MIGHEAL

HEALTH INEQUALITIES AMONG MIGRANT POPULATION

Subproject 1 / Activity 4:
Analysis and Results
WP Leader: EKKE

Final Report
&
Short Policy Guide

February 2017

Deliverable No. 4

MINISTRY OF EDUCATION, RESEARCH AND RELIGIOUS AFFAIRS
GENERAL SECRETERIAT FOR RESEARCH AND TECHNOLOGY
PROGRAMME OPERATOR

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Project Title	HEALTH INEQUALITIES AMONG MIGRANT POPULATION
Subject area	Research within Priority Sectors
Funding	Financial Mechanism (FM) of the European Economic Area (EEA)
PROJECT CODE EOX	GR 07/3807
Programme Operator	General Secretariat for Research and Technology – Ministry of Culture, Education and Religious Affairs
Coordinator	National Centre for Social Research (EKKE), Greece
Partner	Norwegian University of Science and Technology (NTNU), Norway
Principal Investigators	Theoni Stathopoulou Research Director, EKKE Terje Andreas Eikemo, Professor, NTNU

Executive Summary

The aim of the MIGHEAL project was to investigate the health disadvantage among the migrant population as compared to the native born population, from the perspective of the rising social and income inequalities in Greece seen in the light of the ongoing economic crisis. The project aimed at advancing the state-of-the art in research on migratory phenomenon and enhancing policies related to integration of migrants in Greek society in order to reduce social exclusion and persistence of ethnic inequalities. Research design within the project was mainly based on the theoretical assumptions developed in the health module of the European Social Survey (ESS) that was fielded in Europe in 2014. The MIGHEAL project provides evidence at a national level for social and ethnic inequalities during the crisis and contributes to the related pan-European documentation of social inequalities in health provided by ESS.

MIGHEAL has provided empirical evidence on the social inequalities in physical health and their determinants as well as the health usage and health needs of migrant population in comparison to the natives. To this end, the MIGHEAL survey was conducted by the National Centre for Social Research (EKKE) during May 19- July 28, 2016, all over Greece. The final report presents and discusses in depth the findings of the MIGHEAL data analysis.

MIGHEAL was funded by the financial Mechanism of EEA funding Grants for the period 2009-2014 in the thematic area "Local and regional initiatives to reduce national inequalities and promote social inclusion".

Chapter 1 on the theoretical and conceptual framework focuses on the impact of economic recession in health inequalities, the migration experience of Greece, the migrant characteristics and integration prospects as well as the migrant definition and country groupings in MIGHEAL survey.

Chapter 2 on the MIGHEAL sample divides the sample into three groups by citizenship: Greeks, Albanians and third-country citizens. Third country citizens varied in ethnic background, and the sample size was small, particularly for females.

Due to the lack of older and very young migrants, the sample was capped at 20 to 64 years of age. Almost all migrants in the sample arrived after 1990, with a mean age of arrival at 20-25 years, and a mean length of stay in Greece 15 years. The educational level of the migrant population surveyed was low, but employment rates were high among migrant groups. Migrants have lower incomes and report higher financial strain than Greeks.

Chapter 3 on measurements presents the health-related variables used in the report. A majority of measures are identical to the special rotating Health module included in the Sixth Round (2014) of the European Social Survey. These cover self-rated health, depressive symptoms, non-communicable diseases, access to and use of health care, risk behaviours such as smoking, drinking and physical activity. Social determinants of health covered are ergonomic and material working conditions, conflict and hardship in childhood, and unpaid care. In addition to the ESS items, a few items from the National Health Survey in Greece were included, as well as specific questions on barriers to care for immigrants.

Chapter 4 on the prevalence of health outcomes presents age-standardized rates for a total of over 50 measures. Simple regression analyses controlling for age showed great heterogeneity in results. Prevalence of depressive symptoms was high in all groups (25%-40%), but Greek females reported the largest prevalence of depressive symptoms. One of the most important results relating to the migrants was that almost all migrant groups had been subjected to a greater extend to ergonomic and material hazards (60%-90%) than Greeks (35%-50%). On the other hand, most migrant groups were less likely to report non-communicable diseases than Greeks. Poor quality of services and care was the most important barrier to health care among Greeks (15%) and migrants (5%-10%). Although not significant, third country females had worse outcomes than Greek females on many measures. Albanian females came out significantly better than Greek females on many measures. The results for migrant males are mixed and inconclusive.

Chapter 5 on discrimination in health care contextualises discrimination in general by presenting rates of perceived discrimination at a group level. Almost 10% of Greek citizens report being a member of a discriminated group in general, compared to 30%-50% of migrants. Nationality was reported as the major reason for perceived discrimination. At the individual level, 5% of Greeks reported individual discrimination some to all of the time, compared to around 15%-20% of immigrants. Discrimination of immigrants mainly took place in work and housing related matters, while discrimination in health care had a prevalence of around 5% among immigrants.

Chapter 6 focuses on the comparison between MIGHEAL and ESS at population-level. The most remarkable result was the high prevalence of depressive symptoms in Greece, particularly among females. Use of general practitioners was low compared to ESS figures, and rates of unmet need were high, especially due to financial reasons.

Chapter 7 on health, socio-economic position (SEP) and migration examines the role of SEP on health for Greeks and migrants. SEP was found highly influential overall, but the majority of differences between Greeks and migrants remained.

Chapter 8 on absolute effects of SEP on health among Greeks and immigrants argues that although migrants' health cannot be explained by SEP, the effects of SEP markers, and financial strain, in particular, account for most of the variation in health.

Chapter 9 on the role of religion finds that Muslims are less likely to report poor self-reported health than Eastern Orthodox, while there were no differences between Muslims and Eastern Orthodox in depressive symptoms and unmet need. The health advantage of being a Muslim is moderated by the negative effect of originating from a third country.

Chapter 10 on health among Albanians in Greece and Albania find that Albanians residents in Greece report better self-rated health, less hampering due to health issues, and less depressive symptoms than those living in Albania, based on a comparison with Albanian data from ESS6. The results are discussed in the context of the Hispanic paradox and the Salmon bias hypothesis.

Chapter 11 on third country health upon arrival in Greece discusses the finding that mortality rates among third country migrants (in the age of 20-25, arriving in Greece in 2000) were higher compared to Greeks in the same age group for the same period. This finding is a predictor of worse health outcomes for migrant population based on respective figures provided by the WHO. Results from this report suggest that third country females might be at a health disadvantage on several measures, and are in line with the expectation of mortality rates. The results for third country males did not show many significant results, in contrast with the expectation of higher mortality rates. The results can be interpreted in the context of a health selection mechanism for third country males.

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Chapter 1: Theoretical and Conceptual Framework

1.1. Health inequalities in times of crisis

The sharp increase of unemployment rates due to recession and in-coming migration has posed welfare state provisions under severe pressure. New groups at risk of poverty and social exclusion have emerged along with groups of undocumented migrants, thus contributing to the growing population facing unmet care needs. A recent OECD report argues that, "In Greece the percentage of people reporting some unmet medical care needs for financial reasons has increased since the beginning of the financial crisis in 2008 rising from around 4% of the population in 2008 to over 6% in 2011 and 2012 according to EU-SILC. This proportion reached 11% among people in the lowest income quintiles in 2012, up from 7% in 2008" (OECD, health at a glance 2014: 116).

The effects of fiscal consolidation measures were most visible in spending cuts for medical goods and services, (reaching up to 25%) reduction of available hospital beds (from 35.000 to 33.000), merging of public clinics and increase of unemployment rates among young physicians (Karanikolos et al, 2013). Evidence for the deterioration of health provision, health needs and status of the general population is provided by nationwide cross-sectional surveys in 2008 and 2009 respectively (Madianos et al, 2011, Economou et., al 2012a) and 2011 by the University Mental Health Research Institute (UMHRI) (Economou et al, 2012 b), focusing primarily on depression and suicidality during economic hardship. Recession effects on health systems are also reported in detail by Kentikelenis (2014) and Karanikolos (2014) examining the state responses to the crisis at the expense of social costs and discussed in a European context by Stuckler et al (2008).

The evidence at hand for migrant populations is less documented for two reasons: a) the distinction between documented and undocumented migrants is often blurred by changes in permit status and constant inflows of refugee and asylum seekers, therefore making migrant population hard to reach, b) available surveys are

small scale, restricted to a specific geographical area, or a specific topic (i.e mental health disorders). In addition migrants are more susceptible to multiple discrimination in access to and quality of healthcare. In coping with diversity three key areas of research should be taken into account: cultural competence, inequalities and communities of care (The Lancet Commission on Culture and Health 2014).

1.2. The Migration Experience of Greece: From Sender to Receiver to Mixed Inflows and Outflows

In the last decades of the twentieth century, Greece was transformed from a traditional migrant-sending country to a migrant-receiving country (Lianos and Cavounidis 2012). Subsequent to the onset of economic crisis in 2008, Greece became a sending country once again, this time losing highly-educated youth (Cavounidis 2015, Cavounidis-Springer forthcoming), and also continued to experience substantial migrant inflows. In what follows, the spotlight will fall on inflows of migrants to Greece, mapping the immigrant population which forms the focus of this study on health inequalities.

Flows of migrants into Greece started to accelerate in the mid-1970s, but it was with the collapse of socialist regimes in Central and Eastern Europe at the beginning of the 1990's that migrant inflows took on massive proportions, with Albania predominating as a source country. Other countries of Southern Europe – Spain, Portugal, and Italy - were also transformed from traditional sending countries to receiving countries in the latter part of the twentieth century, but the Greek case diverged from their experience in important respects (Cavounidis 2002a): 1) source countries overwhelmingly corresponded to collapsed socialist regimes of Central and Eastern Europe, while the other southern countries had much more varied source countries, including their former colonies, 2) the overwhelming dominance of a single source country (Albania), unobserved elsewhere in southern Europe, and 3) the

proximity of source countries, with the main feeders of flows (Albania and Bulgaria) sharing land borders with Greece.

Some of the migrants from these ex-socialist regimes were of Greek descent ("co-ethnics") and Greek migration policies embraced them, facilitating their entry and settlement. However, a sharp policy distinction was made between co-ethnics originating from countries of the former Soviet Union and those originating from Albania. In the case of the "privileged" former group, easy access was afforded to Greek citizenship, and many types of benefits were provided, including subsidization of housing. In the case of co-ethnics from Albania, a special "police identity card" was available but access to citizenship was not facilitated until 2006, while there were few special provisions of any sort.

Nonetheless, the overwhelming majority of migrants who arrived in the 1990s were not of Greek descent and either entered Greece without the proper documents or overstayed their initial visas, and most of these undocumented migrants were eventually legalised in one of the three programmes for regularisation of unauthorised migrants carried out in 1998, 2001 and 2005. In the first and largest progamme of 1998, more than 370,000 migrants registered in the first phase while over 200,000 were eventually granted temporary work permits in the second stage of the programme (Cavounidis 2002b). The highly skewed gender composition of nationalities was one of the striking features of the regularised population (Cavounidis 2003), with males accounting for nearly all of some populations (for example 99.5% of Pakistanis and 99.1% of Bangladeshis) and women accounting for large proportions of other populations (for example 83% of Filipinos, 80% of Ukrainians, and 75% of Russians). Most of the newly documented migrant population found work in sectors of the Greek economy long characterised by informality such as construction, agriculture, hotels and restaurants, and domestic work, while many self-employed Greeks became employers for the first time, taking advantage of the presence of migrants willing to work for low pay (Cavounidis 2006).

With the onset of the economic crisis in 2008, Greece experienced high levels of unemployment which resulted in new twists in the migration story. Alongside increased outflows of highly-educated Greeks, increased outflows of migrants were also observed, of both the authorised and unauthorised population. At the same time, some of the migrants remaining in Greece slipped into unauthorised status because they could not find employment with the social insurance contributions necessary for permit renewal (Cavounidis 2013).

At the same time, inflows of unauthorised migrants continued, despite deterioration of the labour market, with countries of Asia and Africa emerging as important source countries. While unauthorised inflows were of course not a new phenomenon for Greece, a large proportion of these inflows could not be incorporated into wage work in the informal sector of the economy, as was the case previously.

From 2014, Greece received massive mixed inflows of asylum-seekers and migrants attempting to reach destinations further north in the European Union. In the year 2015, UNHCR data recorded 857,000 arrivals, or twenty times the number that arrived in 2014 (Cavounidis-Springer 2016). Most were Syrians and Afghanis who took the short but dangerous sea route from the coast of Turkey to islands of the Aegean Sea. A humanitarian crisis erupted and was subsequently exacerbated after disruptions and then closure of the "Balkan route," which resulted in entrapment in Greece of the population whose goal was to head north. An agreement was concluded by the EU and Turkey in March 2016, including the provision that Turkey would restrain flows of asylum-seekers and migrants from Turkey to EU countries. A sharp decline in flows from the Turkish coast to the Aegean islands was indeed observed from April 2016, with the population "entrapped" in Greece in the following months estimated to be around 60,000. This newly-arrived population of asylum-seekers and migrants was not included in the MIGHEAL study but instead was the focus of the REHEAL study which was conducted a few months later, in the summer of 2016.

1.3. The Migrant Population: Characteristics and Extent of Integration

The most complete data set available for the migrant population in Greece is that of the population census of 2011. Obviously, the migrant population has changed since then, both with respect to size and composition, as indicated in the above discussion concerning recent migration developments. Nonetheless, it remains a basic source for understanding the contours of the migrant population in Greece.

As seen in Table 1 containing data from the 2011 population census, Albanians continue to dominate the migrant population of Greece, just as they did in the 1990's and in the 2001 population census, when they accounted for 57.5% of the foreign citizens. Specifically, in 2011 they comprised 52.7% of the foreign population, followed by Bulgarians at a great distance, accounting for (only) 8.3%. The remaining top ten source countries were Romania, Pakistan, Georgia, Ukraine, the United Kingdom, Cyprus, Poland, and the Russian Federation. Overall, foreign citizens accounted for 8.4% of a total population of just under eleven million.

Table 1: Foreign Population of Greece 2011: Top ten nationalities

Country of nationality	Number	As % of foreign population
Total	912,000	100.0%
Albania	480,851	52.7%
Bulgaria	75,917	8.3%
Romania	46,524	5.1%
Pakistan	34,178	3.7%
Georgia	27,407	3.0%
Ukraine	17,008	1.9%
United Kingdom	15,388	1.7%
Cyprus	14,448	1.6%
Poland	14,145	1.5%
Russian Federation	13,809	1.5%

Source: Population Census of Greece 2011

Data on residence permits reveal the overwhelming dominance of Albanians among the authorised migrant population as well. According to Table 2, Albanians constituted 69.4% of foreigners holding valid residence permits in April 2016. Nationals of Ukraine follow, again in a very distant second place, with 3.5% of the permits.

Table 2: Valid Residence Permits, April 2016

Total	557,476	100%
Albania	387,023	69.4
Ukraine	19,595	3.5
Georgia	18,334	3.3
Pakistan	16,578	3.0
India	14,357	2.6
Egypt	12,084	2.2
Philippines	10,468	1.9
Moldova	9,092	1.6
Bangladesh	6,301	1.1
Syria	5,799	1.0
China	4,840	0.9
Serbia	2,968	0.5

Various data can be considered indicative of the extent of integration of foreign nationals in Greece. First, with respect to education, it should be noted that PISA (the OECD's Programme for International Student Assessment) achievement results for 15 year-olds reveal a very large gap between native and foreign students in Greece. It should also be noted that a comparative study of native and migrant educational outcomes (Cavounidis and Cholezas 2013) showed that among men aged 15-29 who

had completed their education, 72% of Albanian nationals but only 25% of Greek nationals had low level of education (having completed only gymnasium), while 3% of Albanians and 27% of Greeks had high (tertiary) education. In the same study, of women aged 15-29 who had completed their education, 64% of Albanian women compared to 16% of Greek women had low education (gymnasium or less), while 7% of Albanians and 44% of Greeks had completed tertiary education. Furthermore, in 2014, NEET (Not in Education, Employment, or Training) rates were especially high for foreign-born youth and specifically were about 42% compared to 29% for native-born youth.

With respect to integration in the labour market, it should first be noted that prior to the onset of recession in 2008, migrants in Greece exhibited lower unemployment rates than natives, contrary to the experience of most EU countries. However, by 2011, the unemployment rate of migrants had surpassed that of natives. A greater increase in unemployment rates among migrants than natives during the recent economic crisis was observed not only in Greece but also in many other developed countries undergoing recession (OECD 2011a, Papademetriou, Sumption and Terrazas, 2010). In most of these countries, as in Greece, the larger increase of unemployment among migrants was due mainly to the different sectoral distribution of their employment, given that migrant employment was heavily concentrated in sectors hit particularly hard by the crisis. In Greece, prior to the crisis more than half of migrant men were employed in construction, while a large proportion of women were employed in private households. Of OECD countries, Greece, along with Italy and Luxemburg, were highest on the dissimilarity index of occupational distributions of migrants and natives (above 30%, and about 42% for women and 27% for men). After the onset of the crisis in crisis, unemployment of migrant women increased less than that of male migrants while their employment rate increased, reflecting an increase in female labour force participation, probably as an attempt to offset the loss of employment by men (Cavounidis and Cholezas 2013).

Another indication of integration is of course the risk of poverty, and data show that this risk is much higher among the foreign than native population of Greece. More particularly, in 2014, the risk of poverty rate for the population of Greece aged 18+ was 48% for those with foreign citizenship and 20% for those with Greek citizenship, while the rate was 52% for those of non EU (28) citizenship (EU-SILC). In comparison, the corresponding percentages in 2009 were 35% for those with foreign citizenship and and 18% for Greek citizens, while the rate was 37% for those of non EU (28) citizenship. In other words, there was a much sharper increase in the poverty rate among non-Greeks. Furthermore, it should be noted that the in-work relative poverty rate of migrant households reached 32% in 2012 (the highest of 29 OECD countries with comparable data), compared to 13% for native households with employment. It is evident that the crisis and fiscal consolidation measures enacted by Greece had an especially severe impact on migrants in employment.

1.4. Defining Population Groups for Analysis

In defining the population groups for analysis in the MIGHEAL study, it was decided to use the criterion of citizenship rather than country of birth, due to the overwhelming significance of citizenship and the institutional framework governing conditions of stay of non-Greek citizens, for life experiences and outcomes in Greece. As seen above, the hundreds of thousands of migrants who arrived in Greece in the 1990s were not given access to naturalization; access to citizenship was denied even to their offspring born in Greece. Until recently, with legislation passed by Greek parliament in 2015, children born in Greece to parents of foreign citizenship could not obtain Greek citizenship, unlike second-generation migrants in most other countries of the EU (Stathopoulou 2014, Stathopoulou 2009). According to the 2015 legislation, second-generation migrants do not acquire Greek citizenship automatically upon birth, but only after meeting prerequisites such as completion of a certain number of grades in the Greek educational system.

As discussed previously, migrants of Greek descent were treated completely differently, and were afforded access to Greek citizenship. On account of their Greek citizenship, in the MIGHEAL study they are grouped together with non-immigrant Greek citizens.

The overwhelming significance of the institutional framework governing one's stay (Greek citizen or foreign citizen) for various outcomes has been highlighted in numerous studies. Because foreign citizens are constantly required to renew their permits, they forge different strategies than natives. For example, in a study of second-generation youth and their educational and labour market trajectories (Cavounidis and Cholezas 2013), it was ascertained that the labour force participation rate of young men of migrant origin but of Greek descent and therefore naturalized Greek citizens, resembled that of native young men (Greek citizens born in Greece) and not that of young men of foreign citizenship, due to factors such as the need of foreign citizens to find employment in order to stay in Greece, given that they cannot get a residence

permit through their parents after the age of 18, and must get an independent permit by virtue of study at a recognized institution or employment with social insurance contributions. A third avenue for gaining a residence permit after the age of 18 is through marriage to a Greek citizen or to a permit-holder, by means of a permit for "family reunification" as a spouse. This latter provision appears to be one of the main factors (along with culture) shaping the different marriage strategies observed of young women of foreign citizenship compared to their Greek peers, with foreign women marrying at a much younger age (Cavounidis and Cholezas 2013, Cavounidis and Cholezas 2015). For example, 60% of Albanian female nationals aged 20-24 were found to be married, compared to only 9% of Greek female nationals, while the corresponding figures for women aged 25-29 were 87% and 34% respectively.

Chapter 2: Survey methodology

1. Survey goals:

The goals of the fieldwork are:

- To determine the health condition of migrants (mental health and chronic physical conditions) as well as the use of health services and access to them by migrants (non-covered needs)
- To locate obstacles to access and use of health services by migrants (language, religion, cultural differences)
- To compare the health condition and the healthcare needs among migrants and the non-migrant population

2. Survey methodology:

Data collection was made with face-to-face interviews in the respondents' households and with printed questionnaires and supporting material (PAPI).

3. **Survey population:**

The fieldwork population comprises:

- Men and women
- Aged 15 years or older
- Residents of regular houses in the country's urban areas
- With sufficient knowledge of the Greek language
- Part of one of the following two population groups (migrants vs. non-migrants):

Group A: In the framework of the survey migrants are defined as the respondents who:

- *Have one of the nationalities of Table A*
- *Have Greek nationality and both parents have one of the nationalities of Table A*
- *Have Greek nationality, one of the parents has one of the nationalities of Table A and the other parent has Greek nationality*

Table A – Table of migrant nationalities in the framework of the survey

Egypt	Brazil	Iraq	Lebanon	Uzbekistan	Somalia
Ethiopia	Georgia	Iran	Libya	Ukraine	Sudan
Albania	Ghana	Israel	Morocco	Pakistan	Sri Lanka
Algeria	Guinea	Kazakhstan	Mauritania	Palestinian Authority	Syria
Argentina	Dominican Republic	Cameroun	Mexico	Peru	Thailand
Armenia	Eritrea	Kenya	Moldova	Former Yugoslav Republic of Macedonia	Tanzania
Afghanistan	Japan	China	Bangladesh	Russian Federation	Turkey
Venezuela	India	Congo	Nigeria	Senegal	Tunisia
Vietnam	Indonesia	Cuba	South Africa	Serbia	Philippines
Bosnia-Herzegovina	Jordan	Belarus	South Korea	Sierra Leone	Chile

The above nationalities were defined as migrants based on national data of GDP per capita

Group B: In the framework of the survey non-migrants are defined as the respondents who:

- *Are not included in the above definition of migrants (for example, respondents who have Greek nationality, both themselves and their parents, or respondents who have nationalities other than those in Table A, themselves or one of their parents)*

4. **<u>Sample size:</u>**

The achieved sample size was 1,332 individuals belonging to the survey population (505 migrants and 827 non-migrants).

5. Sample selection:

Sample selection was based on multistage sampling as follows:

Stage A. Use of geographical stratification on a NUTS2 level proportionally to the population data of urban areas.

Table B. Sample stratification on a NUTS2 level

Regions	Population %
EAST MACEDONIA - THRACE	4%
CENTRAL MACEDONIA	18%
WEST MACEDONIA	2%
THESSALY	6%
EPIRUS	2%
IONIAN ISLANDS	1%
WESTERN GREECE	5%
CETRAL GREECE	4%
PELOPONNESE	4%
ATTICA	46%
NORTH AEGEAN	1%
SOUTH AEGEAN	2%
CRETE	5%
Total	100%

Stage B. Based on the data of the Hellenic Statistical Authority 2011 population census, 128 surface units were targeted, on the basis of migrant population density in each area. These surface units were distributed proportionally to the above geographical strata.

Table C. Distribution of surface units on a NUTS2 level

Regions	Population %	# Surface units
EAST MACEDONIA - THRACE	4%	5
CENTRAL MACEDONIA	18%	23
WEST MACEDONIA	2%	2
THESSALY	6%	8
EPIRUS	2%	3
IONIAN ISLANDS	1%	2
WESTERN GREECE	5%	6
CETRAL GREECE	4%	5
PELOPONNESE	4%	5
ATTICA	46%	59
NORTH AEGEAN	1%	1
SOUTH AEGEAN	2%	3
CRETE	5%	6
Total	100%	128

Stage C. In each surface area households were enumerated starting from the northeast corner of the surface area and moving clockwise. The data of the household enumeration were transferred to the fieldwork agency (Metron Analysis S.A) and by

simple random sampling 18 households were chosen in each surface unit in order to conduct the survey contacts.

Stage D. In each selected household the respondent was chosen using the Kish grid method. In case of non response a total of 4 contacts were made before declaring the household a non-contact.

Stage E. During the fieldwork the selected households of the initial sample were asked whether migrant population lived in the two neighboring households in every direction (previous or following households). This method of focused enumeration was used to locate migrants in the field.

6. Questionnaire and survey material:

The survey questionnaire was common for both migrants and non-migrants. The questionnaire consists of closed-ended question, based mainly on the respective questionnaire of the European Social Survey with some additions from the Hellenic Statistical Authority Health survey and the Longitudinal Survey of Immigrants to Canada (Statistics Canada 2005). The questionnaire was translated in Greek (the English original version was taken from ESS) and prepared by EKKE and Metron Analysis in printed form. Show cards were prepared for specific questions.

The pilot survey of the questionnaire was conducted from April 22 to April 24 2016 with a sample of 10 migrants and 10 non-migrants, residents of Attica. The comments from the pilot survey were incorporated in the final questionnaire.

At the same time, cognitive testing of the questionnaire (cognitive interviews) was conducted with 15 interviews. The cognitive interviews lasted one hour and were conducted with 5 non-migrants and 10 migrants with the following nationalities (6 Albanian, 2 Pakistani, 1 Georgian and 1 Ukrainian). The cognitive interviews were sound recorded, transcribed and analysed. The mean duration of the questionnaire was 42 minutes for the entire sample (44 minutes in migrants and 41 minutes in non-migrants).

In addition to the above, advance letters were prepared by EKKE and were used during the fieldwork in order to provide information to respondents.

7. Training/Fieldwork force:

The interviewer/supervisor training for the survey began on May 16, 2016. The first brief/training of the interviewers took place at Metron Analysis premises in Athens with the participation of the EKKE survey team. Training in individual regions of the country took place in local meetings between Metron Analysis supervisors and interviewers. The training encompassed instructions regarding the goal of the survey, information about sampling procedures, training regarding the questionnaire wording and the particular role of each question, training in managing refusals, filling-in the contact forms and collecting data about the household. All interviewers conducted a dummy interview before beginning their work. Written instructions were prepared for all interviewers regarding the above points.

The survey was conducted by a team of 51 researchers and 10 central and local supervisors. Of these researchers, 37 were experienced researchers who had worked in similar fieldwork in the past, 3 were new researchers recruited specifically for this survey and 11 were new researchers but had prior experience in fieldwork. The mean duration of training per researcher was 4-8 hours.

8. Fieldwork dates:

The first interview was conducted on May 19 and the fieldwork was completed on July 28, 2016.

9. Response rate:

The following table presents an analysis of the total number of the survey contacts.

Description	*N*
Total contacts	2.800
Respondents refusal	21
Household refusal	1.040
Non contact	262
Language barrier	76
Ill/Incapable respondent	0
Contact but no interview	2
Address non residential	11
Address non occupied	54
Other ineligible address	0
Respondent emigrated	2
Interviews	1.332

Based on this table the field response rate was: *1.332 interviews/2.665 contacts =50%*

Chapter 2: The MIGHEAL sample

The raw MIGHEAL sample consists of 1332 cases. Immigrants were oversampled to get larger group sizes, and to facilitate comparison between Greeks and immigrants. Individuals were divided into three groups based on citizenship. Respondents with Greek citizenship were coded as Greeks while respondents claiming Albanian citizenship were coded as Albanians. Citizens of countries corresponding to former socialist regimes of Central and Eastern Europe as well as citizens of countries of Asia, Africa and the Middle East were coded as third-country citizens. A total of three cases of citizens of EU countries (Finland, Cyprus) were coded as Greeks.

We were only able to identify a very small group of second generation immigrants. This is likely to do with the fact that most immigrants in the sample first reported coming to Greece after 1990, in young adulthood. Thus, their offspring are still very young. Because they do not hold Greek citizenship (Greek-born children of foreign citizens were denied access to Greek citizenship until a law passed by Greek Parliament in 2015 facilitated such access), we chose to assign the small number of cases of second generation immigrants to groups on the basis of their citizenship.

Another consequence of the relative recentness of arrival of immigrants is that the group of immigrant origin is much younger than the population without immigrant origin. There were no Albanian or third country males over the age of 64 in the sample. Likewise, there were only a very few immigrant-origin females over the age of 64. Age is inherently associated with many health outcomes. Therefore, the first part of the report, comparing those of Greek and non-Greek origin, caps the sample at 64, to make samples as comparable as possible. (Note that this also excludes most or all Western citizens from the Greek sample. The full sample is used to produce comparisons with ESS in a separate chapter.) Likewise, there were no immigrants below the age of 20 in some of the immigrant groups, so the data was capped

downwards at 20. This resulted in a total raw sample of 1006 for this part of the report, which is distributed as follows (table A1):

Table A1. Population groups in MIGHEAL, frequencies.

Citizenship	Male	Female	Total
Greek	259	311	570
Albanian	158	122	280
Third countries	104	52	156
Total	**521**	**485**	**1006**

We can note a small count for females from third countries. This puts limitations on the analysis. There are also fewer Albanian females than males, and more Greek females than males. The citizenship composition of third country males and females is extremely varied. In tables A2 (Greeks and Albanians) and A3 (third country citizens) below, you find details on citizenship.

