-67)	(65-68)	(68-70)	(64-65)		
Greece	42	45	45	49	53	46	*	0.044*
	(40-45)	(42-47)	(42-48)	(46-51)	(51-55)	(45-47)		
Hungary	55	60	62	63	65	61		0.030*
	(52-58)	(57-62)	(59-64)	(61-66)	(62-68)	(60-62)		
Iceland	31	36	37	41	40	37	*	0.051*
	(27-34)	(33-40)	(34-40)	(38-44)	(37-43)	(36-39)		
Ireland	35	34	33	34	36	35		0.008
	(33-37)	(32-36)	(31-36)	(32-36)	(34-39)	(34-36)		
Italy	45	51	55	58	62	54	*	0.060*
	(44-46)	(49-52)	(54-56)	(57-59)	(60-63)	(54-55)		
Latvia	45	51	55	59	63	55	*	0.066*
	(42-47)	(49-54)	(52-57)	(56-61)	(61-66)	(54-56)		
Lithuania	40	32	32	40	42	37	*	0.031*
	(37-43)	(29-35)	(29-35)	(37-43)	(40-45)	(36-39)		
Luxembourg	52	55	56	56	60	56		0.025*
	(48-57)	(50-59)	(52-60)	(52-60)	(56-65)	(54-58)		
Malta	29	33	34	38	36	34	*	0.048*
	(26-32)	(30-36)	(31-38)	(35-42)	(32-40)	(32-35)		
Netherlands	38	38	44	40	43	41	*	0.023*
	(35-41)	(36-41)	(41-46)	(38-42)	(41-45)	(40-42)		

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
Norway	30	32	35	35	38	34	*	0.047*
	(27-32)	(29-34)	(33-37)	(33-37)	(36-40)	(33-35)		
Poland	44	51	56	57	67	55	*	0.075*
	(43-46)	(49-52)	(55-58)	(55-58)	(65-69)	(55-56)		
Portugal	39	43	46	54	66	50	*	0.105*
	(37-40)	(41-45)	(45-48)	(52-55)	(64-67)	(49-50)		
Romania	12	15	18	21	21	18	*	0.109*
	(11-13)	(13-16)	(17-19)	(20-22)	(20-22)	(17-18)		
Slovak Republic	41	41	45	44	43	43		0.012
	(39-44)	(38-44)	(42-48)	(41-46)	(41-46)	(42-44)		
Slovenia	36	42	43	45	52	43	*	0.064*
	(32-39)	(39-44)	(40-46)	(41-48)	(49-55)	(42-45)		
Spain	45	49	54	57	65	54	*	0.071*
	(44-47)	(47-50)	(53-56)	(56-59)	(63-66)	(54-55)		
Sweden	27	29	34	33	39	33	*	0.064*
	(24-30)	(26-32)	(31-36)	(31-36)	(36-41)	(32-34)		
United Kingdom	27	32	34	34	36	33	*	0.047*
	(26-29)	(31-34)	(32-35)	(33-36)	(35-38)	(32-34)		

Notes: Probabilities are expressed in percentages and indirectly standardised for need controlling for marital status, income, education, occupational status, income, size of household and urbanisation level. GS refers to the "Global Significance" of the "income" variable in the regression used for the indirect standardisation. The star (*) denotes significant at 5%. CI means concentration index.
♦ In Chile, visits refer to the past 3 months, Chile is not included in average.
Source: OECD calculations based on national health surveys.

Annex Table 3.A.5. Quintile distribution of number of specialist visits after needs-standardisation, inequality index

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
EU27	0.65	0.66	0.65	0.64	0.66	0.65		
OECD	0.66	0.66	0.65	0.65	0.67	0.66		
Total	0.63	0.64	0.63	0.62	0.64	0.63		
Austria	0.51	0.51	0.55	0.58	0.55	0.54		0.024*
	(0.46-0.56)	(0.46-0.55)	(0.5-0.61)	(0.53-0.63)	(0.51-0.59)	(0.52-0.56)		
Bulgaria	0.65	0.59	0.72	0.5	0.42	0.55		-0.094*
	(0.51-0.79)	(0.43-0.75)	(0.53-0.92)	(0.4-0.61)	(0.34-0.5)	(0.49-0.61)		
Canada♦	0.93	0.91	0.94	1.03	1.02	0.97		0.024
	(0.81-1.06)	(0.82-1)	(0.84-1.03)	(0.94-1.13)	(0.92-1.12)	(0.92-1.01)		
Chile♦	0.27	0.26	0.26	0.33	0.46	0.32	*	0.113*
	(0.23-0.31)	(0.22-0.3)	(0.23-0.3)	(0.29-0.37)	(0.42-0.5)	(0.30-0.34)		
Croatia	0.56	0.64	0.63	0.56	0.49	0.57		-0.041
	(0.43-0.7)	(0.49-0.79)	(0.52-0.73)	(0.48-0.64)	(0.42-0.56)	(0.52-0.62)		
Cyprus	0.52	0.55	0.53	0.57	0.56	0.55		0.014
	(0.46-0.59)	(0.48-0.62)	(0.48-0.59)	(0.52-0.63)	(0.51-0.62)	(0.52-0.57)		
Czech Republic	0.58	0.66	0.62	0.54	0.64	0.61		0.002
	(0.5-0.67)	(0.58-0.73)	(0.54-0.69)	(0.49-0.6)	(0.57-0.71)	(0.57-0.64)		
Denmark	0.62	0.75	0.84	0.69	0.65	0.71		-0.006
	(0.51-0.73)	(0.61-0.89)	(0.66-1.02)	(0.58-0.81)	(0.52-0.77)	(0.65-0.77)		
Estonia	0.86	0.88	0.71	0.72	0.72	0.77		-0.044
	(0.62-1.09)	(0.65-1.11)	(0.56-0.87)	(0.57-0.87)	(0.6-0.85)	(0.69-0.86)		
Finland	0.48	0.49	0.53	0.56	0.6	0.54		0.046*
	(0.39-0.58)	(0.4-0.58)	(0.44-0.61)	(0.47-0.65)	(0.52-0.67)	(0.5-0.58)		

