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Author: Helena Legido-Quigley Marina Karanikolos Sonia Hernandez-Plaza Claudia de Freitas Luis Bernardo Beatriz Padilla Rita Sá Machado Karla Diaz-Ordaz David Stuckler Martin McKee



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- In 2010-2012, unmet medical need doubled in Portugal
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Effects of the financial crisis and Troika austerity measures on
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Helena Legido-Quigley^{1*}, Marina Karanikolos^{2*}, Sonia Hernandez-Plaza³, Claudia de Freitas⁴, Luis Bernardo⁵, Beatriz Padilla⁶, Rita Sá Machado⁷, Karla Diaz-Ordaz⁷, David Stuckler⁸, and Martin McKee⁷

*Joint first authors

¹ Saw Swee Hock School of Public Health, National University of Singapore, Singapore

² Europe an Observatory on Health Systems and Policies, London, United Kingdom

³ Centre for Research in Social Sciences, University of Minho, Portugal

⁴ University Institute of Lisbon, Centre for Research and Studies in Sociology
University of Porto, Institute of Public Health

⁵ [Humboldt Universität zu Berlin](#), [Social Sciences](#), Berlin, Germany

⁶ Instituto Universitário de Lisboa (ISCTE-IUL), Centro de Investigação e Estudos de Sociologia, Lisbon, Portugal

⁷ London School of Hygiene and Tropical Medicine, London, United Kingdom

⁸ Department of Sociology, University of Oxford, Oxford, United Kingdom

[§]Corresponding author: helena.legido-quigley@lshtm.ac.uk

Effects of the financial crisis and Troika austerity measures on health and health care access in Portugal

Highlights

- Austerity measures in Portugal involved substantial reforms, including to health care
- In 2010-2012, unmet medical need doubled in Portugal
- Health professionals raised concerns regarding increased co-payments and the quality of care
- Measures are now needed to ameliorate the damage incurred by the recession and austerity.

Abstract

Although Portugal has been deeply affected by the global financial crisis, the impact of the recession and subsequent austerity on health and to health care has attracted relatively little attention. We used several sources of data including the European Union Statistics for Income and Living Conditions (EU-SILC) which tracks unmet medical need during the recession and before and after the Troika's austerity package. Our results show that the odds of respondents reporting having an unmet medical need more than doubled between 2010 and 2012 (OR=2.41, 95% CI 2.01-2.89), with the greatest impact on those in employment, followed by the unemployed, retired, and other economically inactive groups. The reasons for not seeking care involved a combination of factors, with a 68% higher odds of citing financial barriers (OR=1.68, 95% CI 1.32-2.12), more than twice the odds of citing waiting times and inability to take time off work or family responsibilities (OR 2.18, 95% CI 1.20-3.98), and a large increase of reporting delaying care in the hope that the problem would resolve on its own (OR=13.98, 95% CI 6.51-30.02). Individual-level studies from Portugal also suggest that co-payments at primary and hospital level are having a negative effect on the most vulnerable living in disadvantaged areas, and that health care professionals have concerns about the impact of recession and subsequent austerity measures on the quality of care provided. The Portuguese government no longer needs external assistance, but these findings suggest that measures are now needed to mitigate the damage incurred by the crisis and austerity.

Keywords: Austerity, economic crisis, Portugal, access to care, co-payments

Introduction

Although Portugal is one of the European countries most affected by the global financial crisis, there has been much less attention to the health consequences of the crisis and subsequent austerity measures compared to countries such as

Greece, Spain and Ireland. Portugal's recession started in 2008. Despite a brief recovery in 2010, it then lost more than 6% of GDP between 2011 and 2013¹. The crisis was accompanied by mounting deficits (9.9% of GDP in 2010)² and the government debt, mainly from the credit-fuelled expansion of the non-tradable sector such as retail and construction, reached 129% of GDP in 2013³.

In May 2011, the Portuguese Parliament rejected austerity measures and the government requested an emergency €78 billion bailout package from international lenders – the European Central Bank, the European Commission and the International Monetary Fund – known as the Troika. The Memorandum of Understanding (MoU) with the Troika included agreement to generate substantial savings, including the health care sector⁴⁻⁶.

