The impact of the financial crisis on unmet needs for healthcare

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THE IMPACT OF THE FINANCIAL CRISIS ON UNMET NEEDS FOR HEALTHCARE

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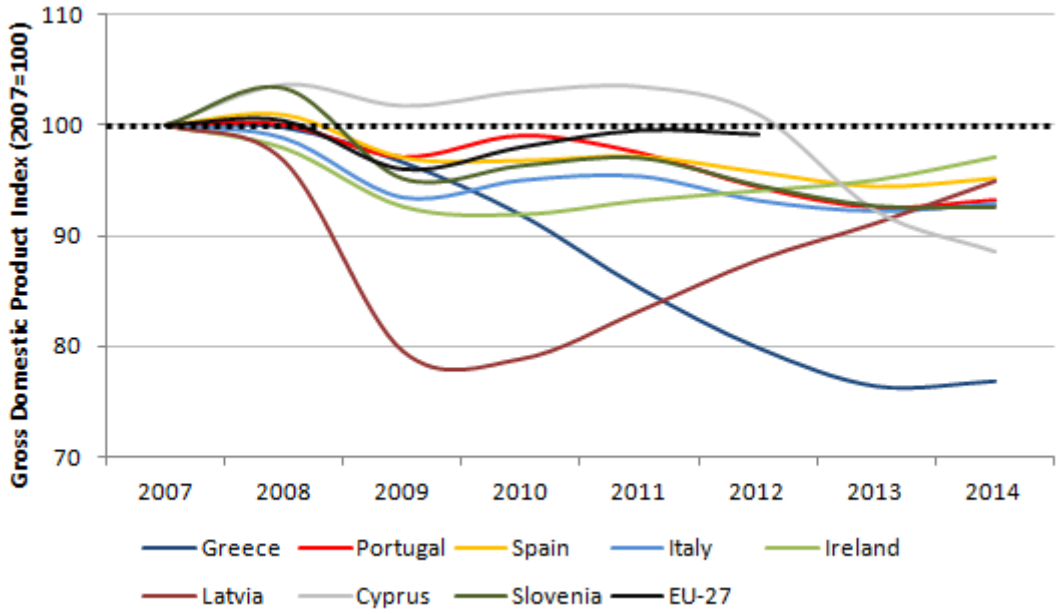
Abstract

This research note provides analysis of the trends in unmet needs for healthcare before and during the recent financial and economic crisis. Specifically, it aims to explore the extent to which there has been an increase in unmet needs due to affordability and unavailability of services, and to identify vulnerable social groups. For the purposes of this analysis, we selected those EU countries that have been most affected by the crisis: Ireland, Greece, Spain, Italy, Cyprus, Latvia, Portugal and Slovenia. Our analysis is based on the EU-SILC and concerns unmet needs for medical examination or treatment. The research note also examines the scope and composition of out-of-pocket payments for healthcare among the older population (50+) prior to the crisis, using data from the Survey of Health, Ageing and Retirement in Europe (SHARE). The research note likewise discusses the potential effects of the financial crisis on health and provides an overview of healthcare reforms and cost-containing measures implemented since the beginning of the crisis in the eight selected countries.

The financial crisis and its effects on health

The financial crisis that began in 2007 saw most European states accumulate public debt as GDP growth rates plummeted (Figure 1) and government budgets run up higher deficits. Unable to deal with their sovereign debt issues, European Member States adopted national austerity packages and undertook extensive budget cuts, especially in the context of the prerequisites or "conditionalities" that accompanied loans from the European Commission, the European Central Bank (ECB) and the International Monetary Fund (IMF) (the "Troika"). This was the case in Greece, Ireland, Portugal and, most recently, Cyprus. Spain has also received a bailout of its banking systems, albeit with less pressure being put on it to undertake reforms.

Figure 1: Evolution of GDP (index) of the crisis countries

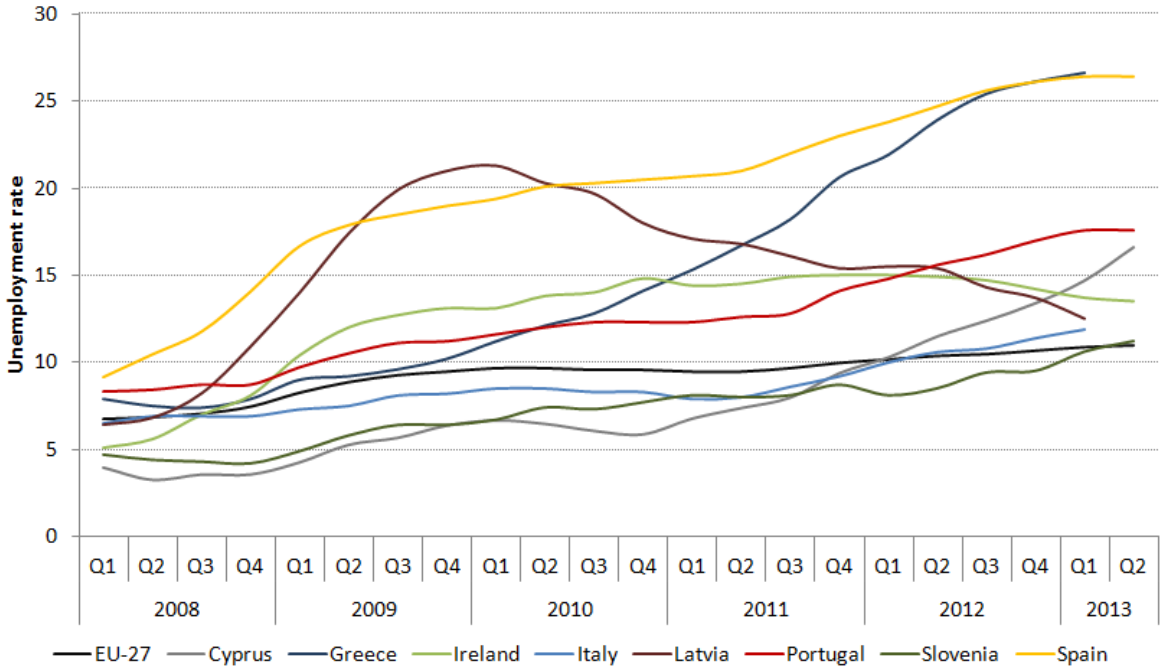


Note: GDP in volume, 2007=100.

Source: Eurostat, Statistical Database (accessed on 30.10.2013).

In this context, population health and access to healthcare are believed to be directly affected by the crisis, as high unemployment rates (Figure 2), material deprivation and reduced national spending on social protection (and cuts in health budgets in particular) are historically linked to worsening health outcomes and inadequate access to health services. This was particularly evident during the break-up of the Soviet Union, but was also seen in Finland during the late 1980s and early 1990s, and in Hungary and Spain in the mid-1990s (Bonovas and Nikolopoulos, 2012; Karanikolos et al., 2013; Stuckler et al., 2011; WHO, 2009). What is clear from these examples, however, is that the effects of a recession on health show a considerable time lag, so the complete picture is only discernible over the long term.

Figure 2: Quarterly evolution of the unemployment rate



Note: Quarterly unemployment rate, seasonally adjusted.

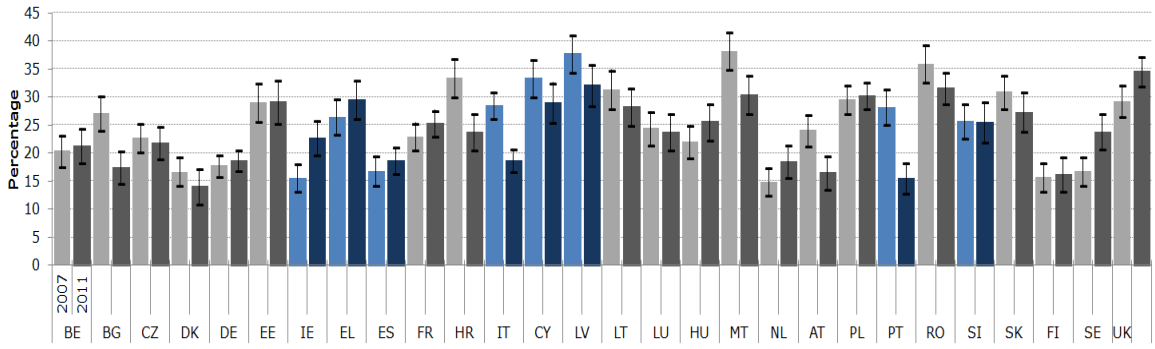
Source: Eurostat, Labour Force Survey (accessed on 12.08.2013).

Impact on health: counterintuitive findings

There is an extensive literature on the effects of economic recession on health. The main finding is that, in higher-income countries, mortality rates decline in times of economic downturn. The – perhaps counterintuitive – argument is that the generally observed increase in suicides is offset by lower mortality brought about by behavioural changes, such as healthier lifestyles (e.g. reduced alcohol intake, better nutrition, increased physical activity afforded by the fact that there is more time available for leisure) and reduced risky behaviour (e.g. reduced mortality from road accidents). Suicide rates have indeed increased greatly since 2009 in those countries that have experienced rapid changes in economic security, as have rates of psychiatric morbidity (Kentikelenis et al., 2011). But mortality related to road accidents also seems to have decreased, especially in the new EU Member States, but also in Ireland and Spain (which have reported a concomitant shortage of organs available for transplant) (Karanikolos et al., 2013; Stuckler et al., 2011).

There are nonetheless two fundamental caveats to the finding that overall health conditions remain unchanged (or may even improve with economic recession). The first is that the consequences of cuts in healthcare expenditure could potentially offset some of the positive behavioural effects of economic recession. The second caveat is that it is important to distinguish between short-term decreases in mortality and the kind of worsening health conditions that do not immediately lead to premature death (Figure 3).

Figure 3: Share of working-age population with poor mental health, 2007 and 2011



Notes: In European Quality of Life Surveys (EQLS), mental health well-being is assessed using the WHO five-item (WHO-5) Mental Well-being Index, with scores ranging from 0 (worst outcome) to 100 (best outcome). Poor mental health refers to a score of below 50.
The lines on the bars denote confidence intervals at 95%. "Crisis" countries are marked in blue.

Source: Own calculations using EQLS 2007 and 2011.

In Greece, it has been demonstrated that there was a statistically significant rise in the prevalence of major depression – from 3.3% in 2008 to 6.8% in 2009 (Madianos et al., 2011). Another study showed that one-month prevalence of depression was substantially higher in 2011 than in 2008: 8.2% versus 3.3% (Economou et al.,2011). In Spain, there was a significant increase in the prevalence of mental disorders among people attending primary care between 2006 and 2010 (Gili et al., 2013). Yet the effects of the crisis on mental health are quite heterogeneous even among the crisis countries (Figure 3). In a recent study, mental health was also found to have worsened with the crisis, but only for lower-income groups (Eurofound, 2013).

There is evidence that in Greece morbidity and mortality due to infectious diseases (H1N1, West Nile Virus, HIV, *Plasmodium vivax* malaria) rose significantly from 2009 to 2011. The same picture applies to the number of heroin users in Greece (Kondilis et al., 2013) and Portugal (Lusa, 2013). This deterioration in "epidemics" is believed to have come about due to a combination of underfunded or ineffective public health interventions and the development of "super-spreading" environments among the most vulnerable groups of the population (Bonovas and Nikolopoulos, 2012).

This highlights another seemingly important issue: some groups of the population are especially vulnerable in times of economic recession, and their situation may be masked by average figures (Eurofound, 2013).

Vulnerable groups in economic recessions

The groups likely to be most vulnerable during economic recessions include the unemployed, children, older people and migrants. Unemployed people are not just more likely to experience psychological problems, but during economic recessions they may actually increase their alcohol intake and have unhealthier diets (Karanikolos et al., 2013). Long-term unemployment in particular can have lasting effects in terms of heavy drinking – effects that can persist long after a return to employment, even among those that subsequently improve their socio-economic status (Mossakowski, 2008).

A systematic review of the impact of recession on communicable diseases (Suhrcke et al., 2011) found that marginalised groups, such as prison inmates and the homeless, but also migrants, children and older people, could experience the worst outcomes. The prevalence of communicable diseases and the mortality associated with them could both rise because of poorer living conditions (as members of families move in together, this could lead to overcrowded housing), limited access to and retention in

treatment, and cuts in public health spending. In another often-quoted example, the economic collapse of the Soviet Union caused a sharp increase in mortality in the context of rapid socio-economic change, the break-up of existing safety nets and the availability of cheap alcohol (Stuckler et al., 2009). In this case, the outcome was felt disproportionately by men. Some groups in society may thus be faced with deteriorating health in an economic recession, even though the overall figures could mask that outcome.

The potential effect of healthcare retrenchment

There are several channels through which healthcare retrenchment could impact health during an economic recession. First, restricted access to healthcare – for example, due to the limited availability of services or their higher cost – could limit or disrupt treatment, or reduce its quality, and thus worsen the outcome of communicable diseases (e.g. higher prevalence or the development of drug-resistant strains) (Suhrcke et al., 2011). Secondly, public health programmes with high-value longer-term effects (e.g. vaccinations and lifestyle-changing programmes) may be more susceptible to cuts in order to yield short-term reductions in public expenditure (Martin-Moreno et al., 2010). Thirdly, increasing the cost of healthcare for households (e.g. through higher user charges) may induce a reduction in both high- and low-value care and divert demand onto free (but cost-intensive) services like emergency care (Karanikolos et al., 2013: 3). Finally, research (Stuckler et al., 2009) has shown that social welfare spending can have a positive effect in mitigating the consequences of unemployment on health (e.g. suicides). Furthermore, the overall findings on the impact of economic recession on health refer to contexts where healthcare expenditure had not been significantly affected (Stuckler et al., 2010).