Table A2. Greek and Albanian population groups by citizenship

	Population group			
Citizenship	*Greeks M*	*Greeks F*	*Albanian M*	*Albanian F*
Finland	1			
Cyprus	2			
Greece	256	311		
Albania			158	122

Table A3. Third country citizens.

Citizenship	Male	Female
Afghanistan	2	
Armenia	3	2
Bangladesh	15	1
Belarus		1
Bulgaria	1	4
China		1
Egypt	9	1
Ethiopia	1	
Georgia	6	13
India	2	4
Iraq	1	
Jordan	1	
Kazakhstan		1
Kenya		1
Lithuania		1
Moldova, Republic of		3
Nigeria	3	

Pakistan	51	1
Poland		1
Romania		2
Russian Federation	1	5
Senegal	2	
Sierra Leone	2	1
Sri Lanka		1
Syrian Arab Republic	1	
Turkey	1	
Ukraine	2	8
Total	**104**	**52**

Third country males come from 18 different countries, the predominant group being from Pakistan, followed by Bangladesh and Egypt. For other countries, counts are very low. Third country females come from 19 different countries, the largest group being Georgia, followed by Ukraine. For other third countries, counts are very low.

Weighting

The dataset was supplied with two sampling weights. IMWFIN weights the sample according to the probability of being sampled, but does not adjust for the size of the immigrant population. IMWFIN2 contains the same sampling weight, but in addition, it weighs the immigrant sample down to population size. All descriptive statistics, and the age standardized rates in this section, are produced using the sampling weight IMWFIN, which sometimes changes the number of cases slightly from the raw sample.

2.1. Distributions of the sample

2.1.1. Age distribution of the sample

The age distribution of the capped and weighted sample is graphed below in figures A1 and A2.

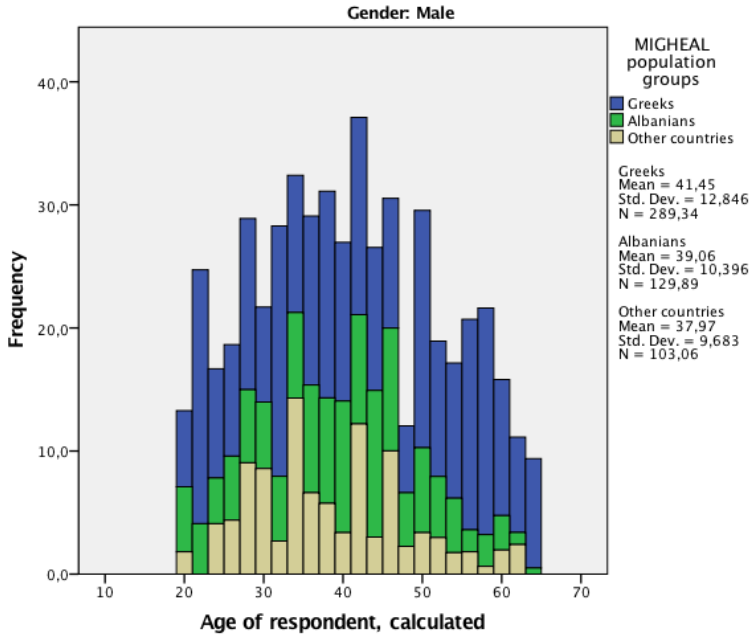


Figure A1. Age distribution of MIGHEAL population groups, males.

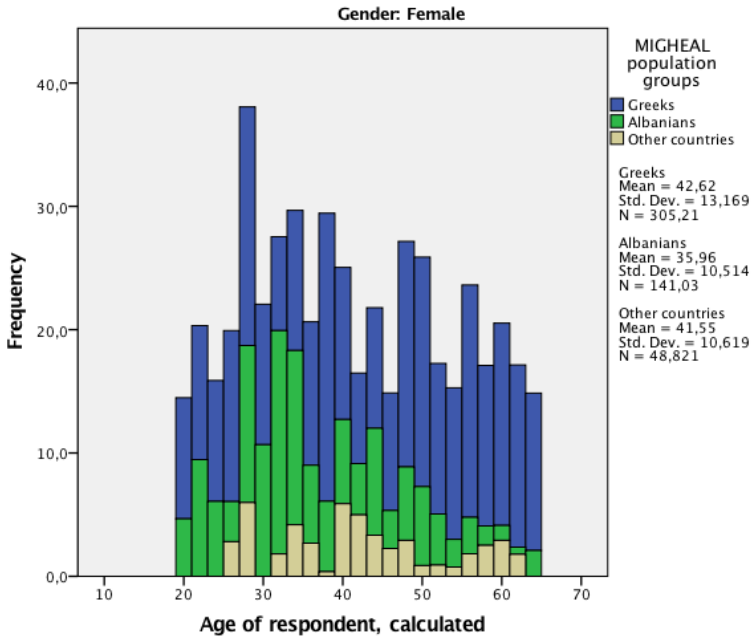


Figure A2. Age distribution of MIGHEAL population groups, females.

We can see that there are very few third country respondents and Albanians in the older age range. Additionally, there are no third country females below ages 25.

Due to the limited number of cases, age groups are collapsed in the analysis, to two categories; 20-39 and 40-64.

2.1.2. Immigration flow

The graph below (figure A3) shows, using pooled genders, how immigration is a relatively recent phenomenon in the sample. Respondents who indicated not being born in Greece, were asked 'What year did you first come to live in Greece?' Almost all immigrants reported coming after 1990. Note that some Greek citizens were not born in Greece, and thus were asked this question.

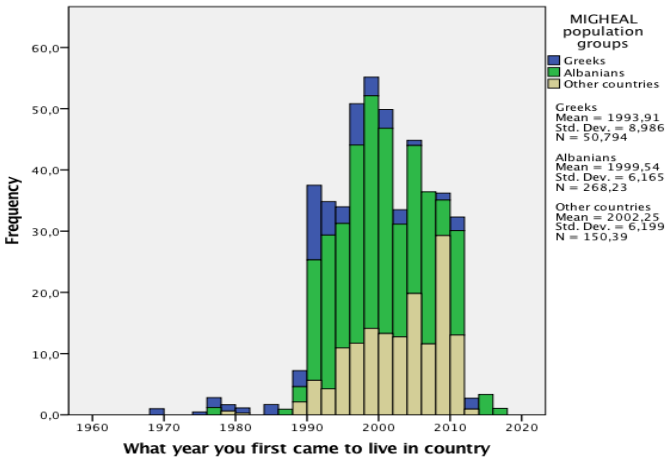


Figure A3. Year of arrival in Greece.

As the two graphs below show (figure A4 and A5), for pooled genders, Albanians were on average around 20 when they arrived in Greece, but this means that around half first came to live in Greece between ages 0-20. Few third country citizens came to live in Greece before adulthood, with a mean age of arrival of 25. The mean length of stay is around 16 years for Albanians, and 14 years for third country citizens.

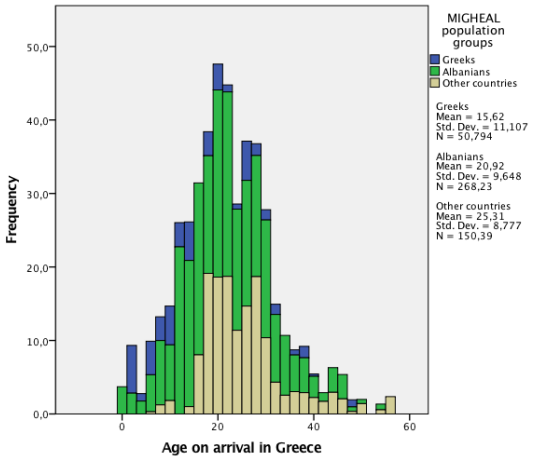


Figure A4. Age of arrival in Greece.

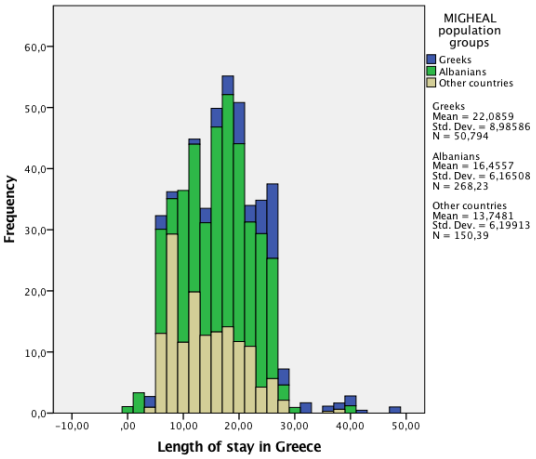


Figure A5. Length of stay in Greece.

2.2. Health inequalities and socio-economic position

The term "health inequality" is usually used to refer to the systematic differences in health which exist between socio-economic classes or groups. Socio-economic inequalities in health are universal within European countries and they extend along the whole social ladder: "the higher the social position, the better the health" (Lundberg and Lahelma, 2001). We therefore wish to test whether differences in health between Greeks and immigrants can be due to differences in socio-economic position.

Immigrants in European countries generally have a lower socio-economic position than the native population. This is also the case in Greece (Albertinelli et al, 2011).

The MIGHEAL dataset contains several markers of socio-economic position. We will focus on the basic markers of education, income and occupation.

2.2.1. Education

Education is measured with educational attainment according to the International Standard Classification of Education (ISCED). In line with the work done by T. A. Eikemo's health inequality team at NTNU, we first applied ISCED in three categories - primary plus lower secondary, upper secondary and tertiary. However, counts for tertiary education was low in the immigrant groups (16 for Albanians, and 35 for third countries). Therefore, the two higher groups were collapsed, yielding the following distribution for pooled genders (table A4 below).

Table A4. Educational level in MIGHEAL population groups

Education	Lower sec.	Upper sec, tertiary	Total
Greeks	136	457	593
Albanians	158	113	271
Third countries	65	86	151
Total	**359**	**656**	**1015**

2.2.2. Income

Income was measured in MIGHEAL by the question 'Using this card, please tell me which letter describes your household's total income, after tax and compulsory deductions, from all sources?'

The pooled distribution of household income is given in table A5 below.

Table A5. Pooled distribution of household income

	N	%
J - Less than 575 euros	146	14,3
R - 576-775 euros	151	14,8
C - 776-980 euros	195	19,2
M - 981-1190 euros	144	14,2
F - 1191-1425 euros	95	9,3
S - 1426-1700 euros	53	5,3
K - 1701-2040 euros	24	2,4
P - 2041-2500 euros	8	0,8
D - 2501-3230 euros	3	0,3
H - 3231+ euros	1	0,1
Total	*821*	*80,7*
Don't know	35	3,4
No answer	162	15,9
Total	*197*	*19,3*
Total	**1017**	**100**

Adjusted for household size, the distribution of individual income is graphed by population groups in deciles below in figure A6.

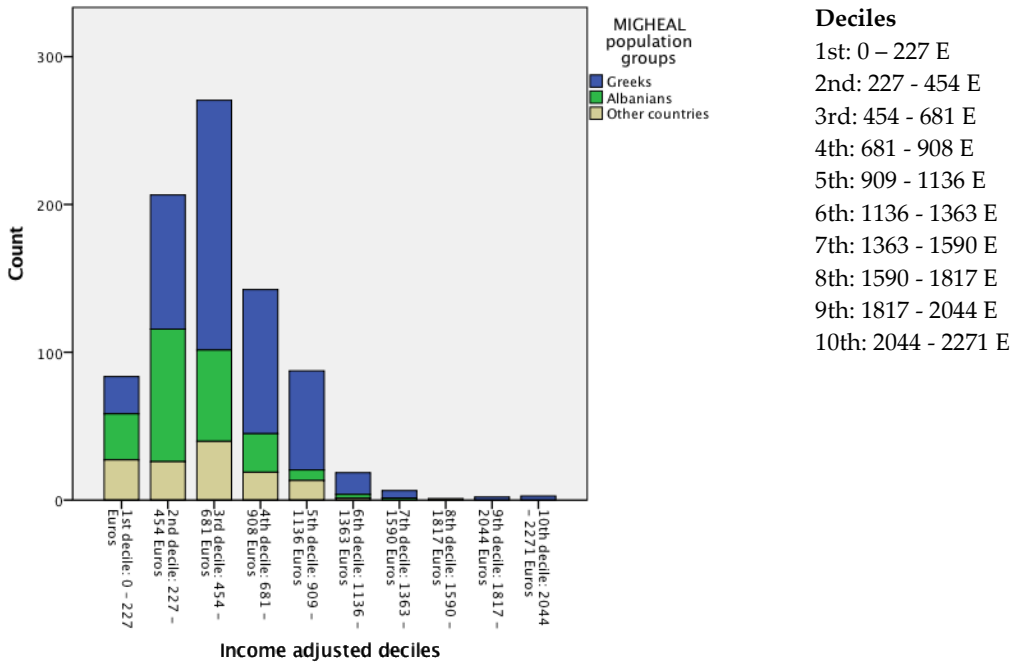


Figure A6. Income adjusted for household size

The graph shows that immigrants are overrepresented in the lower income groups. The largest proportion of Albanians is in the second decile, while the largest proportion of Greeks is in the third decile. More Greeks are in the higher deciles. There is therefore good reason to believe that immigrants earn less than Greeks.

Most studies agree that in general, migrant workers receive around 40% lower wages than Greeks for the same job (Mitrakos, 2013). Comparative evidence on earnings indicates that in 2008, the average wage of immigrants working as salaried workers was 800 EUR, whilst for the Greek salaried workers it was 1100 EUR. By 2013, the average wage for immigrants had fallen to 650 EUR, whilst that for Greeks to 980 EUR (Zografakis & Kassimis, 2014).

However, the usefulness of the household income variable is severely limited by the high degree of non-response, almost 20%. We will therefore use a related measure with almost no non-response, which is highly correlated with income. Respondents were asked: 'Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?'

The response categories, as well as the frequencies are found in table A6 below.

Table A6. Feeling of household income among population groups, frequencies

	Living comfortably on present income	Coping on present income	Difficult on present income	Very difficult on present income	Total
Greeks	31	212	208	135	586
Albanians	6	49	119	96	270
Third countries	0	40	63	49	152
Total	**37**	**301**	**390**	**280**	**1008**

Very few groups are living comfortably on present income, while the distribution in the other groups is fairly equal. The groups comfortably and coping were thus collapsed for use in further analysis, yielding the following distribution in table A7. We will refer to this measure as 'financial strain'.

Table A7. Feeling of financial strain among population groups, %.

Financial strain	Comfortable/coping	Difficult	Very difficult	Total
Greeks	41,4 %	35,6 %	23,1 %	100,0 %
Albanians	20,4 %	44,1 %	35,6 %	100,0 %
Third countries	26,3 %	41,4 %	32,2 %	100,0 %
Total	**33,5 %**	**38,7 %**	**27,8 %**	**100,0 %**

We can see that the majority of the Greek population also reports finding it difficult or very difficult living on present income. This comes to no surprise, as the prolonged economic crisis has eroded household incomes and increased socio-economic inequalities. A recent IME-GSEVEE income survey reveals that 75% of households have seen their living conditions deteriorate since the onset of the crisis, thus increasingly having difficulties in covering their daily needs, whilst 16% of households report that they cannot meet their basic needs on their current income (IME-GSEVEE, 2016). This number is in line with the share of the population living in extreme poverty (40% of the median income).

Another way of understanding financial strain is through the use of the so called 'despair indicator'. The rocketing of unemployment rates and the shrinking of incomes has pushed a considerable part of the population below the poverty line and increased their economic hardship to the point of despair. At the onset of the Greek economic and financial crisis in 2009, the despair indicator stood at 0.18 for the Greek population and at 0.25 for the migrant population (where 0 signifies no despair and 1 signifies absolute despair). At that time, it is estimated that around 6% of the migrant households were in a state of considerable despair. Four years later, in 2013, the average despair indicator for Greeks had risen to 0.39, whilst for immigrants to 0.55. It is estimated that 41% of the migrant households were now in a state of absolute despair, with all their members jobless and no unemployment benefit (Zografakis & Kassimis, 2014).

Overall, during the crisis, material deprivation increased much faster in the migrant households (i.e. third country citizens outside the EU), than in the non-migrant households. According to a UNICEF report, in 2008, 8% of Greek households and 16% of migrant households suffered from material deprivation; in 2012, the respective figures had risen to 26% and 52% (mentioned in Anagnostou & Gemi, 2015). Similarly, according to the EU- SILC 2015 survey (based on the 2014 incomes), the AROPE indicator (at-risk -of -poverty- or social exclusion) was much higher for the third country citizens (excluding the EU countries) than for the Greek and EU

population: 67.1%, as compared to 35.7% for the Greek population aged 18-64 (slightly down from the previous year, 36%), and 49.1% for the citizens of the other EU countries (ELSTAT, 2016).

2.2.3. Occupation

Respondents identified their occupational status by responding to the question: 'Which of these descriptions best describes your situation (in the last seven days)? Please select only one.' The original distribution by population groups is given below in table A8.

Table A8. Original distribution of occupation, frequencies.

Main activity, last 7 days.	Greeks	Albanians	Third countries	Total
Paid work	331	155	103	589
Education	32	3	1	36
Unemployed, looking for job	80	45	25	150
Unemployed, not looking for job	25	10	6	41
Permanently sick or disabled	5	3	0	8
Retired	58	0	1	59
Housework, looking after children, others	60	55	15	130
Other	5	0	0	5
Total	**596**	**271**	**151**	**1018**

The majority of all groups were in paid work. There were small counts for education, so this group was collapsed with paid work for further use in the analysis, as they are active. The two groups of unemployed were collapsed. The group of sick and disabled were collapsed with the retired. The retired group consists almost entirely of Greeks. Respondents engaged in housework were retained as a separate category, while "other activity" was collapsed with disabled and retired, so as not to decrease the sample size. This yielded the following pooled distribution (table A9).

Table A9. Recoded distribution of occupation, frequencies.

Occupation	Work/studies	Unemployed	Retired/disabled/other	Housework	Total

Greeks	363	104	68	60	595
Albanians	158	55	3	55	271
Third countries	104	31	1	15	151
Total	**625**	**190**	**72**	**130**	**1017**

Cell counts for the retired group are very low for immigrants, so this group represents Greeks almost exclusively. Counts for unemployed and house-workers are small in third countries, but overall the group sizes should be able to show significant differences.

At this point, it would perhaps be useful to give a more detailed account of the occupational profile of the migrant population in Greece. In 2014, **10.4%** of those in employment had a migrant background (ELSTAT, Labour Force Survey, 2014). As for the sectoral composition of employment according to migrant or non-migrant background, migrants accounted for 7.7% of total employment in agriculture, 12.4% of total employment in manufacturing, 20.2% of total employment in hotels and restaurants, 22% in administrative and support activities, 30.3% in the construction sector, and 82.8% in private households (for more details see: http://www.statistics.gr/el/statistics/-/publication/SJO27/-).

Before the crisis, immigrants had a higher employment rate and lower unemployment levels than the Greeks: in 2008, the rate of economic activity stood at 71.5% for the immigrants and 53.3% for the Greeks. Accordingly, the *unemployment rate* of immigrants was 7.3% compared to 8.3% for the native population. However, the impact of the crisis has been more severe on the migrant workforce, especially owing to the collapse of the construction and retail sectors[1]. As a result, unemployment rates among the migrant population are now higher than for the native population: in 2013 the unemployment rate for the native population had risen to 26.2% whilst for the immigrants it had reached a staggering 40.4% (Zografakis & Kassimis, 2014). [2]

Immigrants in Greece are mostly employed in low wage and low skill manual jobs (where they account for 45% of total employment), often in the informal sector of the economy (e.g. in rural activities, personal services and provision of care, tourism, construction), thus enjoying fewer or none employment and social security rights. [3] Around 84% of immigrants are salaried workers. A fair number of immigrants, mostly

[1] The number of immigrants working in the construction sector shrunk from 114.700 in 2008 to just 43.000 in 2013 (Zografakis & Kassimis, 2014).

[2] It is also worth noting that 73.3% of the registered unemployed are long term unemployed and that only 1 in 10 of the registered unemployed receives unemployment benefit.

[3] Less than one in five migrant workers are able to find a job that entails the same employment and social security rights as those entitled by the indigenous population (Balourdos & Tsiganou, 2013, 325). The available social security data indicate that only 8.6% of female migrant workers is insured, compared to 91.4% of native women (ELIAMEP, ASSESS Integration of Vulnerable Migrants ,2015).

of Albanian background, have established their own businesses and work as self-employed, indicating their successful socio-economic integration (Table A10).

Table A10. Employment status of migrants, 2014.

	Migrants (N)	Migrants (%)
Self-employed with employees	11 468	3.2
Self-employed without employees	39 444	10.9
Salaried	302 918	83.6
Unpaid family assistant	8 452	2.3
Total	362 283	100.0

Source: *ELSTAT, http://www.statistics.gr/el/statistics/-/publication/SJO27/*

2.3. Summary of population group profiles

Most Greeks have upper secondary or tertiary education, and are in the third income decile. Around 40% of Greeks report coping on present income. A little over half are in paid work, around 20% are unemployed, and the rest are mostly retired or house-workers. Mean age in the Greek sample was around 42.

Most Albanians have lower secondary education, and are in the second lowest income decile. Around 20% of Albanians report coping on present income. Almost 60% are in paid work, while 20% are unemployed and 20% (all females) are house-workers. Mean age was 29 (M) and 36 (F). Their mean age of arrival was around 20, and mean length of stay 16 years.

Most third country nationals have upper secondary education, and are in the third income decile. Around 25% report coping on present income. Around 70% are in paid work, 20% unemployed and 10% (all females) are house-workers. Mean age was

38 (M) and 42 (F). Their mean age of arrival was around 25, and mean length of stay was 14 years. Country backgrounds are varied. The largest group of males come from Pakistan and Bangladesh, while the largest group of females comes from Georgia.

Chapter 3: Measuring health inequalities

In Greece, the notion of equity is explicitly stated at the Constitution of 1975 under article 23. In 1983, with the establishment of the Greek National Health System the notion of equity was introduced and considered as an important ethical issue. It is the right time, after the passage of law 1397/1983 and its rectification under the law act 2519/1997 and the subsequent legislations towards greater equity, to assess the feasibility of the previous legislation for the accomplismnet of equity among regions and socio-economic groups in Greece. Sharing resources among competing social objectives and ensuring equity in access are important issues which require rigorus policies based on rational economic thinking.

Increasing inequalities in health among the European countries have been recognized since the 1930's. During the 1980's and 1990's, equity became a popular research topic and inequities among the European countries and regions as well as among the socio-economic groups were investigated at some length. Eikemo TA et al (2016), Adler NE et al (2016), Mackenbach JP et al (2014)

Measuring Health Inequalities, through comparable measures and indicators is a major concern among the EU Nations aiming at the reduction of unfair disparities among socio-economic classes. The most frequent health inequality indicators used in the vast literature of social epidemiology and public health are based on: mortality, morbidity, standardised causes of death, life expectancy, self-perceived health, health status, depressive symptoms, and disabilities, Furthermore the determinants of mortality and morbidity in relation to life style and risk factors have been thoroughly investigated by several researchers (Adler NE,et al. 2016, Alvarez-Galvez J, et al.2010) The data for the above studies have been primarily supplied by official EU statistics, based on International surveys or national administrative data.

Previous studies on the measurement of Health Inequalities faced many obstacles mainly due to lack of appropriate and comparable data.

The European Social Survey provided a valuable contribution in this area of lacking information, by bridging the gap of knowledge and providing rigorous methodologies on collecting and analyzing the data across several EU and Eastern European Countries. The previously existing methodological problems of designing, collecting, and launching surveys were eliminated by fully harmonizing the whole process of sampling, designing the questionnaires and introducing selected modules like the one that we will explore in this study based on the measurement of health inequalities

Below we outline the measurements used to obtain estimates, and the process of recoding the original items to arrive at comparable summary estimates. All items are taken from the European Social Survey round 7, except as noted. The measurements and codings used are the same as in Huijts et al (2017ab), except as noted.

3.1. Measurements for health

Self-reported health

Respondents were asked: 'How is your health in general?'. There were five response categories: 'Very good', 'Good', 'Fair', 'Bad' and 'Very bad'. In order to highlight the importance of choice of measure, and to discuss comparability, we created two dichotomous versions of this variable.

In the first version, we define good health (1) as *fair, good or very good* health, and poor health as *poor or very poor* health. In the second version, we define good health (2) as only *good and very good* health, and poor health as *fair, poor, and very poor*.

We report the percentage that indicated having poor health on both measures.

Limiting long standing illness

Respondents were asked: 'Are you hampered in your daily activities in any way by any longstanding illness, or disability, infirmity or mental health problem? If yes, is that a lot or to some extent?' Response categories were 'Yes, a lot', 'Yes, to some extent and 'No', as well as 'Don't know'.

We created a dichotomous variable, contrasting respondents with no limiting longstanding illness with respondents who are hampered by longstanding illness (either to some extent or a lot). We report the percentage of respondents with any limiting long standing illness.

Depressive symptoms

Respondents were asked: 'I will now read out a list of the ways you might have felt or behaved during the past week. Using this card, please tell me how much of the time during the past week you: felt depressed; felt everything was an effort; sleep was restless; was happy; felt lonely; enjoyed life; felt sad; could not get going.'

A depression scale was created by using the CES-D 8 (Centre for Epidemiologic Studies-Depression 8), based on the work of Radloff (1977). The 8 items were scored on a 4 point Likert scale, ranging from "None of the time", "Some of the time", "Most of the time" to "All of the time". The items were recoded with a range of 0 through 3. The values on happiness and enjoying life were reversed to reflect higher values indicating higher degrees of depressive feelings. The result was a 24-point depression scale. Mean imputation was applied if respondents reported valid answers on at least 5 out of 8 items. The scale had a Chronbach's alpha of 0.819 for the sample. The distribution of the CES-D 8 at the population level in ages 20-64, using the IMWFIN2 weight, is given below in figure A7.

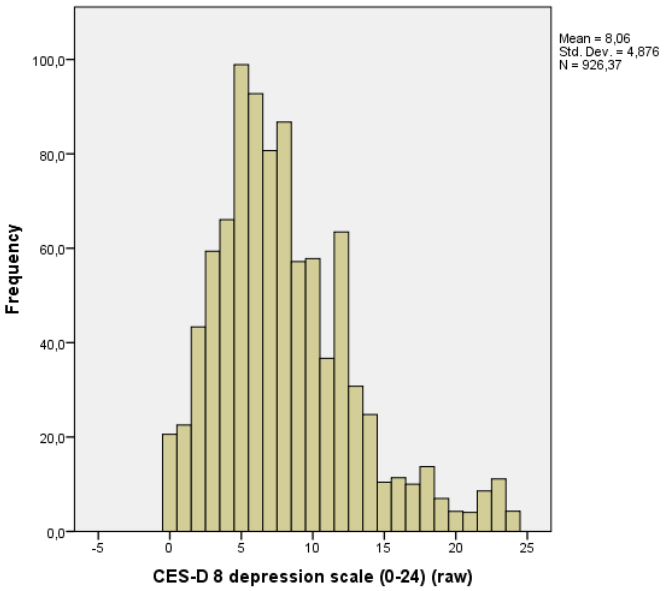


Figure A7. Distribution of the CES-D 8 depression scale at population level.

For this report, we use a dichotomized measure capturing serious depressive symptoms following earlier studies, where values 0 through 9 were coded as 0, meaning below the depression cut-off point, and values 10-24 as 1, meaning above the cut-off point. This roughly corresponds to reporting depressive symptoms at least most of the time.

Self-reported conditions (non-communicable diseases/NCD)

Respondents were asked 'Which of the health problems on this card have you had or experienced in the last 12 months?'

The response categories were: muscular or joint pain in the hand or arm; muscular or joint pain in the foot or leg; back pain; heart or circulation problems; high blood pressure; allergy; breathing problems; stomach problems; skin conditions; diabetes; and severe headaches.

In addition to separate estimates for each condition, we also present estimates on the percentages of respondents who reported no conditions, one condition, and at least two of the conditions listed here.

A separate question was included on cancer. Respondents were asked: 'Do you have or have you ever had any of the health problems listed on this card?' The response categories were 'Yes, currently', 'Yes, previously', and 'No, never'.

In this report we show separate estimates of the percentage of people experiencing cancer currently and previously.

Overweight

Respondents were asked: 'What is your height without shoes?' and 'What is your weight without shoes?'. If the respondent answered 'don't know', instructors were instructed to say: 'please give your best estimate'.

BMI was calculated using the formula (BMI=weight/((height/100)* (height/100)), and the estimates were split following the British' National Health Service guidelines to determine whether the respondent was underweight, ideal, overweight, obese or very obese.

In this report, we present estimates for the total percentage of people who are overweight, obese or very obese (meaning a BMI of 25 or higher).