Portugal had undergone remarkable change since the 1980s. Social conditions had improved as the creation of a welfare state tackled material deprivation and increased access to healthcare⁷. Portugal's health system is primarily funded through general taxation with a mix of public and private financing. Before the financial crisis, approximately 30% of the total expenditure was private, with nearly 25% representing out-of-pocket payments. Patient co-payments have increased over time, dominated by payments for pharmaceuticals⁸. All residents have access to health care provided by the National Health Service (NHS), and a number of reforms were implemented since the 1990s to improve performance, especially primary care and pharmaceutical care delivery. Portugal had progressively increased expenditure on healthcare, particularly in the public sector. In 2008, when the financial crisis hit Portugal, expenditure for health care represented nearly 10% of GDP⁸. However, progress was reversed during the crisis; health expenditure declined by 5% per year in real terms in 2011 and 2012⁹, contrasting with an annual growth of 1.8% in the previous decade¹⁰. Per capita expenditure stood at 2,514 US\$ PPP in 2013, well below the OECD average of 3,453 US\$ PPP¹¹.

Budget cuts were achieved in several ways^{6, 12, 13}. First, unit costs were forced down as the government negotiated lower prices for drugs and cut salaries of health workers. Second, more cuts were introduced in prevention, public health and research. Third, measures were implemented to reduce demand for care, mainly by increasing co-payments. Visits to primary care physicians attracted a charge of €5.00 in 2013, up from €2.25 in 2011. The corresponding increases for routine hospital visits were from €4.60 to €7.75 and for emergency visits from €9.40 to €20.60, with additional fees of up to €50 for examination and diagnosis. Increased charges have been maintained at these values through 2015, even after the termination of the MoU. The impact was, however, softened by broadening exemptions from payments to almost 56% of the population (from 4.3 million people in 2011 to 5.8 million in 2014¹⁴). Exemptions are based on several criteria (family units earning less than €630 per month, the unemployed, pregnant women and children up to the age of twelve, among other groups) with the main criterion being that of economic hardship. In 2015, the Ministry of Health extended exemption from fees to youth under 18. However, criteria for

exemptions for certain conditions such as chronic obstructive pulmonary disease (COPD) and chronic active hepatitis were tightened¹⁵. Fourth, some subsidies were removed, such as tax relief on private health insurance. Box 1 sets out a more detailed description of the austerity measures sought by the Troika in 2011.

[Box 1 about here]

The Portuguese government was required to commit to reducing the deficit to 3% of GDP by 2013, while “minimising impact on vulnerable groups”. Yet there have been concerns that some of these measures may have impacted adversely on access to care and on population health, not least because of awareness of what has happened in Greece¹⁶. So what has happened in Portugal?

Methods

We used the European Statistics on Income and Living Conditions (EU-SILC)¹⁷ to analyse changes in self-reported unmet medical need before and after the introduction of the Troika’s adjustment package. EU-SILC is an EU-wide representative population survey, the cross-sectional component of which contains data on perceived unmet medical need. The unmet medical need indicator is considered a proxy for barriers experienced in access to care, consistent with other studies^{16, 18}. The relevant question asks respondents whether they felt unable to access medical care over the past 12 months, although he/she felt they needed it, with a supplementary question on unmet medical need. We compared data from 2010 and 2012 (n=21,474), covering the introduction of most of the austerity measures. Logistic regression models were analysed, with stratification by economic status (employed, unemployed, retired and other inactive), and for socio-demographic characteristics of the sample: age (16-80), sex (male compared to female), marital status (married compared to single) and education (post-secondary compared to secondary or below), with weighting for survey sampling design. Summary statistics presented in Table 1 show that socio-demographic characteristics of 2010 and 2012 survey samples were broadly comparable, although there were more respondents with higher education in 2012.

[Table 1 about here]

We also accessed and analysed multiple sources of data related to health, health care expenditure and health care utilization from OECD, Eurostat, and the Portuguese Ministry of Health. We present key findings from available qualitative and quantitative studies, which aim to explore the impact of the recession and subsequent austerity measures on those who are most vulnerable using available survey data.