There is, therefore, good reason to analyse the effects of the current financial crisis on unmet needs for healthcare (since limited access to healthcare could exacerbate the negative effects of the financial crisis on health, or else reverse the positive ones), and in particular to look at the experience of certain vulnerable groups of the population: the unemployed, migrants and older people. The salience of this analysis is heightened by the severity of the current economic recession and the unprecedented changes to healthcare systems that it has triggered, particularly in the countries most severely hit by the financial crisis (Figure 1).

The analysis presented here will focus on those countries: Cyprus, Greece, Ireland, Italy, Latvia, Portugal, Slovenia and Spain. Not only have those "crisis countries" had higher unemployment rates (see Figure 2), but many have been forced to cut public expenditure on their healthcare systems at a time when the healthcare needs of the unemployed, as well as of older people and migrants, may be higher.

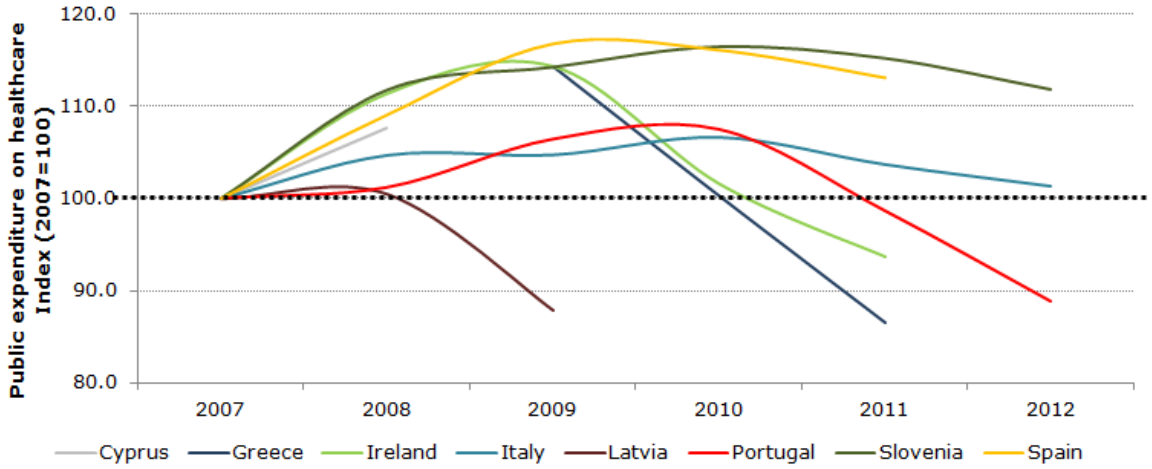
Healthcare reform at a time of financial crisis

Healthcare budgets in most of the EU crisis countries faced significant cuts in the years following the outbreak of the financial crisis. This reversed an upward trend in public expenditure in a number of those countries, notably Greece. The cuts, however, were not immediately apparent in 2008 or 2009, since there was a time lag as the healthcare budgets adjusted to the financial crisis (Mladovsky et al., 2012).[1] Also the pronounced decline in GDP (Figure 1) masks the actual budgetary cuts if public expenditure on healthcare is analysed as a percentage of GDP. Figure 4 presents the real evolution of public expenditure on healthcare. Two things are immediately

[1] Although countries may have sought to curb public expenditure before, requests for loans from the Troika took place only afterwards: April 2010 for Greece (and subsequently October 2011), November 2010 for Ireland, April 2011 for Portugal and June 2012 for the Spanish banking sector. Finally, in March 2013 Cyprus agreed the terms of its bailout.

evident: the difference in the timing of the budgetary cuts in the various countries; and the significant real decreases observed in Latvia (in the years for which information is available), Greece (a real decrease of close to a fifth compared to 2007), Ireland and Portugal. In Italy there was, in practice, a freeze on public expenditure on healthcare, as the levels in 2012 were the same as in 2007. The data for Spain suggest a still reasonably real upward trend, but do not take account of the 14% cut (in nominal terms) applied in 2012 (Arie, 2013).

Figure 4: Real evolution of public sector expenditure on healthcare



Notes: Data for public expenditure are from the OECD, except for Latvia and Cyprus.
Real variations calculated using GDP deflator, adjusted for seasonality and working days (except for Greece). Where shown, the figures for 2012 are an estimate.

Source: Own calculations using OECD Health Data (accessed on 20.11.2013) and Eurostat data.

The cuts in public expenditure on health reflected several changes introduced in the healthcare systems after the start of the financial crisis, some of which had a potential impact on unmet needs for healthcare (see Table 1 below). We analyse in turn measures that had an impact on coverage of healthcare systems in terms of the population (breadth) or the benefit (scope); changes to the levels of co-payment required for services (depth of coverage); the availability of services; and changes to prices that users pay for pharmaceuticals. While some of these measures were triggered by the growing budgetary constraints faced during the financial crisis, or specifically included in the conditions for the loans negotiated with the Troika, not all can be directly or solely imputed to the financial crisis. In some cases, the financial crisis merely made the implementation of measures or reforms that had for some time been in the pipeline more pressing (Mladovsky et al., 2012).

Breadth and scope of coverage

Changes to the statutory benefits or the population covered can have an impact on the degree to which population groups are covered against the potentially financially catastrophic consequences of needing healthcare.[2] In times of economic recession, the need for healthcare is likely to increase both in severity and in the extent of the population affected.

As a general rule, crisis countries did not fundamentally change the universal nature of their healthcare systems, opting instead for limited "tweaks" to the breadth and scope

[2] Changes in the breadth and scope of coverage could be mitigated by take-up of voluntary health insurance. However, past experience shows that this is a limited option in the European context, marred by limited access for groups in greater need of care and limited ability to supplement gaps in statutory coverage (Thomson and Mossialos, 2009).

of their healthcare systems (Mladovsky et al., 2012). The population covered by statutory healthcare has not changed substantially, though certain profoundly symbolic changes in Ireland and Spain may have consequences that remain underappreciated. In Ireland, access to statutory benefits was limited for wealthier older people, which may in practice be considered a significant departure from the principle of universal coverage (Thomas and Burke, 2012). The measure has since been revoked. In Spain, undocumented migrants lost their access to most health services – a measure that is likely to understate the impact of the recession on the transmission of communicable diseases and drug resistance (Suhrcke et al., 2011; Legido-Quigley et al., 2013).

Cyprus failed to implement planned major changes to its healthcare system, designed to make healthcare coverage universal. This was directly attributed to the consequences of the financial crisis (Mladovsky et al., 2012).

In Greece, public healthcare insurance is contribution based, so that the rise in unemployment – especially long-term unemployment – may have effectively left a greater share of people without coverage. Though health insurance has been extended, the number of new beneficiaries (approximately 15,000) falls short of the estimated 900,000 people who have lost their access to health insurance due to unemployment. Finally, a more ambitious scheme was announced in August 2013. Unemployed workers with annual personal income of below 12,000 EUR (if single) or annual family income of below 25,000 EUR (if married), who have lost their insurance coverage, can apply for a health voucher giving them access to a number of medical visits and diagnostic tests. The scheme aims to cover 230,000 people, and will be co-funded by the European Commission.

Attempts have been made to maintain access to essential health services. Latvia in particular has put in place a temporary measure to allow increased benefit coverage for people on lower incomes during the crisis, as did Greece (see above).

Depth of coverage

Rather than alter statutory benefits, governments seem to have favoured changes to the depth of coverage, i.e. they have adjusted user fees. These measures have been introduced as a way of shifting costs to users (and thus of alleviating the pressure on public healthcare budgets) (Cylus et al., 2012) and/or of inducing changes in the patterns of healthcare use. They do, however, have the potential to impact on the unmet need for healthcare, since they increase the costs for households and may disproportionately affect heavier users of healthcare (e.g. older people or families with children). Furthermore, user fees may reduce consumption of healthcare altogether, rather than encourage a shift away from less-effective treatment; and even low user fees can have a disproportionate impact on use by lower-income groups, and by older and sicker people (Lohr et al., 1986; Newhouse and Rand Corporation Insurance Experiment Group, 1993; Remler and Atherly, 2003; Chandra et al., 2010).

In Greece and Ireland, user fees in ambulatory and hospital care, respectively, had a revenue-raising motivation (Kaitelidou and Kouli, 2012; Thomas and Burke, 2012). Nonetheless, the impact of these increases on the total population could be mitigated by the expansion of exempted groups. In Ireland, it is estimated that 1.4 million people (a third of the population), mostly lower-income and older people, are covered by the Medical Card scheme, which entitles them to free GP consultations and inpatient care (Thomas and Burke, 2012). Similarly, increases in user fees in Portugal were accompanied by changes in the exemption rules, meaning that 70% of the total population would not be affected by the increases, mainly because of their low level of income (Barros, 2012a). Here, however, the effects of the changes have not yet been properly studied: it cannot be excluded that those with income around the median will

bear the greatest burden of the changes, since the possibility of claiming some of the costs back through the tax system has also been curtailed (Barros, 2012a).

The goal of mitigating moral hazard problems is clearly presented in changes that penalise the unnecessary use of emergency services (e.g. Italy, Slovenia and Spain) or of blood tests (Italy). Changing the way in which patients use the health services by directing them away from hospitals to outpatient or primary care has clearly shaped the differentiated increases in user fees in Portugal, where excessive use of the emergency services has long been a feature (Barros, 2012a). On the other hand, fees for outpatient care and for GP consultations have been increased in Greece and Spain, respectively.

While analysing the impact of these measures on unmet needs for healthcare, it is important to bear their timing in mind. With a few exceptions (Ireland and Slovenia back in 2009), the most significant increases in user fees in Greece, Portugal and Spain only took place in 2011 and 2012. Furthermore, users may also be constrained in accessing healthcare by non-price rationing (e.g. waiting lists) because of the unavailability of health services.

Availability of services

Reducing the availability of services may be another supply-side response to the budgetary constraints imposed by the financial crisis. While some patients may decide to access (and pay for) private alternatives, and while merging hospitals may lead to efficiency gains, increasing the waiting lists or diluting the healthcare services may have a negative impact on quality of care (Mladovsky et al., 2012).

In the wake of the financial crisis, Ireland and Latvia reduced the overall capacity of inpatient care by closing and merging a number of hospitals, back in 2009. Greece also announced similar measures and has limited the hospitals where uninsured and low-income individuals can be treated (Mladovsky et al., 2012). Italy cut investment by 76% in 2011, which may affect the availability of care in the medium term.

More widespread were measures to contain costs by reining in the wage bill, which accounts for 42.3% of public expenditure on health across the European region (WHO, 2006). Nearly all crisis countries limited or froze wage growth in the healthcare sector. In Cyprus and Portugal, overtime was severely reduced, which – at least in the latter case – may affect the availability of healthcare, in terms of the unequal distribution of doctors and a shortage of medical specialities (Barros, 2012a). At the same time, recruitment of new staff, contract renewals or simply the replacement of retiring staff were also put on indefinite hold or were limited to special circumstances (Cyprus, Greece, Ireland, Latvia, Portugal and Spain). In Greece, the merging of several health funds into the National Organisation of Health Service Provision (EOPYY) effectively introduced a cap on the number of consultations that each GP can proved free of charge to patients under this scheme. This could also lead to difficulties in accessing healthcare.

It is hard to quantify the immediate impact of these measures on the availability of care services. Nonetheless, in Portugal 600 doctors applied for retirement in November 2010 alone, partly due to the cuts in salary introduced (Mladovsky et al., 2012: 109). It is thus possible that users may have experienced difficulties in accessing care, either due to longer waiting lists or because of increased travel times and costs, particularly for those living in rural areas (Ward and Őzdemir, 2012).

Pharmaceutical prices

Another area where savings in public expenditure have been pursued across crisis countries is pharmaceuticals. In Greece alone, the agreement with the Troika called for savings in pharmaceutical costs amounting to 1% of GDP (Mladovsky et al., 2012:

97). On the one hand, governments sought to renegotiate pharmaceutical prices and to push for substitution of generic for branded medicines (Greece, Ireland, Latvia, Portugal, Slovenia and Spain). By limiting the price of medicines, these measures could reduce the financial burden of households. On the other hand, however, there have been several measures that have changed co-payment by users, and these may have increased the costs incurred in acquiring medicines.

The reimbursement limit for the cost of medicines was raised in Ireland, while the share of costs borne by users in respect of certain types of medicines was increased in Latvia, Portugal and Slovenia. Among the medicines for which co-payment was raised in Portugal are anti-depressants, despite the fact that the risk of depression is linked with increased unemployment. In Ireland, at least the rise in the reimbursement threshold was partially mitigated by an increase in the number of people eligible for free medicine. In Ireland and certain regions of Spain, a prescription fee was also introduced.

Again, co-payments are liable to have differentiated impacts across different groups of people. A review of evidence in this area suggests that individuals on lower income may be more sensitive to changes in medicine co-payments, while older individuals are less responsive but are more likely to face a higher financial burden (Gemmil et al., 2008). The same review suggests that users are not able to differentiate between the purchase of essential and non-essential medicines. This suggests that medicine co-payments may be an important factor in unmet needs for healthcare.