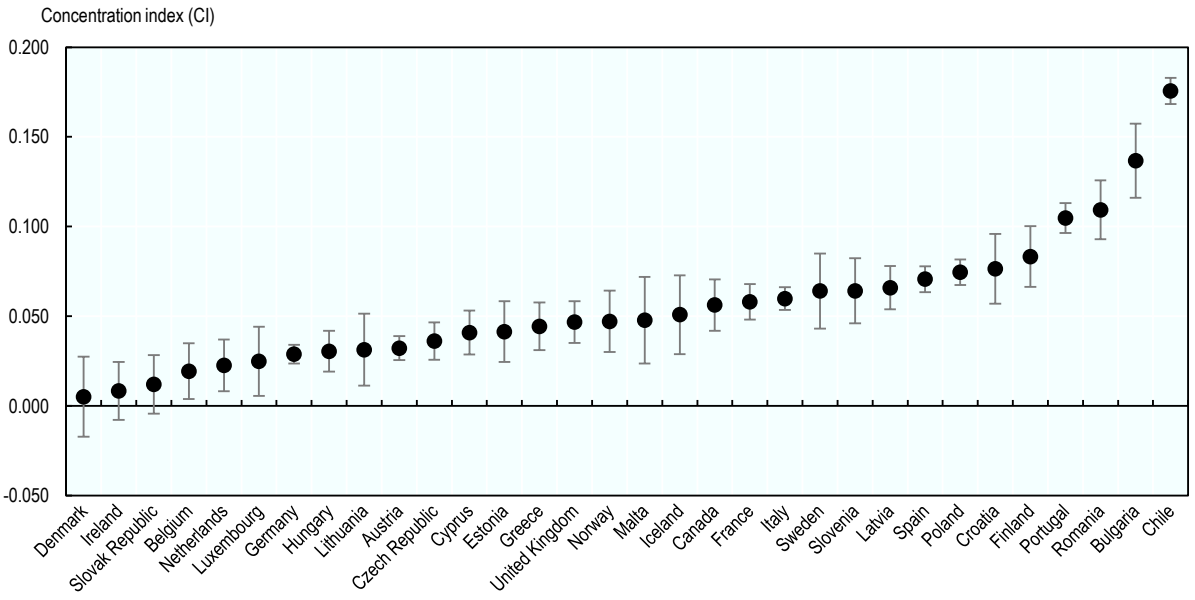
	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
France	0.76	0.64	0.73	0.67	0.69	0.7		-0.011
	(0.68-0.84)	(0.57-0.71)	(0.64-0.82)	(0.55-0.79)	(0.64-0.75)	(0.66-0.74)		
Germany	0.97	0.86	0.86	0.88	0.88	0.89		-0.013
	(0.92-1.03)	(0.81-0.9)	(0.82-0.91)	(0.83-0.92)	(0.84-0.93)	(0.87-0.91)		
Greece	0.63	0.6	0.63	0.6	0.66	0.62		0.006
	(0.54-0.72)	(0.53-0.66)	(0.56-0.69)	(0.53-0.67)	(0.58-0.74)	(0.59-0.66)		
Hungary	0.72	0.81	0.81	0.69	0.75	0.76		-0.005
	(0.56-0.87)	(0.67-0.94)	(0.71-0.91)	(0.61-0.77)	(0.66-0.84)	(0.71-0.81)		
Iceland	0.55	0.56	0.46	0.5	0.47	0.51		-0.037
	(0.4-0.7)	(0.45-0.67)	(0.38-0.55)	(0.41-0.58)	(0.37-0.56)	(0.46-0.55)		
Ireland	0.55	0.64	0.56	0.59	0.71	0.61		0.039*
	(0.48-0.63)	(0.54-0.73)	(0.48-0.64)	(0.51-0.67)	(0.62-0.8)	(0.58-0.65)		
Italy	0.83	0.83	0.8	0.82	0.82	0.82		-0.001
	(0.76-0.9)	(0.76-0.89)	(0.75-0.85)	(0.78-0.87)	(0.78-0.87)	(0.8-0.85)		
Latvia	0.41	0.37	0.34	0.4	0.42	0.39		0.016
	(0.36-0.46)	(0.31-0.42)	(0.29-0.38)	(0.35-0.45)	(0.38-0.47)	(0.37-0.41)		
Lithuania	0.54	0.5	0.46	0.45	0.48	0.49		-0.029
	(0.47-0.62)	(0.41-0.59)	(0.38-0.53)	(0.38-0.53)	(0.4-0.56)	(0.45-0.52)		
Luxembourg	0.67	0.69	0.8	0.82	0.95	0.79		0.070*
	(0.53-0.81)	(0.52-0.85)	(0.62-0.98)	(0.66-0.98)	(0.84-1.07)	(0.72-0.86)		
Malta	0.53	0.56	0.49	0.49	0.50	0.52		-0.020
	(0.45-0.61)	(0.44-0.68)	(0.39-0.59)	(0.38-0.59)	(0.36-0.65)	(0.47-0.57)		
Netherlands	0.53	0.6	0.75	0.66	0.69	0.66		0.038*
	(0.43-0.63)	(0.47-0.73)	(0.62-0.88)	(0.58-0.75)	(0.6-0.78)	(0.61-0.71)		
Norway	0.32	0.24	0.31	0.27	0.33	0.3		0.021
	(0.24-0.41)	(0.17-0.3)	(0.26-0.36)	(0.22-0.33)	(0.28-0.39)	(0.27-0.32)		
Poland	0.62	0.65	0.64	0.68	0.71	0.66		0.028*
	(0.57-0.67)	(0.6-0.69)	(0.6-0.68)	(0.64-0.72)	(0.67-0.76)	(0.64-0.68)		
Portugal	0.49	0.43	0.41	0.43	0.59	0.48		0.048*
	(0.41-0.57)	(0.39-0.47)	(0.37-0.45)	(0.39-0.46)	(0.56-0.63)	(0.45-0.5)		
Romania	0.29	0.31	0.28	0.32	0.37	0.32		0.048*
	(0.24-0.34)	(0.26-0.35)	(0.24-0.32)	(0.27-0.36)	(0.32-0.42)	(0.3-0.34)		
Slovak Republic	0.58	0.62	0.67	0.66	0.7	0.65		0.035*
	(0.5-0.65)	(0.55-0.7)	(0.59-0.74)	(0.58-0.74)	(0.61-0.79)	(0.61-0.68)		
Slovenia	0.79	0.86	0.72	0.83	0.69	0.78		-0.027
	(0.64-0.94)	(0.71-1.02)	(0.63-0.82)	(0.7-0.95)	(0.59-0.79)	(0.72-0.84)		
Spain	0.41	0.4	0.37	0.41	0.44	0.41		0.015
	(0.36-0.47)	(0.36-0.44)	(0.34-0.4)	(0.37-0.45)	(0.41-0.47)	(0.39-0.42)		
Sweden	2	1.9	1.62	1.69	1.51	1.73		-0.049*
	(1.39-2.61)	(1.58-2.22)	(1.42-1.81)	(1.46-1.93)	(1.3-1.73)	(1.6-1.87)		
United Kingdom	0.42	0.45	0.43	0.48	0.52	0.46		0.042*
	(0.36-0.47)	(0.38-0.52)	(0.39-0.47)	(0.43-0.53)	(0.47-0.57)	(0.44-0.49)		

Notes: The number of visits over the past 4 weeks is indirectly standardised for need controlling for marital status, income, education, occupational status, income size of household and urbanisation level. GS refers to the "Global Significance" of the "income" variable in the regression used for the indirect standardisation. The star (*) denotes significant at 5%. CI means concentration index.