Results

Effects of Health Care Budget Cuts on health system and access to care

As shown in Figure 1 and Table 2, the odds ratio (OR) of reporting unmet medical need (accounting for socio-demographic characteristics of respondents) more than doubled in the crisis year, with the greatest impact on those in employment (OR 2.82, 95% CI 2.15-3.69), followed by the unemployed (OR 2.07, 95% CI 1.32-

3.24), and the retired (OR 2.00, 95% CI 1.40-2.85), and other economically inactive groups (OR 1.81, 95% CI 1.11-2.96). EU-SILC also collects the reason for not seeking care and Table 3 shows changes in the frequency of reporting of different perceived barriers. There was an almost 70% increase in odds of citing financial barriers (OR 1.68, 95% CI 1.32-2.12), a more than doubling the odds of citing waiting times (OR 2.18, 95% CI 1.20-3.98) and inability to take time off work or family responsibilities (OR 2.40, 95% CI 1.40-4.12), as well as a large increase in those reporting delaying care in the hope that the problem would resolve on its own (OR 13.98, 95% CI 6.51-30.02). However, caution is needed in interpreting changes in reported reasons for unmet need due to small numbers, which in 2012 varied from 24 responders attributing unmet need due to distance/transportation problems to 384 reporting financial reasons.

[Figure 1 about here]

[Table 2 and Table 3 about here]

At the time when perceived barriers to accessing care were rising, as described above, there has been a substantial shift on the sources of health care expenditure. The proportion of public funding decreased from 69% to 64%, and, correspondingly, private expenditure increased from 31% to 36% between 2010 and 2012. This shift was prior to the increase in user charges introduced in 2012⁵. Out of pocket payments (OOPs) constitute around three quarters of private expenditure on healthcare in Portugal, and after a steady rise to €448 per capita prior to the crisis, they declined to €408 per capita in 2013, although public funding declined at a faster pace.

A 2012 patient survey, which included 375 patients sought to provide a snapshot of medication adherence in patients with chronic conditions, found that 22.8% of patients did not purchase prescribed medication, with financial problems cited as one of the main reasons¹⁹. Another study linked pharmaceutical policy interventions such as harmonizing reimbursement levels and campaigns to promote generics, to utilization of antipsychotic drugs, found an increase in the use of generic medicines, but also to a decrease in overall sales, consistent with reduced access to medicines²⁰. Physicians also estimated that 60% patients are failing to attend follow up treatment due to financial hardship²¹.

A recent ecological study analyzing the impact of user fees and transport costs increase on emergency services found that the rise in OOPs did not lead to differences in emergency visits between patients exempt and not exempt from payments in three Portuguese hospitals, however longer travel distance because of loss of nearby facilities was a significant factor in reducing emergency visits²².

In 2013 an assessment of health needs was conducted in two municipalities within the Metropolitan Area of Lisbon, Amadora and Sintra, characterized by economic deprivation and the highest concentration of migrants. Among 253 users of primary health care, 176 of whom were migrants, 45.1% were unable to afford medicines. 25% of the interviewees could not afford health care when needed, and 20.6 % reported having serious difficulties paying for diagnostic tests²³. Problems of accessing primary care were reported, with 34.4% of those

interviewed reporting lacking access to a general practitioner, a figure that rose to 43.8 % for foreign-born health care users²³.

Between 2011 and 2013, the Portuguese National Health Service (NHS) lost 2.3% of its workforce, including 3.2% of its nursing staff. In 2013 1,211 Portuguese nurses registered for work in the UK, compared to 20 in 2006/07²⁴. Although the number of NHS physicians has increased by 3.8% in the same period²⁵, their salaries, as well as those of other public servants, suffered cuts between 2011 and 2013, and again in the last quarter of 2014, falling by 3.5% for salaries between €1,500 and €2,000 and up to 10% for salaries above €4,165. The ratio of nurses to physicians, which was already low, declined further between 2008 and 2012, from 1.5 to 1.4²⁶. In addition, government decree 266-D/2012 increased the working week from 35 to 40 hours, which helped to cut overtime payments by an average of about 6.1% for physicians and nurses. In a survey conducted among 3,448 NHS physicians, 65% reported a shortage of medical equipment/products in their facilities and 80% reported that cuts in the NHS budget compromised care quality and access. Furthermore, 2014 and 2015 saw several hospital administration boards resign following disagreement with policy priorities or centrally-imposed cutbacks²¹.