Table 1: Synthesis of measures implemented in the crisis countries

Country	Breadth and scope of coverage	Depth of coverage (incl. user fees)	Services and human resources	Pharmaceutical prices paid by users
Cyprus	Postponement of plans to introduce universal health coverage (approx. 15% of population pay full rates) (2011)		Freeze on hiring healthcare professionals and reduction in civil servants' salaries, including overtime	
Greece	Removal of some expensive (e.g. polymerase chain reaction (PCR) tests) examinations from benefits coverage Proposed means-tested voucher scheme for those that have lost health insurance coverage due to unemployment	Increased user fees for outpatient care from 3 EUR to 5 EUR (2011); user charges for some vulnerable groups revoked User fees for examinations in contracted private services set at 15% (previously 0–25%, with 60% of population exempt) (2011) Full payment of GP consultations under EOPYY once cap on consultations is reached	Cuts in healthcare professionals' salaries (2011), non-renewal of temporary contracts and limits on replacement of staff (1 per every 5 retiring) Planned merger and closure of hospitals (2011)	Introduction of prescription by active substance (2012), caps on prices of generic medicines and reduction in VAT on medicines from 11% to 6.5% User co-payments for non-generic pharmaceuticals doubled
Ireland	Removal of statutory coverage for primary care for wealthy individuals aged 70 and older (approx. 3.4% of people in the age group) (2009) Lower	Increase in user fees for hospital beds (17% in public and 20% in private facilities) and emergency care, affecting roughly two-thirds of the population (2009) Increase in the number of people eligible for free GP	Reduction in public sector salaries and number of employees (2010–2011); non-renewal of temporary contracts and	Medicine reimbursement threshold increased from 100 EUR to 120 EUR (2010) and to 132 EUR (2012) – affecting 70% of the population Introduction in 2010 of fee for prescription for

Country	Breadth and scope of coverage	Depth of coverage (incl. user fees)	Services and human resources	Pharmaceutical prices paid by users
	reimbursement rates for dental care for certain groups (2010)	consultations and inpatient care (2009) (mostly people on low income)	moratorium on new hiring (2009) 4–5% reduction in provision of frontline services (2012) Increase of 3% in outpatient appointments and 5% in hospital day care (between 2008 and 2009) Reduction in hospital capacity by 519 beds (2009)	medicines (50 cents up to 10 EUR per month max.) Increase in the number of people eligible for free medicines (2009)
Italy		User fees of 10 EUR for specialist consultations and diagnostic services revoked (2010) Increase in user fees (2011) for GPs and blood tests (10 EUR), ambulatory care and non-justified emergency care (25 EUR)	Reduction in investment from 1 billion EUR to 236 million EUR (2011)	Cap on pharmaceutical expenditure by regions (2010) and central administration: 13.3% of total public healthcare expenditure (2010)
Latvia	Medical rehabilitation services now fully paid by users Temporary scheme (2009–2011) to cover user fees for healthcare and provide full reimbursement of pharmaceuticals for people on low income	Reduction in user fees reimbursed by compulsory health insurance for certain services	Reduction in the number of hospitals (106 to 39) and hospital beds (761 to 493) (2006–2010) Reduction in salaries of medical doctors and reduction in working places in the health sector	Reduction in the reimbursement of pharmaceuticals (from 75% to 50% and 90% to 75%) for certain conditions (2009, for cardiovascular diseases the reduction was revoked in 2010)
Portugal	Limited reimbursement for cosmetic surgery	Increase in user fees for emergency and outpatient care (along the range of facilities, fees were increased from 3.40–8.75 EUR to 10–20 EUR for emergency care and from 2.10–4.3 EUR to 5–7.5 EUR for outpatient care, 2007–2012); introduction of a 50 EUR cap on user fees per episode of treatment (2012); increase in the threshold for exemption of user fees (estimated 70% of the population is exempted) and reduction in	Reduction in public sector salaries; freeze on new posts	Introduction of prescription guideline principles by active substance Reduction in 2010 in the reimbursement of pharmaceuticals (from 100% to 90–95%) for anti-depressants, anti-psychotic and other treatments for certain severe mental conditions (e.g. dementia or autism) Removal of subsidies for a number of pharmaceutical drugs

Country	Breadth and scope of coverage	Depth of coverage (incl. user fees)	Services and human resources	Pharmaceutical prices paid by users
		exemptions provided to some groups (e.g. chronic patients are exempt only for treatment for their condition) Reduction in tax deduction for privately paid care (incl. user fees) from 30% to 10% Increase in user fees (from 1 EUR to 20, 50 or 100 EUR) for obtaining certification of disability or sickness (2011) Increase in user fees for some vaccinations (e.g. yellow fever) from 1 EUR to 50–100 EUR (2011)		sold over the counter (2011) (e.g. paracetamol) New rules on price fixing for medicines, with an expected reduction in the price of some medicines
Slovenia		Introduction of user charges for non-urgent ambulance transport, dentures and some ophthalmological products (2009)	Below-inflation salary increases (2009–2010)	Introduction of co-payment for some pharmaceuticals
Spain	Exclusion of undocumented migrants from most healthcare services (except emergency care or prenatal and paediatric care)	Introduction of co-payment for prosthetics, dietary products and non-urgent ambulance transport (5 EUR fee for people with disability) (2012)	Reduction in salaries, limits on new hiring and incentives for early retirement (2011)	Introduction of co-payment (2012) for pensioners (10% of costs or 8–60 EUR per month) and increased co-payment for employed (40–60% of costs), both depending on income Introduction of 1 EUR fee per prescription in some regions Introduction of cap on prices for medicines for minor symptoms and revision of reference prices (2011) Division of package according to duration of treatment

Sources: Mladovsky et al. (2012); Thomas and Burke (2012); Kaitelidou and Kouli (2012); Barros (2012a, 2012b); Barros et al. (2013); Legido-Quigley et al. (2013); HOPE (2011).

Unmet needs for healthcare in the crisis countries

Overall unmet needs

Drawing on EU-SILC data, this section presents an analysis of overall and enforced unmet needs focused on the crisis countries. Differences between countries in the reporting of unmet needs could be due to differences in survey questions, as national questionnaires are not fully harmonised across the EU. Cultural factors could also influence the way in which people perceive and assess unmet needs in different

countries. While these tend to play a lesser role in explaining differences between population groups within the same country, it is important to consider other indicators of possible barriers to access, such as out-of-pocket expenditure on healthcare and medicines, or the extent of health insurance coverage. For this reason, the focus of analysis is on the evolution of unmet needs within individual countries, rather than on comparisons between countries.

Box 1: Definitions and methodology

The EU-SILC survey contains two questions on unmet need for medical examination or treatment. The first asks for the respondent's own assessment of whether there has been at least one occasion in the 12 months preceding the survey when he/she really needed medical examination or treatment, but did not receive it. The second is a follow-up question on the main reason for unmet need; it offers eight possible answers to choose from:

1. Could not afford it (too expensive);
2. Waiting list;
3. Could not take the time because of work, care for children or for others;
4. Too far to travel/no means of transportation;
5. Fear of doctor/hospitals/examination/treatment;
6. Wanted to wait and see if problem got better on its own;
7. Didn't know any good doctor or specialist;
8. Other reasons.

Unmet need for medical examination or treatment is calculated as the percentage of people who reported that there was at least one occasion in the 12 months preceding the survey when they really needed medical examination or treatment, but did not receive it.

Enforced unmet need for medical examination or treatment is calculated as the percentage of those who report an unmet need due to the following three reasons: (1) could not afford it (too expensive); (2) waiting list; or (3) too far to travel/no means of transportation.

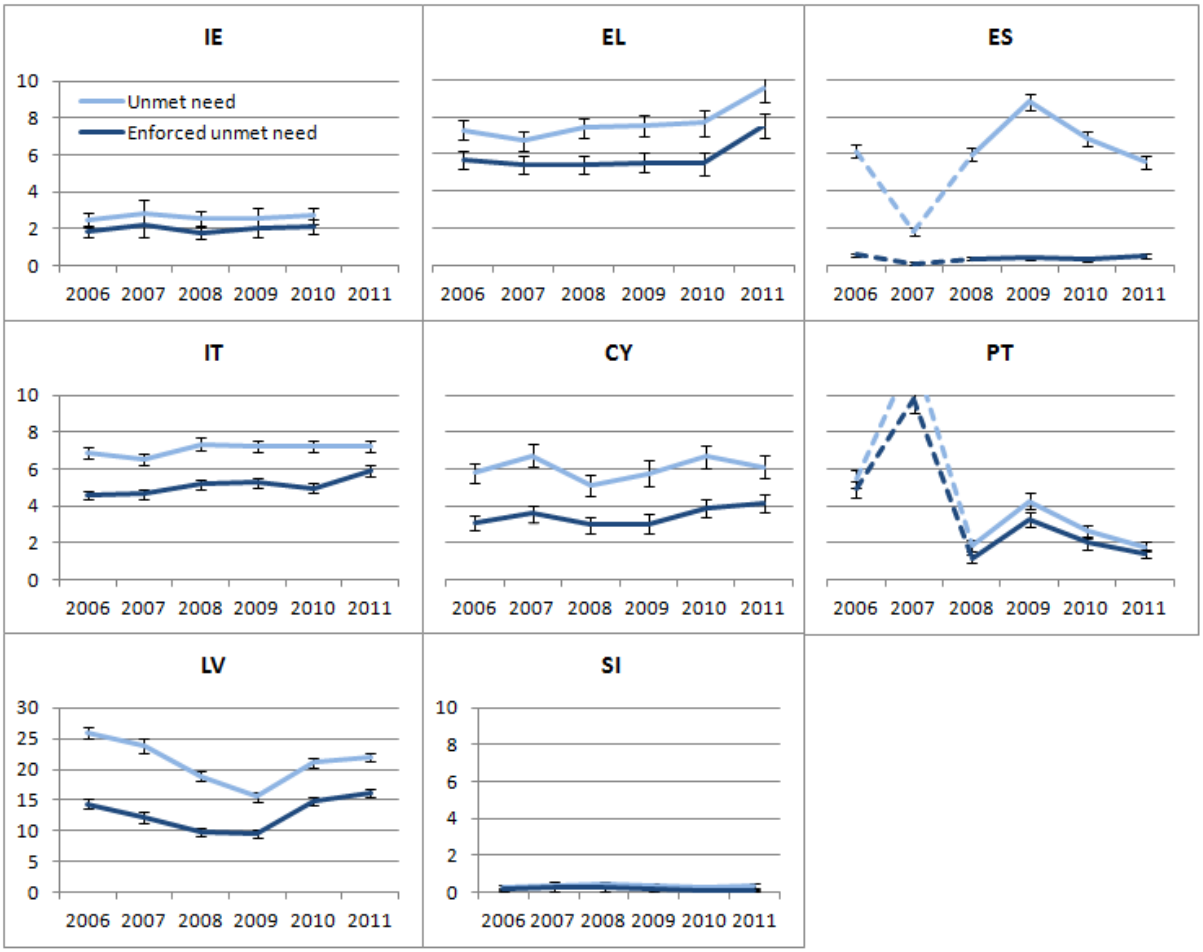
Multivariate analysis with EU-SILC: The multivariate analysis refers to changes in the probability of reporting enforced unmet need between 2006 and 2011 for the population aged 16 and older (or the working-age population, when explicitly mentioned). Results refer to average effects at the sample level. The analysis pertains to the groups that had a greater increase/decrease in enforced unmet need after the crisis, not to the groups that have a higher reported enforced unmet need in absolute terms – this is reported in the bivariate analysis.

Because of a break in the series for Portugal and Spain caused by changes to the wording of the question on unmet need in 2008, for those countries the years considered were 2008 and 2011. Due to unavailability of 2011 data for Ireland, 2010 was used instead.

The analysis employs a weighted logistic model controlling for age, gender, marital status, state of health, education, place of residence (rural/urban), country of birth, labour market attachment, and log income. All calculations were performed using STATA 11 software.

Among the crisis countries, both unmet and enforced unmet need were highest in Latvia (22% and 16%, respectively) and were also well above the EU average in Italy and Greece. In Greece, the range of the estimate was between 9% and 10% for unmet need, and between 7% and 8% for enforced unmet need, with a 95% confidence. The prevalence of unmet and enforced unmet need was relatively low – around 2% – in Ireland and Portugal, and was lowest in Slovenia, with levels below 0.5%. In Spain, 6% of the population had an unmet need in 2011, but the proportion of those with an enforced unmet need was less than 1%. This is in contrast to the other countries, where the gap between the two is relatively small, indicating that most of the reported unmet need is enforced.

Figure 5: Proportion of population aged 16 and over with unmet need and enforced unmet need for medical examination (%), 2006–2011



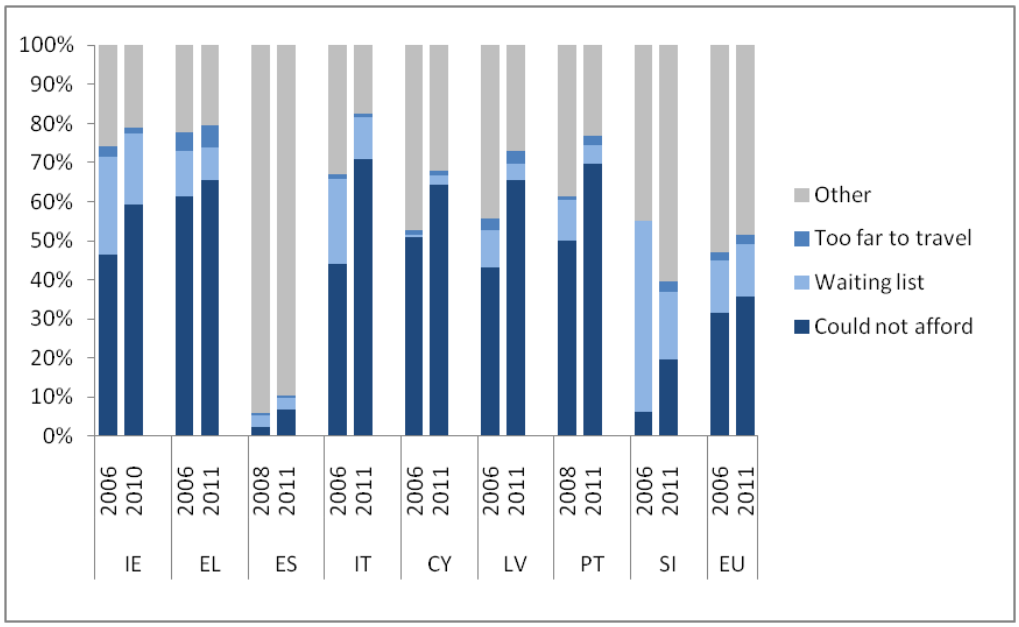
Notes:
(a) Data for Ireland for 2011 are not available.
(b) In Spain and Portugal, the dotted lines refer to breaks in the data series due to changes to the question.