♦ In Chile (Canada), visits refer to the past 3 (12) months, Chile (Canada) is not included in average.

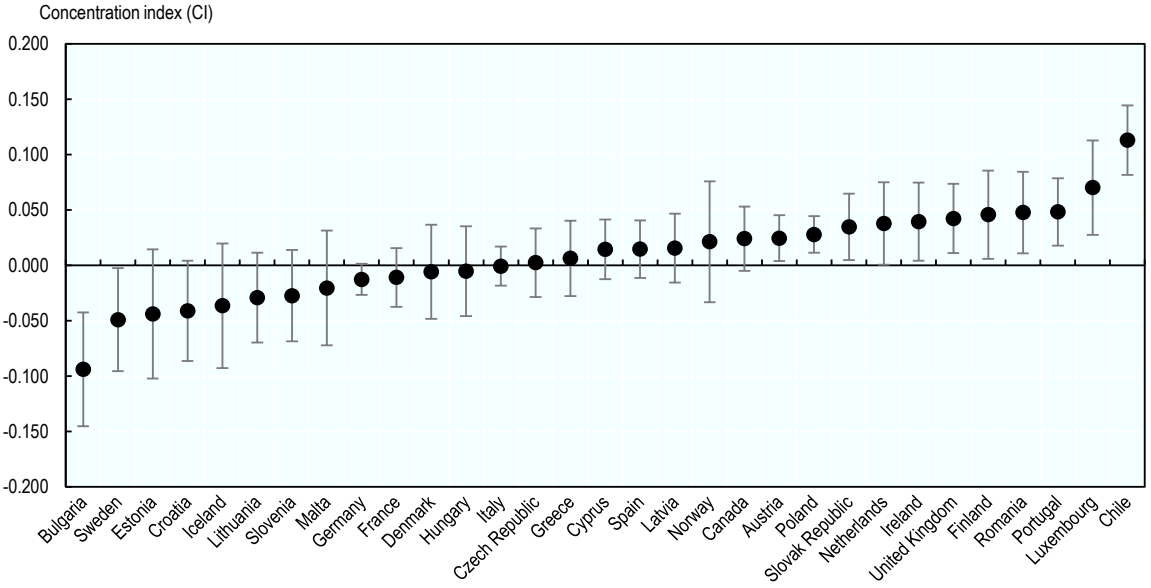
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.3. Inequality index for the probability of a specialist visit after needs-standardisation



Note: The concentration index measures the degree of income-related inequalities in the probability of a specialist visit. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.4. Inequality index for the number of specialist visits after needs-standardisation



Note: The concentration index measures the degree of income-related inequalities in the number of specialist visits. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Table 3.A.6. Quintile distribution of the probability of a doctor visit after needs-standardisation, inequality index

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
EU28	74	76	78	79	81	77		
OECD	75	77	79	80	81	78		
Total	73	76	77	78	80	77		
Austria	82	85	86	88	88	86	*	0.014*
	(80-83)	(84-87)	(85-87)	(87-89)	(87-89)	(85-86)		
Belgium	83	81	87	88	86	86	*	0.011*
	(80-85)	(78-83)	(85-89)	(86-90)	(84-88)	(85-86)		
Bulgaria	59	74	76	78	83	75	*	0.059*
	(57-62)	(71-76)	(74-78)	(76-81)	(81-86)	(74-76)		
Canada	72	73	74	79	79	75	*	0.022*
	(70-73)	(71-74)	(73-76)	(77-80)	(77-80)	(74-76)		
Chile♦	19	21	22	24	31	24	*	0.089*
	(19-20)	(21-21)	(21-22)	(24-25)	(30-31)	(23-24)		
Croatia	71	76	76	76	83	77		0.026*
	(68-74)	(72-79)	(73-79)	(73-80)	(80-86)	(75-78)		
Cyprus	58	64	63	67	72	65	*	0.039*
	(55-61)	(61-67)	(61-66)	(65-70)	(69-74)	(63-66)		
Czech Republic	83	85	87	85	87	85		0.008*
	(81-85)	(83-87)	(85-88)	(84-87)	(85-89)	(85-86)		
Denmark	82	82	83	81	76	81		-0.013*
	(80-85)	(79-84)	(80-85)	(79-84)	(74-79)	(80-82)		
Estonia	72	71	74	76	83	75	*	0.028*
	(69-75)	(69-74)	(71-77)	(73-79)	(80-86)	(74-77)		
Finland	63	72	75	78	82	74	*	0.045*
	(61-66)	(70-75)	(73-78)	(76-80)	(79-84)	(73-75)		
France	86	88	89	90	91	89	*	0.011*
	(85-87)	(87-89)	(88-90)	(89-91)	(90-92)	(88-89)		
Germany	84	86	87	87	88	86	*	0.008*
	(83-85)	(85-87)	(86-88)	(86-88)	(87-89)	(86-87)		
Greece	72	75	76	77	84	76	*	0.028*
	(70-74)	(73-77)	(74-78)	(75-79)	(82-86)	(75-77)		
Hungary	81	83	84	85	87	84		0.013*
	(79-83)	(81-85)	(82-86)	(82-87)	(85-89)	(83-85)		
Iceland	72	76	73	78	76	75		0.011*
	(69-75)	(74-79)	(70-76)	(75-81)	(73-79)	(74-77)		
Ireland	75	75	76	75	76	75		0.003
	(73-77)	(73-77)	(74-78)	(73-77)	(74-78)	(74-76)		
Italy	75	78	82	82	83	80	*	0.019*
	(74-76)	(77-79)	(80-83)	(81-83)	(82-84)	(79-80)		
Latvia	67	76	77	79	82	76	*	0.035*
	(65-70)	(74-78)	(75-79)	(77-81)	(80-84)	(75-77)		
Lithuania	76	71	75	78	79	76		0.016*
	(73-78)	(69-74)	(72-77)	(76-81)	(77-82)	(75-77)		
Luxembourg	87	87	89	87	91	88		0.008
	(84-90)	(84-90)	(86-91)	(84-90)	(89-94)	(87-90)		
Malta	79	80	77	81	80	79		0.002
	(76-81)	(78-83)	(74-80)	(78-84)	(77-84)	(78-81)		
Netherlands	73	74	75	75	75	75		0.005
	(70-76)	(72-76)	(73-78)	(73-77)	(73-77)	(74-76)		
Norway	74	77	76	78	79	77	*	0.011*
	(72-76)	(75-79)	(74-78)	(76-80)	(77-81)	(76-78)		
Poland	73	78	80	82	87	80	*	0.032*
	(72-74)	(77-79)	(78-81)	(81-83)	(86-88)	(80-81)		
Portugal	81	83	86	87	91	86	*	0.023*