Effects of the recession on health

According to EUROSTAT, unemployment has risen rapidly, from 7.6% in 2008 to 14% in 2011, reaching 17.3% in the first quarter of 2013 and decreasing to 12.3% as of the third quarter of 2015²⁷. Risk of poverty and social exclusion in the population increased from 24.4% to 27.5% between 2011 and 2013; material deprivation rose from 20.9% to 25.5%; with severe material deprivation rising from 8.3% to 10.9%. The poverty rate among children under 18 years of age also increased, from 28.6% in 2011 to 31.7% in 2013²⁷.

Suicide rates are a contentious issue in Portugal and there is uncertainty about data prior to 2014, when a new reporting system was introduced. However, calls to Emergency Medical Services by those reporting suicidal thoughts increased by 29.3% from 2011 to 2012²⁸, but a recent report produced contradictory results²⁹. One recent Portuguese study did find an association between suicide and the level of material deprivation in municipalities³⁰. The reported incidence of depression also increased in Portugal from 2004 to 2012, partially due to improved identification of cases³¹. A number of studies suggest that mental health-related illness is more prevalent in Portugal than in other European countries³²⁻³⁴. Per capita consumption of anti-depressants was highest among 18 EU member states⁹. However, commentators have noted that while recession has probably worsened the situation, including a 30% rise in new consultations among children between 2011 and 2013, and a 41% increase in the number of calls to a suicide helpline between 2011 and 2012, studies of this topic are lacking³⁵.

Mortality from respiratory diseases has also increased, by 16% between 2011 and 2012, following decades of continuing decreases. 2012 also saw an increase in hospitalizations for respiratory illness, up by 9.9% since 2011^{36,37}. While

excess mortality was largely attributed to the seasonal flu outbreak³⁸, the death rate has been abnormally high³⁹. Portugal has one of the highest rates of people unable to keep their house adequately warm (28% in 2013), only superseded by Greece in recent years²⁷. The rise in respiratory diseases also coincided with restriction on exemption for co-payments, with only those patients whose disability level was 60% or above being exempt and that only after completing complicated administrative procedures that introduced delays in assessment of the level of disability¹⁵. Consistent with this, the National Observatory of Respiratory Disease has drawn attention to the reduced use of bronchodilators in 2012, attributed to difficulties affording medicines due to financial constraints³⁶.

Infectious diseases generally have remained under control. Tuberculosis incidence rates continued to fall in recent years, reaching 22 per 100,000 in 2013¹⁰. Newly diagnosed HIV cases have decreased overall (from 15 per 100 000 population in 2011 and 2012, to per 10 per 100 000 in 2013 and 11 per 100 000 in 2014) yet vertical transmission reached 0.7 in 2013 and 2014, raising from 0.5 and 0.3 in 2011 and 2012. However, HIV incidence rates are still high relative to the rest of the EU, while there are some concerns for the future as spending on HIV prevention has been reduced, including fewer syringes (mostly distributed through pharmacies) and condoms being distributed, in both cases to less than half of the amount preceding the implementation of austerity, as well as cuts to screening programmes^{40, 41}. Especially detrimental for public health has been the reduction of accessibility to migrants, as many new cases relate to this population⁴².

Finally, there has been an increase in reported violence against health professionals in the NHS. In 2014 there were 531 notifications of violence, a 160% increase from the previous year, with larger numbers of service users reporting dissatisfaction about, for example, transport, purchase of medicines and payment of user fees⁴³.

Discussion

This study shows that the recession, followed by the policy of austerity adopted in Portugal has been accompanied by a demonstrable worsening of self-reported access to health care, most marked among those who are not exempt from the increases in co-payments implemented as part of the austerity package. While an ecological study²² looking at aggregated data did not find differences in emergency admissions between patients that were exempt or not-exempt from payments in 2012 compared to 2011, individual level data shows a contrasting picture. The results of the analysis of EU-SILC data are in line with those of local surveys demonstrating that many Portuguese, particularly from more deprived communities, are experiencing barriers to accessing services, including primary care^{23, 39}. This is despite the recent assessment, performed for the Ministry of Health, which showed that there has been substantial expansion of primary care in Portugal⁴⁴. The reasons are complex but they seem to involve a combination of reductions in both demand and supply. The former seems, in part, to reflect

increases in co-payments but also the difficulty that the increasing number of people that are exempt face when seeking to establish their eligibility because of the many bureaucratic obstacles involved. The exemptions seemed to have slightly cushioned the impact on access to care among the unemployed, as the largest increase in unmet need was seen among those in employment. Costs constitute a major barrier to accessing care, although long waiting times also seem important. The latter could be explained by reductions in supply, including cuts to provision of services, and the number of nurses employed²⁶. This has placed additional pressure on those providing care, which can be expected to demotivate those who remain.