Source: Own calculations based on EU-SILC 2006–2011.

As a reference term, in 2011, 6.8% of the adult population in the EU reported an unmet need for medical examination or treatment. The proportion of those with an enforced unmet need – due to reasons of affordability (too expensive), waiting lists and long travel distance or lack of transportation – was 3.5%.

Trends in the level of unmet and enforced unmet need between 2006 and 2011 show a rather diverse picture across countries (Figure 5). For instance, no change in unmet and enforced unmet need can be observed in Ireland or Slovenia, or in enforced unmet need in Spain. By contrast, there was a steep and significant increase in Greece (between 2010 and 2011) and Latvia (between 2009 and 2010). In Italy, the level of unmet need remained more or less stable over the whole period, but enforced unmet need rose sharply in 2010. Only in Spain (for unmet need) and Portugal did levels drop in later years. In Latvia, both unmet and enforced unmet need have increased considerably since 2009, following a downward trend before the crisis.

Figure 6: Unmet need for medical examination, by main reason (%), 2006 and 2011



Source: Own calculations based on EU-SILC 2006, 2008, 2010 and 2011.

As Figure 6 shows, in six of the eight crisis countries, the most important reason for reporting unmet need in 2011 was the cost of medical examination or treatment. In Cyprus, Greece and Latvia more than 60% of respondents with unmet need cited this as the main reason, and in Italy and Portugal it accounted for almost three-quarters of respondents. Also, a relatively large proportion of respondents were discouraged from seeking care because of the length of waiting lists in Ireland (18%), Slovenia (17%) and Italy (11%). Significantly fewer people referred to travel difficulties as the main reason (the highest level was in Greece, with 6%). Altogether, costs, waiting lists and difficulties related to distance and travel were given as the main reasons by around 80% of the population with an unmet need for healthcare in Ireland, Greece, Italy and Portugal, and by around 70% in Cyprus and Latvia.

Spain and Slovenia were the only two countries where the majority of respondents (in the case of Spain an overwhelming majority of 90%) reported that the unmet need was due to other reasons. Around a third of those in Spain stated that they wanted to wait until the problem got better of its own accord, while 27% referred to their inability to take time off from work or the need to care for children or for others as the main reason for unmet need, which could be related to fear of losing their job, given the high unemployment levels. A similar proportion reported other unidentified reasons.

In all countries, a significantly larger proportion of unemployed respondents reported cost as the main reason for unmet need than did the overall population. The difference was most pronounced in Greece, where 86% of the unemployed reported that they could not afford medical examination or treatment, compared to 66% of the population as a whole. People on a low income and migrants were also more likely than others to report an unmet need because of the cost involved. This was particularly the case in Cyprus and Latvia for low-income individuals and in Italy in the case of migrants (11 percentage points higher than for the total population and for the native-born).

The percentage of those with an unmet need who cited cost as the main reason was higher in all countries in 2011 than in 2006, before the crisis.

What follows is an analysis of the importance of the shifts in enforced unmet need for particular groups of the population.

Enforced unmet needs by income

In general, people on low income tend to report more enforced unmet needs than higher earners, but there are considerable differences between countries, as well as across time. In 2011, enforced unmet need was highest among those in the lowest income quintile in all but Portugal and Ireland (Table 2). In the latter, the level of enforced unmet need in the middle-income group was already relatively high in 2006, and it increased from 2.3% to 3.4% thereafter.

Table 2: Enforced unmet need for medical examination, by income (%), 2006 and 2011

	IE (a)	EL	ES (b)	IT	CY	LV	PT (b)	SI	EU27
2006									
1st quintile	2.6	7.5	0.4	9.2	6.3	28.1	2.6	0.2	6.2
2nd quintile	2.0	7.8	0.6	5.2	4.5	19.3	1.4	0.2	4.3
3rd quintile	2.3	7.1	0.4	3.7	2.5	9.8	1.0	0.1	3.1
4th quintile	1.8	4.0	0.2	3.2	1.4	9.5	0.5	0.0	2.6
5th quintile	0.7	2.0	0.3	2.1	0.6	5.8	0.3	0.1	1.8
2011									
1st quintile	2.7	11.7	0.9	12.3	6.5	28.1	2.2	0.3	6.3
2nd quintile	1.0	9.9	0.7	7.9	5.6	21.3	2.8	0.0	4.3
3rd quintile	3.4	7.6	0.5	5.3	4.6	15.6	1.3	0.2	3.2
4th quintile	2.4	4.8	0.5	3.4	3.0	10.1	0.7	0.1	2.4
5th quintile	1.2	3.6	0.3	1.4	1.2	5.6	0.1	0.0	1.4

Notes:
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.

Source: Own calculations based on EU-SILC 2006 and 2011.

In Cyprus, the difference in enforced unmet need between the poorest and the richest segments of the population was relatively large (more than tenfold) in 2006, but it narrowed substantially in 2011 due to a rise in the middle- and higher-income groups. By contrast, there seems to be a growing inequality in the prevalence of enforced unmet need in Italy. In 2011, it was more than eight times higher in the lowest than in the highest income quintile.

Table 3: 2006–2011 change in probability (percentage) of reporting enforced unmet need, by income

	1st income quintile		2nd–5th income quintile	
IE (a)	-0.05		0.28	
EL	**1.41**	**	**1.78**	**
ES (b)	**0.30**	**	0.11	
IT	**1.93**	***	**0.93**	***
CY	0.61		**2.62**	***
LV	**4.36**	***	**5.19**	***
PT (b)	0.10		**0.47**	**
SI	0.03		0.02	

*Notes: Percentage point change in probability. ***=significant at 0.001 level; **=significant at 0.01 level; *=significant at 0.1 level.*
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.

Source: Own calculations using EU-SILC 2006 and 2011.

While accounting for confounding variables – e.g. changes in health status occurring during the crisis – the multivariate analysis confirms the results above. The lowest income quintile reported an increase in enforced unmet need in Cyprus (though not statistically significant), but it was those in the other income quintiles that were more severely hit by the effects of the crisis and cost-saving measures. The same happened in Latvia and Greece. In Italy, however, the lowest income quintile was more severely affected by the crisis.

Although a number of countries have increased user fees – and these increases are liable to account for a higher share of the disposable income of poorer households – these measures have been mitigated by changes to the exemption rules that have effectively widened the population that is exempt from payment (e.g. Portugal, Ireland), which explains why lower-income people have fared no worse than their better-off counterparts in some countries. The figures for Portugal do not include the effects of the higher co-payment fees imposed in 2012, but a national evaluation of the measure found no evidence of diminished access to healthcare services because of the crisis (Barros et al., 2013).

Enforced unmet needs by labour market attachment

Results by labour market status indicate that the group most likely to be affected by enforced unmet need is the unemployed (Table 4). This was the case in all countries, except for Greece, where in both 2006 and 2011 it was the retired population that had the highest prevalence of enforced unmet need. Retired people were also worse off than the employed and other inactive people in Cyprus, Latvia, Portugal (only in 2011) and Slovenia (only in 2006), whereas in Italy, the non-retired inactive had the second-highest enforced unmet need, after the unemployed. Ireland seems to be a special case. It is the only country where those employed in 2011 were the second most likely to have enforced unmet need. At the same time, between 2006 and 2011, enforced unmet need increased only among the employed.

Table 4: Enforced unmet need for medical examination, by labour market attachment (%), 2006 and 2011

	2006				2011			
	Employed	Unemployed	Retired	Other inactive	Employed	Unemployed	Retired	Other inactive
IE [a]	1.6	4.1	1.2	2.1	2.3	3.2	0.9	2.0
EL	3.5	7.5	9.1	6.6	4.5	10.0	11.4	7.2
ES [b]	0.4	0.6	0.3	0.3	0.4	1.1	0.6	0.6
IT	3.5	7.4	4.8	5.7	4.3	10.7	5.7	7.5
CY	2.9	6.9	3.3	2.8	4.0	7.4	4.7	3.2
LV	10.1	30.6	23.0	11.5	11.6	27.8	21.9	11.1
PT [b]	0.9	1.7	1.1	2.0	1.1	1.9	1.8	1.3
SI	0.1	0.3	0.2	0.1	0.1	0.5	0.1	0.0
EU27	3.0	8.0	3.4	4.0	2.3	6.1	4.6	4.3

Notes:
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.

Source: Own calculations based on EU-SILC 2006 and 2011.

The results of the multivariate estimations depict the unemployed in comparison with the inactive and employed population of working age. The results were not always statistically significant, but the employed seem to be the group with the highest increase in enforced unmet need in most countries. In Italy, however, the unemployed formed the group with by far the highest increase in reported enforced unmet need, after standardising for a number of variables.[3]

Table 5: 2006–2011 change in probability (percentage) of reporting enforced unmet need – by labour market attachment

	Unemployed – working-age pop.		Inactive – working-age pop.		Employed – working-age pop.	
IE [a]	-0.95		-0.03		0.64	
EL	0.02		-0.52		**1.69**	**
ES [b]	0.21		0.00		0.07	
IT	**2.52**	***	**1.04**	**	**0.83**	**
CY	1.89		**1.21**	**	**1.82**	***
LV	**4.58**	**	**3.56**	***	**5.60**	***
PT [b]	-0.29		**-0.50**	**	**0.55**	**
SI	-0.01		-0.05		0.03	

Notes:
*Percentage point change in probability. ***=significant at 0.001 level; **=significant at 0.01 level; *=significant at 0.1 level.*
Sample includes only those of working age (16–64).
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.

Source: Own calculations using EU-SILC 2006 and 2011.

[3] Given the significant rise in unemployment and how this affected particular groups of the population (e.g. younger people), the unemployed as a group are probably quite different in 2011 from 2006. This makes multivariate analysis particularly important to compare changes in unmet enforced need in this group during the crisis. The same applies for migrants.

Enforced unmet needs by age

In six of the eight countries, the incidence of enforced unmet need was higher among people aged 65 years and over than among working-age people (Table 6). The older population fared especially badly in Latvia and Greece, in both absolute and relative terms. In Greece, they were more than twice as likely to have an enforced unmet need as those of working age, which explains the higher enforced unmet need that was mentioned above among the retired population, compared to the other groups.

Table 6: Enforced unmet need for medical examination among those of working age and the older population (%), 2006 and 2011

	2006		2011	
	16–64	65+	16–64	65+
IE [a]	2.0	1.2	2.3	1.0
EL	4.6	9.4	5.8	13.2
ES [b]	0.4	0.2	0.5	0.8
IT	4.3	5.7	5.5	7.3
CY	3.1	3.1	4.2	4.2
LV	12.7	21.8	14.9	20.5
PT [b]	1.1	1.3	1.2	2.1
SI	0.1	0.2	0.1	0.1
EU27	3.6	3.5	3.2	4.7

Notes:
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.

Source: Own calculations based on EU-SILC 2006 and 2011.

Table 7: 2006–2011 change in probability (percentage) of those reporting enforced unmet need – older people and working-age population

	Old-age		Working-age population	
IE [a]	-0.03		0.24	
EL	**1.89**	***	**1.05**	*
ES [b]	**0.39**	**	0.07	
IT	**1.31**	***	**1.12**	***
CY	**0.91**	**	**2.10**	***
LV	**3.64**	***	**5.70**	***
PT [b]	**0.64**	**	0.19	
SI	-0.03		0.01	

Notes:
*Percentage point change in probability. ***=significant at 0.001 level; **=significant at 0.01 level; *=significant at 0.1 level.*
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.

Source: Own calculations using EU-SILC 2006 and 2011.

The results presented in Table 6 show enforced unmet need increasing in most cases across the age groups during the crisis. Multivariate analysis confirms that older people had higher enforced need after the crisis hit (Table 7). Only in Cyprus and Latvia did the working-age population suffer a higher increase in enforced unmet need than older people.

Enforced unmet needs by country of origin

Migrants, defined as persons who are foreign-born, comprise a relatively high share of the total population in most of the crisis countries. Cyprus has the highest share of migrants (23%), followed by Latvia, Spain, Ireland, Greece and Slovenia, with over 10%. The absolute size of the migrant population is largest in Italy, Spain and Greece.

Non-EU migrants had the highest prevalence of enforced unmet need in the majority of the crisis countries (Table 8). Between 2006 and 2011, however, enforced unmet need increased in all eight countries both in the two migrant groups and in the native-born population. The only exceptions were non-EU migrants in Spain and Portugal. The most marked increase occurred among EU migrants in Greece and among non-EU migrants in Italy and, again, in Greece.

Table 8: Enforced unmet need for medical examination, by country of origin (%), 2006 and 2011

	2006			2011		
	EU migrants	Non-EU migrants	Native population	EU migrants	Non-EU migrants	Native population
IE [a]	2.1	2.5	1.8	2.9	3.6	2.0
EL	4.9	8.4	5.5	10.9	12.3	7.1
ES [b]	0.5	0.8	0.3	0.9	0.6	0.6
IT	5.8	5.6	4.5	8.0	9.7	5.6
CY	2.6	5.1	2.9	2.8	5.3	4.2
LV	na	21.5*	13.2	na	23.6*	14.7
PT [b]	0.0	0.6	1.2	1.0	0.6	1.5
SI	na	0.1*	0.2	na	0.4*	0.1
EU	2.4	4.6	3.5	3.3	3.6	3.5

Notes: EU migrants: born in any EU country except country of residence; non-EU-migrants: born in a non-EU country; native population: born in the same country as country of residence.
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.
**Data for non-EU migrants in Latvia and Slovenia include both EU and non-EU migrants.*

Source: Own calculations based on EU-SILC 2006 and 2011.