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
	(80-82)	(82-84)	(85-87)	(86-88)	(90-92)	(85-86)		
Romania	36	41	46	50	51	45	*	0.068*
	(34-38)	(40-43)	(44-47)	(49-52)	(49-52)	(44-46)		
Slovak Republic	73	75	77	75	72	74		-0.003
	(70-75)	(73-77)	(74-79)	(72-77)	(69-74)	(73-75)		
Slovenia	68	70	71	75	74	71		0.019*
	(65-71)	(67-73)	(68-74)	(72-78)	(71-77)	(70-73)		
Spain	81	83	84	85	86	84	*	0.012*
	(79-82)	(82-84)	(83-86)	(84-86)	(85-87)	(83-84)		
Sweden	62	65	66	61	65	64		0.003
	(59-65)	(62-68)	(64-69)	(59-64)	(63-68)	(63-65)		
United Kingdom	76	76	75	78	77	76		0.004
	(75-77)	(74-77)	(74-77)	(77-79)	(76-78)	(76-77)		
United States	59	57	61	67	74	65	*	0.053*
	(57-60)	(56-59)	(60-62)	(66-68)	(73-75)	(65-66)		

Notes: Probabilities are expressed in percentages and indirectly standardised for need controlling for marital status, income, education, occupational status, income, size of household and urbanisation level. GS refers to the "Global Significance" of the "income" variable in the regression used for the indirect standardisation. The star (*) denotes significant at 5%. CI means concentration index.

♦ In Chile, visits refer to the past 3 months, Chile is not included in average.

Source: OECD calculations based on national health surveys.

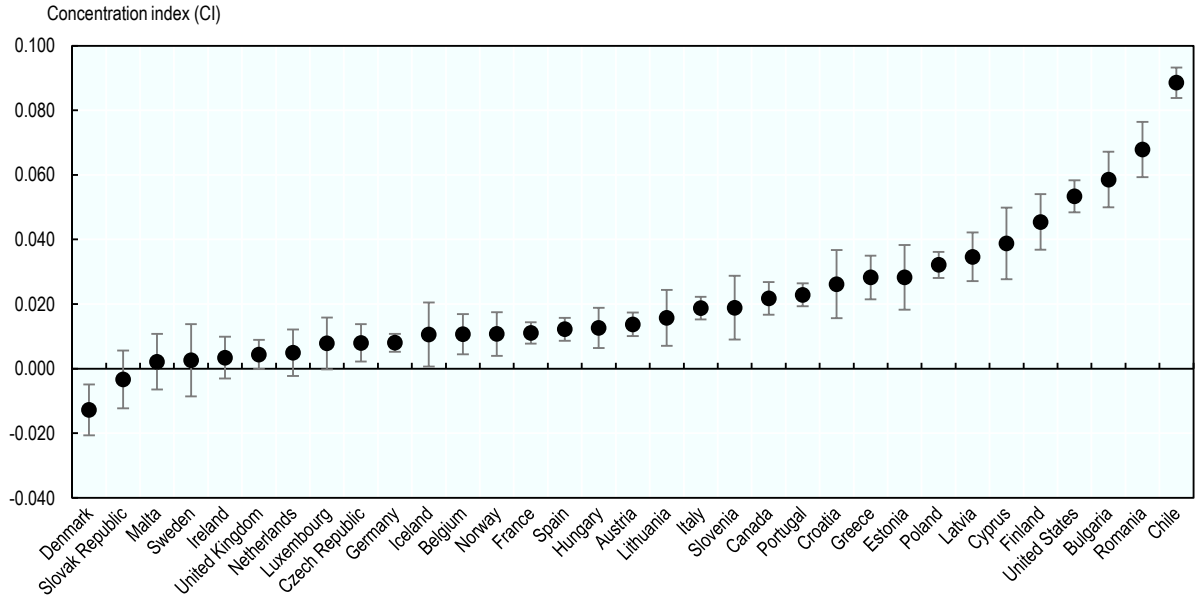
Annex Table 3.A.7. Quintile distribution of the probability of inpatient hospitalisation after needs-standardisation, inequality index

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
EU28	11	11	11	11	10	11		
OECD	11	11	11	11	10	11		
Total	10	10	10	10	10	10		
Austria	14	14	15	14	15	14		0.016
	(12-15)	(12-15)	(13-16)	(13-15)	(14-16)	(14-15)		
Belgium	11	11	11	11	9	11		-0.027
	(9-13)	(8-13)	(9-13)	(10-13)	(8-11)	(10-11)		
Bulgaria	9	10	12	11	10	10		0.001
	(8-11)	(8-12)	(10-14)	(9-12)	(8-11)	(10-11)		
Canada	10	10	10	7	7	9	*	-0.068*
	(9-11)	(9-11)	(9-11)	(7-8)	(6-8)	(8-9)		
Chile	7	6	6	5	6	6	*	-0.008
	(6-7)	(6-6)	(5-6)	(5-6)	(6-7)	(6-6)		
Croatia	10	11	11	10	12	11		0.027
	(8-13)	(8-13)	(9-14)	(8-12)	(10-15)	(10-12)		
Cyprus	8	7	8	9	7	8		0.025
	(6-9)	(5-9)	(6-10)	(8-11)	(6-9)	(7-9)		
Czech Republic	10	11	13	12	12	11		0.023
	(8-12)	(9-13)	(11-14)	(10-13)	(10-13)	(11-12)		
Denmark	10	8	7	8	7	8		-0.046
	(8-12)	(6-10)	(5-8)	(6-9)	(6-9)	(7-9)		
Estonia	11	12	11	8	9	10		-0.066*
	(9-14)	(9-14)	(9-14)	(6-10)	(7-11)	(9-11)		
Finland	10	9	9	9	9	9		-0.003
	(8-12)	(7-10)	(7-10)	(8-11)	(8-11)	(8-10)		
France	13	13	12	12	13	13		-0.008
	(12-14)	(12-14)	(10-13)	(11-13)	(12-14)	(12-13)		
Germany	17	16	16	14	14	16		-0.034*
	(16-18)	(15-17)	(15-17)	(13-15)	(14-15)	(15-16)		
Greece	9	8	10	9	10	9		0.028
	(8-10)	(7-10)	(8-11)	(8-11)	(9-12)	(9-10)		