3.2. Measurements for access to health care

Unmet need

Access to health care was measured by the concept of unmet need, which captures the subjective perception of not receiving appropriate treatment. Respondents were asked: "In the last 12 months, were you ever unable to get a medical consultation or the treatment you needed for any of the reasons listed on this card?" and could answer either yes or no. Respondents who answered yes could identify the following reasons for unmet need, which were not mutually exclusive:

- Could not pay for it
- Could not take the time off work

- Had other commitments
- The treatment you needed was not available where you live or nearby
- The waiting list was too long
- There were no appointments available
- Other reasons

We report the percentage of respondents reporting any overall unmet need. Additionally, we report the percentage that identified any of the individual reasons. MIGHEAL did not contain data on other reasons.

GP and specialist use

Respondents were asked: "In the last 12 months, with which of the health professionals on this card have you discussed your health?" Multiple answers were possible, and the answer categories were:

- General Practitioner*
- Medical Specialist (excluding dentists)
- (None of these)
- (Don't know)

Note that the questionnaire did not cover the use of other health personnel.

In this report we present separate estimates for the percentage of respondents who used a general practitioner and the percentage using a medical specialist, as well as the percentage using none of these two.

Alternative health care

Respondents were asked: 'In the last 12 months, which of the treatments on this card have you used for your own health?' Multiple answers were possible, and the answer categories were: Acupuncture, acupressure, Chinese medicine, chiropractics,

osteopathy, homeopathy, herbal treatment, hypnotherapy, massage therapy, physiotherapy, reflexology, and spiritual healing. In addition, respondents could indicate 'none of these' and 'don't know'.

We present the percentage of respondents who reported using any of these alternative treatments.

3.3. Measurements for risk behaviour

Smoking at present, previously and never

Respondents were asked which of the following descriptions best described their cigarette smoking behaviour: 'I smoke daily', 'I smoke but not every day', 'I don't smoke now but I used to', 'I have only smoked a few times', and 'I have never smoked'.

In this report we present separate percentages for current smokers (the first two categories combined), and for previous smokers (the third category only). Respondents who never smoked can be calculated by subtracting the estimates from 100.

Heavy smokers

People who answered that they smoke (either daily or not every day) were asked how many cigarettes they smoke on a typical day. This variable was dichotomized, and we report the percentage of respondents who smoke 20 or more cigarettes (one pack) on a typical day. Note that this subpopulation has a lower N.

Measurements for alcohol consumption

For alcohol consumption the data include separate measures on frequency, quantity, and binge drinking. Alcohol consumption showcards were adapted for Greece.

Frequent drinking

Respondents were asked: 'In the last 12 months, how often have you had a drink containing alcohol? There were seven response categories: 'Never', 'Less than once a month', 'Once a month', '2-3 times a month', 'Once a week', 'Several times a week', and 'Every day'. In this report we present frequent drinking as the percentage of respondents who drink alcohol several times a week or more.

Alcohol quantity: weekdays and weekends

Alcohol quantity was measured separately for weekday and weekend drinking. For weekdays, respondents were asked: 'Please think about the last time you were drinking alcohol on a Monday, a Tuesday, a Wednesday or a Thursday. How many of each of the following drinks did you have on that day? Use this card to guide your answer.'

For weekends, respondents were asked: 'Now please think about the last time you were drinking alcohol on a Friday, a Saturday or a Sunday. How many of each of the following drinks did you have on that day?'

A country-specific showcard was used to enable respondents to indicate which drinks and how many drinks they had consumed on these occasions. The drinks on this showcard were then converted to grams of alcohol consumed. Grams were recoded to units of alcohol by dividing the grams of alcohol consumed by 8.

In this report we present the mean number of units consumed on workdays and weekend days separately, excluding respondents who do not drink alcohol at all. Take note that this subpopulation has lower N, due to the proportion of respondents who never drink.

Binge drinking

Respondents were presented with a country-specific showcard showing a number of drinks corresponding with binge drinking classifications (6 units for women; 8 units for men), and asked the following question: 'This card shows six different examples of how much alcohol a person might drink on a single occasion. In

the last 12 months, how often have you drunk this amount of alcohol or more on a single occasion?'

There were five response categories: 'Never', 'Less than monthly', 'Monthly', 'Weekly', 'Daily or almost daily'.

In this report we present the percentage of respondents who reported binge drinking at least weekly, excluding respondents who never drink alcohol.

Physical activity

Physical activity was measured by asking during how many of the last 7 days respondents walked quickly, did sports or other physical activity for 30 minutes or longer. For this paper we calculated the percentages of respondents who undertook this kind of physical activity on 0-2 days, 3-4 days and 5 or more days over the last week.

3.4. Measurements for social determinants of health

Two subgroups of variables were used to measure physical working conditions: ergonomic and material hazards.

Ergonomic conditions

Respondents were asked:' In any of the jobs you have ever had, which of the things on this card were you exposed to?' Response categories were:

- Vibrations from hand tools or machinery
- Tiring or painful positions
- Manually lifting or moving people
- Manually carrying or moving heavy loads
- (None of these)
- (Don't know)

Data on each category is available in the original dataset. In this report we present the percentage of people reporting to have experienced at least one of these conditions. Note that the wording of the question does not limit itself to present job.

Material conditions

Respondents were asked: "And in any of the jobs you have ever had, which of the things on this card were you exposed to?" Response categories were:

- Very loud noise
- Very hot temperatures
- Very cold temperatures
- Radiation such as X-rays
- Handling, breathing in or being in contact with chemical products, vapours or substances
- Breathing in other types of smoke, fumes, powder or dust
- (None of these)
- (Don't know)

Data on each category is available in the original dataset. In this report we present the percentage of people reporting to have experienced at least one of these conditions. Note that the wording of the question does not limit itself to present job.

Measurements for childhood conditions

Childhood conditions were measured with two questions on conflict and financial hardship while growing up.

Serious conflict in household while growing up

Respondents were asked: 'Using this card, please tell me how often there was serious conflict between the people living in your household when you were growing up?'

Financial hardship in household while growing up

As a follow-up to the previous questions, respondents were asked: 'Using the same card, please tell me how often you and your family experienced severe financial difficulties when you were growing up?'

Response categories for both variables were 'always', 'often', 'sometimes', 'hardly ever' and 'never'. For this report we have dichotomised both variables, contrasting respondents in the 'always' and 'often' categories to respondents in the other categories. We present percentages of respondents who always or often experienced family conflict and use the same approach for financial difficulties.

Measurements for unpaid care

Unpaid care was measured by two questions any unpaid care, and high unpaid care.

Any unpaid care

Respondents were asked: 'Do you spend any time looking after or giving help to family members, friends, neighbours or others because of any of the reasons on this card? Do not count anything you do as part of your paid employment.'

The showcard gave the following reasons: long-term physical ill health or disability; long-term mental ill health or disability; and problems related to old age.

We present the percentage of people who reported providing unpaid care for any of these reasons.

Unpaid care over 10 hours a week

Respondents who reported providing any unpaid care were asked this follow-up question: 'In general, how many hours a week do you spend doing this? Please use this card.'

Response categories were given in ten hour increments.

We present the percentage of respondents who reported spending more than 10 hours per week on providing unpaid care. Note that this subpopulation has lower N, due to excluding those with no unpaid care.

3.5. Measures for non-ESS health items.

Measures for barriers to access

There are some barriers to accessing the health system which are considered to be specific to immigrants, in addition to the general items on unmet need. These include discrimination in the health care system, problems communicating due to language problems, and having different cultures and beliefs. There is also some evidence to suggest immigrants receive poorer quality of services or care (Hacker 2015). To measure this, we selected a few items from Longitudinal Survey of Immigrants to Canada (Statistics Canada 2005).

Respondents were asked 'Have you had any problems or difficulties getting access to or using the health services in Greece? and the response categories were: Language problems (translation and interpretation), different culture or beliefs, discrimination, poor quality of services or care, or no problems.

We report the percentage that identify with any of the individual reasons givens, which are not mutually exclusive.

Measures from National Health Survey items

The following items were selected from the National Health Survey in Greece. Respondents were asked the following questions:

- Do you wear glasses contact lenses or use visual or technical accessories?
- Would you say you experience difficulty in your vision?
- Do you use hearing aids or other accessories because of hearing issues?
- When in a quiet room do you have trouble listening to a conversation (even with the use of a hearing aid)?
- Do you have difficult in walking 500 meters on level ground?

We report the percentage that answered affirmatively to each of these questions.

Chapter 4: Prevalence of health outcomes in MIGHEAL

In the following chapter, graphed results from age-standardized rates (Rothman 2012) are presented for health related outcomes in MIGHEAL. Simple logit regression analysis shows whether the differences in rates are statistically significant by age and migrant group. The tables with all rates are found at the end of this chapter.

Methods

The rates are capped at 20-64 years of age, and standardized in two groups: 20-39 years, and 40-64 years. The data was capped as there were almost no immigrants under 20, and no male immigrants older than 64. Two groups were used to accommodate for small cell counts in the groups of third country citizens. The younger group has been weighted 44.8%, and the older 55.2%. The population of females from third countries has been used as standard population. The adjusted rates for this group are therefore the same as the crude rates, except due to decimal differences from calculation. This group was chosen as standard population due to being the group with the lowest N of 49, and the age groups were chosen to be of as even size as possible, with a slight overweight of the older group as it contains a larger age span.

The estimates have 95% confidence intervals. These have been calculated on the basis of the standardized rate, using the formula R ± (1.96 x SE), where SE = R / square root of N. As each rate is a weighted average (with one exception), the confidence intervals are approximations (Keyfitz 1966). For larger counts, the formula approaches the exact confidence intervals. For third country females, where the count is lowest, the standardized rates are identical to the crude rates, and the formula for these confidence intervals is therefore exact.

Graphic presentation of prevalences

In the first part, the adjusted estimates are presented graphically with bar charts: Red bars to the left for females, and blue bars to the right for males. The estimates are presented for Albanians, Greeks and third country citizens. The estimates are ordered by theme: Self-reported health outcomes, non-communicable diseases, use of health care, unmet need, risk behaviours, social determinants of health, barriers to access, and finally items from the National Health Survey in Greece.

Brief comments are given on each theme. Estimates are rounded off to the nearest percent, or given a range. Take note that the graphs are not scaled equally; rather they are scaled to highlight differences in rates between immigrant groups and Greeks. It is important to keep in mind that the rates are not true population estimates, they only tell what the rate would be if all groups had the same age distribution.

All the estimates are found in tables (ASR1-ASR13, ASR= Age Standardized rates) next to the end of the chapter. The tables are split by gender for each measure. They contain the crude (unadjusted) rates for comparison, the adjusted rates, the standard error, and confidence intervals. In addition, a comparison rate for Albanian versus Greeks and third countries versus Greek is given in the last column. This is the rate for the immigrant group divided by the rate for Greeks.

Regression testing

To judge whether differences in rates were significant, all outcomes were run through a simple regression model, to account for differences in age and immigrant groups. Regressions were run separately for males and females. Two age groups were used: 20-39 (reference) and 40-64, to coincide with the groupings used in age standardization. Greek citizens were used as reference, and compared with Albanians and third country citizens. Sampling weights (IMWFIN) were applied in the models. Odds ratios with 95% confidence intervals are reported, and used as criteria to judge significance. (Mean units of alcohol was tested using OLS.) Due to low N and lack of cases in some immigrant groups, not all measures are reported on. Only significant

results between immigrants and Greeks are commented on, in a separate paragraph in each section. These results will serve as criteria of further regression modelling.

4.1. Prevalence of self-reported health measures

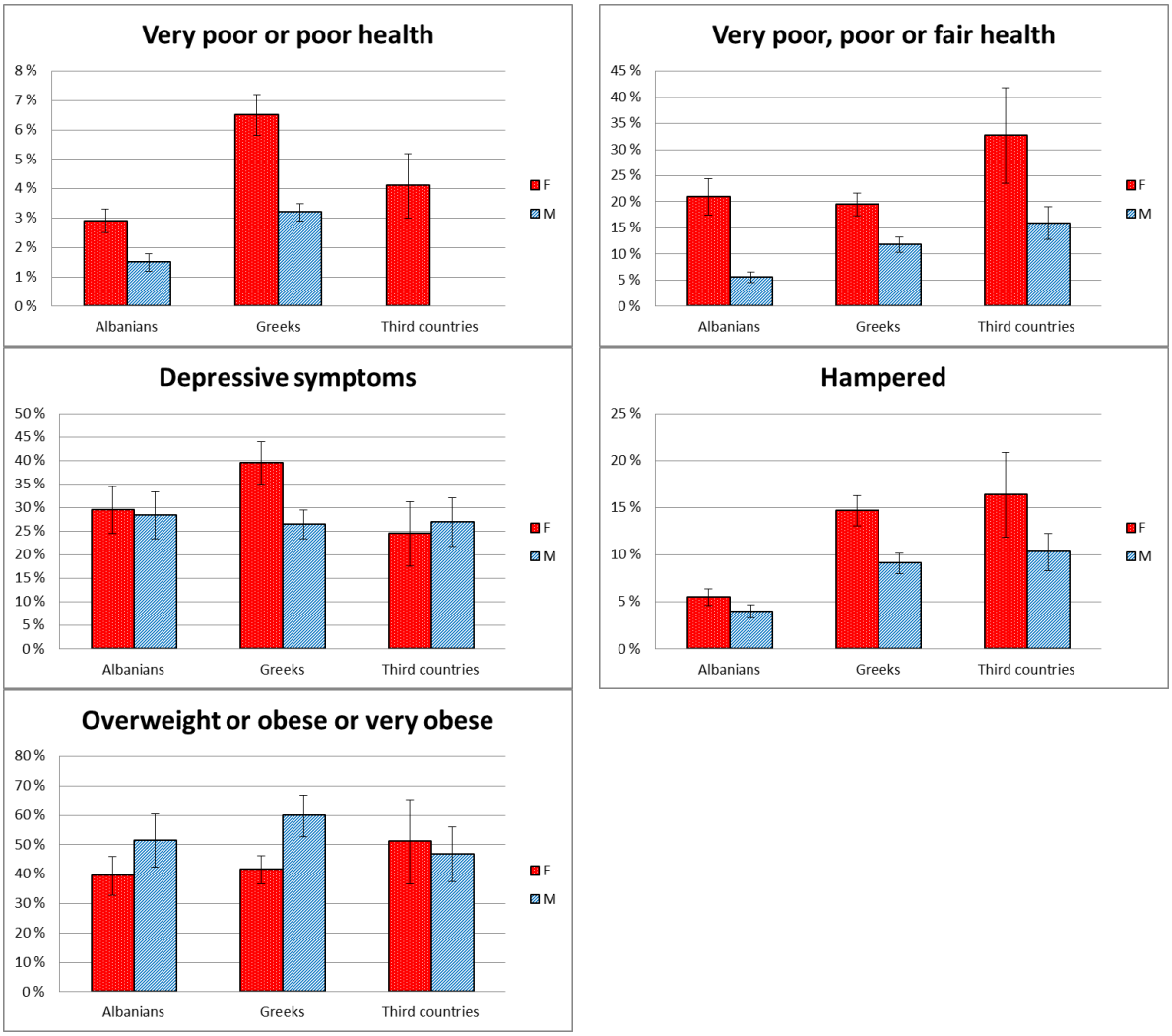


Figure B1. Self-reported health measures

The first two graphs in figure B1 highlight the importance of how measures are coded. Both of these are commonly used. When grouping 'fair' with 'good' and 'very good', poor self-reported health (1) comes across as very rare, and non-existent among third country males. However, when including 'fair' with 'poor' and 'very poor', males from third countries report the poorest self-reported health (2) (approx. 17%). Third country females report the worst health (33%). Confidence intervals for third country females are wide as a result of the small number of cases.

Depressive symptoms are high compared to ESS rates (Huijts et al 2017a), and most common among Greek females (40%), while rates for all other groups are fairly similar (25%-30%). Third country males (10%) and females (16%) report being the most

hampered by long-standing illness. Rates for obesity are highest among Greek males (60%).

Regression results: Females from third countries are more likely than Greek females to report fair/poor health (OR 2.6). Albanian females are less likely than Greek females to be hampered by illness (OR 0.35). Females from third countries are less likely to report depressive symptoms than Greek females (OR 0.5). Third country males are less likely to report overweight or obesity than Greek males (OR 0.59).

4.2. Prevalence of non-communicable diseases

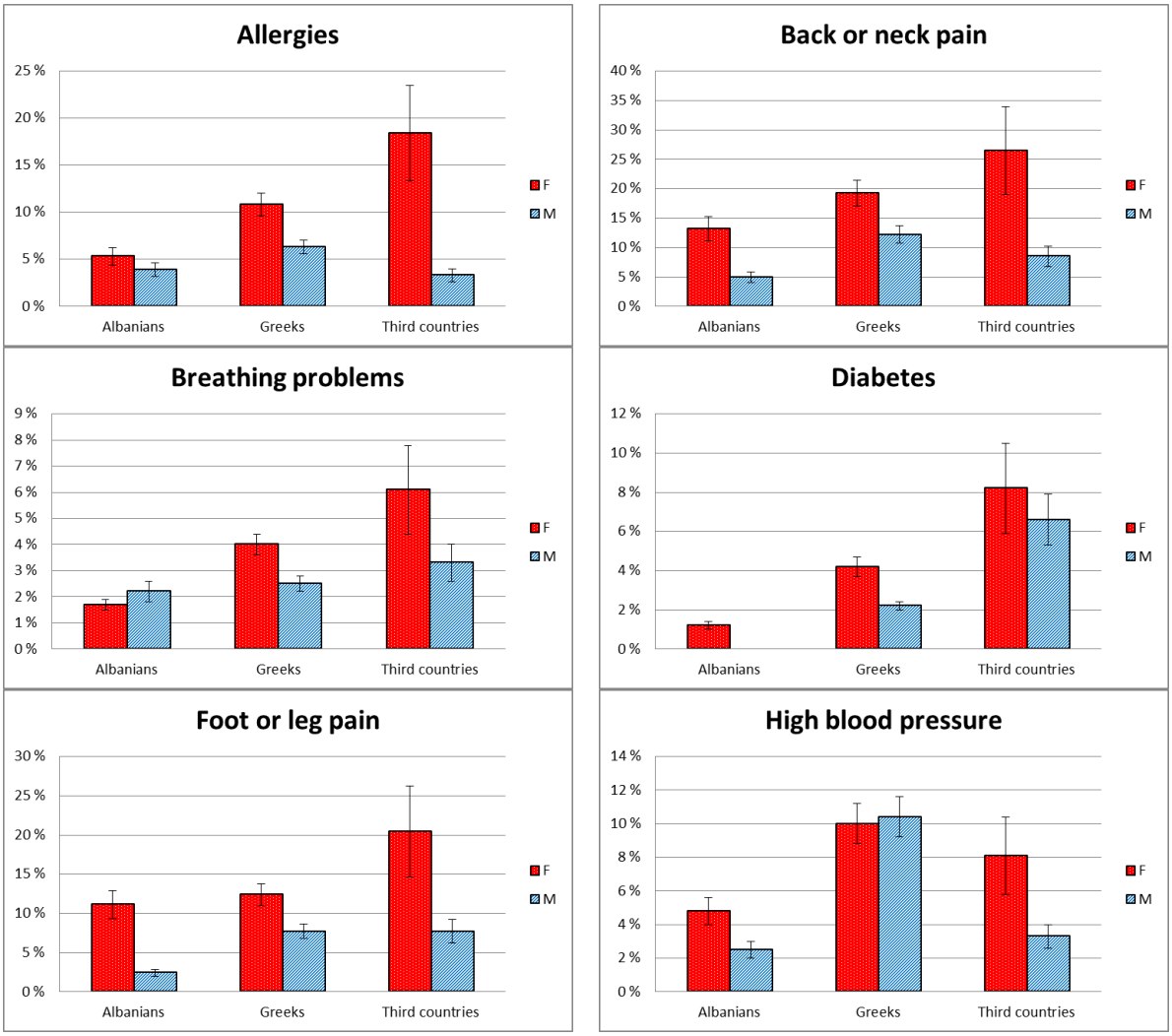


Figure B2. Prevalence of non-communicable diseases (1).

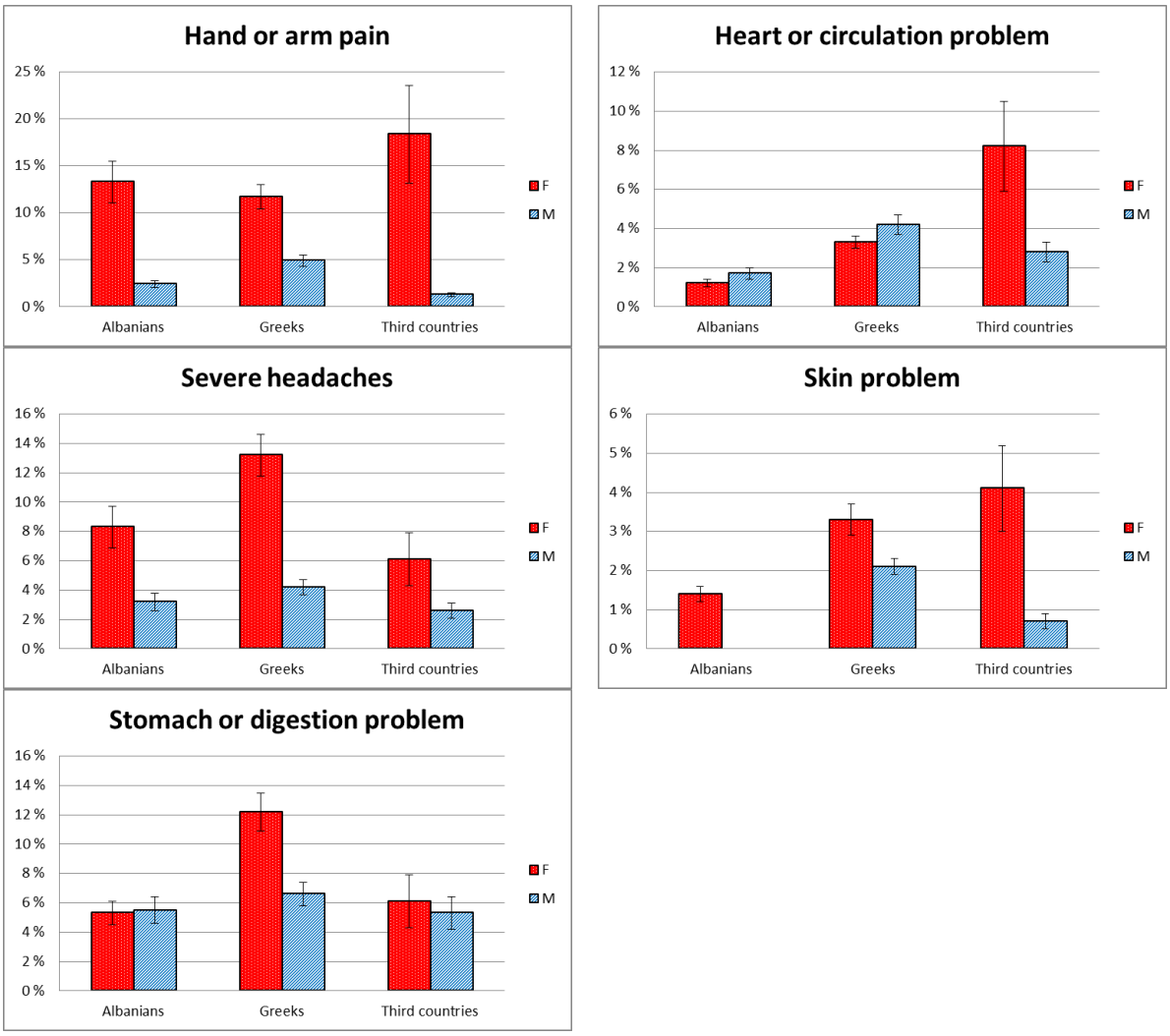


Figure B3. Prevalence of non-communicable diseases (2).

As figure B2 and B3 show, most NCDs are reported least by Albanian females, then Greek, and most by third country females. For males, there is more of a mixed pattern where Albanians have the lowest rates, and Greek and third country males alternate between the highest. Back pain is the most common NCD overall (5%-27%).

Summary of NCDs

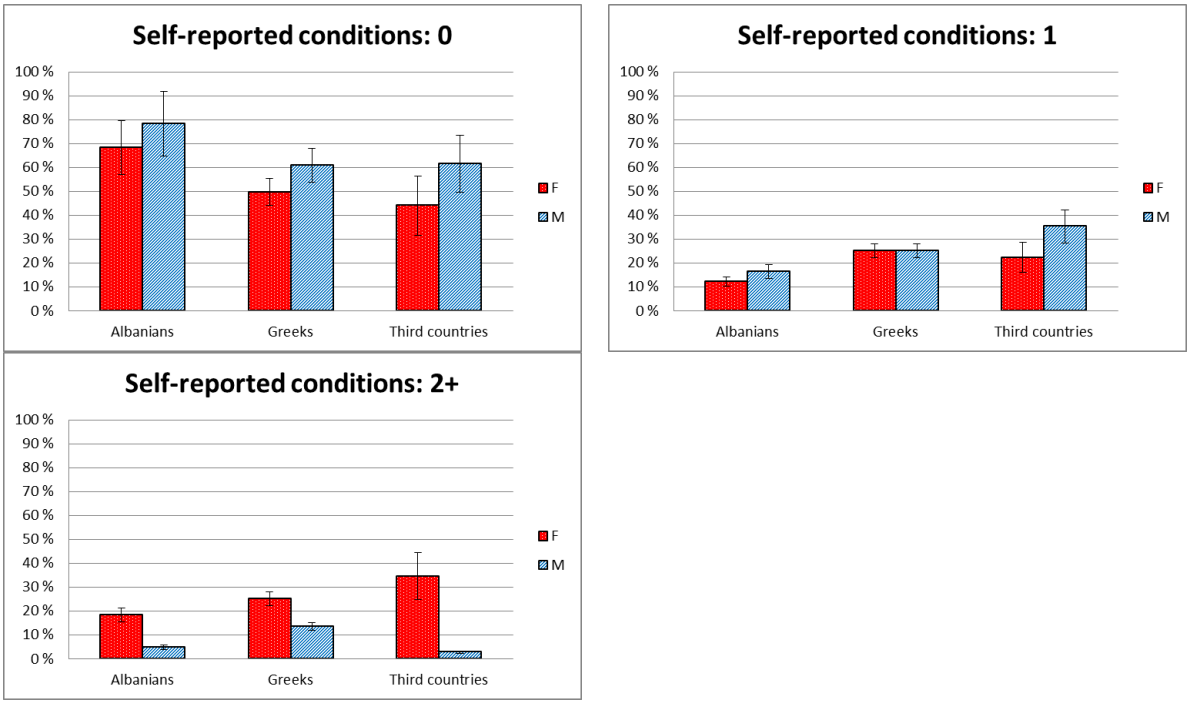


Figure B4. Summary self-reported health measures

For the summary measures (figure B4), Albanians of both genders report the highest rate of no NCDs (68% F, 79% M), and the lowest rates of one NCD (12% F, 17% M). Third country females have the highest rates of multiple conditions (35%), but note large CIs.

Regression results on NCDs: Albanian (OR 0.2) and third country males (OR 0.28) are less likely to report high blood pressure. Albanian females are less likely to report back pain than Greek females (OR 0.35). Albanian males are less likely to report foot pain than Greek males (OR 0.2). Third country males are more likely to report diabetes (OR 3.6). Albanian females (OR 2.6) and males (OR 2.3) are more likely to report no conditions than their Greek counterparts. Albanian females are less likely to report one condition than Greek females (OR 0.37), and Albanian (OR 0.34) and third country (OR 0.27) males are less likely to report 2+ conditions than Greek males.

4.3. Prevalence of cancer

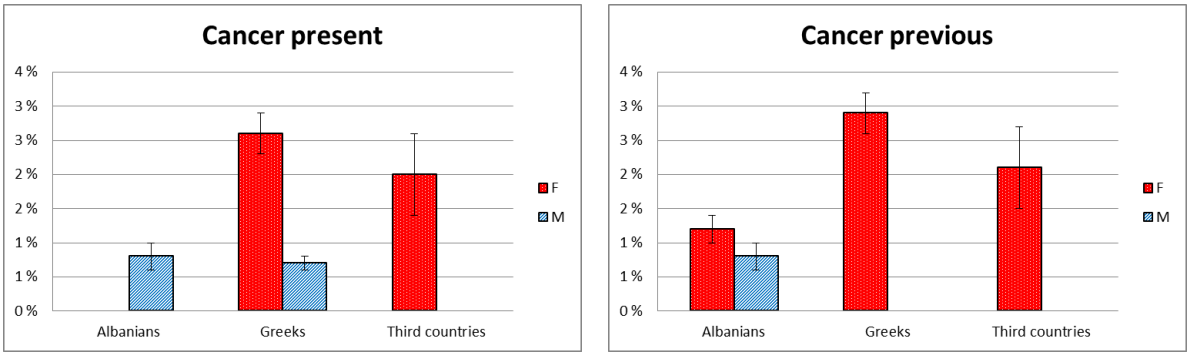


Figure B5. Prevalence of cancer

Cancer is rarely reported in any group (figure B5). Rates are highest for Greeks females, who report around 3% presently and previously.