Although a substantial reduction in pharmaceutical expenditure in Portugal reflects generally successful implementation of policies aimed at introducing clinical guidelines, monitoring systems, compulsory electronic prescriptions and generic substitution in both the public and private sector²⁶, many patients with chronic conditions seem to have cut down on use of medication for financial reasons. Non-adherence to prescribed medication, including secondary prevention of myocardial infarction, due to inability to afford medicines has already led to documented cases of unplanned readmission of patients in Greece⁴⁵ and Spain⁴⁶.

Cuts to human resources, achieved mainly through salary reductions and increasing workload have been linked to emigration of health professionals. Coupled with worsening working conditions, including increasing levels of violence, the risk of an understaffed health system and demoralised workforce is clear.

This study has some limitations. First, the data on unmet need is self-reported and is subject to respondent bias. It also does not allow us to quantify the number of times the respondent felt he or she had an unmet need during the specified period. Despite these limitations, this measure is widely used in studies of this type, as this is the only indicator of unmet need available across the EU countries, serving as a proxy for barriers to accessing care and the reasons thereof. Second, in the absence of sufficient peer-reviewed evaluations of service delivery and patient experience, we had to rely on official statistics, grey literature as well as preliminary results of ongoing studies. This has been a problem in several countries most affected by the crisis and severe austerity; investment in data collection and research has been among the first casualties. For example, Greece withdrew from the Survey of Health, Ageing and Retirement in Europe (SHARE) just before the financial crisis, when the data collected would have been of particular value. Third, there are some gaps in information, including change in suicide registrations, which complicate assessment of one of the most sensitive indicators of the consequences of recessions for health. These limitations notwithstanding, the study offers one of the first comprehensive pictures of changes to the Portuguese health system and the health of the population following the introduction of austerity policies as a result of the financial crisis.

The impact of austerity measures in the health sector needs to be viewed in the context of the pre-existing situation in Portugal. Both before and after the imposition of austerity self-reported health status as well as some mental health indicators in Portugal were among the worst in the EU.

Finally, the political and economic situation has been turbulent. Elections held in June 2011 forced the Socialist government from office, ushering in a coalition of the Partido Social-Democrata (centre-right) and Centro Democrático Social - Partido Popular (conservative), which oversaw the implementation of the adjustment programme until its termination in May 2014. The latest general election in October 2015 saw a centre-right minority government come into power, only to be overthrown a few weeks later following a no confidence motion headed by the Socialist party with the support of the Communist Party, the Greens and the Left Bloc, which pledged to "turn the page on austerity". At last, the Portuguese economy is showing some signs of improvement but it is too early to know whether this will be matched by an improvement in health. Yet, even if it is, Portugal has lost several years of much needed progress in closing the health gap with the rest of Europe.

Conclusions

The available evidence points to a clear deterioration in access to health care in Portugal since austerity measures imposed by the Troika came into effect in 2011, especially for vulnerable population groups not benefiting from exemptions from charges. This situation is familiar to other countries in Southern Europe, particularly Greece¹⁶ and Spain⁴⁷, where the universality of health coverage, population health and existence of the welfare state has been challenged by austerity measures⁴⁸.

The bailout agreement ended in May 2014. However, the OECD reported that the Portuguese government had imposed cuts double those demanded in the original bailout agreement⁴⁹. The impact of the cuts of this scale on the fairly well functioning Portuguese NHS⁵⁰ and population health is not yet fully clear. This paper presents early evidence of the impacts of healthcare cuts and recession on access to services and health outcomes. The Portuguese government no longer needs external assistance but the results presented in this paper suggest that measures are now needed to ensure access to care across many population groups, particularly those overlooked by the exceptions, in order to mitigate the damage of the recession and the austerity.