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	Total	GS	CI
Hungary	13	14	13	14	14	14		0.007
	(11-15)	(12-16)	(11-15)	(12-16)	(12-15)	(13-15)		
Iceland	9	10	8	9	8	9		-0.025
	(7-11)	(8-12)	(6-10)	(7-11)	(7-10)	(8-10)		
Ireland	15	18	16	17	16	16		0.000
	(14-17)	(16-20)	(14-18)	(15-19)	(14-18)	(16-17)		
Italy	8	8	8	9	9	8		0.024*
	(7-9)	(7-9)	(7-9)	(8-9)	(8-10)	(8-9)		
Latvia	13	12	11	11	10	11		-0.056*
	(11-15)	(10-14)	(9-13)	(9-13)	(8-11)	(10-12)		
Lithuania	16	12	11	14	12	13	*	-0.036
	(13-18)	(10-14)	(9-13)	(12-16)	(10-13)	(12-14)		
Luxembourg	15	13	12	12	10	12		-0.065*
	(11-18)	(9-16)	(9-14)	(9-14)	(8-12)	(11-13)		
Netherlands	7	8	9	8	8	8		0.024
	(5-9)	(6-9)	(8-10)	(7-9)	(7-10)	(7-9)		
Malta	8	10	9	10	8	9		-0.005
	(6-10)	(8-12)	(7-10)	(8-12)	(6-10)	(8-10)		
Norway	10	8	10	11	9	9	*	0.006
	(8-11)	(6-9)	(8-11)	(9-12)	(7-10)	(9-10)		
Poland	13	13	13	14	13	13		0.018
	(11-14)	(12-14)	(12-14)	(13-15)	(12-15)	(13-14)		
Portugal	10	10	9	10	9	10		-0.020
	(9-11)	(9-11)	(8-10)	(9-10)	(9-10)	(9-10)		
Romania	3	4	5	5	4	4	*	0.065*
	(2-4)	(3-5)	(4-5)	(4-6)	(4-5)	(4-5)		
Slovak Republic	11	11	12	14	11	12		0.027
	(9-12)	(9-13)	(10-14)	(12-16)	(9-13)	(11-13)		
Slovenia	11	11	10	11	9	10		-0.022
	(8-13)	(9-13)	(8-12)	(9-13)	(8-11)	(9-11)		
Spain	8	7	9	8	8	8		0.025
	(7-9)	(6-8)	(8-10)	(7-9)	(8-9)	(8-8)		
Sweden	6	10	10	8	8	9	*	0.012
	(5-8)	(8-12)	(8-12)	(7-10)	(7-10)	(8-9)		
United Kingdom	8	9	9	7	8	8		-0.011
	(7-9)	(8-10)	(8-9)	(6-8)	(8-9)	(8-9)		
United States	12	10	9	8	9	9	*	-0.064*
	(11-13)	(9-11)	(8-10)	(8-9)	(8-9)	(9-10)		

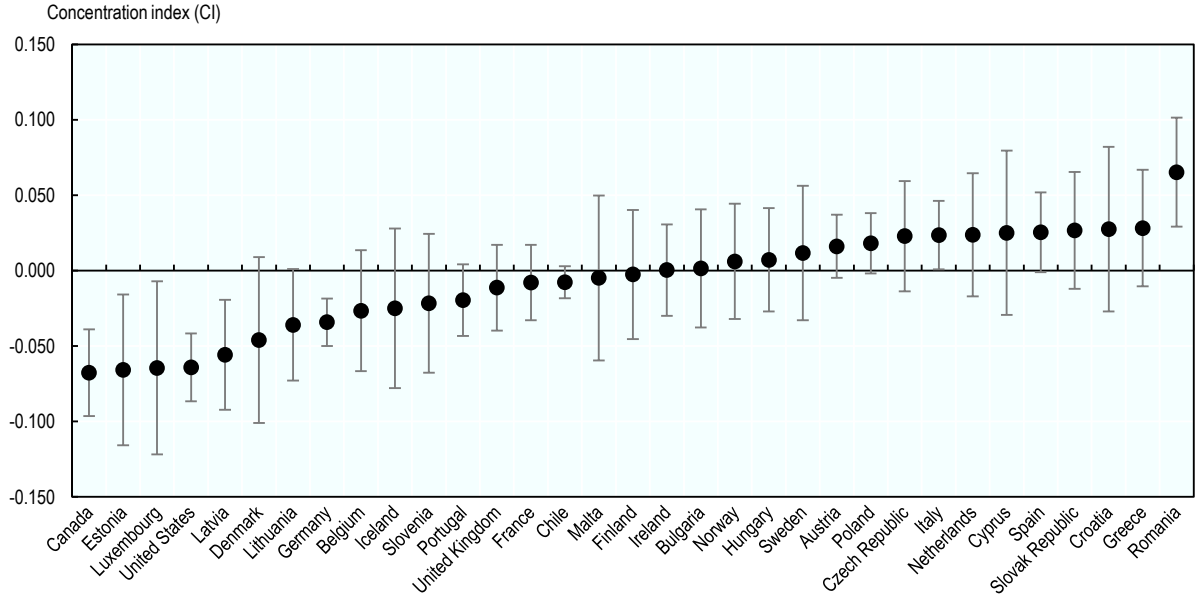
Notes: Probabilities are expressed in percentages and indirectly standardised for need controlling for marital status, income, education, occupational status, income, size of household and urbanisation level. GS refers to the "Global Significance" of the "income" variable in the regression used for the indirect standardisation. The star (*) denotes significant at 5%. CI means concentration index.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.5. Inequality index for the probability of a doctor visit after needs-standardisation



Note: The concentration index measures the degree of income-related inequalities in the probability of doctor visit. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.6. Inequality index for the probability of an inpatient hospitalisation after needs-standardisation



Note: The concentration index measures the degree of income-related inequalities in the probability of an inpatient hospitalisation. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Preventive services

Annex Table 3.A.8. Descriptive statistics and generalised concentration indexes: Cancer screening