4.4. Prevalence of health care use

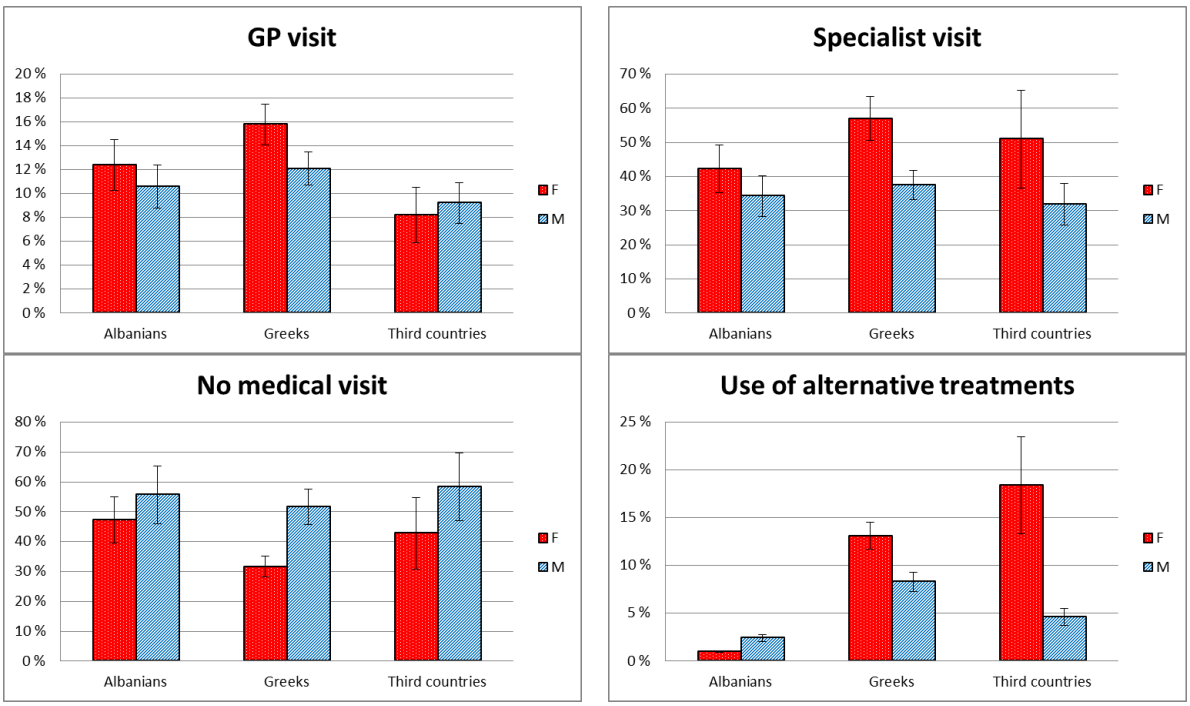


Figure B6. Health care use.

GP visits are low, especially compared to other European countries (Huijts 2017a), for all groups (8%-15%) (figure B6). Third country citizens report the lowest GP use. Specialist use is higher among all females, and highest among Greeks (57%). Rates for males are fairly similar. Rates for no medical visit (as in no GP and specialist use)

are high compared to ESS findings (32%-58%), fairly equal among males, while Greek females have the lowest rates. Use of alternative treatments is very rare among Albanians, but most common among Greek (13%) and third country females (18%).

Regression results: Albanian females are less likely to visit medical specialists than Greek females (OR 0.45), and more likely to not have visited either GP or specialist (OR 2.3). Albanian females (OR 0.11) and males (0.25) are less likely to use alternative health care than their Greek counterparts.

4.5. Prevalence of unmet need

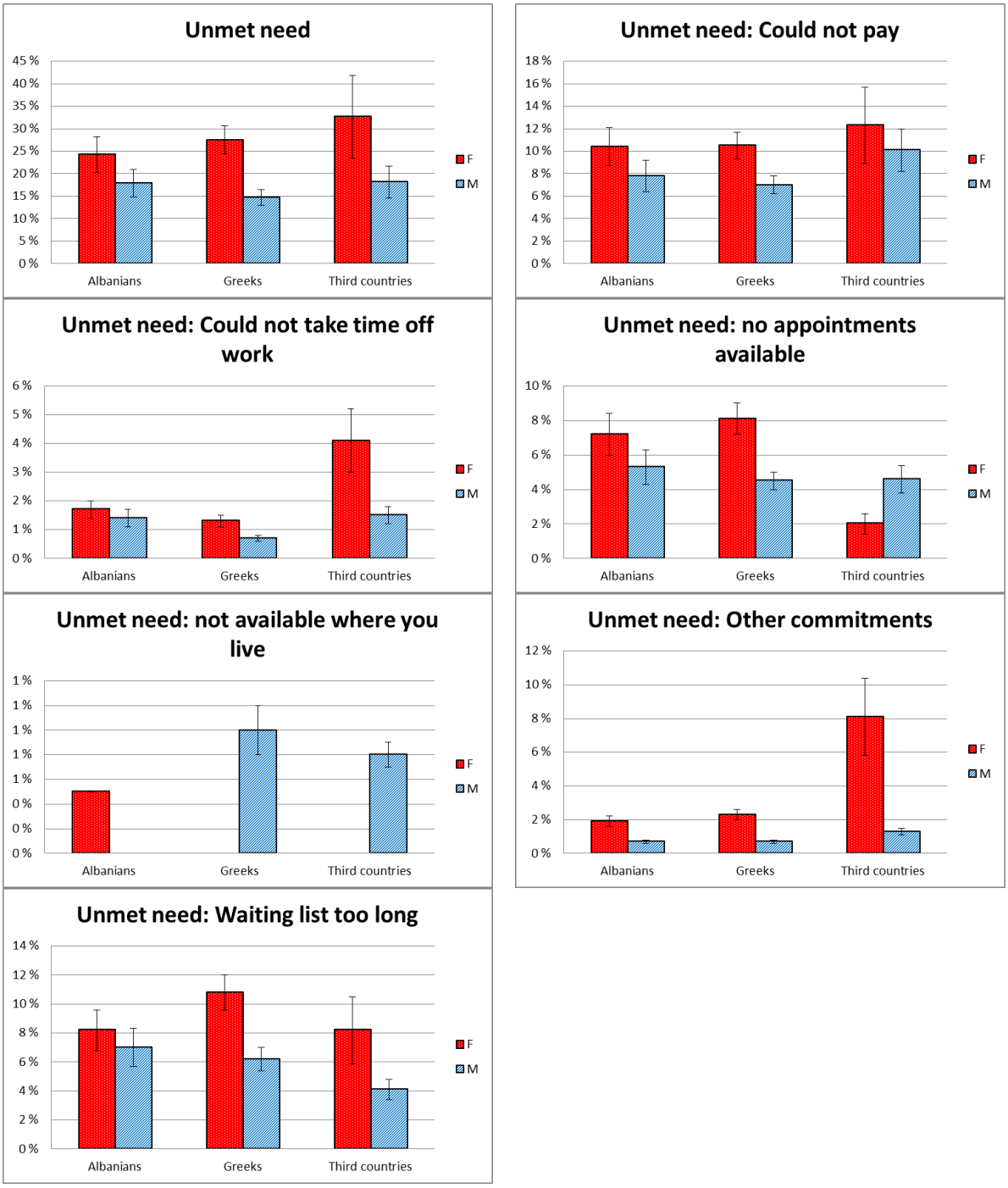


Figure B7. Prevalence of unmet need for health care.

Overall unmet need is high among all groups compared to the ESS (15%-32%)(Huijts 2017a), higher among females, and highest among third country females (figure B7). Rates for males are fairly similar (15%-18%). Not being able to pay is a common reason for unmet (7%-10%), with the same pattern as overall unmet need.

Appointment availability and long waiting lists are the next common causes, where gender differences are stronger that country differences.

Regression results: There were no significant differences between any immigrant groups and Greeks in unmet need.

4.6. Prevalence of risk behaviours

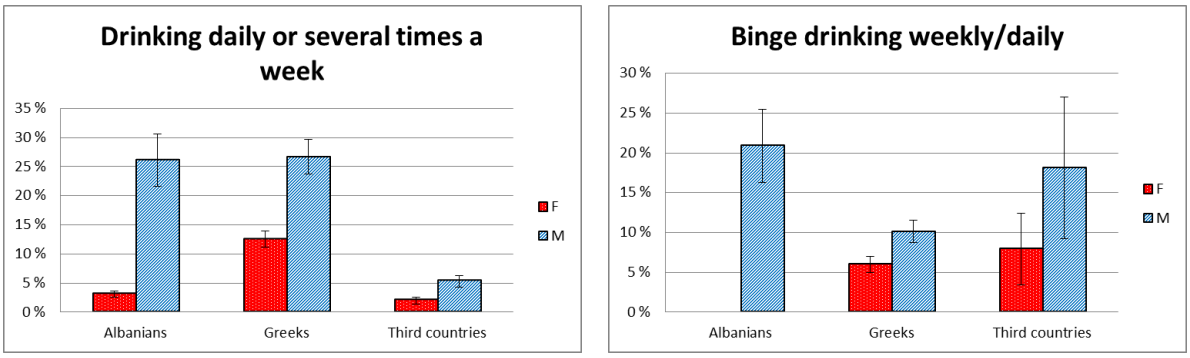


Figure B8. Frequency of alcohol consumption. Binge drinking among those who drink.

Albanian and Greek males tend to be high frequent drinkers (26-27%), while binge drinking is most common among Albanian and third country males (18%-21%). Beware large confidence intervals, due to the smaller number of third country males who report drinking at all. Albanian and third country females report very low frequencies of drinking.

Note that a further data check showed that the vast majority (around 85%) of respondents, who report a high frequency of binge drinking, are also the ones who report a high frequency of drinking overall.

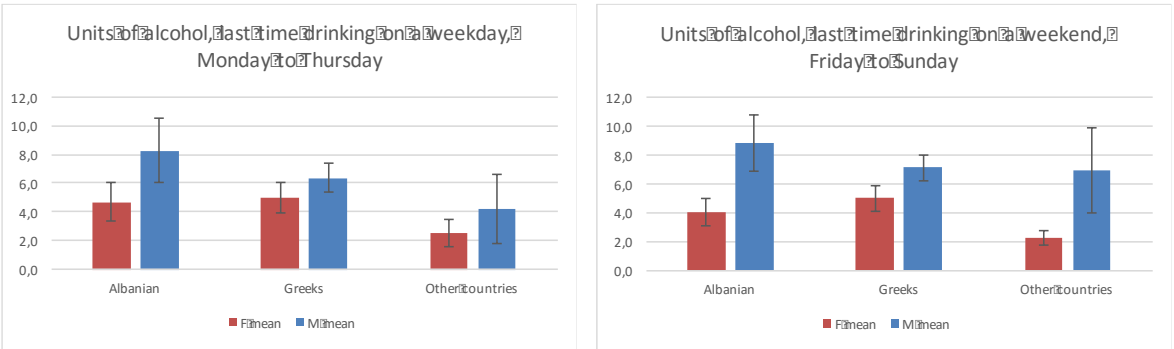


Figure B9. Mean units of alcohol consumption on weekdays and weekends, among those who drink.

Mean units of alcohol (figure B9) is not age standardized, due to low N and deviation in age structure in this subpopulation. Take also note that this measure is not reported in percentages. Note wide confidence intervals.

Albanian males report consuming the highest mean units (8) of alcohol, both on weekdays and weekends. Third country males report consuming slightly less than Greeks. For females, consumption is lower overall. Greek females consume a little more than immigrants, particularly compared to third country females on weekends.

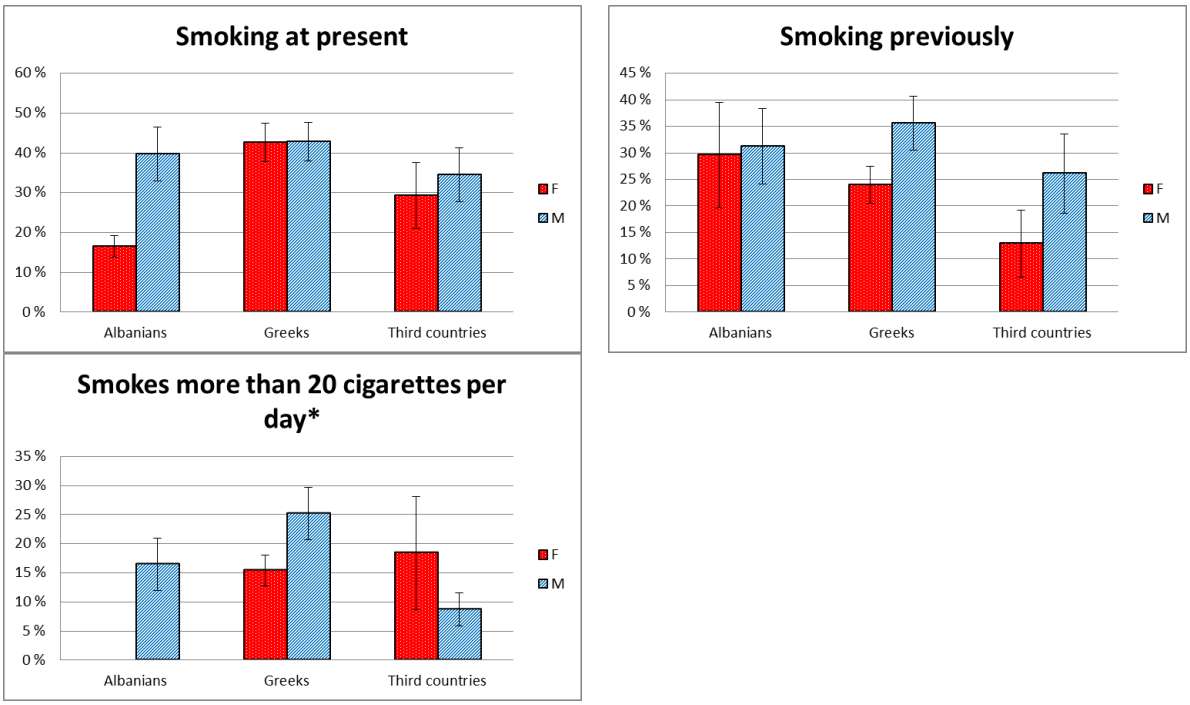
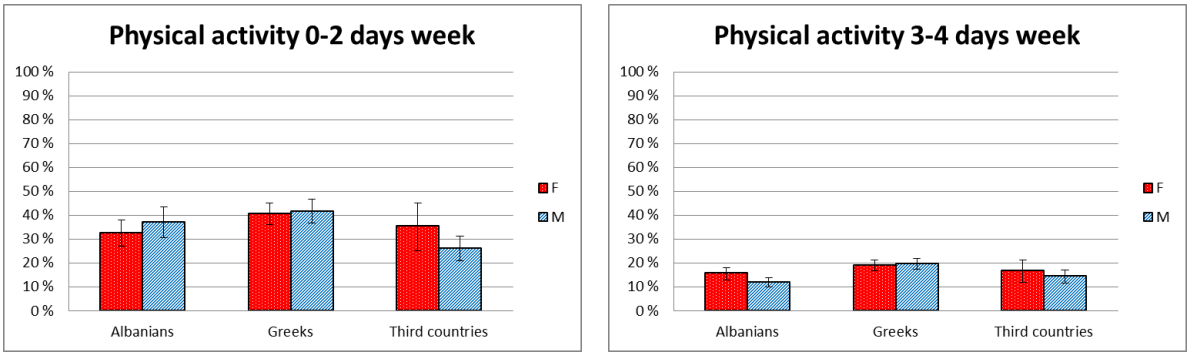


*Figure B10. Prevalence of smoking behaviour. (*20+ cigarettes among smokers).*

Albanian females report the least smoking at present (17%), while third country females report the least smoking previously (13%) (Figure B10). Around 40% of Albanian males and Greeks of both genders report smoking at present.



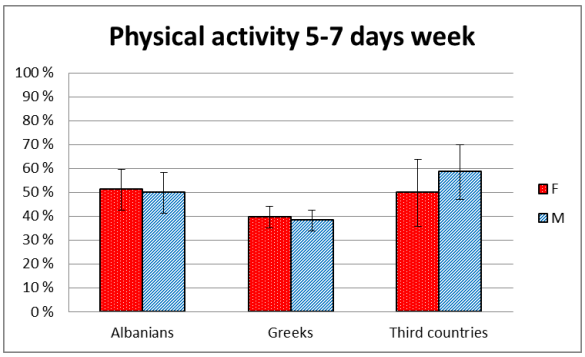


Figure B11: Prevalence of physical activity.

Rates for low and medium physical activity are highest among Greeks, around 20% and 40% respectively (figure B11). High physical activity is most commonly reported among third country males (around 60%), then among Albanians and third country females (around 50%), and least among Greeks (around 40%).

Regression results: Albanian females are less likely to smoke than Greek females (OR 0.29), and drink weekly or more (OR 0.23). Third country females are also less likely to report weekly or more drinking (OR 0.13). Albanian males are more likely to report binge drinking than Greeks (OR 2.3), while third country males are less likely to report weekly or more drinking (0.15). Females from third countries drink around 3.2 units less than Greek females on weekends.

Third country males are less likely to report low physical activity than Greek males (OR 0.46), and more likely to report high physical activity (OR 2.32). Albanian males are more likely to report high physical activity than Greeks (OR 1.62).

4.7. Prevalence of social determinants

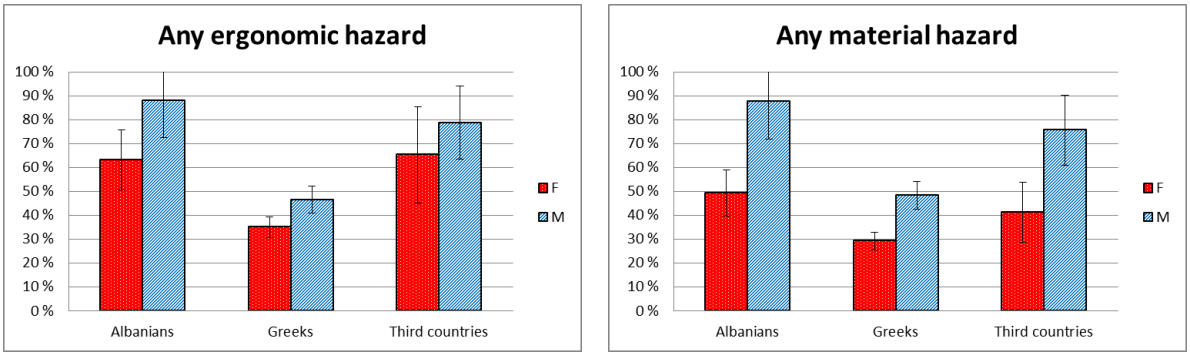


Figure B12. Physical work hazards.

There is a clear and strong difference in physical work hazards (figure B12), where Greeks of both genders have much lower rates (30%-47%) than immigrant groups. Albanian males report the most hazards (88%) in both measures.

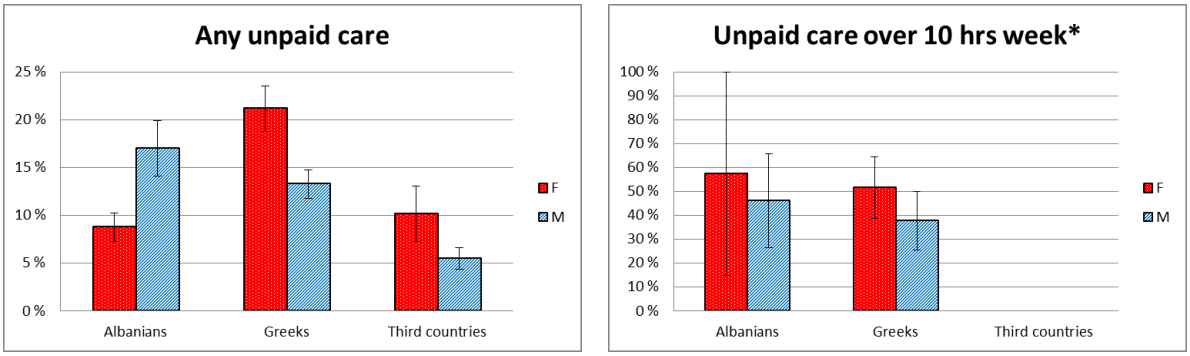


*Figure B13. Unpaid care. (*Over 10 hours per week within any unpaid care).*

Unpaid care (figure B13) is most commonly reported among Greek females (21%), followed by Albanian males (17%). The rates for high unpaid care are unreliable due to a low number of cases.

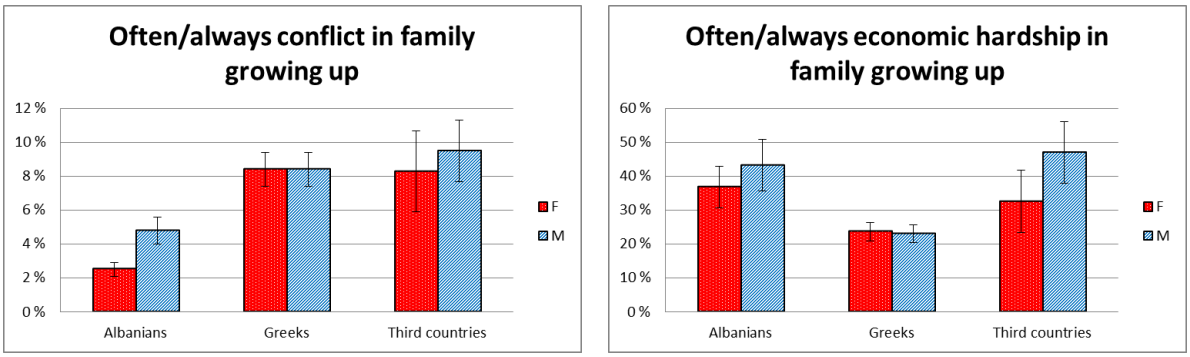


Figure B14. Childhood conditions.

Albanians report the least conflict in family in childhood (3%-5%), while Greeks report the least financial hardship when growing up (figure B14). Still, over 20% of Greeks report hardship in childhood.

Regression results: Ergonomic and material hazards are significantly and substantially higher among almost all immigrant groups. Albanians (OR 2.9 F, 8.1 M)

and third country (OR 3.3 F, 4.2 M) citizens are all more likely to report any ergonomic hazard. Albanians (OR 2.06 F, 7.7 M), as well as third country males (OR 3.51), are more likely to report any material hazard.

Albanian females are less likely than Greek females to report childhood conflict (OR 0.18). Almost all immigrant groups are more likely to report financial hardship in childhood: Albanians (OR 2.0 F, 2.7 M) and third country males (OR 3.35). Albanian females are less likely to report any unpaid care (OR 0.31), as are third country males (OR 0.4).

4.8. Prevalence of non-ESS items

4.8.1. National Health Survey items

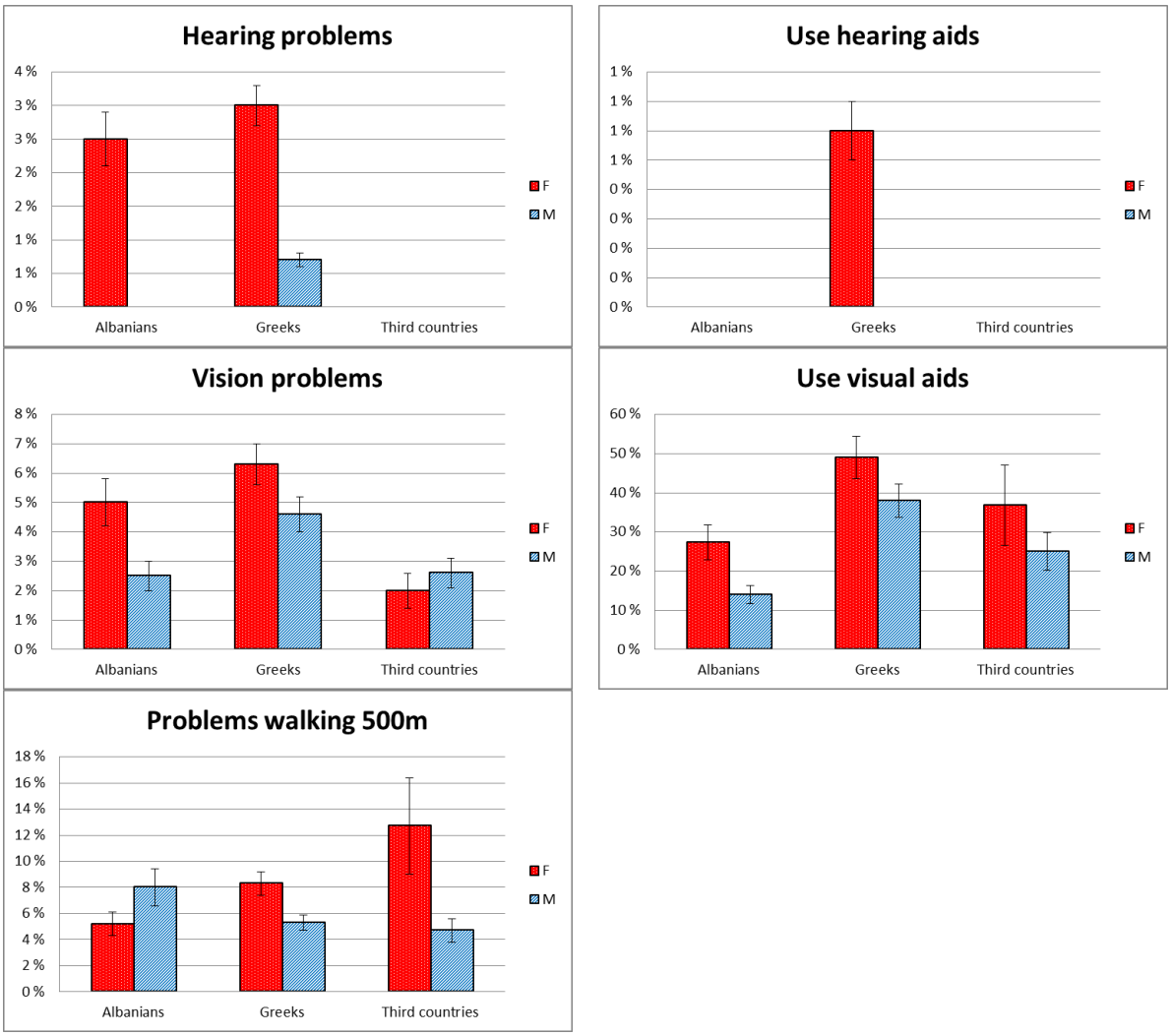


Figure B15. National Health Survey items.

The items from the Greek National Health Survey are fairly low overall (figure B15), and zero in some cases. The low scores for hearing issues are most likely due to the limited age range. Vision problems (5%-6%) and use of visual aids (40%-50%) are most commonly reported among Greeks. Third country females report the highest rate of mobility problems (13%).

Regression results: Albanians are less likely to use visual aids than their Greek counterparts (OR 0.34 F, 0.25 M), as are third country males (OR 0.49).

4.8.2. Barriers to access

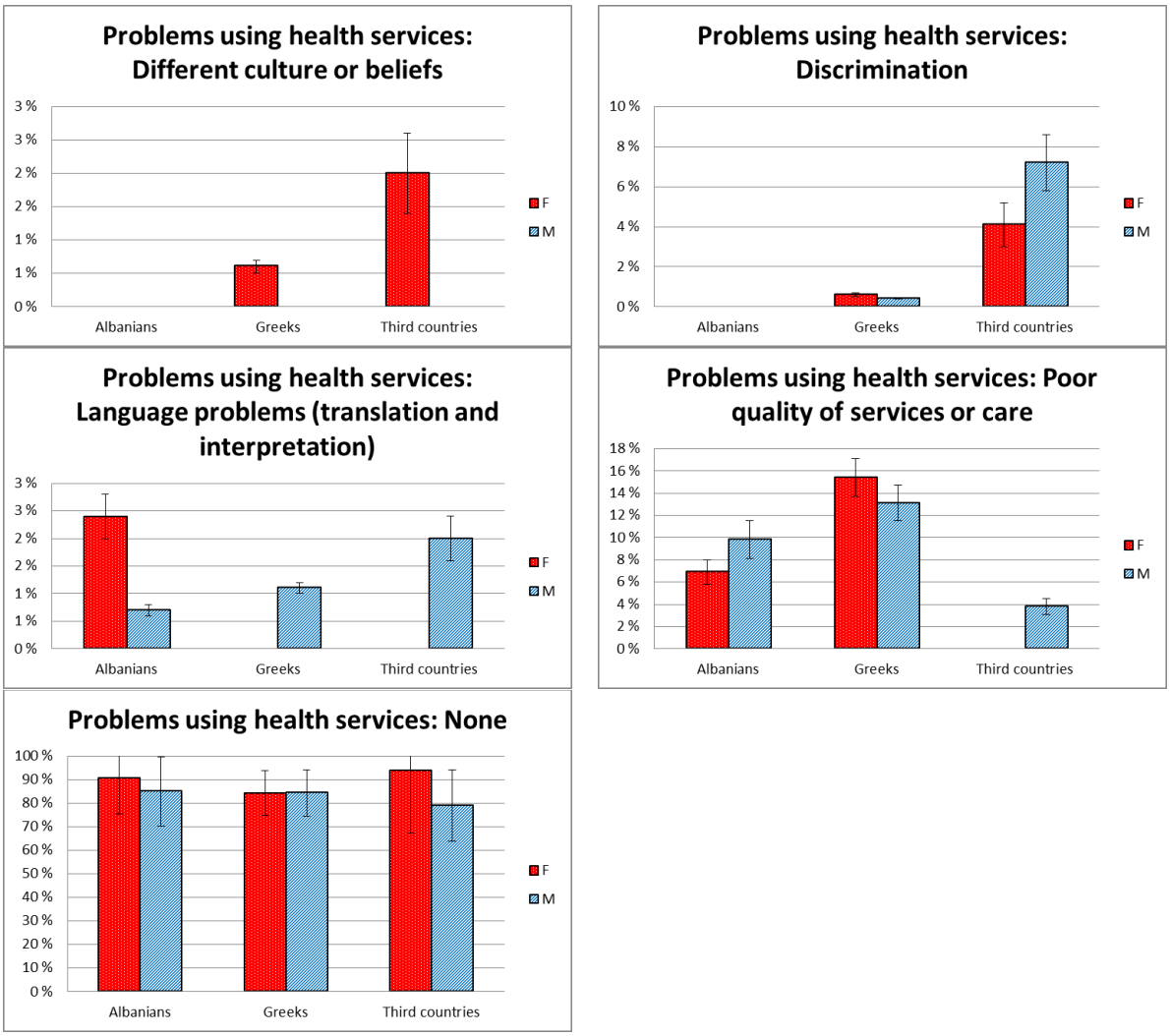


Figure B16. Barriers to health care.