While only Spain targeted migrants in its cost-saving measures – and then only undocumented migrants – this group may be particularly vulnerable to the effects of the crisis (e.g. increased unemployment) and healthcare retrenchment. The multivariate analysis of migrants, however, shows that this group did not suffer a relative higher increase in enforced unmet need than the native population in the crisis countries. One important exception is Italy, where migrants reported much larger increases in enforced unmet need after the crisis broke than did the general population.

Table 9: 2006–2011 change in probability (percentage) of reporting enforced unmet need – migrants and native population

	Migrants		Nationals		Migrants – working-age pop. (c)	
IE (a)	0.62		0.12		0.58	
EL	2.06		**1.43**	***	1.89	
ES (b)	-0.02		0.17		-0.04	
IT	**3.65**	***	**1.06**	***	**3.12**	**
CY	0.26		**2.03**	***	0.19	
LV	**5.02**	***	**5.28**	***	**5.42**	***
PT (b)	0.29		**0.33**	**	0.31	
SI	0.11		-0.02		0.12	

*Notes: Percentage change in probability. ***=significant at 0.001 level; **=significant at 0.01 level; *=significant at 0.1 level.*
Migrants include those born in the EU and outside the EU.
Sample size limited breakdown between EU and non-EU migrants.
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.
(c) Sample includes only those of working age (16–64).

Source: Own calculations using EU-SILC 2006 and 2011.

Analysis of changes in enforced unmet need among migrants is rendered particularly complex in the present economic crisis, since it has caused considerable shifts in the migratory flows both to and within Europe (OECD, 2013). Among the crisis countries, there has been a significant outflow of people (Table 10) – mostly of working age, often young, better educated and thus likely to be in better health – which could potentially have altered the profile of the native population. At the same time, the crisis countries may have witnessed a decrease in the flow of migrants from outside the EU, as their economies – particularly sectors that depend heavily on migrants, such as construction – entered recession. The profile of the migrant population may thus also have changed significantly.

Table 10: Outflows of nationals from and to selected EU countries

Country of origin	Index					Number (thousands)
	2007	2008	2009	2010	2011	2011
Greece	100	106	102	143	236	39
Ireland	100	104	174	210	181	21
Italy	100	116	111	132	142	85
Portugal	100	120	98	103	125	55
Spain	100	114	123	173	224	72
Country of destination	**Index**					**Number (thousands)**
	2007	**2008**	**2009**	**2010**	**2011**	**2011**
Germany	100	105	116	133	188	78
United Kingdom	100	120	113	174	195	88
Belgium	100	142	146	169	193	15
Netherlands	100	138	144	157	184	12

Source: OECD (2013: table 1.4).

As some more resilient economies within the EU became the destination for migrants leaving the crisis countries, it is safe to expect EU and non-EU migrant populations within the EU to have changed. This makes it salient to analyse EU and non-EU migrants in the EU area as a whole (Table 11).

Table 11: 2006–2011 change in probability (percentage) of reporting enforced unmet need – migrants and native population at the EU level

	Total sample		Working-age population only[(a)]	
EU migrants	1.24	**	1.71	***
Non-EU migrants	-0.53	**	-0.54	
Native population	-0.19	**	-0.51	***

*Notes: Percentage change in probability. ***=significant at 0.001 level; **=significant at 0.01 level; *=significant at 0.1 level.*
Sample includes only the EU countries that were included in EU-SILC in both 2006 and 2011 (i.e. Malta, Bulgaria and Romania are not included). Data for Ireland refer to 2006–2010; data for Portugal and Spain refer to 2008–2011.
(a) Sample includes only those of working age (16–64).

Source: Own calculations using EU-SILC 2006 and 2011.

In the EU as a whole, there are important differences in how enforced unmet need changed between 2006 and 2011 for the groups considered. The native population and migrants born outside the EU reported a decrease in enforced unmet need across the EU, after controlling for a number of confounding variables. Migrants born within the EU, however, showed a significant increase in reported enforced unmet need within the EU.

Enforced unmet needs by place of residence

Degree of urbanisation, which is the indicator used in the EU-SILC to differentiate between urban and rural areas, is expected to have an impact on the level of enforced unmet need reported by residents. Surprisingly, in all our crisis countries – with the exception of Italy – urban dwellers were more likely to be burdened by enforced unmet need than were their rural counterparts. Furthermore, the results in Table 12 suggest that the proportion among the urban population has increased in every country since 2006.

Table 12: Enforced unmet need for medical examination among the rural and urban population (%), 2006 and 2011

	2006		2011	
	Urban	Rural	Urban	Rural
IE [(a)]	1.9	1.8	2.3	1.8
EL	6.3	4.9	8.6	6.0
ES [(b)]	0.4	0.3	0.6	0.4
IT	4.6	4.7	5.8	6.2
CY	3.2	2.8	4.7	2.9
LV	15.4	13.6	17.9	14.3
PT [(b)]	1.3	0.6	1.4	1.3
SI	na	na	na	na
EU27	3.5	4.1	3.2	4.6

Notes:
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.
Source: Own calculations based on EU-SILC 2006 and 2011.

Table 13: 2006–2011 change in probability (percentage) of reporting enforced unmet need – rural and urban

	Rural (c)		Urban (d)	
IE (a)	0.05		0.35	
EL	**0.95**	**	**1.99**	**
ES (b)	0.03		**0.21**	**
IT	**1.26**	***	**1.25**	***
CY	0.66		**2.24**	***
LV	**4.89**	***	**5.56**	***
PT (b)	**0.57**	**	0.24	
SI	NA		NA	

*Notes: Percentage point change in probability. ***=significant at 0.001 level; **=significant at 0.01 level; *=significant at 0.1 level.*
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.
(c) Refers to "thinly populated area".
(d) Refers to "intermediate and densely populated area".

Source: Own calculations using EU-SILC 2006 and 2011.

Cost-saving measures applied to the healthcare sector have resulted in the merger of a number of healthcare facilities in some countries (e.g. Greece, Latvia, Ireland). At the same time, the wage and hiring freezes applied to GPs and other healthcare personnel, and reported increases in the number of physicians moving into retirement (e.g. Portugal), may have diminished available services – a situation that is likely to have a higher impact in rural areas, with their lower density of healthcare services. While the definition of rural/urban areas is not straightforward in EU-SILC,[4] people in rural areas reported lower increases in enforced unmet need – which includes, for example, waiting lists and the costs of transportation – than people in urban settings. Possible explanations for this could include a greater capacity to cope with increased healthcare costs in rural settings (e.g. because of the production of food for own consumption there is more income available to cover such costs), a careful geographical distribution of budgetary cuts and mergers in healthcare systems, or stronger social and family networks in rural areas.[5]

Enforced unmet needs among couple households with two or more children

Unmet needs affecting children directly cannot be measured using EU-SILC. As a proxy, however, it is possible to assess enforced unmet need in different types of households with children.

In 2006, single-parent households were the most likely to experience an enforced unmet need for healthcare in five of the eight countries, with the highest levels reported in Latvia and Greece. Single-parent households remained the most likely to report enforced unmet need in these two countries in 2011, although there was a marked improvement in Greece. Couple households with one and two children in Cyprus and Ireland, respectively, saw the largest increase, and in 2011 they were the most likely to have an enforced unmet need. Shifts also occurred in Portugal between households with two adults and a child and other households with children, as well as in Italy, where single-parent households became the most likely to have enforced unmet need in 2011, with a relatively high level of 11%.

[4] The question refers to thinly, intermediate and densely populated areas.
[5] Differences in unemployment are accounted for in the estimation.

Table 14: Enforced unmet need for medical examination in households with dependent children (%), 2006 and 2011

	IE	EL	ES	IT	CY	LV	PT	SI
2006								
Single parent	3.7	13.5	0.4	6.2	5.7	15.4	0.7	0.0
2 adults, 1 child	2.4	3.0	0.3	3.7	2.7	11.6	1.1	0.1
2 adults, 2 children	1.5	3.4	0.3	3.8	2.5	7.3	0.9	0.0
2 adults, 3+ children	2.3	4.0	0.3	8.1	2.8	13.4	0.8	0.0
Other hhs with children	1.0	5.0	0.3	5.0	2.5	11.6	1.3	0.4
2011								
Single parent	2.6	7.5	0.5	11.2	3.7	18.1	1.2	0.0
2 adults, 1 child	2.1	5.8	0.5	5.6	5.6	13.5	1.6	0.3
2 adults, 2 children	4.0	5.8	0.3	4.8	4.0	9.9	0.8	0.0
2 adults, 3+ children	2.2	4.6	0.0	7.4	3.4	11.9	0.9	0.0
Other hhs with children	0.9	4.8	0.4	5.8	3.2	12.3	1.1	0.0

Notes: Data for Ireland for 2011 refer to 2010; data for Spain and Portugal for 2006 refer to 2008.

Source: Own calculations based on EU-SILC 2006 and 2011.

Table 15: 2006–2011 change in probability (percentage) of reporting enforced unmet need – couples with two or more children

	Families with 2+ children [c]	
IE [a]	**1.13**	**
EL	**2.32**	**
ES [b]	-0.07	
IT	**0.80**	***
CY	**2.10**	**
LV	**5.98**	***
PT [b]	-0.50	
SI	-0.01	

*Notes: Percentage point change in probability. ***=significant at 0.001 level; **=significant at 0.01 level; *=significant at 0.1 level.*
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Spain and Portugal for 2006 refer to 2008.
(c) Other households with children not included. Comparator in the model is all other household types, with and without children.

Source: Own calculations using EU-SILC 2006 and 2011.

Due to sample sizes, the multivariate analysis addresses only couples with two or more children. Among countries for which results are significant, households made up of couples with two or more children showed a big increase in enforced unmet need between 2006 and 2011 – in Greece and Ireland, this type of household showed an important increase in reported enforced unmet need vis-à-vis other groups.

Out-of-pocket expenditure on healthcare

Unmet needs for healthcare because it is "not affordable" often reflects high out-of-pocket payments by households, either because user co-payment for the use of healthcare is set at a high level, or because public healthcare services are not available, forcing patients to bear the costs in full or to forgo healthcare. High out-of-pocket payments may also be associated with the quality of public health services.

When patients are not satisfied with the kind of services they receive from public providers, it is more likely that they will turn to the private sector. In this section, the focus of the analysis is on out-of-pocket payments. This serves as a supplement to the previous analysis on unmet needs, as information on costs borne by patients is not available in EU-SILC. We focus on only three of the countries affected by the crisis and for which Survey of Health, Ageing and Retirement in Europe (SHARE) data are available: Spain, Italy and Greece.

Box 2: Definitions and methodology

Even though average out-of-pocket expenditure on health as a proportion of all expenditure on health is an excellent indicator of the coverage and/or quality of publicly funded health services, it is necessary to delve deeper than that when the main interest lies in incidence and distributional analysis. However, this is hampered by limited data. Europe-wide income surveys – such as EU-SILC (and, earlier, the European Community Household Panel) – miss out-of-pocket expenditure on health, since they are concerned with income, not expenditure. National household budget surveys provide more information, but they are unsuitable for comparative analysis. The Survey of Health, Ageing and Retirement in Europe (SHARE) dataset represents a welcome but only partial breakthrough: welcome because it explicitly allows analysts to link out-of-pocket expenditure on health (and, what is more, split it into inpatient care, outpatient care and medicines) with respondents' incomes; partial because it only covers individuals aged at least 50 years and their partners, in a relatively small set of countries (Austria, Germany, Sweden, the Netherlands, Spain, Italy, France, Denmark, Greece, Belgium-Wallonia, the Czech Republic and Poland). In addition, the second wave of SHARE, which was carried out in 2006, is the most recent to provide data on out-of-pocket expenditure on healthcare (including pharmaceuticals), thus rendering comparison between different points in time (i.e. before and after the start of the crisis) impossible.[6] The questions include annual average expenditure on inpatient care, outpatient care and prescribed drugs per person in the sample.

Note that the analysis is limited to those respondents who report non-zero out-of-pocket expenditure on health. In the case of all healthcare, including pharmaceuticals, there were considerably more observations in Greece (n=885) and especially Italy (n=1193) than in Spain (n=268). In the case of out-of-pocket expenditure on inpatient care, the results are based on a small number of observations: n<20 in all three countries across all quintiles, except for quintile 1 (poorest) in Greece (n=22). Otherwise, the number of non-zero observations is well above 30, except in the case of outpatient care in Spain, especially in quintiles 4 and 5 (richest).

Inpatient care is defined as care given to a person who is formally admitted to an institution for treatment and who stays there for a minimum of one night.