	Cervical cancer screening				Breast cancer screening				Colorectal cancer screening			
	Q1	Mean	Q5	GCI	Q1	Mean	Q5	GCI	Q1	Mean	Q5	GCI
EU28	60%	70%	77%		58%	65%	71%		34%	37%	39%	
OECD	65%	73%	79%		63%	70%	74%		38%	42%	44%	
Total	61%	71%	78%		59%	66%	72%		34%	38%	40%	
Austria	83%	87%	92%	0.018*	67%	73%	80%	0.025*	67%	71%	74%	0.015*
Belgium	61%	76%	80%	0.025*	73%	75%	83%	0.030*	32%	35%	37%	0.010
Bulgaria	30%	52%	74%	0.088*	20%	32%	47%	0.052*	4%	7%	8%	0.009*
Canada	71%	76%	80%	0.018*	65%	74%	78%	0.023*	41%	49%	52%	0.018*
Chile	71%	72%	75%	0.007*	56%	61%	68%	0.022*	-	-	-	
Croatia	61%	77%	86%	0.043*	54%	67%	75%	0.046*	24%	31%	36%	0.026*
Cyprus	55%	65%	76%	0.046*	52%	66%	78%	0.054*	10%	18%	23%	0.018*
Czech Republic	78%	87%	94%	0.029*	65%	77%	85%	0.039*	50%	57%	58%	0.008
Denmark	51%	64%	74%	0.047*	83%	82%	80%	-0.007	46%	48%	49%	0.003
Estonia	50%	58%	71%	0.042*	41%	39%	46%	0.005	16%	16%	18%	-0.006
Finland	69%	79%	87%	0.035*	77%	86%	89%	0.019*	30%	30%	30%	0.001
France	72%	82%	89%	0.034*	79%	87%	90%	0.020*	53%	64%	67%	0.025*
Germany	73%	81%	86%	0.024*	70%	74%	72%	0.006	71%	74%	77%	0.012*
Greece	69%	76%	81%	0.024*	51%	60%	70%	0.042*	16%	23%	24%	0.013*
Hungary	60%	71%	77%	0.033*	53%	65%	73%	0.042*	23%	23%	19%	-0.002
Iceland	77%	80%	82%	0.012	60%	66%	69%	0.021	36%	42%	48%	0.021*
Ireland	71%	69%	69%	0.000	69%	68%	71%	0.012*	35%	38%	38%	-0.001
Italy	56%	68%	75%	0.038*	55%	67%	75%	0.042*	31%	43%	50%	0.039*
Latvia	68%	78%	84%	0.033*	38%	47%	56%	0.039*	23%	30%	32%	0.015*
Lithuania	59%	62%	68%	0.029*	45%	46%	51%	0.020*	28%	28%	24%	-0.002
Luxembourg	79%	84%	92%	0.027*	82%	81%	77%	-0.007	55%	57%	65%	0.018*
Malta	49%	64%	67%	0.034*	48%	58%	73%	0.044*	25%	27%	27%	0.005
Netherlands	49%	49%	53%	0.013*	73%	80%	82%	0.013	24%	23%	24%	-0.003
Norway	45%	66%	76%	0.056*	59%	76%	79%	0.026*	29%	31%	28%	-0.008
Poland	59%	72%	84%	0.046*	45%	59%	66%	0.034*	16%	20%	23%	0.013*
Portugal	63%	71%	76%	0.026*	82%	84%	86%	0.006	50%	57%	62%	0.021*
Romania	13%	27%	38%	0.050*	2%	7%	10%	0.018*	4%	6%	8%	0.009*
Slovak Republic	61%	69%	71%	0.023*	48%	54%	59%	0.028*	35%	35%	34%	0.000
Slovenia	69%	78%	85%	0.027*	56%	61%	71%	0.022*	59%	69%	81%	0.037*
Spain	56%	69%	81%	0.050*	68%	80%	86%	0.032*	19%	26%	35%	0.028*
Sweden	56%	81%	89%	0.053*	74%	91%	93%	0.015*	43%	25%	22%	-0.025*
United Kingdom	56%	63%	69%	0.023*	51%	59%	62%	0.021*	50%	49%	45%	-0.012*
United States	78%	80%	84%	0.016*	71%	80%	87%	0.035*	51%	63%	71%	0.042*

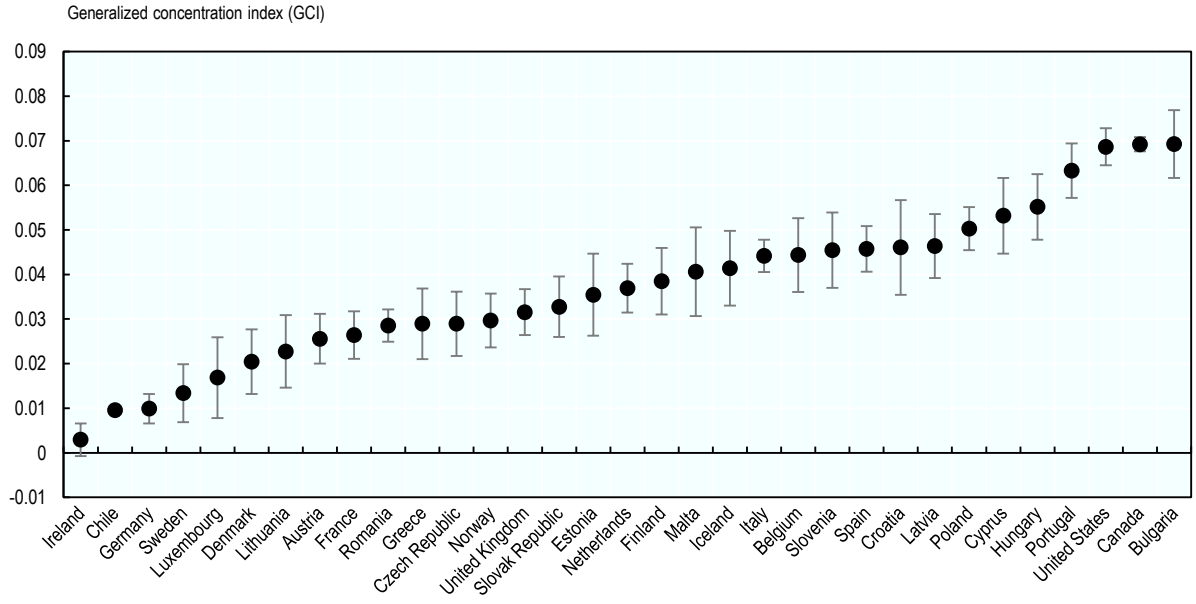
Note: GCI means generalised concentration index. Q1 refers to the proportion in the first income quintile (lowest), Q5 in the highest.
Source: OECD calculations based on national health surveys.

Annex Table 3.A.9. Descriptive statistics and generalised concentration indexes: Dental visits and flu vaccination

	Visited any dentist				Flu vaccination			
	Q1	Mean	Q5	GCI	Q1	Mean	Q5	GCI
EU28/26	51%	59%	69%		36%	37%	37%	
OECD	54%	63%	72%		40%	40%	41%	
Total	51%	60%	70%		38%	39%	39%	
Austria	66%	72%	79%	0.026*	17%	20%	24%	0.018*
Belgium	49%	60%	69%	0.044*	60%	59%	55%	-0.010
Bulgaria	26%	45%	61%	0.069*	-	-	-	
Canada	47%	66%	81%	0.069*	56%	58%	62%	0.017*
Chile♦	4%	6%	10%	0.010*	-	-	-	
Croatia	44%	54%	68%	0.046*	25%	25%	26%	0.001
Cyprus	38%	48%	66%	0.053*	30%	33%	32%	0.012
Czech Republic	68%	76%	81%	0.029*	15%	16%	17%	0.006
Denmark	72%	81%	84%	0.020*	49%	48%	41%	-0.014
Estonia	45%	50%	63%	0.035*	2%	1%	4%	0.000
Finland	46%	57%	66%	0.038*	92%	91%	90%	-0.003
France	49%	55%	62%	0.026*	56%	55%	53%	-0.004
Germany	78%	82%	83%	0.010*	49%	48%	45%	-0.005
Greece	43%	48%	59%	0.029*	48%	52%	54%	0.016*
Hungary	31%	46%	60%	0.055*	26%	28%	29%	0.017*
Iceland	61%	70%	80%	0.041*	53%	53%	52%	0.008
Ireland	93%	93%	94%	0.003	54%	54%	55%	-0.001
Italy	35%	46%	56%	0.044*	39%	41%	39%	-0.001
Latvia	37%	49%	61%	0.046*	3%	4%	6%	0.006*
Lithuania	44%	47%	53%	0.023*	5%	5%	4%	0.001
Luxembourg	75%	79%	82%	0.017*	45%	47%	51%	0.006
Malta	42%	56%	61%	0.041*	54%	53%	49%	-0.015
Netherlands	72%	79%	88%	0.037*	76%	73%	68%	-0.019*
Norway	67%	78%	85%	0.030*	22%	24%	22%	0.006
Poland	42%	53%	68%	0.050*	5%	10%	13%	0.019*
Portugal	36%	49%	67%	0.063*	49%	48%	45%	-0.004
Romania	8%	15%	23%	0.029*	4%	6%	8%	0.010*
Slovak Republic	65%	75%	82%	0.033*	13%	14%	18%	0.009
Slovenia	47%	59%	70%	0.045*	11%	12%	15%	0.009
Spain	34%	47%	58%	0.046*	-	-	-	
Sweden	71%	71%	77%	0.013*	37%	38%	39%	0.008
United Kingdom	64%	74%	80%	0.032*	80%	79%	78%	-0.004
United States	26%	41%	57%	0.069*	69%	72%	75%	0.018*