The questions on barriers to care were asked to all, as this could also apply to Greek citizens (figure B16). For the items on different culture and beliefs, discrimination and language problems, rates are low overall. Males from third countries report mostly discrimination in health services at around 7%. Notably, Greeks also report these issues in some cases. The major problem for most groups is the poor opinion on the quality of services provided, and this is highest among Greek males and females, at over 10%. Interestingly, over 80% in all groups report no problem using health services.

Regression results: Third country females are more likely than Greek females to report discrimination in health services (OR 17.4). Third country citizens are less

likely to report poor quality of services or care than their Greek counterparts (OR 0.03 F, 0.22 M). At the same time, third country females are more likely than Greek females to report no problems using health services.

The survey also contains the question: 'Please say what you think overall about the state of health services in Greece nowadays?' Respondents were then asked to rate health services on a scale of 0 (extremely bad) to 10 (extremely good). The crude rates are found in table B1 below, and support the idea that Greeks have the worst opinion about health care system, as they score a mean value of a little over 3, while immigrant groups rate the health system at 5 to 6 (See also separate section on discrimination).

Table B1. State of health services

	Mean	N	SD
Male			
Greeks	3,1	289	2,22
Albanians	5,4	126	2,35
Third countries	6,1	97	2,81
Female			
Greeks	3,4	304	2,41
Albanians	6,0	138	2,27
Third countries	5,5	49	2,54

4.9. Summary of prevalences

Estimates are summarized and rounded off the nearest 5% point or range except as noted. We should note that not all differences in rates are significant; this is reviewed in the next section.

Fair to poor self-reported health is most reported among third country citizens (around 15% M and 30% F). Depressive symptoms are prevalent overall (25%-40% range), but most common among Greek females. Overweight and obesity are widespread (40%-60%), but somewhat more reported among third country females.

Most NCDs are reported least by Albanian females, then Greek, and most by third country females. For males, there is more of a mixed pattern where Albanians have the lowest rates, and Greek and third country males alternate between the

highest. Back pain is the most common NCD overall (5%-25%). For the summary NCD measures, Albanians of both genders report the highest rate of no NCDs (70%-80%), and the lowest rates of one NCD (10%-15%). Third country females have the highest rates of multiple conditions (35%), but note large confidence intervals.

GP use is low overall (10%-15%), and less reported among immigrants. Specialist use is fairly widespread (30%-60%), higher among women, but low among Albanian females.

Overall unmet need is high among all groups (15%-30%), but highest among Greek and third country females. The most common reason is inability to pay (7%-15%, exact estimates), but this is fairly evenly distributed among Greeks and immigrant groups, and high among females. No appointments available and long waiting lists are also somewhat common (5%-10%), and most common among Greek females.

Greek and Albanian males report drinking frequently the most (25%), while Albanians binge drink frequently more (20%). Albanian females smoke the least (15%). Immigrants report higher physical activity (50%-60%) than Greeks (40%).

Ergonomic and material hazards are much higher among immigrants (60%-80%) than Greeks (40%). Immigrants report more financial hardship in youth (30%-50%) than Greeks (20%).

Use of visual aids is most common among Greeks (40%-50%), and least among Albanians (10%-30%). For other NHS items, rates are negligible in the selected age group.

Problems accessing health care is fairly rarely reported among immigrants. The most common problem is the poor quality of care, which affects Greeks (15%) more than immigrants (5%-10%).

4.10. Comparison of rates and country profiles

In the following, we present a brief overview of how Greek males compare to Albanian and third country males, by comparing their rates against each other. We

also do this for females. Results are found in table B2 below. After the table, we summarize a profile for each group. Results from regression modelling are given in the next section.

Rates are ranked as high, medium (marked "-"), and low. This only refers to relative placement within genders, i.e. Albanian females have the lowest prevalence among of fair/poor health among females. The rates are found in the prevalence tables at the end of the chapter.

Table B2. Comparison of rates between population groups.

	Alb F	Greek F	3rd F	Alb M	Greek M	3rd M
Poor/fair health	Low	-	High	Low	-	High
Hampered	Low	-	High	Low	-	High
Depressive	-	High	Low	-	-	-
Overweight	Low	-	High	-	High	Low
No conditions	High	-	Low	High	Low	Low
One condition	Low	High	-	Low	-	High
2+ cond.	Low	-	High	Low	High	-
GP use	-	High	Low	-	High	Low
Specialist use	Low	High	-	-	High	Low
No GP/spec.	High	Low	-	-	Low	High
Unmet need	Low	-	High	-	Low	High
Could not pay	Low	Low	High	Low	Low	High
No appointments	-	High	Low	-	-	-
Waiting list	Low	Low	High	High	-	Low
Smoking presently	Low	High	-	-	High	Low
Frequent drinking	Low	Low	High	High	High	Low
Binge drinking	Low	-	High	High	Low	-
High physical	Hi	Low	-	-	Low	High
Ergonomic hazards	High	Low	High	High	Low	High
Material hazards	High	Low	-	High	Low	-
Childhood hardship	High	Low	-	High	Low	-

Albanian females compared to other females report:

-The highest prevalence in high physical activity, no conditions, no GP/specialist, ergonomic hazards, material hazards, and childhood hardship.

-The lowest prevalence in poor/fair health, hampered, overweight, one condition, multiple conditions, specialist use, unmet need, could not pay, waiting lists, smoking presently, frequent drinking, and binge drinking.

-Medium prevalences in depressive symptoms, GP use, and no appointments.

Greek females compared to other females report:

-The highest prevalences in, one condition, specialist use, smoking presently, depressive symptoms, GP use, and no appointments.

-The lowest prevalences in high physical activity, no GP/specialist, ergonomic hazards, material hazards, childhood hardship, could not pay, waiting lists, and frequent drinking.

-Medium prevalences in no conditions, hampered, overweight, multiple conditions, unmet need, and binge drinking.

Third country females compared to other females report:

-The highest prevalences in poor/fair health, ergonomic hazards, could not pay, waiting lists, frequent drinking, hampered, overweight, multiple conditions, unmet need, and binge drinking.

-The lowest prevalences in depressive symptoms, GP use, no appointments, and no conditions.

-Medium prevalences in one condition, specialist use, smoking presently, high physical activity, no GP/specialist., material hazards, and childhood hardship.

Albanian males compared to other males report:

-The highest prevalences in ergonomic hazards, waiting lists, frequent drinking, binge drinking, no conditions, material hazards, and childhood hardship.

-The lowest prevalences in, inability to pay, hampered, multiple conditions, poor/fair health, and one condition.

-Medium prevalences in overweight, unmet need, depressive symptoms, GP use, no appointments, specialist use, smoking presently, high physical activity, and no GP/specialist.

Greek males compared to other males report:

-The highest prevalences in frequent drinking, multiple conditions, overweight, GP use, specialist use, and smoking presently.

-The lowest prevalences in ergonomic hazards, binge drinking, no conditions, material hazards, childhood hardship, unmet need overall & could not pay, high physical activity, and no GP/specialist.

-Medium prevalences in waiting lists, hampered, poor/fair health, one condition, depressive symptoms, and no appointments.

Third country males compared to other males report:

-The highest prevalences in ergonomic hazards, unmet need overall & could not pay, high physical activity, no GP/specialist, hampered, poor/fair health, and one condition.

-The lowest prevalences in frequent drinking, overweight, GP use, specialist use, smoking presently, no conditions, and waiting lists.

-Medium prevalences in multiple conditions, binge drinking, material hazards, childhood hardship, depressive symptoms, and no appointments

4.11. Summary of regression results.

Only significant differences between Greeks and immigrants are reported here.

Self-reported health outcomes

Females from third countries are more likely than Greek females to report fair/poor health (OR 2.6). Albanian females are less likely than Greek females to be hampered by illness (OR 0.35). Females from third countries are less likely to report depressive symptoms than Greek females (OR 0.5). Third country males are less likely to report overweight or obesity than Greek males (OR 0.59).

Self-reported conditions

Albanian (OR 0.2) and third country males (OR 0.28) are less likely to report high blood pressure. Albanian females are less likely to report back pain than Greek females (OR 0.35). Albanian males are less likely to report foot pain than Greek males (OR 0.2). Third country males are more likely to report diabetes (OR 3.6).

Albanian females (OR 2.6) and males (OR 2.3) are more likely to report no conditions than their Greek counterparts. Albanian females are less likely to report one condition than Greek females (OR 0.37), and Albanian (OR 0.34) and third country (OR 0.27) males are less likely to report 2+ conditions than Greek males.

Health care use

Albanian females are less likely to visit medical specialists than Greek females (OR 0.45), and more likely to not have visited either GP or specialist (OR 2.3). Albanian females (OR 0.11) and males (0.25) are less likely to use alternative health care than their Greek counterparts.

Unmet need

There were no significant differences between any immigrant groups and Greeks in unmet need.

Risk behaviours

Albanian females are less likely to smoke than Greek females (OR 0.29), and drink weekly or more (OR 0.23). Third country females are also less likely to report weekly or more drinking (OR 0.13). Albanian males are more likely to report binge drinking than Greeks (OR 2.3), while third country males are less likely to report weekly or more drinking (0.15).

Third country males are less likely to report low physical activity than Greek males (OR 0.46), and more likely to report high physical activity (OR 2.32). Albanian males are more likely to report high physical activity than Greeks (OR 1.62).

Determinants of health

Ergonomic and material hazards are significantly and substantially higher among almost all immigrant groups. Albanians (OR 2.9 F, 8.1 M) and third country (OR 3.3 F, 4.2 M) citizens are all more likely to report any ergonomic hazard. Albanians (OR 2.06 F, 7.7 M), as well as third country males (OR 3.51), are more likely to report any material hazard.

Albanian females are less likely than Greek females to report childhood conflict (OR 0.18). Almost all immigrant groups report financial hardship in childhood: Albanians (OR 2.0 F, 2.7 M) and third country males (OR 3.35).

Albanian females are less likely to report any unpaid care (OR 0.31), as are third country males (OR 0.4).

Barriers to access

Third country females are more likely than Greek females to report discrimination when accessing health services (OR 17.4). Third country citizens are less likely to report poor quality of services or care than their Greek counterparts (OR 0.03 F, 0.22 M). At the same time, third country females are more likely than Greek females to report no problems using health services.

Items from the National Health Survey in Greece

Albanians are less likely to use visual aids than their Greek counterparts (OR 0.34 F, 0.25 M), as are third country males (OR 0.49).

Conclusion: Population group profiles.

To gain an overview of the significant differences in health outcomes and determinants, the results from the previous summary has been collated into tables B3 and B4 below, which compares Albanians and third country males and females to Greeks, and states whether it is more or less likely for them to report the measures than for Greeks. The first table shows worse outcomes and determinants for immigrants, and the second shows better. For example, it shows that third country females are more likely to report fair/poor health than Greek females. The tables are followed by a brief profile on each of the population groups, split by gender.

Table B3. Worse outcomes for immigrants

Measure	Albanians	Third country
Fair/poor health	-	More likely (F)
Diabetes	-	More likely (M)
Specialist use	Less likely (F)	-
No GP/Specialist	More likely (F)	-
Binge drinking	More likely (M)	-
Ergonomic hazard	More likely (M/F)	More likely (M/F)
Material hazards	More likely (M/F)	More likely (M)
Child hardship	More likely (M/F)	More likely (M)
Discrimination in health services	-	More likely (F)

Table B4. Better outcomes for immigrants

Measure	Albanians	Third country
Hampered	Less likely (F)	-
Depressive symptoms	-	Less likely (F)
Overweight/obesity	-	Less likely (M)
HBP	Less likely (M)	Less likely (M)
Back pain	Less likely (F)	-
Foot pain	Less likely (M)	-
No conditions	More likely (M/F)	-
One condition	Less likely (F)	-
Two conditions	Less likely (M)	Less likely (M)
Smoke presently	Less likely (F)	-
Frequent drinking	Less likely (F)	Less likely (M/F)
High physical activity	More likely (M)	More likely (M)

Childhood conflict	Less likely (F)	-

Albanian females have more ergonomic and material hazards, and have experienced more financial hardship in childhood than Greek females. They are less likely than Greek females to use specialists, and more likely to not use both GP and specialists. (Whether this is bad depends on if their use is lower when adjusted for their medical needs.) On the other hand, Albanian females are less likely to be hampered by illness, to experience back pain, and more likely to report no conditions. They smoke less, drink less frequently, and have experienced less childhood conflict. Other differences in rates compared to Greeks were not found to significant.

Albanian males have more ergonomic and material hazards, and have experienced more financial hardship in childhood than Greek males. They are less likely to drink frequently, but more likely to binge if they drink. They are less likely to report high blood pressure and back pain, and more likely to report no conditions. They are more likely to engage in high physical activity. Other differences in rates compared to Greeks were not found to be significant.

Third country females are more likely to report fair/poor health, ergonomic hazards and discrimination in health services than Greek females. They are less likely to report depressive symptoms and frequent drinking. Other differences in rates compared to Greeks were not found to be significant. The relative lack of significant differences is very likely due to the small sample size of this group.

Third country males are more likely to report diabetes, ergonomic and material hazards as well as financial hardship in childhood. They are less likely to report high blood pressure and high BMI, as well as multiple conditions. They are also likely to report less frequent drinking and more physical activity than Greek males. Other differences in rates compared to Greeks were not found to be significant.

Tables: Age standardized rates

Table ASR1. Self-reported health outcomes. Prevalences in %.

	F crude	**F adj**	***F SE***	**F 95% CI-**	**F 95% CI+**	***Rate/Greeks***	**M crude**	**M adj**	***M SE***	**M 95% CI-**	**M 95% CI+**	***Rate/Greeks***
Very poor or poor health												
Albanians	2,1 %	**2,9 %**	*0,002*	2,4 %	3,3 %	*0,45*	1,5 %	**1,5 %**	*0,0013*	1,3 %	1,8 %	*0,47*
Greeks	6,6 %	**6,5 %**	*0,004*	5,8 %	7,2 %	-	3,1 %	**3,2 %**	*0,0019*	2,8 %	3,5 %	-
Third countries	4,1 %	**4,1 %**	*0,006*	2,9 %	5,2 %	*0,63*	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	-
Very poor, poor or fair health												
Albanians	15,6 %	**20,9 %**	*0,018*	17,5 %	24,4 %	*1,07*	5,4 %	**5,6 %**	*0,0049*	4,7 %	6,6 %	*0,47*
Greeks	19,7 %	**19,5 %**	*0,011*	17,3 %	21,7 %	-	11,7 %	**11,8 %**	*0,0069*	10,5 %	13,2 %	-
Third countries	32,7 %	**32,7 %**	*0,047*	23,5 %	41,8 %	*1,68*	13,7 %	**15,9 %**	*0,0157*	12,8 %	19,0 %	*1,35*
Hampered												
Albanians	5,0 %	**5,5 %**	*0,005*	4,6 %	6,4 %	*0,37*	3,8 %	**4,0 %**	*0,0035*	3,3 %	4,7 %	*0,44*
Greeks	14,8 %	**14,7 %**	*0,008*	13,0 %	16,3 %	-	9,0 %	**9,1 %**	*0,0054*	8,1 %	10,2 %	-
Third countries	16,3 %	**16,4 %**	*0,023*	11,8 %	20,9 %	*1,12*	8,7 %	**10,3 %**	*0,0102*	8,3 %	12,3 %	*1,13*
Above depression cutoff value												
Albanians	26,9 %	**29,6 %**	*0,026*	24,6 %	34,6 %	*0,75*	28,7 %	**28,4 %**	*0,0250*	23,5 %	33,4 %	*1,07*
Greeks	39,5 %	**39,5 %**	*0,023*	35,0 %	44,0 %	-	26,2 %	**26,5 %**	*0,0158*	23,4 %	29,6 %	-
Third countries	24,5 %	**24,5 %**	*0,035*	17,7 %	31,4 %	*0,62*	26,5 %	**27,0 %**	*0,0267*	21,7 %	32,2 %	*1,02*

Overweight or obese or very obese												
Albanians	37,0 %	**39,5 %**	*0,03 4*	32,9 %	46,1 %	*0,95*	50,8 %	**51,4 %**	*0,0458*	42,4 %	60,4 %	*0,86*
Greeks	41,4 %	**41,5 %**	*0,02 4*	36,8 %	46,2 %	-	59,4 %	**59,8 %**	*0,0357*	52,8 %	66,8 %	-
Third countries	51,0 %	**51,0 %**	*0,07 3*	36,7 %	65,3 %	*1,23*	43,9 %	**46,8 %**	*0,0472*	37,5 %	56,0 %	*0,78*

Table ASR2. Non-communicable diseases. Prevalences in %.

	F crude	F adj	F SE	F 95% CI-	F 95% CI+	Rate/Greeks	M crude	M adj	M SE	M 95% CI-	M 95% CI+	Rate/Greeks
Heart or circulation problem												
Albanians	0,7 %	**1,2 %**	*0,001*	1,0 %	1,4 %	*0,36*	1,5 %	**1,7 %**	*0,0015*	1,4 %	2,0 %	*0,40*
Greeks	3,3 %	**3,3 %**	*0,002*	2,9 %	3,6 %	-	4,2 %	**4,2 %**	*0,0025*	3,7 %	4,7 %	-
Third countries	8,2 %	**8,2 %**	*0,012*	5,9 %	10,5 %	*2,48*	2,9 %	**2,8 %**	*0,0028*	2,3 %	3,3 %	*0,67*
High blood pressure												
Albanians	2,8 %	**4,8 %**	*0,004*	4,0 %	5,6 %	*0,48*	2,3 %	**2,5 %**	*0,0022*	2,1 %	3,0 %	*0,24*
Greeks	10,1 %	**10,0 %**	*0,006*	8,9 %	11,2 %	-	10,1 %	**10,4 %**	*0,0061*	9,2 %	11,6 %	-
Third countries	8,2 %	**8,1 %**	*0,012*	5,9 %	10,4 %	*0,81*	2,9 %	**3,3 %**	*0,0033*	2,7 %	4,0 %	*0,32*
Breathing problems												
Albanians	1,4 %	**1,7 %**	*0,001*	1,4 %	1,9 %	*0,43*	2,3 %	**2,2 %**	*0,0019*	1,8 %	2,6 %	*0,88*
Greeks	3,9 %	**4,0 %**	*0,002*	3,5 %	4,4 %	-	2,4 %	**2,5 %**	*0,0015*	2,2 %	2,8 %	-
Third countries	6,1 %	**6,1 %**	*0,009*	4,4 %	7,8 %	*1,53*	2,9 %	**3,3 %**	*0,0033*	2,7 %	4,0 %	*1,32*
Allergies												
Albanians	5,7 %	**5,3 %**	*0,004*	4,4 %	6,2 %	*0,49*	3,9 %	**3,9 %**	*0,0035*	3,3 %	4,6 %	*0,62*
Greeks	10,8 %	**10,8 %**	*0,006*	9,6 %	12,0 %	-	6,3 %	**6,3 %**	*0,0037*	5,6 %	7,0 %	-
Third countries	18,4 %	**18,4 %**	*0,026*	13,2 %	23,5 %	*1,70*	2,9 %	**3,3 %**	*0,0033*	2,7 %	4,0 %	*0,52*
Back or neck pain												

		13,	*0,*									
Albania	9,9	**2**	*01*	11,0	15,3		4,6	**4,9**	*0,0*			
ns	%	**%**	*1*	%	%	*0,69*	%	**%**	*043*	4,1 %	5,8 %	*0,40*
		19,	*0,*					**12,**				
	19,3	**2**	*01*	17,1	21,4		12,2	**2**	*0,0*	10,8	13,7	
Greeks	%	**%**	*1*	%	%	-	%	**%**	*072*	%	%	-
Third		**26,**	*0,*									
countrie	26,5	**5**	*03*	19,1	34,0		9,7	**8,5**	*0,0*		10,2	
s	%	**%**	*8*	%	%	*1,38*	%	**%**	*084*	6,9 %	%	*0,70*
Diabete s												
			0,									
Albania	0,7	**1,2**	*00*				0,0	0,0	*0,0*			
ns	%	**%**	*1*	1,0 %	1,4 %	*0,29*	%	%	*000*	0,0 %	0,0 %	*N/A*
			0,									
	4,3	**4,2**	*00*				2,1	2,2	*0,0*			
Greeks	%	**%**	*2*	3,7 %	4,7 %	-	%	%	*013*	1,9 %	2,4 %	-
Third			*0,*									
countrie	8,2	**8,2**	*01*		10,5		5,8	6,6	*0,0*			
s	%	**%**	*2*	5,9 %	%	*1,95*	%	%	*065*	5,4 %	7,9 %	*3,00*
Hand or arm pain												
		13,	*0,*									
Albania	11,3	**3**	*01*	11,1	15,5		2,3	**2,4**	*0,0*			
ns	%	**%**	*1*	%	%	*1,14*	%	**%**	*021*	2,0 %	2,8 %	*0,49*
		11,	*0,*									
	11,8	**7**	*00*	10,4	13,0		4,9	**4,9**	*0,0*			
Greeks	%	**%**	*7*	%	%	-	%	**%**	*029*	4,3 %	5,5 %	-
Third		**18,**	*0,*									
countrie	18,4	**4**	*02*	13,3	23,6		1,0	**1,3**	*0,0*			
s	%	**%**	*6*	%	%	*1,57*	%	**%**	*013*	1,0 %	1,5 %	*0,27*
Foot or leg pain												
		11,	*0,*									
Albania	9,9	**1**	*00*		12,9		2,3	**2,4**	*0,0*			
ns	%	**%**	*9*	9,3 %	%	*0,90*	%	**%**	*021*	2,0 %	2,8 %	*0,31*
		12,	*0,*									
	12,5	**4**	*00*	11,0	13,8		7,7	**7,7**	*0,0*			
Greeks	%	**%**	*7*	%	%	-	%	**%**	*046*	6,8 %	8,6 %	-
Third		**20,**	*0,*									
countrie	20,4	**4**	*02*	14,7	26,2		5,9	**7,7**	*0,0*			
s	%	**%**	*9*	%	%	*1,65*	%	**%**	*076*	6,2 %	9,2 %	*1,00*
Stomach or digestion problem												
			0,					**5,5**				
Albania	3,5	**5,3**	*00*				5,40	**0**	*0,0*	4,50	6,40	
ns	%	**%**	*4*	4,4 %	6,1 %	*0,43*	%	**%**	*048*	%	%	*0,83*
		12,	*0,*					**6,6**				
	12,1	**2**	*00*	10,8	13,5		6,60	**0**	*0,0*	5,80	7,40	
Greeks	%	**%**	*7*	%	%	-	%	**%**	*039*	%	%	-

Third countries	6,1 %	**6,1 %**	*0,009*	4,4 %	7,9 %	*0,50*	4,90 %	**5,30 %**	*0,053*	4,30 %	6,40 %	*0,80*
Skin problem												
Albanians	2,1 %	**1,4 %**	*0,001*	1,2 %	1,6 %	*0,42*	0,00 %	**0,00 %**	*0,000*	0,00 %	0,00 %	-
Greeks	3,3 %	**3,3 %**	*0,002*	2,9 %	3,7 %	-	2,10 %	**2,10 %**	*0,012*	1,90 %	2,30 %	-
Third countries	4,1 %	**4,1 %**	*0,006*	2,9 %	5,2 %	*1,24*	1,00 %	**0,70 %**	*0,007*	0,60 %	0,90 %	*0,33*
Severe headaches												
Albanians	7,0 %	**8,3 %**	*0,007*	7,0 %	9,7 %	*0,63*	3,10 %	**3,20 %**	*0,028*	2,70 %	3,80 %	*0,76*
Greeks	13,1 %	**13,2 %**	*0,008*	11,7 %	14,6 %	-	4,20 %	**4,20 %**	*0,025*	3,70 %	4,70 %	-
Third countries	6,1 %	**6,1 %**	*0,009*	4,4 %	7,9 %	*0,46*	2,00 %	**2,60 %**	*0,025*	2,10 %	3,10 %	*0,62*

Table ASR3. Summary of NCDs. Prevalences in %.

	F crude	**F adj**	**F SE**	**F 95% CI-**	**F 95% CI+**	**Rate/Greeks**	**M crude**	**M adj**	**M SE**	**M 95% CI-**	**M 95% CI+**	**Rate/ Greeks**
Self-reported conditions: 0												
Albanians	74,5 %	**68,4 %**	*0,058*	57,1 %	79,7 %	*1,37*	79,2 %	**78,5 %**	*0,689*	65,0 %	92,0 %	*1,29*
Greeks	49,7 %	**49,8 %**	*0,028*	44,2 %	55,4 %	-	61,3 %	**61,0 %**	*0,360*	53,9 %	68,0 %	-
Third countries	43,8 %	**44,1 %**	*0,064*	31,6 %	56,5 %	*0,89*	64,7 %	**61,6 %**	*0,610*	49,7 %	73,6 %	*1,01*
Self-reported conditions: 1												
Albanians	10,7 %	**12,4 %**	*0,010*	10,3 %	14,4 %	*0,49*	16,2 %	**16,6 %**	*0,145*	13,7 %	19,4 %	*0,66*
Greeks	25,2 %	**25,2 %**	*0,014*	22,4 %	28,1 %	-	25,0 %	**25,3 %**	*0,149*	22,4 %	28,2 %	-
Third countries	22,4 %	**22,4 %**	*0,032*	16,2 %	28,7 %	*0,89*	32,0 %	**35,4 %**	*0,349*	28,6 %	42,2 %	*1,40*

Self-reported conditions: 2+												
Albanians	14,2 %	**18,5 %**	*0,01*	15,4 %	21,5 %	*0,74*	4,6 %	**4,9 %**	*0,0043*	4,1 %	5,8 %	*0,36*
Greeks	25,2 %	**25,1 %**	*0,01*	22,3 %	28,0 %	-	13,6 %	**13,7 %**	*0,0081*	12,1 %	15,3 %	-
Third countries	34,7 %	**34,7 %**	*0,050*	25,0 %	44,5 %	*1,38*	3,0 %	**2,8 %**	*0,0028*	2,3 %	3,4 %	*0,20*

Table ASR4.Cancer. Prevalences in %.

	F crude	**F adj**	**F SE**	**F 95% CI-**	**F 95% CI+**	**Rate/Greeks**	**M crude**	**M adj**	**M SE**	**M 95% CI-**	**M 95% CI+**	**Rate/ Greeks**
Cancer present												
Albanians	0,0 %	**0,0 %**	*0,00*	0,0 %	0,0 %	*N/A*	0,8 %	**0,8 %**	*0,007*	0,7 %	1,0 %	*1,14*
Greeks	2,6 %	**2,6 %**	*0,01*	2,3 %	2,9 %	-	0,7 %	**0,7 %**	*0,004*	0,6 %	0,8 %	-
Third countries	2,0 %	**2,0 %**	*0,03*	1,5 %	2,6 %	*0,77*	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	*N/A*
Cancer previous												
Albanians	0,7 %	**1,2 %**	*0,01*	1,0 %	1,4 %	*0,41*	0,8 %	**0,8 %**	*0,007*	0,7 %	1,0 %	*N/A*
Greeks	3,0 %	**2,9 %**	*0,02*	2,6 %	3,2 %	-	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	-
Third countries	2,1 %	**2,1 %**	*0,03*	1,5 %	2,7 %	*0,72*	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	*N/A*

Table ASR5. Health care use. Prevalences in %.