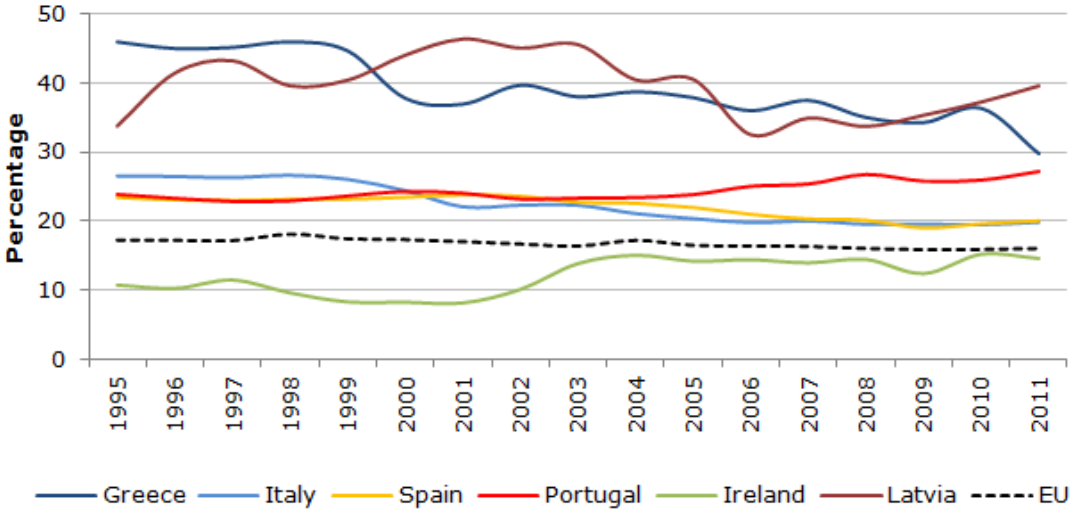
Outpatient care is defined as medical treatment that does not require an overnight stay in a hospital (or any other medical facility).

Total out-of-pocket expenditure by country

Using data from the WHO Health for All Database, it can be seen that, over an extended period of time (1995–2011), out-of-pocket expenditure on health in the EU27 as a whole fluctuated around 17% of total health expenditure, falling slightly to 16% in more recent years (Figure 7).

[6] For an analysis of 2004 SHARE data, see Lambrelli and O'Donnell (2008).

Figure 7: Out-of-pocket expenditure on health as a percentage of total health expenditure



Source: Own calculations using SHARE wave 2.

In particular, focusing on the six crisis countries (Cyprus and Slovenia are not covered), it is clear that, with the exception of Ireland, out-of-pocket expenditure on health has been higher than the EU average. However, trends and levels differ considerably. In Italy and Spain, out-of-pocket expenditure on health has fallen steadily, from around 24% of total health expenditure in 2000 to 20% in 2007–2011, and thus far has mostly remained constant during the crisis. In Portugal, it has risen from 24% in 2000 to around 27% in 2008–2011, with the increase already starting before the crisis. In Greece, out-of-pocket expenditure on health has been historically high: it fluctuated around 37% in the 2000s, until it dipped to 30% under the impact of the crisis in 2011. In Latvia, where it has been even higher, it declined from 47% in 2001 to 33% in 2006, but increased again thereafter, reaching 40% in 2011. Finally, in Ireland, where out-of-pocket expenditure on health has been below the EU average, it rose in recent years from 8% of total health expenditure in 1999–2001 to 15% in 2010–2011. Again, this increase in Ireland began before the crisis broke.

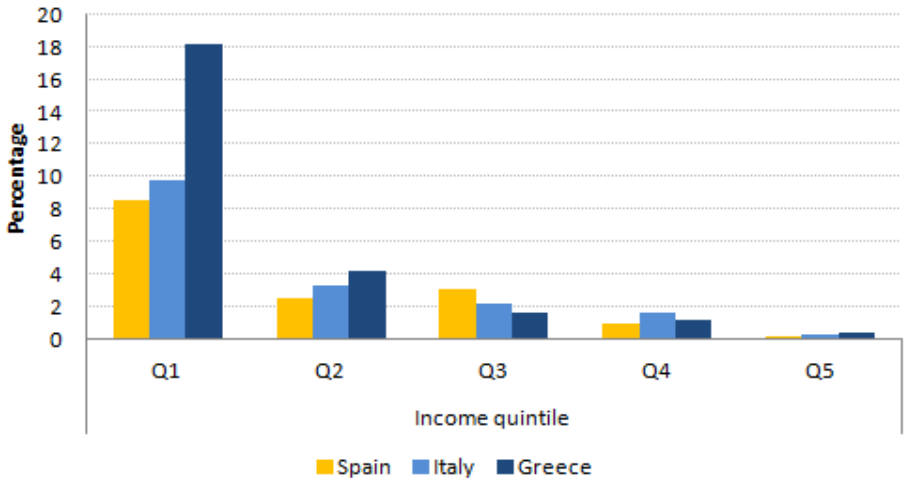
Out-of-pocket expenditure by healthcare item and income quintile

As is clearly the case in the above section on unmet needs, average figures may also mask important differences in out-of-pocket payments in different groups. Using SHARE data and focusing on persons aged 50 and above, the remainder of this section analyses out-of-pocket payments in three of the countries affected by the crisis and for which SHARE data are available: Spain, Italy and Greece. Analysis is limited to 2006 – the period before the crisis (see Box 2 above) – due to data limitations.

As regards out-of-pocket expenditure on all healthcare (including medicines), it can clearly be seen that its incidence is very regressive: low-income persons aged 50+ spent more on health as a proportion of their income in 2006 than did their high-income counterparts in all three countries (Figure 8).

In the case of quintile 1 (poorest), the share of out-of-pocket expenditure on all healthcare was around 9% of income in Spain and Italy, and over 18% in Greece. Furthermore, it is remarkable that in Italy there were four times as many respondents reporting non-zero out-of-pocket expenditure on health in quintile 5 (richest) as in quintile 1 (poorest), while in Greece the pattern was reversed (there were three times as many in quintile 1 as in quintile 5).

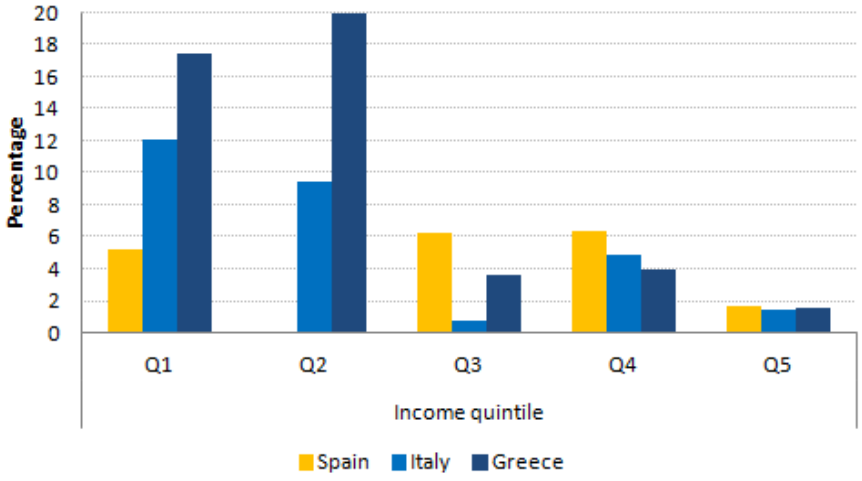
Figure 8: Average out-of-pocket expenditure on healthcare as a percentage of income (2006)



Source: Own calculations using SHARE wave 2.

Turning to out-of-pocket expenditure on inpatient care, the same regressive pattern can be seen (Figure 9). Nevertheless, it should be borne in mind that results here rely on far fewer observations, as at any given time fewer people are hospitalised as inpatients than visit outpatient departments or purchase prescription medicines.

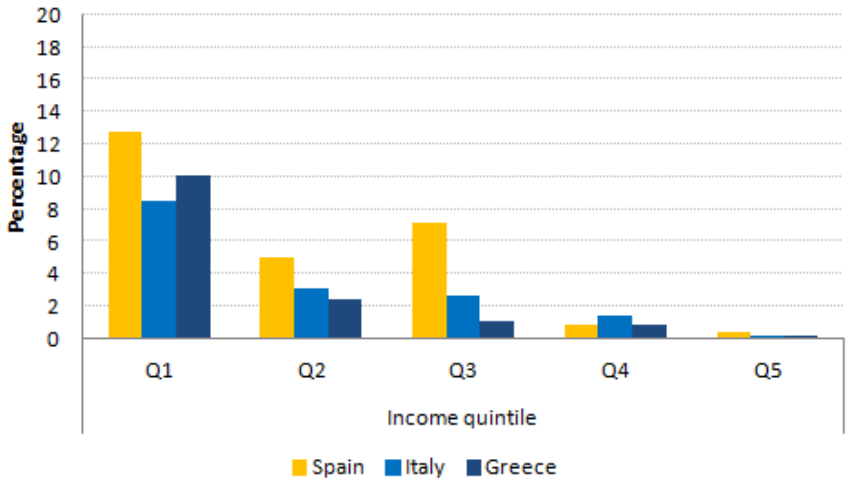
Figure 9: Average out-of-pocket expenditure on inpatient care as a percentage of income (2006)



Source: Own calculations using SHARE wave 2.

With respect to out-of-pocket expenditure on outpatient care, the income share of the poorest (quintile 1) was also high in 2006, ranging from 8.5% in Italy to 12.8% in Spain (n=24). By comparison, it fell below 0.5% in all three countries for the richest (quintile 5) (Figure 10).

Figure 10: Average out-of-pocket expenditure on outpatient care as a percentage of income (2006)

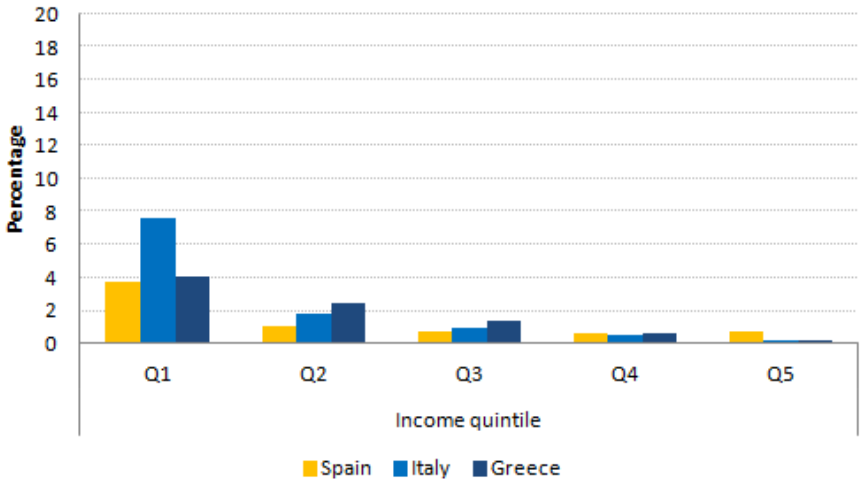


Source: Own calculations using SHARE wave 2.

The analysis of out-of-pocket expenditure on medicines is more robust, as the number of observations corresponded to those respondents – the vast majority of people – who reported non-zero expenditure on any healthcare item (86% in Spain, 88% in Greece, 91% in Italy).

As Figure 11 shows, low-income persons aged 50+ spent a considerable proportion of their income on medicines: 3.8% in Spain, 4.1% in Greece, 7.6% in Italy. The income share of out-of-pocket expenditure on medicine declined as income increased, to below 1% for those higher up in the income distribution (quintile 3 or higher in Spain and Italy, quintile 4 or higher in Greece).

Figure 11: Average out-of-pocket expenditure on medicines as a percentage of income (2006)



Source: Own calculations using SHARE wave 2.

Summing up, in 2006 the incidence of the share of out-of-pocket expenditure on healthcare by persons aged 50 and above was clearly regressive in all three countries affected by the crisis and for which SHARE data are available. As a proportion of their income, the poor spent far more on health than did the rich. The recent decline in both total health spending and out-of-pocket expenditure in several countries (notably in

Greece) is unlikely to have changed this picture much. To the extent that it has, it may well mean that instead of an unmet need for healthcare, there is out-of-pocket expenditure.

As the evidence discussed above reveals, a significant number of Europeans (including many on low incomes) face barriers in accessing affordable health services. Some of them are forced to pay significant sums out of pocket, while others may simply forgo treatment because they cannot afford it.

Concluding remarks

The countries most affected by the financial crisis in Europe have introduced a series of cost-saving measures in their healthcare systems. These have fallen short of actually changing the universal nature of the systems (except in Cyprus and briefly in Ireland), but they have shifted costs to private households, either through increased co-payment for use of services or through higher charges for pharmaceuticals, and they could threaten to reduce the availability of healthcare services, through mergers of providers or staff cuts.

For the population as a whole, overall unmet need for healthcare has apparently increased significantly only in Greece and, latterly, in Latvia. Enforced unmet need, however – which includes affordability or the unavailability of services as reasons for people not receiving healthcare – has increased since the crisis broke in a number of the countries analysed. This should be a cause for concern, as it hints at unintended consequences of the cost-saving measures in access to healthcare. Furthermore, the findings presented in this research note suggest that analysis of the average conceals significant differences among particular groups of the population.

While there are some country specificities – such as people of working age in Ireland, the native population in Portugal and people living in rural settings in Italy – the following groups are prone to reporting enforced unmet need for healthcare: lower income (quintile 1), those living in urban settings, the unemployed, older people and non-EU migrants. With the crisis, in general these more vulnerable groups have witnessed an increase in enforced unmet need.

Using multivariate analysis to standardise changes in the characteristics of the population reveals a silver lining to this cloud of increased enforced unmet need. Enforced unmet need increased less among vulnerable groups than it did among those that had lower reported enforced unmet need before the crisis. There are three notable exceptions to this finding, though. As a group, older people had higher relative increases in enforced unmet need than did the working-age population in Greece, Italy, Portugal and Spain. Urban populations seem also to have reported higher enforced unmet need than their rural counterparts. At the country level, Italy witnessed a bigger increase in enforced unmet need among vulnerable groups: those on lower income, the unemployed and migrants.