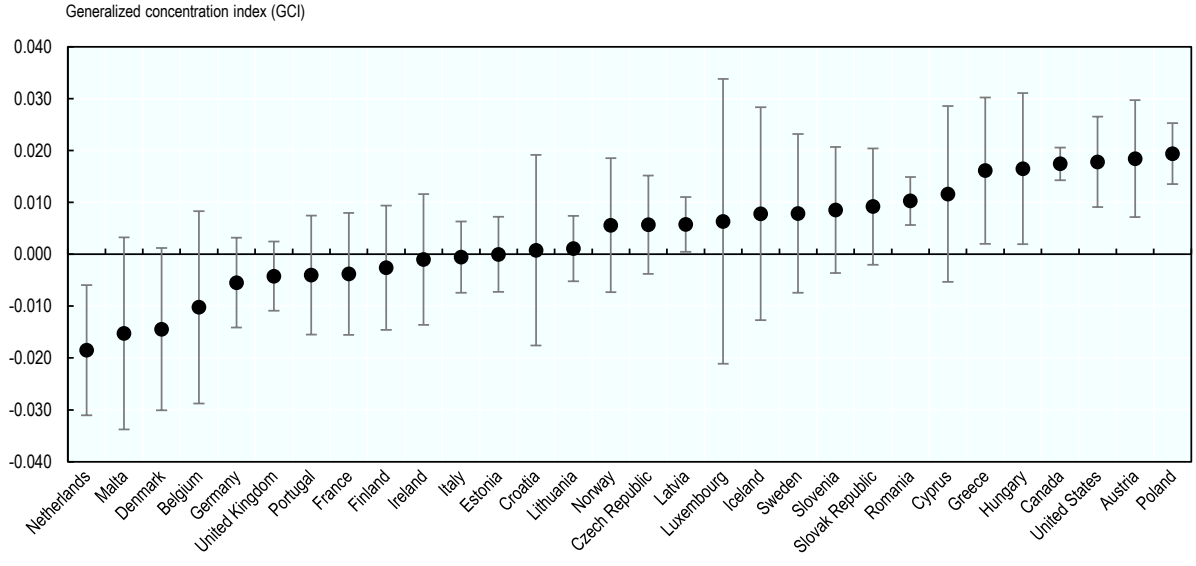
Note: ♦ In Chile, dentist visits refer to the past 3 months; Chile is not included in the average. GCI means generalised concentration index. Q1 refers to the proportion in the first income quintile (lowest), Q5 in the highest.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.7. Inequality index for the probability of a dentist visit in the past 12 months



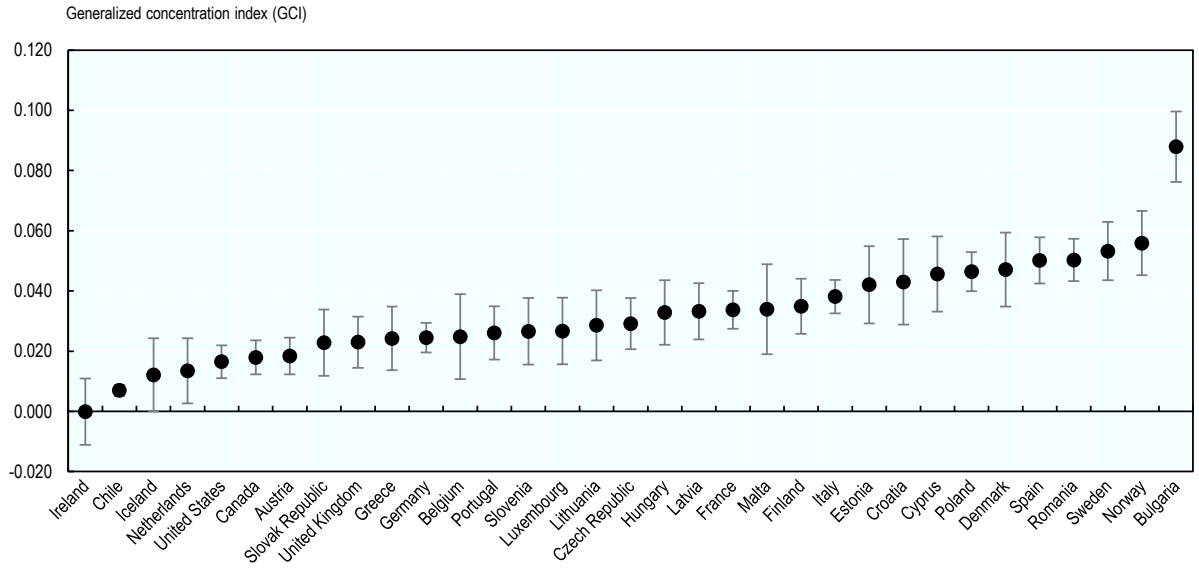
Note: The concentration index measures the degree of income-related inequalities in the probability of a dentist visit. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.8. Inequality index for the probability of flu vaccination in the past 12 months