	F crude	**F adj**	*F SE*	F 95% CI-	F 95% CI+	*Rate/Greeks*	M crude	**M adj**	*M SE*	M 95% CI-	M 95% CI+	*Rate/ Greeks*
GP visit												
Albanians	10,8 %	**12,4 %**	*0,011*	10,3 %	14,5 %	*0,78*	11,0 %	**10,6 %**	*0,094*	8,7 %	12,4 %	*0,88*
Greeks	15,8 %	**15,8 %**	*0,009*	14,0 %	17,5 %	-	12,1 %	**12,1 %**	*0,071*	10,7 %	13,5 %	-
Third countries	8,2 %	**8,2 %**	*0,012*	5,9 %	10,5 %	*0,52*	9,8 %	**9,2 %**	*0,091*	7,4 %	10,9 %	*0,76*
Specialist visit												
Albanians	38,3 %	**42,2 %**	*0,036*	35,3 %	49,2 %	*0,74*	34,4 %	**34,3 %**	*0,303*	28,4 %	40,3 %	*0,91*
Greeks	56,9 %	**57,0 %**	*0,033*	50,6 %	63,4 %	-	37,4 %	**37,6 %**	*0,221*	33,2 %	41,9 %	-
Third countries	51,0 %	**51,0 %**	*0,073*	36,7 %	65,3 %	*0,89*	31,7 %	**31,8 %**	*0,311*	25,6 %	37,9 %	*0,85*
Use of alternative treatments												
Albanians	1,4 %	**1,0 %**	*0,001*	0,8 %	1,1 %	*0,08*	2,3 %	**2,4 %**	*0,021*	2,0 %	2,8 %	*0,29*
Greeks	13,1 %	**13,1 %**	*0,007*	11,6 %	14,5 %	-	8,3 %	**8,3 %**	*0,049*	7,4 %	9,3 %	-
Third countries	18,4 %	**18,4 %**	*0,026*	13,2 %	23,5 %	*1,40*	3,9 %	**4,6 %**	*0,046*	3,7 %	5,5 %	*0,55*
No medical visit												
Albanians	52,1 %	**47,3 %**	*0,040*	39,4 %	55,1 %	*1,50*	55,1 %	**55,7 %**	*0,494*	46,0 %	65,4 %	*1,08*
Greeks	31,6 %	**31,6 %**	*0,018*	28,0 %	35,1 %	-	51,9 %	**51,7 %**	*0,304*	45,7 %	57,7 %	-
Third countries	42,9 %	**42,8 %**	*0,061*	30,8 %	54,8 %	*1,35*	57,8 %	**58,4 %**	*0,579*	47,1 %	69,8 %	*1,13*

Table ASR6. Unmet need. Prevalences in %.

	F crude	**F adj**	***F SE***	**F 95% CI-**	**F 95% CI+**	***Rate/Greeks***	**M crude**	**M adj**	**M SE**	**M 95% CI-**	**M 95% CI+**	**Rate/Greeks**
Unmet need												
Albanians	22,9 %	**24,2 %**	*0,020*	20,2 %	28,2 %	*0,88*	17,8 %	**17,9 %**	0,0 158	14,8 %	21,0 %	1,22
Greeks	27,5 %	**27,5 %**	*0,016*	24,4 %	30,6 %	-	14,6 %	**14,7 %**	0,0 087	13,0 %	16,4 %	-
Third countries	32,7 %	**32,6 %**	*0,047*	23,5 %	41,8 %	*1,19*	18,6 %	**18,1 %**	0,0 179	14,6 %	21,6 %	1,23
Unmet need: Could not pay												
Albanians	10,0 %	**10,4 %**	*0,009*	8,7 %	12,1 %	*0,99*	7,7 %	**7,8 %**	0,0 069	6,5 %	9,2 %	1,11
Greeks	10,5 %	**10,5 %**	*0,006*	9,3 %	11,7 %	-	6,9 %	**7,0 %**	0,0 041	6,2 %	7,8 %	-
Third countries	12,2 %	**12,3 %**	*0,018*	8,8 %	15,7 %	*1,17*	9,7 %	**10,1 %**	0,0 099	8,1 %	12,0 %	1,44
Unmet need: Could not take time off work												
Albanians	1,4 %	**1,7 %**	*0,001*	1,4 %	2,0 %	*1,31*	1,6 %	**1,4 %**	0,0 013	1,2 %	1,7 %	2,00
Greeks	1,3 %	**1,3 %**	*0,001*	1,2 %	1,5 %	-	0,7 %	**0,7 %**	0,0 004	0,6 %	0,8 %	-
Third countries	4,1 %	**4,1 %**	*0,006*	2,9 %	5,2 %	*3,15*	1,9 %	**1,5 %**	0,0 015	1,2 %	1,8 %	2,14
Unmet need: no appointments available												
Albanians	6,4 %	**7,2 %**	*0,006*	6,0 %	8,4 %	*0,89*	5,4 %	**5,3 %**	0,0 047	4,4 %	6,3 %	1,18
Greeks	8,2 %	**8,1 %**	*0,005*	7,2 %	9,0 %	-	4,5 %	**4,5 %**	0,0 027	4,0 %	5,0 %	-
Third countries	2,0 %	**2,0 %**	*0,003*	1,5 %	2,6 %	*0,25*	5,8 %	**4,6 %**	0,0 045	3,7 %	5,4 %	1,02
Unmet need: not available where you live												
Albanians	0,7 %	**0,5 %**	*0,000*	0,4 %	0,5 %	*N/A*	0,0 %	**0,0 %**	0,0 000	0,0 %	0,0 %	*N/A*
Greeks	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	-	1,0 %	**1,0 %**	0,0 006	0,9 %	1,2 %	-
Third countries	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	*N/A*	1,0 %	**0,8 %**	0,0 007	0,6 %	0,9 %	0,80

Unmet need: Other commitments												
Albania	2,9	**1,9**	*0,0*				0,8	**0,7**	0,0			
ns	%	**%**	*02*	1,6 %	2,2 %	*0,83*	%	**%**	006	0,6 %	0,8 %	1,00
	2,3	**2,3**	*0,0*				0,7	**0,7**	0,0			
Greeks	%	**%**	*01*	2,1 %	2,6 %	-	%	**%**	004	0,6 %	0,8 %	-
Third												
countrie	8,2	**8,1**	*0,0*		10,4		1,0	**1,3**	0,0			
s	%	**%**	*12*	5,9 %	%	*3,52*	%	**%**	012	1,0 %	1,5 %	1,86
Unmet need: Waiting list too long												
Albania	7,9	**8,2**	*0,0*				7,0	**7,0**	0,0			
ns	%	**%**	*07*	6,8 %	9,6 %	*0,76*	%	**%**	062	5,8 %	8,3 %	1,13
	10,8	**10,**	*0,0*		12,0		6,3	**6,2**	0,0			
Greeks	%	**8 %**	*06*	9,6 %	%	-	%	**%**	037	5,5 %	7,0 %	-
Third												
countrie	8,2	**8,2**	*0,0*		10,5		3,9	**4,1**	0,0			
s	%	**%**	*12*	5,9 %	%	*0,76*	%	**%**	040	3,3 %	4,8 %	0,66

Table ASR7. Risk behaviours. Prevalences in %.

	F crude	**F adj**	***F SE***	**F 95% CI-**	**F 95% CI+**	***Rate/Greeks***	**M crude**	**M adj**	***M SE***	**M 95% CI-**	**M 95% CI+**	***Rate/Greeks***
Smoking at present												
Albanians	18,3 %	**16,5 %**	*0,014*	13,8 %	19,2 %	*0,39*	40,0 %	**39,7 %**	*0,034*	32,9 %	46,5 %	*0,93*
Greeks	42,6 %	**42,6 %**	*0,024*	37,8 %	47,4 %	-	42,9 %	**42,8 %**	*0,025*	37,9 %	47,7 %	-
Third countries	29,2 %	**29,3 %**	*0,042*	21,0 %	37,6 %	*0,69*	34,0 %	**34,5 %**	*0,034*	27,8 %	41,2 %	*0,81*
Smoking previously												
Albanians	23,5 %	**29,6 %**	*0,051*	19,6 %	39,5 %	*1,23*	30,7 %	**31,2 %**	*0,036*	24,2 %	38,3 %	*0,88*
Greeks	24,0 %	**24,0 %**	*0,018*	20,4 %	27,5 %	-	35,8 %	**35,6 %**	*0,025*	30,6 %	40,7 %	-
Third countries	12,5 %	**12,9 %**	*0,032*	6,6 %	19,2 %	*0,54*	25,5 %	**26,1 %**	*0,038*	18,7 %	33,6 %	*0,73*
Smokes more than 20 cigarettes per day (among smokers)												
Albanians	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	*N/A*	15,7 %	**16,5 %**	*0,023*	12,0 %	21,0 %	*0,65*
Greeks	15,4 %	**15,4 %**	*0,013*	12,7 %	18,0 %	-	24,2 %	**25,2 %**	*0,022*	20,8 %	29,7 %	-
Third countries	14,3 %	**18,4 %**	*0,049*	8,8 %	28,1 %	*1,19*	9,1 %	**8,7 %**	*0,015*	5,7 %	11,6 %	*0,35*
Drinking daily or several times a week												
Albanians	3,6 %	**3,1 %**	*0,003*	2,6 %	3,6 %	*0,25*	25,4 %	**26,1 %**	*0,022*	21,6 %	30,6 %	*0,98*
Greeks	12,5 %	**12,5 %**	*0,007*	11,1 %	13,9 %	-	26,6 %	**26,7 %**	*0,015*	23,6 %	29,7 %	-
Third countries	2,0 %	**2,0 %**	*0,003*	1,5 %	2,6 %	*0,16*	4,9 %	**5,3 %**	*0,052*	4,3 %	6,3 %	*0,20*
Binge drinking weekly/daily												

			0,					**20,**	*0,0*			
Albanian	0,0	**0,0**	*00*				18,8	**9**	*23*	16,4	25,5	
s	%	**%**	*0*	0,0 %	0,0 %	*N/A*	%	**%**	*4*	%	%	*2,07*
			0,					**10,**	*0,0*			
	6,3	**6,0**	*00*				10,1	**1**	*07*		11,5	
Greeks	%	**%**	*5*	5,0 %	7,0 %	-	%	**%**	*1*	8,7 %	%	-
			0,					**18,**	*0,0*			
Third	8,3	**7,9**	*02*		12,4		18,8	**1**	*45*		27,0	
countries	%	**%**	*3*	3,4 %	%	*1,32*	%	**%**	*2*	9,2 %	%	*1,79*
Physical activity 0-2 days week												
			0,					**37,**	*0,0*			
Albanian	28,4	**32,7**	*02*	27,3	38,1		36,9	**2**	*32*	30,8	43,6	
s	%	**%**	*8*	%	%	*0,80*	%	**%**	*7*	%	%	*0,89*
			0,					**41,**	*0,0*			
	40,9	**40,8**	*02*	36,2	45,4		41,6	**8**	*24*	37,0	46,7	
Greeks	%	**%**	*3*	%	%	-	%	**%**	*7*	%	%	-
			0,					**26,**	*0,0*			
Third	35,4	**35,4**	*05*	25,4	45,4		23,8	**2**	*26*	21,1	31,3	
countries	%	**%**	*1*	%	%	*0,87*	%	**%**	*1*	%	%	*0,63*
Physical activity 3-4 days week												
			0,					**12,**	*0,0*			
Albanian	17,0	**15,7**	*01*	13,1	18,3		12,3	**0**	*10*		14,0	
s	%	**%**	*3*	%	%	*0,82*	%	**%**	*5*	9,9 %	%	*0,61*
			0,					**19,**	*0,0*			
	19,1	**19,1**	*01*	17,0	21,3		19,9	**8**	*11*	17,5	22,1	
Greeks	%	**%**	*1*	%	%	-	%	**%**	*7*	%	%	-
			0,					**14,**	*0,0*			
Third	16,7	**16,7**	*02*	12,0	21,4		15,8	**4**	*14*	11,6	17,2	
countries	%	**%**	*4*	%	%	*0,87*	%	**%**	*3*	%	%	*0,73*
Physical activity 5-7 days week												
			0,					**49,**	*0,0*			
Albanian	54,2	**51,3**	*04*	42,9	59,8		50,0	**9**	*43*	41,3	58,5	
s	%	**%**	*3*	%	%	*1,29*	%	**%**	*8*	%	%	*1,30*
			0,					**38,**	*0,0*			
	39,7	**39,8**	*02*	35,3	44,3		38,5	**3**	*22*	33,9	42,8	
Greeks	%	**%**	*3*	%	%	-	%	**%**	*7*	%	%	-
			0,					**58,**	*0,0*			
Third	50,0	**50,0**	*07*	35,8	64,1		59,8	**7**	*58*	47,3	70,1	
countries	%	**%**	*2*	%	%	*1,26*	%	**%**	*1*	%	%	*1,53*

Table ASR8. Social determinants of health. Prevalences in %.

	F crude	**F adj**	***F SE***	**F 95% CI-**	**F 95% CI+**	***Rate/Greeks***	**M crude**	**M adj**	***M SE***	**M 95% CI-**	**M 95% CI+**	***Rate/ Greeks***
Any ergonomic hazard												
Albanians	62,2 %	**63,3 %**	*0,064*	50,8 %	75,8 %	*1,80*	88,4 %	**88,2 %**	*0,080*	72,5 %	103,9 %	*1,89*
Greeks	35,2 %	**35,1 %**	*0,022*	30,8 %	39,4 %	-	46,6 %	**46,6 %**	*0,028*	41,0 %	52,2 %	-
Third countries	65,0 %	**65,5 %**	*0,103*	45,2 %	85,7 %	*1,87*	78,6 %	**78,8 %**	*0,077*	63,6 %	94,1 %	*1,69*
Any material hazard												
Albanians	44,9 %	**49,3 %**	*0,050*	39,5 %	59,0 %	*1,68*	87,7 %	**87,6 %**	*0,079*	72,1 %	103,2 %	*1,81*
Greeks	29,3 %	**29,3 %**	*0,018*	25,7 %	32,9 %	-	48,7 %	**48,4 %**	*0,029*	42,6 %	54,3 %	-
Third countries	41,5 %	**41,4 %**	*0,065*	28,8 %	54,1 %	*1,41*	76,0 %	**75,7 %**	*0,075*	60,8 %	90,5 %	*1,56*
Often/always conflict in family growing up												
Albanians	1,4 %	**2,5 %**	*0,002*	2,1 %	2,9 %	*0,30*	4,8 %	**4,8 %**	*0,004*	3,9 %	5,6 %	*0,57*
Greeks	8,4 %	**8,4 %**	*0,005*	7,5 %	9,4 %	-	8,4 %	**8,4 %**	*0,005*	7,4 %	9,4 %	-
Third countries	8,3 %	**8,3 %**	*0,012*	6,0 %	10,7 %	*0,99*	8,8 %	**9,5 %**	*0,009*	7,6 %	11,3 %	*1,13*
Often/always economic hardship in family growing up												
Albanians	38,6 %	**36,8 %**	*0,031*	30,7 %	42,9 %	*1,55*	44,1 %	**43,3 %**	*0,038*	35,8 %	50,8 %	*1,87*
Greeks	23,7 %	**23,7 %**	*0,014*	21,0 %	26,4 %	-	23,0 %	**23,1 %**	*0,013*	20,4 %	25,8 %	-
Third countries	32,7 %	**32,6 %**	*0,047*	23,5 %	41,8 %	*1,38*	50,0 %	**47,1 %**	*0,046*	38,0 %	56,2 %	*2,04*
Any unpaid care												

								17,	*0,0*			
Albanians	7,8 %	**8,8 %**	*0,07*	7,4 %	10,3 %	*0,42*	17,7 %	**0 %**	*14 9*	14,1 %	19,9 %	*1,28*
								13,	*0,0*			
Greeks	21,3 %	**21,2 %**	*0,12*	18,8 %	23,6 %	-	13,2 %	**3 %**	*07 8*	11,8 %	14,8 %	-
Third countries	10,2 %	**10,2 %**	*0,15*	7,4 %	13,1 %	*0,48*	5,8 %	**5,5 %**	*0,05 4*	4,4 %	6,6 %	*0,41*
Unpaid care over 10 hrs week												
								46,	*0,1*			
Albanians	57,1 %	**57,5 %**	*0,217*	14,9 %	100,0 %	*1,11*	47,6 %	**1 %**	*00 5*	26,4 %	65,8 %	*1,22*
								37,	*0,0*			
Greeks	54,1 %	**51,7 %**	*0,066*	38,7 %	64,7 %	-	40,5 %	**9 %**	*62 4*	25,7 %	50,2 %	-
Third countries	-	**-**	-	-	-	*N/A*	0,0 %	**0,0 %**	*0,00 0*	0,0 %	0,0 %	*N/A*

Table AS9.Risk behaviours (mean units of alcohol)

	F mean	**F N**	***F SD***	**F 95% CI-**	**F 95% CI+**	***Rate/Greeks***	**M mean**	**M N**	***M SD***	**M 95% CI-**	**M 95% CI+**	***Rate/Greeks***
Units of alcohol, last time drinking on a weekday												
Albanian	**4,7**	36	*4,2*	3,3	6,1	*0,94*	**8,3**	81	*10,2*	6,0	10,5	*1,30*
Greeks	**5,0**	178	*7,3*	3,9	6,0	-	**6,4**	247	*7,9*	5,4	7,3	-
Third countries	**2,5**	15	*1,9*	1,5	3,5	*0,51*	**4,2**	25	*6,2*	1,7	6,6	*0,66*
Units of alcohol, last time drinking on a weekend												
Albanian	**4,1**	60	*3,7*	3,1	5,0	*0,81*	**8,8**	100	*10,0*	6,9	10,8	*1,24*
Greeks	**5,0**	246	*7,2*	4,1	5,9	-	**7,1**	293	*8,0*	6,2	8,0	-
Third countries	**2,2**	22	*1,2*	1,7	2,7	*0,44*	**6,9**	35	*9,0*	4,0	9,9	*0,97*

Table ASR10. Greek National Health Survey items. Prevalences in %.

	F crude	**F adj**	***F SE***	**F 95% CI-**	**F 95% CI+**	***Rate/Greeks***	**M crude**	**M adj**	***M SE***	**M 95% CI-**	**M 95% CI+**	***Rate/ Greeks***
Hearing problems												
Albanians	1,4 %	**2,5 %**	*0,02*	2,0 %	2,9 %	*0,83*	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	*N/A*
Greeks	3,0 %	**3,0 %**	*0,02*	2,6 %	3,3 %	-	0,7 %	**0,7 %**	*0,004*	0,6 %	0,8 %	-
Third countries	0,0 %	**0,0 %**	*0,00*	0,0 %	0,0 %	*N/A*	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	*N/A*
Problems walking 500m												
Albanians	5,7 %	**5,2 %**	*0,04*	4,4 %	6,1 %	*0,63*	7,7 %	**8,0 %**	*0,070*	6,6 %	9,4 %	*1,51*
Greeks	8,3 %	**8,3 %**	*0,05*	7,3 %	9,2 %	-	5,2 %	**5,3 %**	*0,031*	4,7 %	5,9 %	-
Third countries	12,5 %	**12,7 %**	*0,018*	9,1 %	16,4 %	*1,53*	3,9 %	**4,7 %**	*0,046*	3,8 %	5,6 %	*0,89*
Use hearing aids												
Albanians	0,0 %	**0,0 %**	*0,00*	0,0 %	0,0 %	*N/A*	-	**-**	-	-	-	
Greeks	0,7 %	**0,6 %**	*0,00*	0,6 %	0,7 %	-	-	**-**	-	-	-	

Third countries	0,0 %	**0,0 %**	*0,000*	0,0 %	0,0 %	*N/A*	-	**-**	-	-	-	
Use visual aids												
Albanians	20,7 %	**27,3 %**	*0,023*	22,8 %	31,8 %	*0,56*	13,1 %	**14,0 %**	*0,0122*	11,6 %	16,4 %	*0,37*
Greeks	49,2 %	**49,0 %**	*0,028*	43,5 %	54,5 %	-	37,5 %	**38,0 %**	*0,0224*	33,6 %	42,3 %	-
Third countries	36,7 %	**36,8 %**	*0,053*	26,5 %	47,1 %	*0,75*	21,4 %	**25,0 %**	*0,02*	20,2 %	29,9 %	*0,66*
Vision problems												
Albanians	4,3 %	**5,0 %**	*0,004*	4,2 %	5,8 %	*0,79*	2,3 %	**2,5 %**	*0,0022*	2,1 %	3,0 %	*0,54*
Greeks	6,3 %	**6,3 %**	*0,004*	5,5 %	7,0 %	-	4,5 %	**4,6 %**	*0,0027*	4,1 %	5,2 %	-
Third countries	2,0 %	**2,0 %**	*0,003*	1,5 %	2,6 %	*0,32*	2,0 %	**2,6 %**	*0,025*	2,1 %	3,1 %	*0,57*

Table ASR11. Barriers to access. Prevalences in %.

Problems using health services	**F crude**	**F adj**	***F SE***	**F 95% CI-**	**F 95% CI+**	***Rate/Greeks***	**M crude**	**M adj**	**M SE**	**M 95% CI-**	**M 95% CI+**	***Rate/ Greeks***
Different culture or beliefs												
Albanians	0,0 %	**0,0 %**	*0,00*	0,0 %	0,0 %	*N/A*	-	**-**	-	-	-	-
Greeks	0,7 %	**0,6 %**	*0,00*	0,6 %	0,7 %	-	-	**-**	-	-	-	-
Third countries	2,0 %	**2,0 %**	*0,03*	1,5 %	2,6 %	*3,33*	-	**-**	-	-	-	-
Discrimination												
Albanians	0,0 %	**0,0 %**	*0,00*	0,0 %	0,0 %	*N/A*	0,0 %	**0,0 %**	0,0000	0,0 %	0,0 %	-
Greeks	0,7 %	**0,6 %**	*0,00*	0,6 %	0,7 %	-	0,3 %	**0,4 %**	0,0002	0,3 %	0,4 %	-
Third countries	4,1 %	**4,1 %**	*0,06*	2,9 %	5,2 %	*6,83*	8,7 %	**7,2 %**	0,0071	5,8 %	8,6 %	*18,00*
Language problems (translation and interpretation)												
Albanians	1,4 %	**2,4 %**	*0,02*	2,0 %	2,8 %	*N/A*	0,8 %	**0,7 %**	0,0006	0,6 %	0,8 %	*0,64*
Greeks	0,0 %	**0,0 %**	*0,00*	0,0 %	0,0 %	-	1,0 %	**1,1 %**	0,0006	0,9 %	1,2 %	-
Third countries	0,0 %	**0,0 %**	*0,00*	0,0 %	0,0 %	*N/A*	1,9 %	**2,0 %**	0,0020	1,6 %	2,4 %	*1,82*
None												
Albanians	91,4 %	**90,6 %**	*0,77*	75,6 %	105,6 %	*1,07*	84,6 %	**85,1 %**	0,0746	70,5 %	99,7 %	*1,01*
Greeks	84,3 %	**84,3 %**	*0,48*	74,8 %	93,8 %	-	84,5 %	**84,4 %**	0,0496	74,7 %	94,2 %	-
Third countries	93,8 %	**93,9 %**	*0,135*	67,3 %	120,4 %	*1,11*	77,7 %	**79,1 %**	0,0779	63,8 %	94,3 %	*0,94*
Poor quality of services or care												
Albanians	7,1 %	**6,9 %**	*0,06*	5,8 %	8,0 %	*0,45*	10,1 %	**9,8 %**	0,0087	8,1 %	11,5 %	*0,75*
Greeks	15,4 %	**15,4 %**	*0,09*	13,6 %	17,1 %	-	13,1 %	**13,1 %**	0,0077	11,6 %	14,7 %	-

Third countries	0,0 %	**0,0 %**	*0,00*	0,0 %	0,0 %	*N/A*	2,9 %	**3,8 %**	0,0037	3,0 %	4,5 %	*0,29*

Chapter 5: Discrimination in health care

Discrimination in MIGHEAL is measured at both the group level and the individual level. To contextualize perceived discrimination in health care, there is first a brief presentation of discrimination at the group level.

5.1. Group level discrimination

These items were taken from the European Social Survey. Respondents were asked: 'Would you describe yourself as being a member of a group that is discriminated against in this country?. Those who answered yes, were asked the follow-up question: 'On what grounds is your group discriminated against?, and the categories were: colour or race, nationality, religion, language, ethnic group, age, gender, sexuality, and disability. We report the percentage of respondents who indicate that they belong in a discriminated group.

5.1.1. Results on group level discrimination

The distribution of these items among Greeks, Albanians and third country citizens are given in the graphs (figure C1) below, split by gender. Tables (ASR12) with the results are found at the end of this chapter. All estimates are age standardized.

A noteworthy result is that 6 to 8 % of Greek citizens report being part of a group that is discriminated against. This can be seen as a baseline level to compare the immigrant groups against. We can note that discrimination due to nationality is the most common reason given, for Albanians of both genders, followed by third country citizens, all in the 30%-50% range. In the case of Greece there is a close linkage between ethnic and religious identity. The idea of the Nation as it was perceived in the 19th century, when the Modern Greek State was established, was based on the Greek Orthodox identity (Stathopoulou 2010, Stathopoulou 2007). The notion "Greekness" was defined as an amalgamate of belief in common ancestry, cultural traditions and religion (Triandafyllidou & Gropas 2009). Furthermore, the transformation of Greece

into a migrant receiving country in the 1990s has challenged perceptions of homogeneity in Greek society emphasizing the ethnic and cultural features of national identity (Triandafyllidou 2007). In this context, it should not come as a surprise that nationality is prominent as a major source and concern for discrimination.

Being member of a group that is subjected to colour and racial discrimination is most common among third country citizens (10% F, 25% M). A little over 10% of third country males report being members of religious groups that are discriminated against, a data check revealed that this applies exclusively to Muslims. Albanians, even though typically Muslims for the most part, seem to embrace religion more as a marker of ethnic identity, rather than as a belief in the doctrines of a particular religious community. This behaviour is typical of Post-Communist citizens, but especially so of the special branch of communism witnessed in Hoxha's Albania. Hence, there exists a considerable gap between the large number of Albanians who choose to identify with religion and the few who attend religious services and adhere to religious norms (Elbasani 2015). As such, for the scope of this report, when we are referring to Muslim immigrants, we are mostly focusing on immigrants from Asian and African countries, in particular those from Pakistan and Bangladesh.

Language and ethnicity are given as reasons by around 5% of most immigrant groups, while the other reasons are marginal.

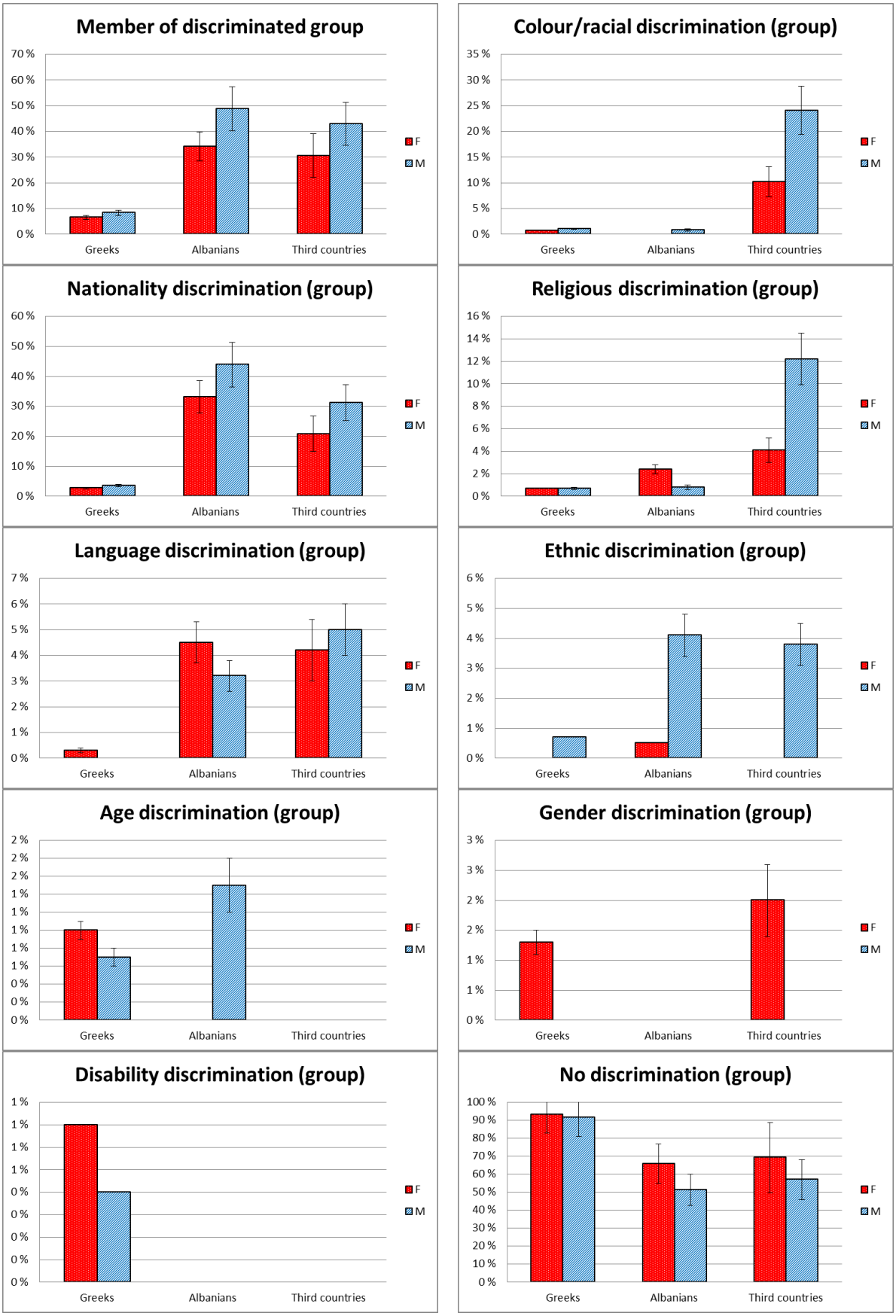


Figure C1. Perceptions of group level discrimination

5.2. Individual level discrimination

The important question is to what extent perceptions at the group level correspond with individual level experiences. Respondents who indicated being part of a group that was discriminated against were asked 'During the last 12 months, how often did you have a discrimination experience? Response categories were: all of the time, most of the time, some of the time, and rarely. Respondents who did not report being part of a discriminated group were coded as "never". Subsequently, respondents who reported being discriminated against some, most or all of the time were dichotomized and contrasted with respondents who reported rarely or never.