The effects of the crisis on income and employment, and indirectly on migration patterns, have been such, however, that the profile of the unemployed, migrant populations, inactive and even native populations has changed with the crisis. Taking the EU as a whole, native populations and non-EU migrants reported less enforced unmet need after the crisis, while migrants born within the EU had higher enforced unmet need.

Analysis of out-of-pocket costs in relation to healthcare referred only to the period before the crisis. It is clear, however, that out-of-pocket costs of healthcare were particularly high as a share of income in Greece, Italy and Spain. Although the costs related to inpatient and outpatient healthcare were the highest of the healthcare types considered, costs related to medicines – which were reported by a greater share of

respondents than was outpatient or inpatient care – also represented a sizeable share of patients' income even before the cost-containing measures sparked by the financial crisis.

Therefore, findings presented in this research note indicate that enforced unmet need has increased with the crisis, but this increase has often been less severe for those groups that previously reported higher-than-average enforced unmet need. As some of the cost-containing measures have not been reversed and only started to produce effects in 2011 and 2012, further monitoring of the evolution of unmet need is required, as is monitoring of the possible effects on health that stem from it. Policy-makers in Europe – and particularly in those countries most affected by the crisis – should weigh up the possible effects that limiting access to healthcare could have on health, and therefore on well-being, productivity and growth potential – and so accordingly the Europe 2020 strategy.

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Annex I: EU-SILC results

Table A.I.1: Unmet needs 2006–2011

Ireland

Overall unmet need %	2006	2007	2008	2009	2010	2011
Total	2.5	2.9	2.6	2.6	2.7	NA
Age						NA
16–64	2.6	3.0	2.5	2.6	3.0	NA
65+	1.9	2.3	2.7	2.8	1.3	NA
Income						NA
1st quintile	3.7	5.2	2.6	3.6	3.6	NA
2nd quintile	2.5	2.5	3.0	2.9	1.3	NA
3rd quintile	3.3	3.0	3.2	1.9	4.3	NA
4th quintile	2.1	2.7	2.4	3.3	2.6	NA
5th quintile	1.1	1.2	1.7	1.4	1.8	NA
Employment status						NA
Employed	2.2	2.3	2.6	2.4	3.0	NA
Unemployed	6.8	8.3	4.7	4.4	4.0	NA
Retired	2.2	1.9	1.9	1.2	1.2	NA
Other inactive	2.4	3.3	2.2	2.8	2.3	NA
Country of birth						NA
Native-born	2.5	2.2	2.6	2.4	2.4	NA
Foreign-born	2.5	8.0	2.5	3.5	4.2	NA
Degree of urbanisation						NA
Urban area	2.6	3.5	2.8	2.6	3.0	NA
Rural area	2.2	1.8	2.0	2.5	2.2	NA
Enforced unmet need %	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Total	1.9	2.2	1.8	2.0	2.1	NA
Age						NA
16–64	2.0	2.3	1.8	2.0	2.3	NA
65+	1.2	1.6	1.6	2.1	1.0	NA
Income						NA
1st quintile	2.6	4.4	1.9	2.7	2.7	NA
2nd quintile	2.0	2.1	1.8	2.6	1.0	NA
3rd quintile	2.3	2.4	2.8	1.3	3.4	NA
4th quintile	1.8	1.5	1.8	2.6	2.4	NA
5th quintile	0.7	0.9	0.9	1.1	1.2	NA
Employment status						NA
Employed	1.6	1.6	1.9	1.9	2.3	NA
Unemployed	4.1	6.8	4.4	3.4	3.2	NA
Retired	1.2	1.3	1.3	0.8	0.9	NA
Other inactive	2.1	2.8	1.3	2.2	2.0	NA
Country of birth						NA
Native-born	1.8	1.6	1.8	1.9	2.0	NA
Foreign-born	2.2	7.0	1.6	3.1	3.1	NA
Degree of urbanisation						NA
Urban area	1.9	2.8	2.1	2.0	2.3	NA
Rural area	1.8	1.3	1.4	2.1	1.8	NA

Greece

Overall unmet need %	2006	2007	2008	2009	2010	2011
Total	7.3	6.7	7.4	7.5	7.7	9.5
Age						
16–64	6.3	5.6	6.0	5.9	6.3	7.7
65+	11.0	10.7	12.5	13.2	12.5	15.7
Income						
1st quintile	8.6	11.7	10.8	13.3	11.1	12.9
2nd quintile	9.8	7.9	9.8	9.5	8.9	12.2
3rd quintile	8.8	6.4	7.8	6.8	7.8	9.4
4th quintile	5.6	5.3	5.6	4.2	4.8	6.7
5th quintile	3.6	2.3	3.3	4.1	5.9	6.3
Employment status						
Employed	5.3	5.1	5.2	4.5	5.7	6.6
Unemployed	8.6	8.0	9.4	9.5	9.7	10.9
Retired	10.4	10.3	11.4	11.7	10.8	13.9
Other inactive	8.2	6.4	7.9	9.1	8.3	9.1
Country of birth						
Native-born	7.2	7.0	7.3	7.5	7.8	9.1
Foreign-born	8.6	8.9	8.5	7.3	6.7	14.4
Degree of urbanisation						
Urban area	7.9	6.9	8.7	8.3	9.1	11.1
Rural area	6.6	7.0	6.0	6.7	6.0	7.4

Enforced unmet need %	2006	2007	2008	2009	2010	2011
Total	5.7	5.4	5.4	5.6	5.5	7.5
Age						
16–64	4.6	4.4	4.2	4.1	4.1	5.8
65+	9.4	9.2	10.0	10.8	10.2	13.2
Income						
1st quintile	7.5	10.0	8.8	11.4	9.1	11.7
2nd quintile	7.8	6.8	7.2	7.5	7.1	9.9
3rd quintile	7.1	5.3	6.0	4.7	5.9	7.6
4th quintile	4.0	4.2	3.4	2.8	3.2	4.8
5th quintile	2.0	1.0	1.8	1.7	2.1	3.6
Employment status						
Employed	3.5	3.8	3.3	2.5	3.1	4.5
Unemployed	7.5	7.5	7.5	8.0	8.2	10.0
Retired	9.1	8.7	8.8	9.4	8.6	11.4
Other inactive	6.6	5.2	6.4	7.5	6.6	7.2
Country of birth						
Native-born	5.5	5.2	5.3	5.5	5.5	7.1
Foreign-born	7.8	8.1	6.6	5.8	5.7	12.1
Degree of urbanisation						
Urban area	6.3	5.6	6.5	6.2	6.4	8.6
Rural area	4.9	5.2	4.3	4.8	4.4	6.0

Spain

Overall unmet need %	2006	2007	2008[a]	2009	2010	2011
Total	6.1	1.8	6.0	8.8	6.8	5.6
Age						
16–64	6.7	2.0	6.8	9.7	7.7	5.9
65+	4.0	1.1	2.6	5.3	3.2	4.3
Income						
1st quintile	6.5	1.9	5.8	8.3	6.7	6.9
2nd quintile	6.0	1.8	6.8	8.7	7.1	4.4
3rd quintile	5.7	1.8	6.1	8.7	7.2	6.0
4th quintile	5.7	2.1	5.3	9.7	7.2	5.8
5th quintile	6.7	1.6	5.9	8.7	5.9	4.8
Employment status						
Employed	7.8	2.4	8.0	11.4	9.2	6.4
Unemployed	5.9	1.3	6.3	9.7	7.8	7.0
Retired	4.0	1.2	2.6	5.5	3.4	4.2
Other inactive	4.3	1.2	3.7	5.3	3.8	4.2
Country of birth						
Native-born	6.1	1.8	5.9	8.9	6.9	5.6
Foreign-born	6.5	2.3	6.9	7.8	6.3	5.3
Degree of urbanisation						
Urban area	6.5	2.0	6.2	9.0	6.8	5.4
Rural area	5.1	1.5	5.3	8.4	6.7	6.0

Enforced unmet need %	2006	2007	2008[a]	2009	2010	2011
Total	0.6	0.1	0.4	0.4	0.3	0.6
Age						
16–64	0.5	0.1	0.4	0.4	0.3	0.5
65+	0.9	0.2	0.2	0.4	0.4	0.8
Income						
1st quintile	0.8	0.1	0.4	0.8	0.4	0.9
2nd quintile	1.0	0.1	0.6	0.4	0.5	0.7
3rd quintile	0.5	0.1	0.4	0.5	0.5	0.5
4th quintile	0.4	0.2	0.2	0.4	0.2	0.5
5th quintile	0.2	0.2	0.3	0.2	0.1	0.3
Employment status						
Employed	0.4	0.1	0.4	0.4	0.2	0.4
Unemployed	1.2	0.3	0.6	0.6	0.8	1.1
Retired	0.8	0.1	0.3	0.5	0.4	0.6
Other inactive	0.8	0.2	0.3	0.3	0.3	0.6
Country of birth						
Native-born	0.6	0.1	0.3	0.4	0.3	0.5
Foreign-born	0.6	0.4	0.7	0.6	0.4	0.7
Degree of urbanisation						
Urban area	0.6	0.2	0.4	0.4	0.3	0.6
Rural area	0.5	0.1	0.3	0.4	0.3	0.4

Note: (a) Break in series.

Italy

Overall unmet need %	2006	2007	2008	2009	2010	2011
Total	6.9	6.6	7.4	7.2	7.2	7.2
Age						
16–64	6.5	6.3	7.0	6.9	6.9	6.6
65+	8.0	7.5	8.7	8.4	8.2	9.2
Income						
1st quintile	11.8	11.1	13.0	13.0	11.1	13.6
2nd quintile	7.7	7.9	8.8	8.2	9.0	9.1
3rd quintile	5.6	5.4	6.4	6.8	7.0	6.6
4th quintile	5.1	5.1	5.2	5.5	5.7	4.9
5th quintile	4.5	3.7	4.1	3.3	3.7	2.8
Employment status						
Employed	6.0	5.6	6.1	5.9	6.3	5.8
Unemployed	8.9	8.3	11.0	10.3	10.4	11.8
Retired	6.9	6.2	7.5	6.8	6.9	7.1
Other inactive	7.8	8.3	8.8	9.1	8.2	8.6
Country of birth						
Native-born	6.8	6.9	7.2	7.2	7.2	6.9
Foreign-born	8.0	8.0	8.9	8.2	8.6	10.3
Degree of urbanisation						
Urban area	6.7	6.6	7.3	7.2	7.2	7.2
Rural area	7.5	7.1	7.6	7.3	7.1	7.2

Enforced unmet need %	2006	2007	2008	2009	2010	2011
Total	4.6	4.7	5.2	5.3	5.0	5.9
Age						
16–64	4.3	4.4	4.8	5.1	4.7	5.5
65+	5.7	5.6	6.4	6.0	6.1	7.3
Income						
1st quintile	9.2	9.4	10.6	10.4	9.1	12.3
2nd quintile	5.2	5.9	6.5	6.4	6.7	7.9
3rd quintile	3.7	3.5	4.6	4.9	4.9	5.3
4th quintile	3.2	3.1	3.0	3.5	3.2	3.4
5th quintile	2.1	1.8	1.9	1.8	1.6	1.4
Employment status						
Employed	3.5	3.5	3.8	3.9	3.8	4.3
Unemployed	7.4	7.0	8.9	9.2	8.7	10.7
Retired	4.8	4.4	5.2	4.7	4.8	5.7
Other inactive	5.7	6.3	6.8	7.1	6.2	7.5
Country of birth						
Native-born	4.5	4.6	5.1	5.2	4.9	5.6
Foreign-born	5.6	6.0	6.7	6.9	6.8	9.1
Degree of urbanisation						
Urban area	4.6	4.6	5.2	5.3	5.0	5.8
Rural area	4.7	4.8	5.4	5.4	5.0	6.2

Cyprus

Overall unmet need %	2006	2007	2008	2009	2010	2011
Total	5.8	6.7	5.1	5.8	6.7	6.1
Age						
16–64	6.0	6.4	5.1	4.7	7.0	6.2
65+	4.9	8.5	5.0	6.0	4.7	5.5
Income						
1st quintile	8.5	11.1	7.5	6.5	8.3	7.0
2nd quintile	7.5	7.7	6.4	9.2	10.5	7.5
3rd quintile	5.6	6.6	4.7	5.9	5.8	6.3
4th quintile	4.4	5.0	4.1	4.4	5.9	6.3
5th quintile	3.1	3.3	2.8	2.8	3.1	3.8
Employment status						
Employed	6.3	6.5	5.2	6.4	7.2	6.6
Unemployed	8.3	14.4	10.6	10.6	10.2	9.2
Retired	5.2	8.6	5.2	4.8	5.2	6.2
Other inactive	4.8	4.9	4.2	4.2	5.7	4.0
Country of Birth						
Native-born	5.3	7.2	5.1	6.0	6.6	6.3
Foreign-born	5.9	6.6	5.0	4.5	7.0	5.4
Degree of urbanisation						
Urban area	6.1	6.5	5.3	5.7	7.1	6.6
Rural area	5.1	7.9	4.5	6.1	5.7	5.0
Enforced unmet need %	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Total	3.1	3.6	3.0	3.1	3.9	4.2
Age						
16–64	3.1	3.1	3.1	3.1	4.0	4.2
65+	3.1	6.7	3.0	2.7	3.2	4.2
Income						
1st quintile	6.3	8.9	6.3	4.5	6.6	6.5
2nd quintile	4.5	4.4	4.3	6.2	7.4	5.6
3rd quintile	2.5	2.5	2.4	2.9	2.9	4.6
4th quintile	1.4	1.8	1.4	1.4	2.4	3.0
5th quintile	0.6	0.4	0.7	0.3	0.4	1.2
Employment status						
Employed	2.9	2.8	2.6	2.9	3.5	4.0
Unemployed	6.9	9.4	8.0	8.3	8.2	7.4
Retired	3.3	6.6	3.4	3.1	3.5	4.7
Other inactive	2.8	2.8	3.1	2.5	4.2	3.2
Country of birth						
Native-born	2.9	3.5	2.8	3.0	3.8	4.2
Foreign-born	4.1	4.2	4.1	3.1	4.6	4.1
Degree of urbanisation						
Urban area	3.2	3.2	3.2	3.0	4.2	4.7
Rural area	2.8	4.6	2.5	3.1	3.2	2.9