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Box1 Healthcare related austerity measures sought by the Troika

The Memorandum of Understanding between the Troika and the Portuguese government demanded cuts in the health care sector in order to achieve savings of €550 million in 2012, and €375 million in 2013. Measures to reform the health system were required, with particular emphasis on the following areas:

1. Financing: An increase in overall NHS co-payments (taxas moderadoras) was imposed, including (a) higher fees; (b) a substantial revision of existing exemption categories, including stricter means-testing, in cooperation with the Ministry of Labour and Social Affairs; and (c) automatic indexation of co-payment rates with inflation.
2. Pharmaceuticals and prescriptions: A reduction in public spending on pharmaceuticals was sought, to 1.25% of the GDP in 2012, and about 1% in 2013. This included: (a) encouraging the prescription of generic medicines and other less costly products; (b) establishing clear prescribing guidelines for physicians according to international practice; and (c) requiring electronic prescriptions for medicines and diagnostic exams covered by public reimbursement.
3. Primary care services: Strengthening of primary care services in order to further decrease unnecessary (sic) visits to specialists and emergencies, reduce costs and increase effective provision through (a) an augmented number of Family Health Units (Unidades de Saúde Familiar), based on a mix of salary and performance-related payments; and (b) a mechanism to guarantee family doctors in needed areas to induce a more even distribution of family doctors across the country.
4. Hospital services: Savings in hospital operational costs are demanded, targeting a reduction of €200 million in 2012 (€100 in 2012, and €100 already in 2011), with an emphasis on concentration and rationalisation in state hospitals and health centres, moving some hospital outpatient services to primary care units, stricter control of working hours and activities of staff, and reducing spending on overtime compensation (at least 10% in 2012, and another 10% in 2013).
5. Other services: additional demands were made for finalising the development of electronic medical records, and reducing costs of patient transportation by one third.

Source: European Commission⁴²

Figure 1. Increase in unmet medical need in Portugal, by economic status, 2010 to 2012; Odds ratio.

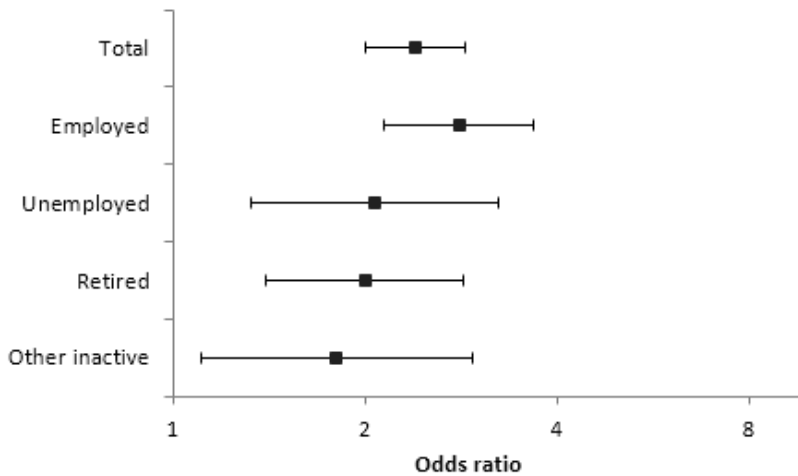


Table 1. Change in unmet medical need, ORs, 2012 compared to 2010

	Total	Employed	Unemployed	Retired	Other inactive
year (2010=0, 2012=1)	2.407 ^{***}	2.816 ^{***}	2.069 [*]	2.001 ^{***}	1.809 [*]
	[2.009,2.885]	[2.150,3.689]	[1.323,3.237]	[1.404,2.853]	[1.106,2.958]
age (16-80)	1.008 ^{***}	1.021 ^{***}	1.035 ^{***}	0.983	1.028 ^{***}
	[1.004,1.013]	[1.011,1.032]	[1.017,1.053]	[0.963,1.002]	[1.018,1.038]
sex (female=0, male=1)	0.891	0.749 [*]	1.053	1.010	1.2882
	[0.758,1.047]	[0.590,0.950]	[0.714,1.555]	[0.785,1.541]	[0.755,2.197]
family status (not married = 0, married = 1)	0.873	0.855	0.883	0.608 ^{**}	0.544 [*]
	[0.731,1.044]	[0.657,1.112]	[0.567,1.374]	[0.427,0.866]	[0.320,0.925]
education (secondary = 0, post-secondary = 1)	0.471 ^{***}	0.488 ^{***}	0.458	0.271 [*]	0.743
	[0.340,0.653]	[0.328,0.727]	[0.1811,1.1603]	[0.0922,0.799]	[0.246,2.241]
Pseudo R-squared	0.03	0.04	0.04	0.03	0.03
Sample size	21474	10328	2228	5379	3539