Additionally, respondents were asked to identify the places where discrimination occurred. The categories were: on the street, in a store, bank or restaurant, at work or when applying for a job or promotion, when dealing with the police or courts, in school or classes, when looking for a place to live or when renting or buying a home, when participating in sports/a sport organisation, when dealing with public hospitals or health care workers, and other places. These categories were not mutually exclusive.

5.2.1. Rates of individual level discrimination experiences

Prevalences of the proportion reporting discrimination experiences some, most or all of the time (i.e. frequently) during the past 12 months are given in the graphs below (figure C2), as well as the places where discrimination took place. Tables (ASR 13) with all the results are found at the end of this chapter. All estimates are age standardized.

The graphs must be read together as follows, using "the street" as an example: Around 20% of Albanian males reported frequent discrimination. 15% of Albanian males reported frequent discrimination on the street, compared to 8% in stores, banks or restaurants.

First of all, the pattern for individual level experiences follows the same pattern as for group level discrimination. The baseline individual level for Greeks is comparable to the group level, with around 5% of Greeks reporting discrimination experiences. Albanian males report most discrimination experiences, around 20%. Around 15% of Albanian females and third country citizens report frequent discrimination.

The most common place for discrimination is work related, where Albanians report 15%-20%, while third country citizens are in the 10% range. To further understand these findings, we need to consider the structural drivers of discrimination at the Greek workplace. Greece has a large informal economy sector that facilitates the persistence of undeclared work both for natives and immigrants. Given the high proportion of undocumented or irregular migrants in Greece and the large share of the informal economy, the most widespread challenges faced by migrants at the workplace are related to job insecurity and 'exploitation' by their employers. Being a non-EU citizen and hence somebody with an insecure legal status encourages discriminating practices on behalf of employers (Gropas & Triandafyllidou 2008). The enforcement of legislation to combat undeclared work has been in place for some time now, but its implementation has only partly curbed this widespread practice.

The next most common arenas for discrimination is housing related, where Albanian males report close to 20%, and other immigrant groups report in the 10% range, and the street, where immigrants report 10%-20% discrimination. Regarding discrimination in housing, there is evidence from the bibliography that Albanians face more difficult access to housing than Greeks. In particular, Albanians have lower access to newer apartments, above-ground apartments and repaired apartments, while Albanian home-seekers have to pay more than Greeks for these housing characteristics (Drydakis 2010).

Discrimination in health care is relatively rare. Around 2% of Greeks report discrimination in health care, which may be related to any group level discrimination. Around 4%-6% of all immigrants report frequent discrimination in health services.

Confidence intervals overlap for all immigrant groups, meaning that there is no significant difference between immigrant groups. Differences between Greeks and immigrant groups do not overlap, though. There is therefore evidence to suggest that immigrants report significantly higher discrimination than Greeks, although the differences appear to be rather small in absolute terms.

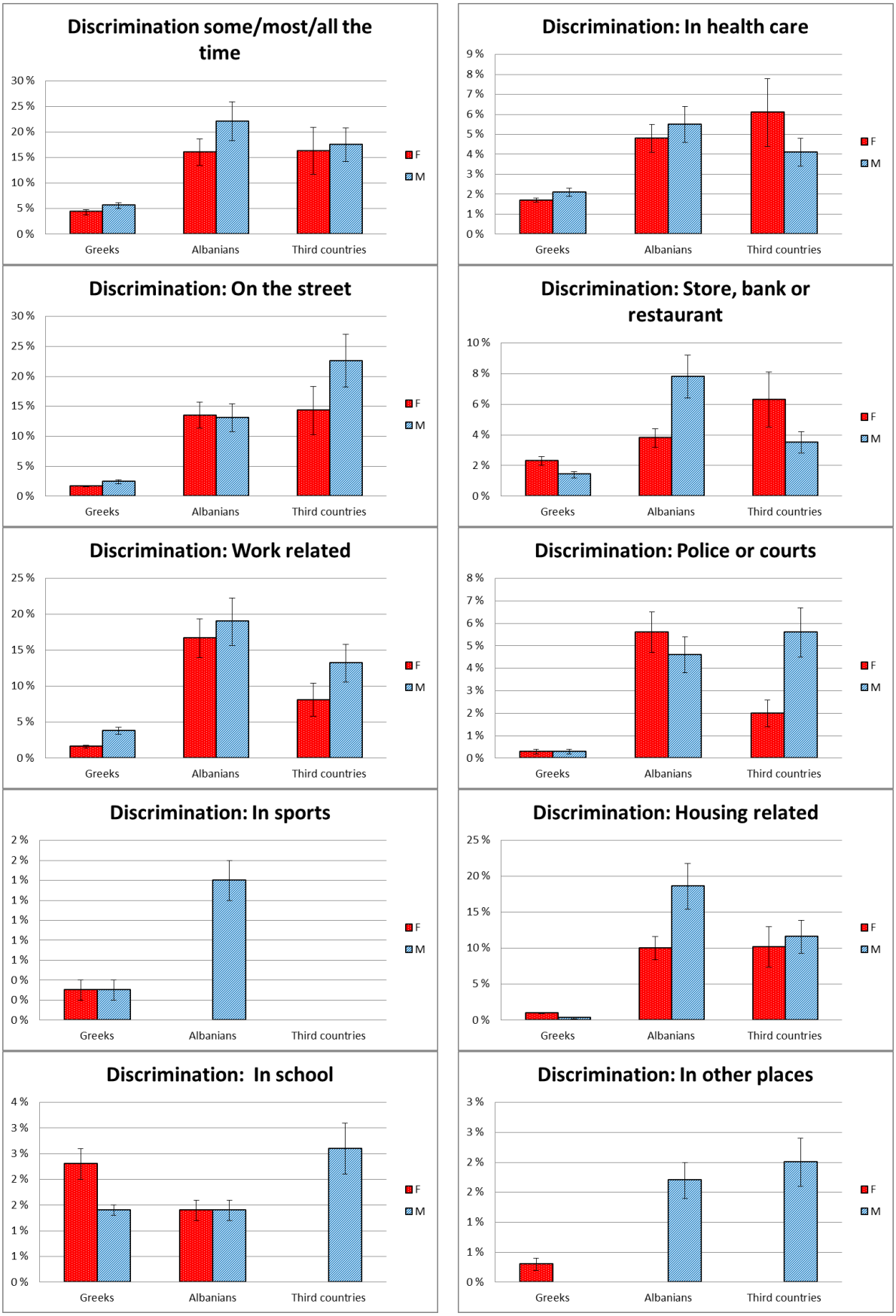


Figure C2. Perceptions of individual level discrimination.

Tables: Group level discrimination

Table ASR12. Perception of group level discrimination among Greeks and immigrant groups. Prevalences in %.

	M crude	*M adjusted*	*M SE*	*M 95% CI-*	*M 95% CI+*	*F crude*	*F adjusted*	*F SE*	*F 95% CI-*	*F 95% CI+*
Discriminated group										
Greeks	8,3 %	8,3 %	0,0049	7,4 %	9,3 %	6,6 %	6,6 %	0,0038	5,9 %	7,4 %
Albanians	48,8 %	48,8 %	0,0430	40,4 %	57,3 %	35,7 %	34,1 %	0,0288	28,5 %	39,8 %
Third countries	41,2 %	42,9 %	0,0424	34,5 %	51,2 %	30,6 %	30,6 %	0,0437	22,0 %	39,1 %
Colour/racial (group)										
Greeks	1,0 %	1,0 %	0,0006	0,9 %	1,1 %	0,7 %	0,7 %	0,0004	0,6 %	0,7 %
Albanians	0,8 %	0,8 %	0,0007	0,7 %	1,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Third countries	23,3 %	24,1 %	0,0238	19,5 %	28,8 %	10,2 %	10,2 %	0,0146	7,3 %	13,1 %
Nationality (group)										
Greeks	3,4 %	3,5 %	0,0020	3,1 %	3,9 %	2,6 %	2,7 %	0,0015	2,4 %	3,0 %
Albanians	43,8 %	43,9 %	0,0385	36,3 %	51,4 %	34,5 %	33,1 %	0,0278	27,7 %	38,5 %
Third countries	29,8 %	31,2 %	0,0306	25,2 %	37,2 %	20,8 %	20,8 %	0,0300	14,9 %	26,7 %
Religious (group)										
Greeks	0,7 %	0,7 %	0,0004	0,6 %	0,8 %	0,7 %	0,7 %	0,0004	0,6 %	0,7 %
Albanians	0,8 %	0,8 %	0,0007	0,7 %	1,0 %	1,4 %	2,4 %	0,0020	2,0 %	2,8 %
Third countries	11,7 %	12,2 %	0,0120	9,8 %	14,5 %	4,1 %	4,1 %	0,0058	2,9 %	5,2 %
Language (group)										
Greeks	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	0,3 %	0,3 %	0,0002	0,3 %	0,4 %
Albanians	3,1 %	3,2 %	0,0028	2,7 %	3,8 %	3,5 %	4,5 %	0,0038	3,8 %	5,3 %
Third countries	3,9 %	5,0 %	0,0049	4,0 %	6,0 %	4,2 %	4,2 %	0,0060	3,0 %	5,4 %
Ethnic (group)										
Greeks	0,7 %	0,7 %	0,0004	0,6 %	0,7 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Albanians	3,8 %	4,1 %	0,0036	3,4 %	4,8 %	0,7 %	0,5 %	0,0004	0,4 %	0,5 %
Third countries	2,9 %	3,8 %	0,0037	3,0 %	4,5 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Age (group)										
Greeks	0,7 %	0,7 %	0,0004	0,6 %	0,8 %	1,0 %	1,0 %	0,0006	0,9 %	1,1 %
Albanians	1,5 %	1,5 %	0,0013	1,3 %	1,8 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Third countries	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Gender (group)										
Greeks	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	1,3 %	1,3 %	0,0008	1,2 %	1,5 %
Albanians	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Third countries	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	2,0 %	2,0 %	0,0029	1,5 %	2,6 %
Sexual (group)										
Greeks	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	1,6 %	1,7 %	0,0010	1,5 %	1,9 %
Albanians	0,8 %	0,8 %	0,0007	0,7 %	1,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Third countries	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	2,0 %	2,0 %	0,0029	1,5 %	2,6 %
Disability (group)										
Greeks	0,3 %	0,4 %	0,0002	0,3 %	0,4 %	0,7 %	0,7 %	0,0004	0,6 %	0,7 %
Albanians	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Third countries	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Other (group)										
Greeks	2,7 %	2,8 %	0,0016	2,5 %	3,1 %	0,3 %	0,3 %	0,0002	0,3 %	0,4 %
Albanians	1,6 %	1,4 %	0,0012	1,2 %	1,6 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Third countries	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Not applicable (group)										
Greeks	91,7 %	91,6 %	0,0539	81,0 %	102,1 %	93,4 %	93,3 %	0,0534	82,8 %	103,7 %
Albanians	51,5 %	51,4 %	0,0451	42,6 %	60,2 %	64,3 %	65,8 %	0,0556	54,9 %	76,7 %
Third countries	58,8 %	57,0 %	0,0565	46,0 %	68,1 %	69,4 %	69,3 %	0,0990	49,9 %	88,7 %

Tables: Individual level discrimination

Table ASR12. Perception of individual level discrimination among Greeks and immigrant groups. Prevalences in %.

	M crude	*M adjusted*	*M SE*	*M 95% CI-*	*M 95% CI+*	*F crude*	*F adjusted*	*F SE*	*F 95% CI-*	*F 95% CI+*
Discrimination some/most/all the time										
Greeks	5,6 %	5,6 %	0,0033	4,9 %	6,2 %	4,3 %	4,3 %	0,0025	3,8 %	4,8 %
Albanians	21,9 %	22,1 %	0,0195	18,3 %	25,9 %	19,7 %	16,0 %	0,0134	13,4 %	18,6 %
Third countries	17,3 %	17,5 %	0,0171	14,1 %	20,8 %	16,3 %	16,3 %	0,0233	11,8 %	20,9 %
On the street										
Greeks	2,4 %	2,4 %	0,0014	2,1 %	2,7 %	1,6 %	1,7 %	0,0010	1,5 %	1,8 %
Albanians	13,1 %	13,1 %	0,0115	10,9 %	15,4 %	12,7 %	13,5 %	0,0113	11,3 %	15,7 %
Third countries	21,4 %	22,6 %	0,0223	18,3 %	27,0 %	14,3 %	14,3 %	0,0204	10,3 %	18,3 %
Store, bank or restaurant										
Greeks	1,4 %	1,4 %	0,0008	1,2 %	1,6 %	2,3 %	2,3 %	0,0013	2,1 %	2,6 %
Albanians	7,7 %	7,8 %	0,0069	6,5 %	9,2 %	3,5 %	3,8 %	0,0032	3,2 %	4,4 %
Third countries	3,9 %	3,5 %	0,0035	2,8 %	4,2 %	6,3 %	6,3 %	0,0091	4,5 %	8,1 %
Work related										
Greeks	3,8 %	3,8 %	0,0023	3,4 %	4,3 %	1,6 %	1,6 %	0,0009	1,4 %	1,8 %
Albanians	18,6 %	19,0 %	0,0167	15,7 %	22,3 %	16,3 %	16,7 %	0,0140	13,9 %	19,4 %
Third countries	12,5 %	13,2 %	0,0130	10,7 %	15,8 %	8,2 %	8,1 %	0,0116	5,9 %	10,4 %
Police or courts										
Greeks	0,3 %	0,3 %	0,0002	0,3 %	0,4 %	0,3 %	0,3 %	0,0002	0,3 %	0,4 %
Albanians	4,6 %	4,6 %	0,0040	3,8 %	5,4 %	5,0 %	5,6 %	0,0047	4,6 %	6,5 %
Third countries	5,9 %	5,6 %	0,0055	4,5 %	6,7 %	2,0 %	2,0 %	0,0029	1,5 %	2,6 %
School										
Greeks	1,4 %	1,4 %	0,0008	1,2 %	1,5 %	2,3 %	2,3 %	0,0013	2,1 %	2,6 %
Albanians	1,5 %	1,4 %	0,0012	1,1 %	1,6 %	2,1 %	1,4 %	0,0012	1,2 %	1,6 %
Third countries	2,0 %	2,6 %	0,0025	2,1 %	3,1 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Housing										
Greeks	0,3 %	0,3 %	0,0002	0,3 %	0,4 %	1,0 %	1,0 %	0,0006	0,9 %	1,1 %
Albanians	18,5 %	18,6 %	0,0163	15,4 %	21,8 %	10,6 %	10,0 %	0,0084	8,3 %	11,6 %
Third countries	11,7 %	11,6 %	0,0115	9,4 %	13,9 %	10,2 %	10,2 %	0,0146	7,3 %	13,0 %
Sports										
Greeks	0,3 %	0,3 %	0,0002	0,3 %	0,4 %	0,3 %	0,3 %	0,0002	0,3 %	0,4 %
Albanians	1,6 %	1,4 %	0,0012	1,2 %	1,6 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Third countries	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Health care										
Greeks	2,1 %	2,1 %	0,0012	1,9 %	2,3 %	1,6 %	1,7 %	0,0010	1,5 %	1,8 %
Albanians	5,4 %	5,5 %	0,0048	4,5 %	6,4 %	5,0 %	4,8 %	0,0040	4,0 %	5,5 %
Third countries	3,9 %	4,1 %	0,0040	3,3 %	4,8 %	6,1 %	6,1 %	0,0087	4,4 %	7,8 %
Other places										
Greeks	0,0 %	0,0 %	0,0000	0,0 %	0,0 %	0,3 %	0,3 %	0,0002	0,3 %	0,4 %
Albanians	1,5 %	1,7 %	0,0015	1,4 %	2,0 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %
Third countries	1,9 %	2,0 %	0,0020	1,6 %	2,4 %	0,0 %	0,0 %	0,0000	0,0 %	0,0 %

Chapter 6: Comparison between MIGHEAL and ESS.

In this chapter, we compare MIGHEAL health data, adjusted for population size, with estimates from European Social Survey Round 7. The MIGHEAL questionnaire is modelled on the European Social Survey, round 7. In particular, the MIGHEAL survey uses items from the special rotating module on health inequalities. All the measurements taken from the health module have been coded in the same way in MIGHEAL, and here were present estimates from MIGHEAL that are designed to be as comparable as possible to ESS (Huijts et al., 2017ab).

Methods

In the following section we will outline the measurements used for population size estimates comparisons between MIGHEAL and the European Social Survey 7. Details, background and references to the ESS questionnaire can be found at the ESS website, www.europeansocialsurvey.org, and in the ESS Round 7 Question Module Design Template (European Social Survey 2015, Eikemo et al. 2016).

6.1. Differences between MIGHEAL and the European Social Survey Round 7

There are some important differences between the two surveys that need to be kept in mind. We will outline the main differences below.

Sample sizes

The ESS is designed to be a representative population sample. There are 21 countries, and each country has a sample size from 1224 to 3045, with a total of 40185 respondents. MIGHEAL was designed to be a representative population sample with a sample size of 1332, but additionally it was designed to be representative of the immigrant population, which means that immigrants are oversampled in MIGHEAL. This results in there being roughly 850 Greek citizens in MIGHEAL, and roughly 500

immigrants. To obtain population size estimates, the Greek population is weighted up to around 1200 cases, and the immigrant population is weighted down to around 100 cases, using the supplied population size weight.

This means that the population size estimates are mostly based on the around 850 Greek citizens in the raw sample. This also means that the population size estimates are somewhat more uncertain. As the ESS estimates do not contain confidence intervals, the MIGHEAL population size rates reported here do not either. Confidence intervals for the population size estimates are provided in a separate table.

6.2. Estimates: comparison between MIGHEAL and ESS.

The ESS estimates have been taken from Huijts et al (2017ab). We report differences between MIGHEAL and the pooled ESS results, as well as relevant comparisons with single countries. Tables with single country results are found at the end of this section, ASR14-ASR18. Countries are roughly grouped by geographical regions in the tables.

Estimates from the ESS use the full sample, ages 15 and up. ESS and MIGHEAL estimates were age-standardised to the European Standard Population (ESP) of 2013, for ages 15 and up. The ESP 2013 is given in the appendix. The ESS data is weighted by post stratification sampling weights to take into account different sampling designs and selection probabilities for different countries in the sample. Additionally, the pooled ESS estimates use population weights to adjust for different population sizes between countries. The MIGHEAL data have been weighted by sampling and population weight IMWFIN2, to adjust Greeks and immigrant groups to population sizes. For each item we present either percentages or mean scores as described earlier.

Rates for self-reported general health, limiting longstanding illness, mental health and overweight/obesity are found in table ASR14 at the end of this section.

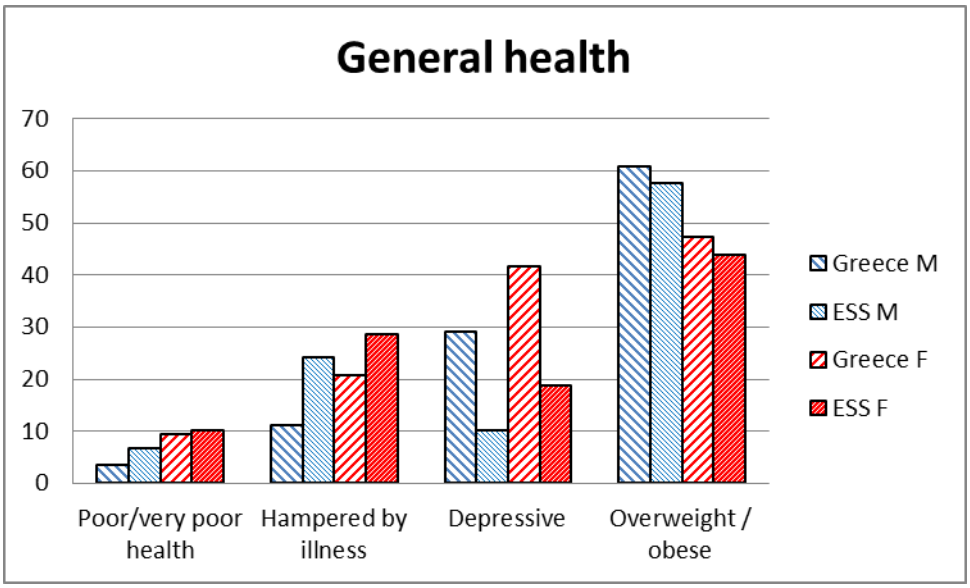


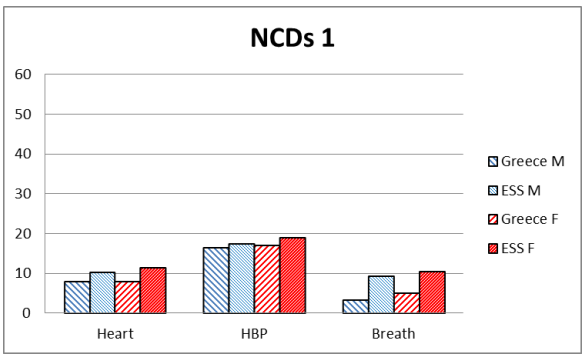
Figure ESS1: General self-reported health outcomes in ESS and MIGHEAL, prevalences in %.

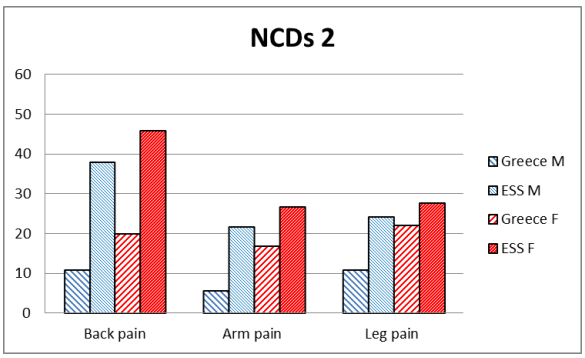
It should be noted that the reported ESS measure of self-reported health is for poor/very poor health, not including 'fair'. Greece has very low rates of poor SRH for males (3.7%), below pooled ESS figures, and only beat by Ireland and Switzerland. Females are at 9.4%, very near pooled ESS levels, worse than most Nordic and Western countries, but better than Central, Eastern and Southern. Gender differences in MIGHEAL are in line with ESS, although quite strong.

Rates for limiting longstanding illness ("hampered") are the lowest for males (11.3%), well below the pooled ESS level (28.6%). Rates for females are relatively low at 20.9%, below pooled ESS levels of 28.6%, and on par with Austria, Ireland, Switzerland, Portugal and Spain.

Rates for depressive symptoms in Greece are higher than any country in the ESS: 29.1% (M) and 41.8% (F), high above pooled ESS levels of 10.2% and 18.8%. The countries closest to Greece are the Czech (19.1%) and Hungary (21.5%) for males, and Portugal (30.9%) and the Czech (28.6%) for females.

Rates for overweight or obesity (60.8% M, 47.4% F) are at ESS pooled levels (57.8 M, 44.0% F).





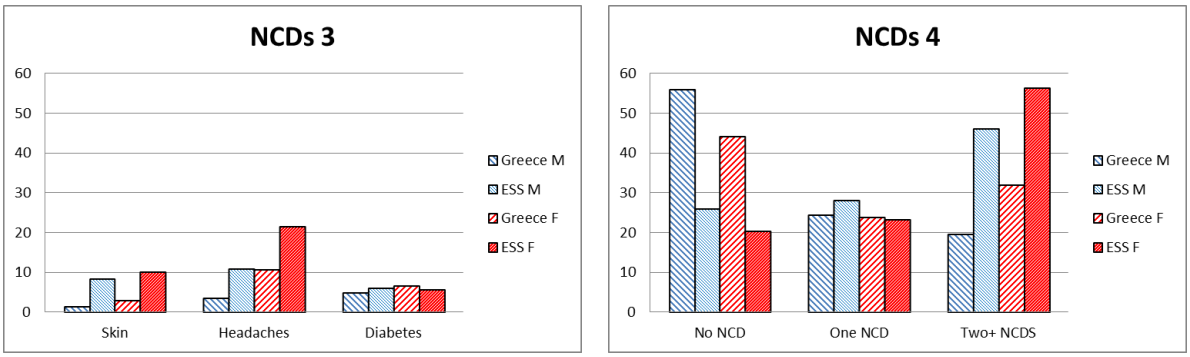


Figure ESS2: NCDs in ESS and MIGHEAL

Rates for self-reported conditions are found in table ASR15. Heart conditions (7.9% M/F) are at the lower end, on par with Norway, Ireland, Switzerland and the UK. High blood pressure (16.4%M, 17.0% F) is at pooled ESS levels. Rates of breath problems are low (3.3% M, 5.0 % F) are low, as are allergies (6.4% M, 8.9% F). Back pain (10.9% M, 19.9% F), arm pain (5.7 M%, 16.9% F) and leg pain (10.9% M, 22.0% F) are low compared to ESS levels, and on par with Hungary, Lithuania and Israel. Stomach (5.6% M, 9.1% F) and skin problems (1.4% M, 2.9% F) are low in Greece compared to ESS levels. Severe headaches (3.5%M, 10.6% F) are low compared to ESS figures, while diabetes figures (4.8% M, 6.7% F) are at pooled ESS levels. Rates for any condition are somewhat lower than ESS (24.5%M, 23.9% F), as are rates for two or more conditions (19.6%M, 31.9% F).

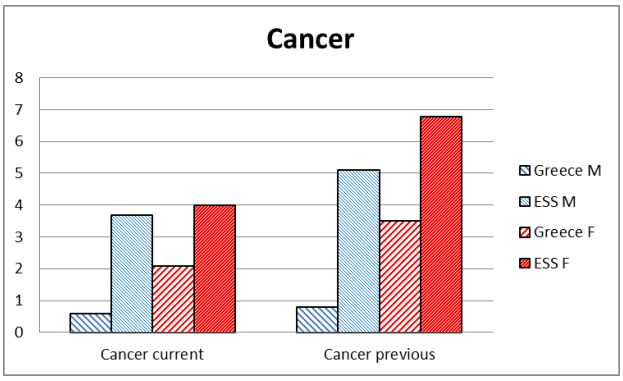


Figure ESS3: Cancer in ESS and MIGHEAL

Rates for cancer previous (0.6% M, 2.1% F) and present (0.8% M, 3.5% F) are lower than any ESS rates.

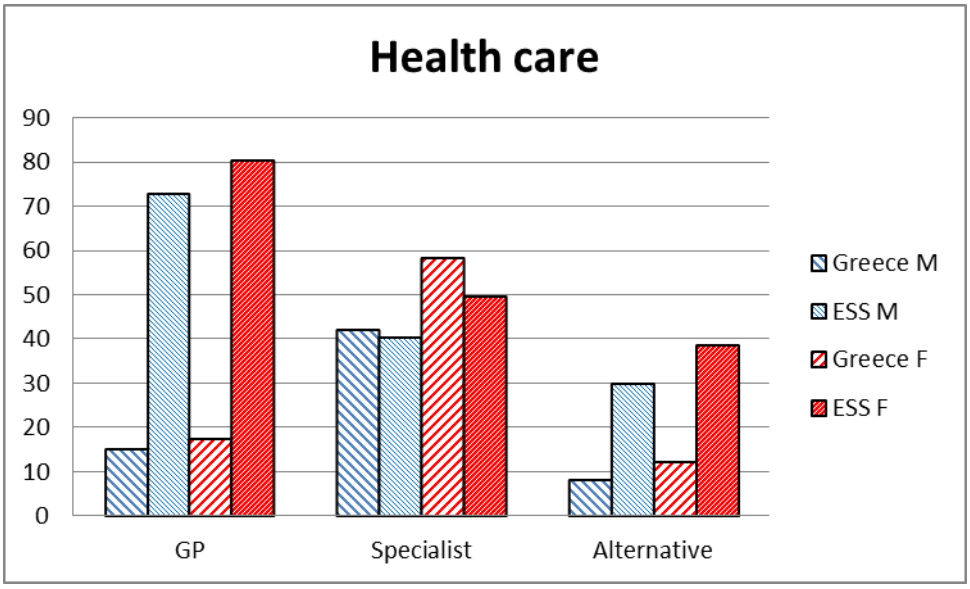


Figure ESS4: Health care in ESS and MIGHEAL

Rates for healthcare access and utilisation are found in table ASR16. GP visits (15.2%M, 17.5% F) are extremely low compared to any ESS country, with overall levels at 72.9% (M) and 80.4% (F). Specialist visits (42.2% M, 58.5% F) are slightly higher than overall ESS levels. Use of alternative treatments (8.1% M, 12.2% F) is low compared to overall ESS figures (29.8% M, 38.7% F).