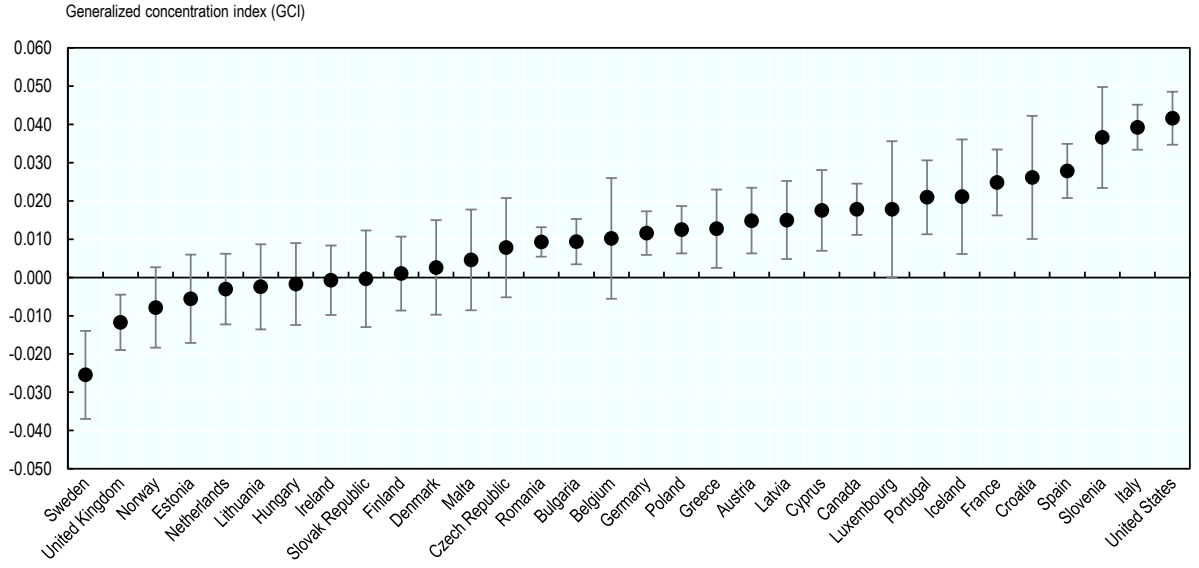
Note: The concentration index measures the degree of income-related inequalities in the probability of flu vaccination. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.9. Inequality index for the probability of cervical cancer screening



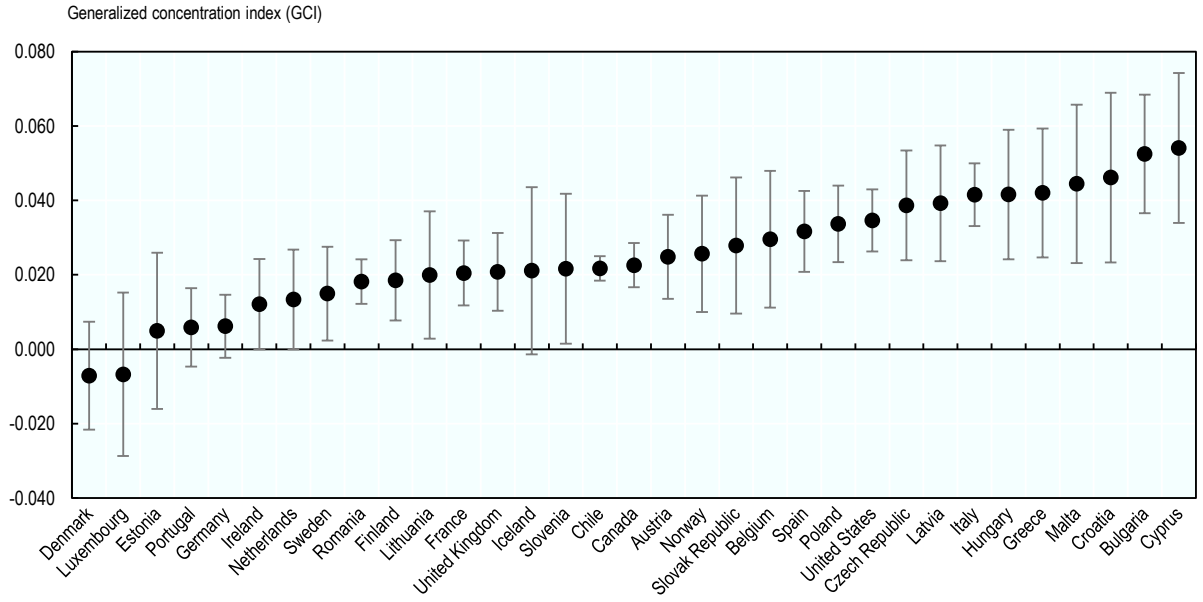
Note: The concentration index measures the degree of income-related inequalities in the probability of cervical cancer screening. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.10. Inequality index for the probability of colorectal cancer screening



Note: The concentration index measures the degree of income-related inequalities in the probability of colorectal cancer screening. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Annex Figure 3.A.11. Inequality index for the probability of breast cancer screening



Note: The concentration index measures the degree of income-related inequalities in the probability of breast cancer screening. The error bars represent the 95% confidence intervals. If the concentration index is significantly above (below) 0, inequalities are in favour of the rich (the poor). If the error bars cross the 0 line, there is no significant inequality.
Source: OECD calculations based on national health surveys.

Notes

[1] In practice, the surveys do not allow for such a clear-cut distinction because the first visit in a year does not necessarily need to be a patient-initiated visit, and neither do we know whether subsequent visits in the same year are necessarily doctor-initiated (ibid).

[2] Change over time is measured by computing the difference between the concentration indexes in the present study and the concentration index in the 2012 study. An increase (decrease) in inequality is assumed to be meaningful if the difference is greater (lesser) than 0.02 (-0.02).

[3] For this discussion, countries were divided in 3 groups of relatively high/low and intermediate level of inequality based on the value of the GCI for each cancer separately.

[4] Numerous sensitivity analyses were carried out using in particular a range of Principal Component Analyses on different sets of variables (those listed above or subsets of them, as well as adding flu immunisation, the number of GP and specialists visits). Different ways of dealing with missing information (mainly the facts that the Unites States does not distinguish GP and specialist visits) were also tested to produce another range of groupings. Chile was excluded from the final analysis: the results across grouping methods were not very stable and the fact that the reporting period for services was very different from all other countries for all services probably limits comparability. The final grouping distinguishing relatively low, medium and large is based on the average rank. These “convenient thirtiles” are based on the level of this average with minor adjustment of the boundaries to ensure countries more systematically fall into the group other analyses suggested they should fit in.

[5] The OECD distinguishes three dimensions of quality: (a) effectiveness, which describes the health system’s ability to achieve clinically desirable outcomes; (b) safety, which is about avoiding adverse health outcomes due to health care; and (c) responsiveness, which refers to how a system treats people to meet their legitimate expectations (Carinci et al., 2015[24]).

From:

Health for Everyone?

Social Inequalities in Health and Health Systems

Access the complete publication at:
https://doi.org/10.1787/3c8385d0-en

Please cite this chapter as:

OECD (2019), "Inequalities in the utilisation of health care services", in *Health for Everyone?: Social Inequalities in Health and Health Systems*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/a637a393-en