Odds Ratios; 95% confidence intervals in brackets; * p < 0.05, ** p < 0.01, *** p < 0.001; weighted for sampling

Table 2. Odds of reporting unmet medical need in 2010 and 2012 by economic status

	total	Employed	Unemployed	Retired	Other inactive
Crisis year (2012)	2.4074 ^{***}	2.8164 ^{***}	2.0693 ^{**}	2.0013 ^{***}	1.8089 [*]
	[2.0091,2.8848]	[2.1501,3.6891]	[1.3230,3.2365]	[1.4037,2.8533]	[1.1062,2.9580]
age (16-80)	1.0084 ^{***}	1.0213 ^{***}	1.0346 ^{***}	0.9826	1.0278 ^{***}
	[1.0042,1.0127]	[1.0109,1.0318]	[1.0166,1.0529]	[0.9633,1.0023]	[1.0175,1.0383]
sex (male)	0.8908	0.7486 [*]	1.0533	1.0996	1.2882
	[0.7579,1.0470]	[0.5898,0.9501]	[0.7136,1.5548]	[0.7845,1.5412]	[0.7553,2.1972]
family status (married)	0.8733	0.8547	0.883	0.6081 ^{**}	0.5441 [*]
	[0.7307,1.0438]	[0.6570,1.1119]	[0.5674,1.3740]	[0.4272,0.8655]	[0.3199,0.9253]
education (post-secondary)	0.4706 ^{***}	0.4880 ^{***}	0.4584	0.2713 [*]	0.7427
	[0.3393,0.6528]	[0.3276,0.7269]	[0.1811,1.1603]	[0.09215,0.7990]	[0.2462,2.2405]
Pseudo R-squared	0.03	0.04	0.04	0.03	0.03
Sample size	21474	10328	2228	5379	3539

Odds Ratios; 95% confidence intervals in brackets; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; weighted for sampling

Table 3. Odds of reporting specific reasons for unmet medical need in 2010 and 2012

	could not afford	waiting list	lack of time	travel distance	wait and see	other
Crisis year (2012)	1.6759 ^{***}	2.1819 [*]	2.4037 ^{**}	1.9753	13.981 ^{***}	3.1130 ^{***}
	[1.3221,2.1242]	[1.1960,3.9805]	[1.4038,4.1159]	[0.6211,6.2822]	[6.5125,30.016]	[1.8612,5.2068]
age (16-80)	1.0062 [*]	1.0200 ^{**}	0.9832 [*]	1.0539 ^{**}	1.0055	1.0202 ^{***}
	[1.0003,1.0122]	[1.0064,1.0338]	[0.9696,0.9970]	[1.0194,1.0896]	[0.9948,1.0163]	[1.0105,1.0300]
sex (male)	0.6762 ^{***}	1.143	0.887	0.3573	1.1422	1.8344 ^{**}
	[0.5379,0.8500]	[0.6809,1.9188]	[0.5484,1.4346]	[0.08732,1.4619]	[0.7575,1.7224]	[1.1794,2.8532]
family status (married)	0.8971	1.3253	1.6218	0.3248	0.8455	0.5141 ^{**}
	[0.7000,1.1497]	[0.7170,2.4498]	[0.8984,2.9277]	[0.07436,1.4188]	[0.5372,1.3307]	[0.3412,0.7746]
education (post-secondary)	0.2342 ^{***}	0.7037	0.7605	2.0038	0.6165	0.8244
	[0.1266,0.4334]	[0.2404,2.0595]	[0.3784,1.5283]	[0.3426,11.718]	[0.2963,1.2825]	[0.4095,1.6597]
Pseudo R-squared	0.02	0.03	0.02	0.09	0.08	0.04
Sample size	21474	21474	21474	21474	21474	21474

Odds Ratios; 95% confidence intervals in brackets; * p < 0.05, ** p < 0.01, *** p < 0.001; weighted for sampling