Latvia

Overall unmet need %	2006	2007	2008	2009	2010	2011
Total	26.0	23.9	18.9	15.6	21.2	22.0
Age						
16–64	24.6	22.2	18.0	14.6	20.2	20.8
65+	31.6	31.1	23.0	19.6	24.9	26.6
Income						
1st quintile	35.5	36.7	28.6	25.3	33.4	33.3
2nd quintile	30.1	24.2	19.3	18.3	24.9	27.3
3rd quintile	23.8	20.9	15.2	12.3	20.7	21.8
4th quintile	22.6	21.6	16.6	11.8	14.7	15.5
5th quintile	18.0	16.1	14.7	10.2	12.7	12.6
Employment status						
Employed	24.2	21.5	17.7	12.8	18.4	18.6
Unemployed	41.3	34.0	29.2	21.1	29.8	32.8
Retired	32.2	32.1	23.7	20.7	25.8	28.1
Other inactive	17.1	17.8	13.5	11.8	14.4	14.0
Country of birth						
Native-born	24.3	29.1	18.2	14.8	20.3	20.6
Foreign-born	34.8	32.0	23.1	20.1	26.2	29.8
Degree of urbanisation						
Urban area	27.4	25.6	19.9	15.1	23.1	23.7
Rural area	24.6	28.8	18.0	16.0	19.2	20.3
Enforced unmet need %	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Total	14.5	12.3	9.7	9.6	14.8	16.1
Age						
16–64	12.7	10.0	8.4	8.7	13.9	14.9
65+	21.8	21.8	15.3	13.5	18.2	20.5
Income						
1st quintile	28.1	25.2	20.9	19.5	28.0	28.1
2nd quintile	19.3	13.0	10.9	12.1	17.5	21.3
3rd quintile	9.8	10.8	7.0	6.6	14.3	15.6
4th quintile	9.5	7.6	6.2	5.6	8.8	10.1
5th quintile	5.8	4.8	3.3	4.3	5.9	5.6
Employment status						
Employed	10.1	8.2	6.3	5.8	10.3	11.6
Unemployed	30.6	19.9	22.0	16.3	25.0	27.8
Retired	23.0	22.3	16.5	14.4	19.3	21.9
Other inactive	11.5	10.3	8.5	8.6	11.9	11.1
Country of birth						
Native-born	13.2	11.3	9.0	9.0	13.8	14.7
Foreign-born	21.5	18.0	13.7	13.0	20.6	23.6
Degree of urbanisation						
Urban area	15.4	13.0	10.1	10.2	17.3	17.9
Rural area	13.6	11.7	9.3	9.0	12.3	14.3

Portugal

Overall unmet need %	2006	2007	2008[a]	2009	2010	2011
Total	5.5	12.3	1.9	4.3	2.6	1.8
Age						
16–64	4.7	12.4	1.8	4.2	2.6	1.6
65+	8.5	11.9	2.0	4.4	2.8	2.6
Income						
1st quintile	9.6	21.4	3.2	7.8	5.1	2.7
2nd quintile	7.7	14.3	2.4	4.6	3.7	3.6
3rd quintile	5.6	11.6	2.0	4.6	2.3	1.6
4th quintile	3.1	9.9	0.9	2.8	1.7	1.0
5th quintile	1.6	4.8	0.8	1.7	0.5	0.3
Employment status						
Employed	3.8	11.8	1.5	3.4	2.0	1.5
Unemployed	7.5	18.0	2.9	6.2	4.6	2.3
Retired	8.5	11.9	1.7	4.5	2.7	2.3
Other inactive	6.3	12.2	2.9	5.7	3.1	1.8
Country of birth						
Native-born	5.5	14.0	2.0	4.1	2.6	1.8
Foreign-born	3.0	12.6	0.5	7.1	2.9	1.7
Degree of urbanisation						
Urban area	4.8	12.1	2.2	4.4	2.7	1.9
Rural area	7.2	14.7	0.8	3.7	2.4	1.5

Enforced unmet need %	2006	2007	2008[a]	2009	2010	2011
Total	4.9	9.8	1.1	3.3	2.0	1.4
Age						
16–64	4.1	9.8	1.1	3.2	2.0	1.2
65+	8.1	9.6	1.3	3.4	2.1	2.1
Income						
1st quintile	9.1	18.9	2.6	7.0	4.4	2.2
2nd quintile	6.9	11.5	1.4	3.5	2.9	2.8
3rd quintile	5.0	9.9	1.0	3.8	1.6	1.3
4th quintile	2.8	7.0	0.5	1.6	1.1	0.7
5th quintile	1.1	2.1	0.3	0.6	0.2	0.1
Employment status						
Employed	3.1	8.5	0.9	2.3	1.5	1.1
Unemployed	7.1	17.2	1.7	5.3	3.7	1.9
Retired	8.2	10.1	1.1	3.4	2.2	1.8
Other inactive	6.0	10.9	2.0	5.0	2.5	1.3
Country of birth						
Native-born	5.0	9.8	1.2	3.1	2.0	1.4
Foreign-born	3.0	9.4	0.5	5.6	2.6	0.7
Degree of urbanisation						
Urban area	4.3	9.7	1.3	3.3	2.1	1.4
Rural area	6.6	10.1	0.6	3.0	1.8	1.3

Note: (a) Break in series.

Slovenia

Overall unmet need %	2006	2007	2008	2009	2010	2011
Total	0.3	0.4	0.4	0.4	0.3	0.3
Age						
16–64	0.3	0.3	0.4	0.4	0.4	0.3
65+	0.3	0.6	0.4	0.3	0.1	0.4
Income						
1st quintile	0.4	0.7	0.6	0.5	0.6	0.7
2nd quintile	0.4	0.4	0.4	0.5	0.2	0.1
3rd quintile	0.3	0.4	0.3	0.4	0.1	0.4
4th quintile	0.1	0.3	0.4	0.2	0.2	0.1
5th quintile	0.2	0.0	0.3	0.1	0.3	0.1
Employment status						
Employed	0.2	0.3	0.4	0.3	0.3	0.2
Unemployed	0.9	0.5	1.0	1.1	0.5	0.7
Retired	0.3	0.5	0.5	0.3	0.3	0.4
Other inactive	0.2	0.3	0.1	0.3	0.2	0.0
Country of birth						
Native-born	0.3	0.3	0.4	0.3	0.3	0.2
Foreign-born	0.4	0.9	0.4	0.5	0.6	1.0
Degree of urbanisation						
Urban area	NA	NA	NA	NA	NA	NA
Rural area	NA	NA	NA	NA	NA	NA

Enforced unmet need %	2006	2007	2008	2009	2010	2011
Total	0.2	0.2	0.2	0.2	0.1	0.1
Age						
16–64	0.1	0.2	0.2	0.2	0.1	0.1
65+	0.2	0.4	0.2	0.2	0.0	0.1
Income						
1st quintile	0.2	0.6	0.3	0.3	0.2	0.3
2nd quintile	0.2	0.1	0.4	0.4	0.2	0.0
3rd quintile	0.1	0.2	0.0	0.2	0.1	0.2
4th quintile	0.0	0.2	0.3	0.1	0.0	0.1
5th quintile	0.1	0.0	0.1	0.0	0.0	0.0
Employment status						
Employed	0.1	0.2	0.2	0.1	0.1	0.1
Unemployed	0.3	0.3	0.9	1.0	0.3	0.5
Retired	0.2	0.3	0.2	0.2	0.1	0.1
Other inactive	0.1	0.3	0.1	0.0	0.1	0.0
Country of birth						
Native-born	0.2	0.2	0.2	0.2	0.1	0.1
Foreign-born	0.1	0.8	0.3	0.3	0.2	0.4
Degree of urbanisation						
Urban area	NA	NA	NA	NA	NA	NA
Rural area	NA	NA	NA	NA	NA	NA

Table A.I.2: Unmet need and enforced unmet need for medical examination by country of origin in the EU (%), 2006–2011

	Unmet need			Enforced unmet need		
	EU migrants	Non-EU migrants	Native population	EU migrants	Non-EU migrants	Native population
2011	6.2	7.4	6.8	3.3	3.7	3.5
2010	5.2	6.6	6.8	2.6	2.8	3.2
2009	5.6	6.8	7.0	2.3	3.1	3.1
2008	6.1	7.0	7.0	2.9	3.0	3.3
2007	4.4	6.8	6.3	2.1	3.5	3.0
2006	5.5	8.8	7.6	2.4	4.6	3.5

Source: Own calculations based on EU-SILC 2006–2011.

Table A.I.3: Unmet need for medical examination by main reasons (%), 2006 and 2011

	2006				2011			
	Could not afford	Waiting list	Too far to travel	Other reasons	Could not afford	Waiting list	Too far to travel	Other reasons
IE [a]	46.5	25.1	2.5	25.9	59.1	18.3	1.6	21.0
EL	61.5	11.5	4.9	22.1	65.6	8.2	5.6	20.6
ES [b]	2.3	3.2	0.6	94.0	6.8	3.1	0.5	89.7
IT	44.2	21.6	1.2	33.1	70.9	10.9	0.7	17.6
CY	50.8	0.8	1.1	47.3	64.3	2.5	1.0	32.2
LV	43.2	9.6	2.9	44.3	65.5	4.3	3.3	27.0
PT [b]	49.9	10.6	0.9	38.6	69.8	4.5	2.5	23.2
SI	6.2	49.0	0.0	44.8	19.6	17.4	2.6	60.4
EU	31.7	13.4	1.8	53.1	35.7	13.3	2.5	48.6

Notes:
(a) Data for Ireland for 2011 refer to 2010.
(b) Data for Portugal and Spain for 2006 refer to 2008.
Source: Own calculations based on EU-SILC 2006 and 2011.

Table A.I.4: Number of observations for unmet need, 2006–2011

	2006	2007	2008	2009	2010	2011
IE	11,474	10,886	10,108	9,897	8,780	NA
EL	12,606	12,324	14,123	15,006	14,788	12,641
ES	28,129	28,613	29,926	30,414	30,483	28,948
IT	45,975	44,629	44,286	43,111	40,362	40,496
CY	8,739	8,453	8,075	7,553	9,103	9,491
LV	9,070	9,225	10,909	12,041	12,888	13,388
PT	10,147	9,939	10,092	11,056	11,353	12,473
SI	9,465	8,700	9,023	9,273	9,357	9,241
EU	362,022	365,644	392,009	404,897	401,530	401,347

Notes: Data for Ireland for 2011 not available.
Source: EU-SILC 2006–2011.

Annex II: SHARE results

Table A.II.1: Out-of-pocket expenditure on health as a percentage of total health expenditure, 1995–2011

	EL	ES	IT	PT	IE	LV	EU
1995	45.9	23.5	26.6	23.9	10.7	33.7	17.4
1996	45.0	23.2	26.5	23.3	10.2	41.5	17.3
1997	45.1	23.1	26.4	22.9	11.4	43.3	17.3
1998	45.9	23.3	26.7	23.0	9.5	39.6	18.2
1999	44.7	23.3	26.1	23.7	8.2	40.5	17.5
2000	37.8	23.6	24.5	24.3	8.2	44.1	17.4
2001	37.0	23.9	22.2	24.1	8.1	46.5	17.1
2002	39.7	23.7	22.4	23.2	10.0	45.2	16.8
2003	38.0	22.9	22.4	23.4	13.8	45.7	16.5
2004	38.7	22.7	21.2	23.4	15.0	40.5	17.3
2005	37.9	22.1	20.5	23.9	14.1	40.6	16.6
2006	36.0	21.1	19.9	25.1	14.4	32.5	16.5
2007	37.5	20.4	20.1	25.5	13.9	34.9	16.5
2008	35.0	20.2	19.7	26.9	14.4	33.7	16.2
2009	34.3	19.1	19.7	25.9	12.3	35.3	16.0
2010	36.4	19.7	19.6	26.0	15.2	37.3	16.0
2011	29.8	20.1	19.9	27.3	14.5	39.6	16.2

Source: World Health Organization (Health for All Database) http://data.euro.who.int/hfadb

Table A.II.2: Average out-of-pocket expenditure on health as a percentage of income, 2006

	Q1	Q2	Q3	Q4	Q5	Total
EL	18.2	4.2	1.6	1.1	0.4	15.2
ES	8.6	2.5	3.0	1.0	0.2	1.8
IT	9.8	3.4	2.2	1.7	0.3	5.7

Source: Own calculations using SHARE wave 2.

Table A.II.3: Average out-of-pocket expenditure on inpatient care, outpatient care and medicines as a percentage of income, 2006

	Q1	Q2	Q3	Q4	Q5
Inpatient care					
EL	17.4	25.3	3.7	3.9	1.6
ES	5.3	.	6.3	6.3	1.7
IT	12.1	9.4	0.8	4.9	1.5
Outpatient care					
EL	10.1	2.4	1.1	0.8	0.2
ES	12.8	5.1	7.2	0.8	0.4
IT	8.5	3.1	2.7	1.4	0.3
Medicines					
EL	4.1	2.4	1.4	0.7	0.2
ES	3.8	1.1	0.8	0.6	0.7
IT	7.6	1.8	0.9	0.5	0.2

Source: Own calculations using SHARE wave 2.