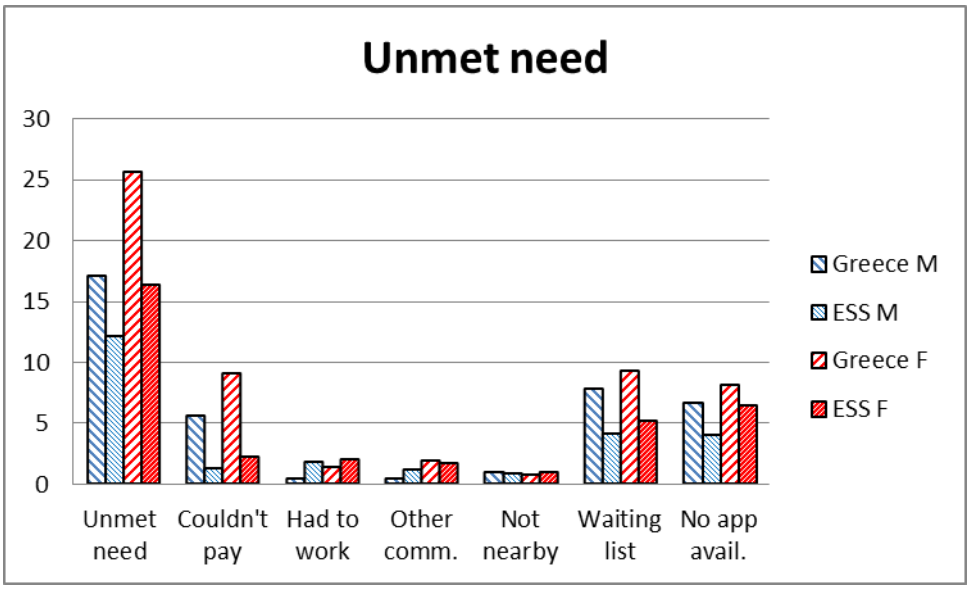


Figure ESS5: Unmet need in ESS and MIGHEAL

Unmet need overall (17.1% M, 25.7% F) is high compared to ESS overall figures, and on level with Portugal (18.6%) and Poland (18.6%) for males, and Poland (25.8%) for females. Rates for inability to pay (5.7% M, 9.1% F) are higher than any ESS country, where the overall level is at 1.3% (M) and 2.3% (F). The rate of respondents who could not take time off work was low (0.5% M, 1.4% F), even compared to ESS rates. This was also the case for those who reported other commitments (0.5% M, 2.0% F) and not available nearby (1.0% M, 0.8% F). Unmet need due too long waiting lists (7.9% M, 9.3% F) are high compared to pooled ESS rates close to Estonia (9.7% M, 10.7%F), Poland (10.1% M, 10.3% F) and Israel (10.8% M, 13.1% F). No appointments available (6.7% M, 8.2% F) are high compared to ESS overall levels, and on par with or lower than Finland, Poland and Israel.

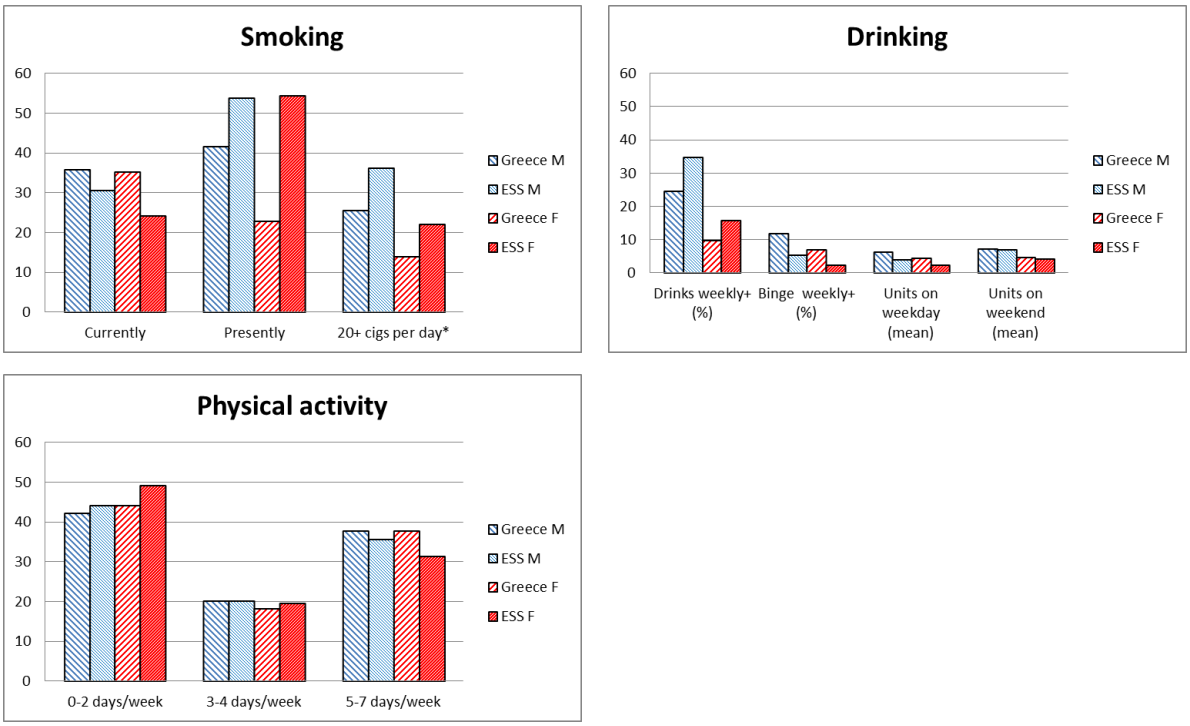


Figure ESS6: Risk behaviours in ESS and MIGHEAL.

Rates for risk behaviour are found in table ASR17. Around a third of Greek respondents indicate being current smokers (35.8% M, 35.2% F), five to ten percent higher than pooled ESS levels, and on par with many Central and Eastern European countries. 41.6% (M) and 22.8% (F) report being former smokers, which is lower than overall ESS figures, and on par with Central and Eastern countries. Among those who smoke at present, 25.5% (M) and 14.0% (F) report smoking more than 20 cigarettes a day, which is lower than pooled ESS levels, and more at Northern and Western levels.

24.5% (M) and 9.8% (F) report drinking alcohol more than once per week, which is lower than pooled ESS levels (34.8% M, 15.9% F), particularly for males. However, the mean number of units consumed on a weekday (4.5 F, 6.4 M) is higher than ESS levels (3.9 M, 2.3 F). Mean units on weekends (4.6 units F, 7.3 M) are on par with pooled ESS levels. 11.8% (M) and 7.1% (F) report binge drinking at least weekly, which is more than double ESS pooled levels, and higher than any country except Portugal for males. Alcohol consumption in Greece is related to a specific "wine culture" related to "traditional agricultural patterns and family ceremonies". (Stathopoulou 2004a, Stathopoulou 2004b).

20.1% (M) and 18.2% (F) report being physically active 3 to 4 days a week, which is close to pooled ESS levels, and on par with Central and Eastern countries. 37.7% (M/F) report being physically active 5-7 days a week, which is slightly higher than pooled ESS levels, which is on par with most Northern and Western European countries. MIGHEAL did not measure the frequency of fruit and vegetable consumption.

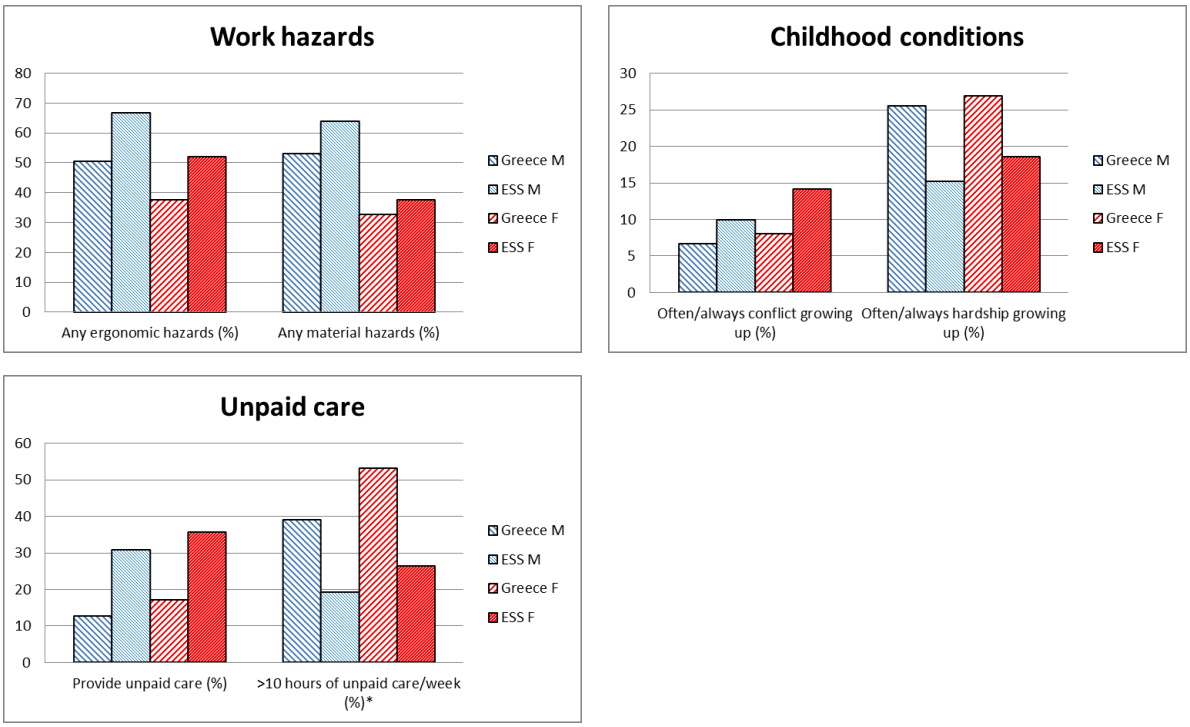


Figure ESS7: Social determinants in ESS and MIGHEAL.

Rates for social determinants of health (working conditions, childhood conditions, housing, and providing unpaid care) are found in table ASR18.

In terms of working conditions, 50.7% (M) and 37.7% (F) report ergonomic hazard, which is lower than pooled ESS levels, and lower than most ESS countries. 53.3% (M) and 32.9% (F) report material hazard, which is also lower than pooled ESS figures, and lower than most countries. MIGHEAL did not measure job control.

6.7% (M) and 8.1% (F) report often or always conflict at home while growing up, which is lower than most countries. 25.6% (M) and 26.9% (F) report often or always financial hardship while growing up, which is higher than most countries, and on par

with Central and Eastern European figures. MIGHEAL did not measure housing problems. 12.8% (M) and 17.2% (F) report any unpaid care, which is lower than almost all countries. However, among those who report any unpaid care, the proportion is higher in Greece (39.2% M, 53.3% F) than in almost all ESS countries.

6.3. Additional population estimates

The MIGHEAL survey included some health related measures that were not included in the ESS. This included five items from the National Health Survey in Greece. These estimates have not been standardized, as they should be representative of the Greek population only.

6.3.1. National Health Survey items

We report percentages that answered affirmatively to the NHS items. The figures are found in the table below.

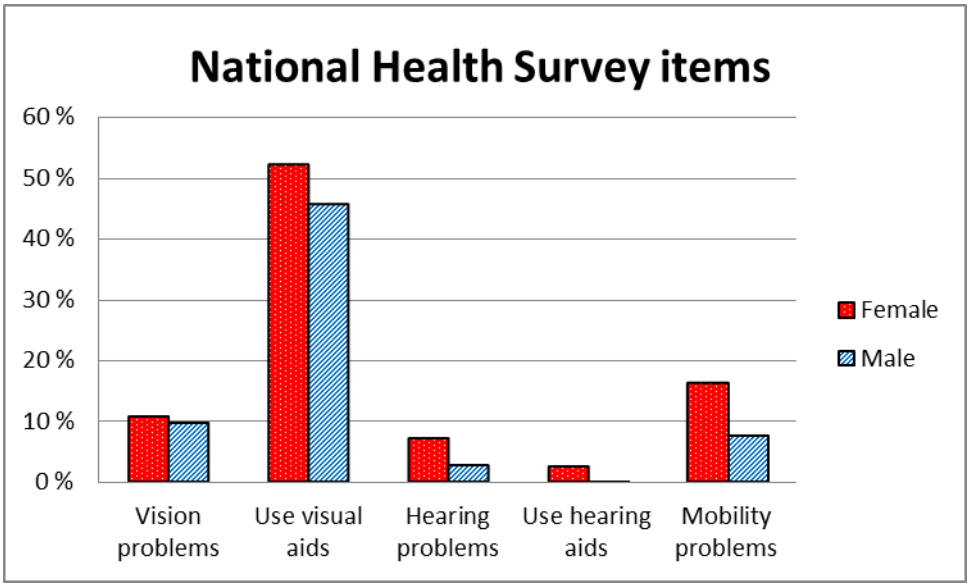


Figure D1. National Health Survey items.

Table D1. National Health Survey items.

	Vision problems	Use visual aids	Hearing problems	Use hearing aids	Mobility problems
Male	9,9%	45,7%	2,9%	0,3%	7,8%
Female	10,8%	52,2%	7,4%	2,6%	16,4%

Mobility problems are most frequent among females, while vision problems are most common among males. Notably many more females report using hearing problems and using hearing aids.

6.3.2. Barriers to health care

The questions on barriers to health care were mainly directed at the immigrant population, but asked to all. Some do not make sense on population level. However, the options "poor quality of services and care" and "no problems" potentially applies to everyone. These two items have therefore been included here at population level. The numbers are found in the table below.

Table D2. Barriers to access, population level.

		Different culture or beliefs	Discrimination	Poor quality of services or care	None
Greece	M	0,0 %	0,5 %	16,4 %	80,5 %
	F	0,4 %	0,7 %	14,8 %	84,6 %

The prevalence of poor quality of care is comparable to the overall figures of unmet need, as around 15% of all respondents reported poor care, and 17% of males and 25% of females reported overall unmet need.

European Standard Population 2013

Age groups	ESP 2013
0-4	5 000
5-9	5 500
10-14	5 500
15-19	5 500
20-24	6 000
25-29	6 000
30-34	6 500
35-39	7 000
40-44	7 000
45-49	7 000
50-54	7 000
55-59	6 500
60-64	6 000
65-69	5 500
70-74	5 000
75-79	4 000
80-84	2 500
85-89	1 500
90+	1 000
Total	100 000

6.4. Depressive symptoms items in MIGHEAL and ESS

As in most part of Western world where depression is twice as prevalent in females than males MIGHEAL data show a high prevalence of depression among Greek women. The comparison of depressive symptoms with ESS pooled results, as well as with individual countries indicates that the Greek female population is at high risk of depression. Women in Greek society are particularly burdened by their role as carers for children and the elderly, a role that hinders their working potential and independence from the family. The same holds for dual career families where women are mainly responsible for child caring. In times of crisis the deterioration of socioeconomic position of the household may affect their vulnerability widening the gender gap in depression.

Due to the high prevalence of depressive symptoms in Greece, the original items in the depression scale were broken down individually. Below we present graphs of each of the eight items, with the original coding from none of the time to all of the time (figure ESS8 below). Note that the items on being happy and enjoying life are reversed, with 'none of the time' indicating negative emotions.

These items have not been age standardized, but full MIGHEAL and ESS pooled age distributions are quite similar.

Major differences between the ESS and MIGHEAL appear on the items of "feeling depressed", "feeling of high effort", on "being happy" "enjoying life", "feeling sad" and "could not get going", where Greece fares worse. 50% of Greeks reported not feeling happy most or all of the time, compared to around 25% in the ESS. Only on the items of feeling lonely did Greece compare favourably to the ESS. Females reported more negative emotions on almost all items.

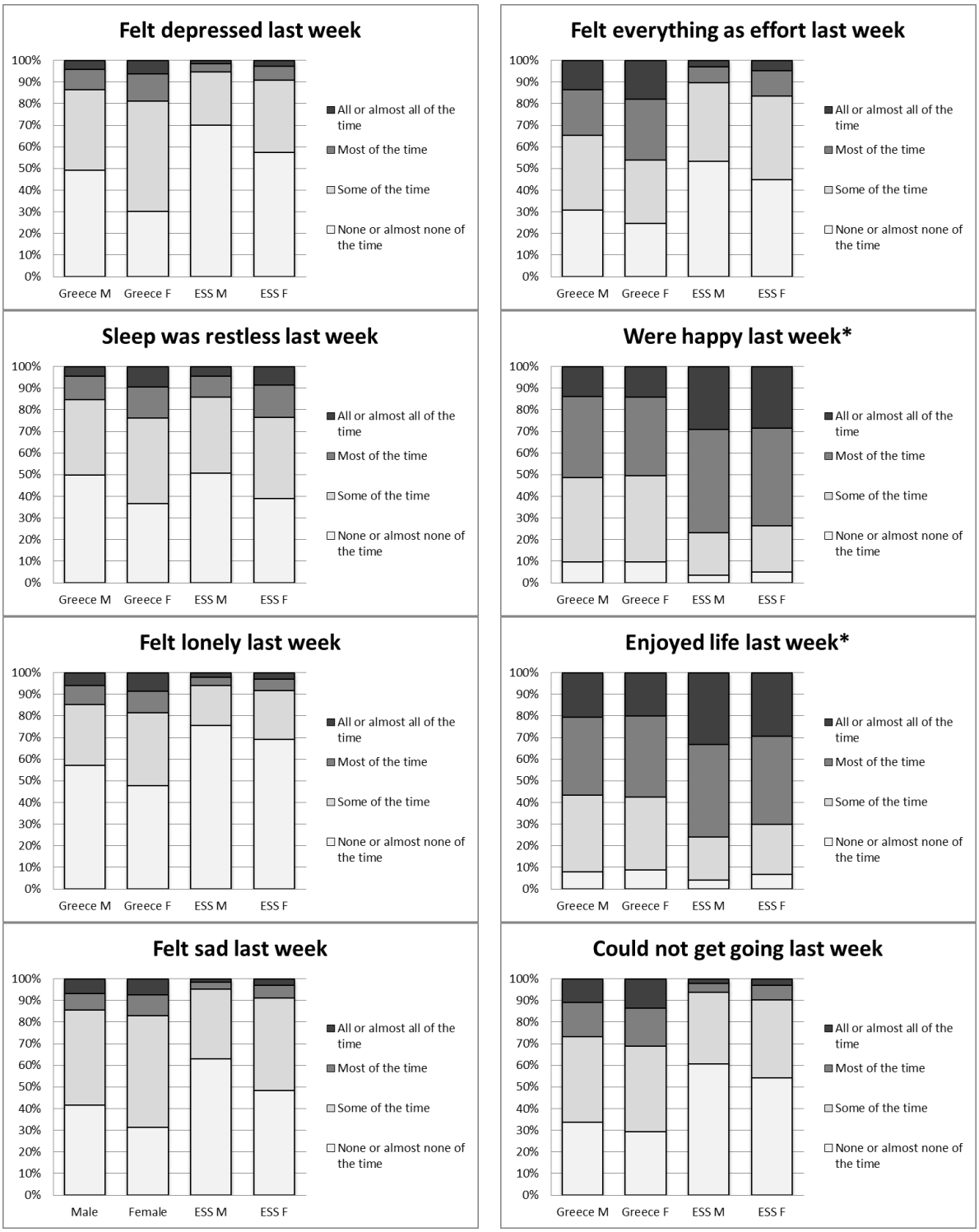


Figure ESS8. Items in depression scale in MIGHEAL and ESS.

Tables: Estimates for MIGHEAL and ESS.

Age-standardized rates for the MIGHEAL and ESS7 surveys. Rates have been age standardized against ages 15+ of the European Standard Population (ESP) of 2013 (Pace et al 2013). ESS rates are reproduced from Huijts et al (2017ab).

Table ASR14. Self-reported general health measures in MIGHEAL and ESS7. Prevalences in %.

	Gender	Poor / very poor health (%)	Hampered by illness (%)	Serious depressive symptoms (%)	Overweight / obese (%)
MIGHEAL					
Greece	M	3.7	11.3	29.1	60.8
	F	9.4	20.9	41.8	47.4
ESS					
ESS pooled	M	6.9	24.3	10.2	57.8
	F	10.2	28.6	18.8	44.0
North					
Denmark	M	6.1	26.4	8.1	52.0
	F	6.0	33.5	12.6	38.9
Finland	M	4.6	29.9	6.7	59.1
	F	5.3	34.8	8.2	47.9
Norway	M	4.6	26.4	6.2	57.4
	F	9.6	32.6	8.9	42.4
Sweden	M	2.8	26.8	6.0	56.8
	F	6.0	35.3	14.6	43.5
West					
Austria	M	4.1	21.5	8.5	57.5
	F	4.7	21.9	13.6	38.9
Belgium	M	5.0	25.3	8.6	51.1
	F	5.8	29.5	14.3	39.5
France	M	6.4	21.9	8.2	52.8
	F	9.3	27.1	6.5	40.9
Germany	M	7.6	29.5	9.0	60.2
	F	12.4	33.3	20.2	44.4
Ireland	M	2.0	17.3	6.2	56.3
	F	2.7	18.4	9.1	41.0

Table ASR14. Self-reported general health measures in MIGHEAL and ESS7. Prevalences in %.

	Gender	Poor / very poor health (%)	Hampered by illness (%)	Serious depressive symptoms (%)	Overweight / obese (%)
Netherlands	M	4.1	27.3	8.3	51.4
	F	6.1	33.7	10.8	44.5
Switzerland	M	2.3	20.4	4.7	52.5
	F	3.9	22.3	9.3	29.9
UK	M	6.7	24.0	10.6	58.5
	F	7.5	27.0	14.7	47.7
Central/East					
Czech Rep	M	4.9	27.5	19.1	67.4
	F	8.3	29.8	28.6	49.4
Estonia	M	11.2	28.7	14.8	56.4
	F	12.4	26.6	20.8	48.1
Hungary	M	13.5	29.5	21.5	63.8
	F	13.8	31.8	27.5	52.8
Lithuania	M	12.1	33.3	16.1	60.7
	F	12.8	35.2	22.7	50.8
Poland	M	8.3	27.8	11.3	60.8
	F	12.5	32.3	25.3	44.1
Slovenia	M	9.8	31.2	8.7	61.2
	F	12.2	38.5	15.6	50.6
South					
Israel	M	9.2	25.0	12.0	55.9
	F	11.3	25.5	19.1	47.8
Portugal	M	8.3	17.4	15.8	56.0
	F	12.1	21.9	30.9	49.8
Spain	M	8.8	14.8	12.8	60.4
	F	14.9	19.3	24.7	43.3

Source: Huijts et al (2017a), MIGHEAL (2016).

Table ASR15. NCDs in MIGHEAL and ESS7. Prevalences in %.

	Gender	*Heart*	*HBP*	*Breath*	*Allergy*	*Back pain*	*Arm pain*	*Leg pain*	*Stomach*	*Skin*	*Head-ache*	*Diabe-tes*	*1 of these*	*2 or more*	*Cancer current*	*Cancer previous*
MIGHEAL																
Greece	M	7.9	16.4	3.3	6.4	10.9	5.7	10.9	5.6	1.4	3.5	4.8	24.5	19.6	0.6	0.8
	F	7.9	17.0	5.0	8.9	19.9	16.9	22.0	9.1	2.9	10.6	6.7	23.9	31.9	2.1	3.5
ESS																
ESS pooled	M	10.3	17.5	9.3	10.7	38.0	21.6	24.3	14.6	8.3	10.8	6.0	28.0	46.1	3.7	5.1
	F	11.4	19.0	10.5	14.4	45.9	26.8	27.6	19.1	10.1	21.5	5.6	23.3	56.4	4.0	6.8
North																
Denmark	M	8.4	20.3	9.5	16.2	45.7	21.8	23.9	14.0	10.0	7.6	6.7	30.6	52.5	2.8	7.0
	F	8.2	19.5	10.5	17.5	50.5	28.4	32.7	22.2	14.4	17.2	5.3	22.9	60.2	4.5	9.6
Finland	M	11.6	20.1	10.8	14.7	47.4	26.0	31.8	16.5	13.8	13.9	7.8	28.4	58.2	2.8	4.6
	F	9.9	21.8	13.5	19.0	57.8	27.7	34.3	27.2	20.3	23.4	5.4	21.2	70.4	2.1	5.7
Norway	M	8.6	15.5	10.5	15.7	36.5	23.2	22.2	14.1	10.5	5.1	4.0	32.3	45.9	2.2	5.1
	F	7.3	15.1	14.6	23.3	50.4	32.1	33.3	20.7	10.2	15.4	3.7	24.3	60.8	0.7	10.2
Sweden	M	7.1	17.1	7.8	15.1	42.3	22.9	25.0	16.2	7.7	6.9	5.0	29.3	49.6	2.5	5.4
	F	8.5	18.9	10.9	20.5	51.3	30.1	27.9	27.1	10.5	16.5	4.8	25.2	59.5	2.4	10.2
West																
Austria	M	11.1	16.9	5.3	6.9	30.5	13.6	17.8	8.2	6.3	8.5	3.9	22.5	34.9	3.3	8.1
	F	10.8	15.7	6.7	9.7	34.3	17.3	16.4	12.9	9.6	15.0	3.0	18.9	41.0	3.4	8.7
Belgium	M	9.1	13.5	9.1	10.6	48.0	24.7	27.6	15.3	6.8	8.8	5.3	29.2	51.3	2.8	4.4
	F	8.9	18.7	10.0	17.1	53.7	31.0	28.4	24.9	8.3	22.6	4.0	24.0	61.6	3.3	6.4
France	M	9.3	11.7	11.8	11.0	43.1	27.5	28.0	17.2	8.7	14.7	6.0	29.2	50.8	3.5	4.7
	F	9.3	16.0	12.0	15.0	52.0	33.0	28.5	19.0	8.2	30.2	5.8	21.1	64.0	4.0	6.4
Germany	M	11.5	22.0	10.9	14.1	49.0	22.0	24.8	18.1	12.3	15.6	6.6	26.4	56.7	2.6	6.1
	F	15.6	23.7	12.2	16.7	59.5	27.2	29.4	25.4	13.7	27.1	6.5	19.7	69.0	2.9	7.5
Ireland	M	5.8	12.8	6.9	4.4	21.5	9.9	14.2	7.8	5.2	3.8	3.1	21.7	26.5	5.2	3.5
	F	5.2	11.3	7.4	6.2	22.1	13.2	13.8	9.8	6.4	7.3	2.7	24.9	26.6	3.9	5.1
	M	12.8	17.5	8.7	11.1	33.7	18.0	22.1	11.2	9.2	8.2	7.4	30.9	44.5	4.0	5.8
Netherlands																
	F	8.5	18.5	11.3	14.1	44.9	21.2	24.5	16.0	10.0	17.7	4.8	31.7	49.4	3.0	8.1
	M	8.7	14.5	5.7	9.5	37.0	18.2	24.9	12.9	8.4	11.8	3.8	31.3	44.3	7.5	7.2
Switzerland																

Table ASR15. NCDs in MIGHEAL and ESS7. Prevalences in %.

	Gender	*Heart*	*HBP*	*Breath*	*Allergy*	*Back pain*	*Arm pain*	*Leg pain*	*Stomach*	*Skin*	*Head-ache*	*Diabe-tes*	*1 of these*	*2 or more*	*Cancer current*	*Cancer previous*
	F	7.0	13.5	7.3	14.9	44.6	22.2	23.5	17.8	10.1	20.0	3.0	29.9	49.9	10.1	9.0
UK	M	7.6	18.5	13.1	8.8	35.3	22.8	26.3	16.4	10.0	8.2	6.5	30.3	44.8	3.3	5.2
	F	6.9	18.1	13.7	15.0	36.2	20.3	27.6	18.2	14.2	15.8	4.6	27.4	51.5	3.2	7.4
Central/East																
Czech Rep	M	6.6	17.2	4.8	6.1	20.0	10.4	13.8	7.8	3.8	5.9	6.3	25.9	26.2	-	-
	F	7.7	16.1	7.0	10.1	26.6	13.6	16.1	9.2	4.3	12.5	5.4	23.9	33.0	-	-
Estonia	M	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	5.8
	F	-	-	-	-	-	-	-	-	-	-	-	-	-	5.6	6.3
Hungary	M	11.3	21.2	6.1	5.3	16.9	11.6	14.8	6.5	1.7	6.7	4.4	17.8	27.4	15.3	5.2
	F	12.9	22.8	5.4	8.4	17.7	15.9	18.7	8.0	4.8	14.1	6.5	14.7	33.6	15.4	6.8
Lithuania	M	16.5	18.8	3.7	2.0	24.9	9.1	12.0	11.1	0.6	4.8	2.5	23.0	29.8	5.9	6.8
	F	21.4	25.8	5.1	5.0	27.2	11.7	16.3	15.6	3.6	14.8	3.5	21.3	41.1	11.1	9.2
Poland	M	16.3	17.7	5.0	8.4	29.5	22.3	22.0	10.4	4.0	9.0	4.9	26.3	39.7	5.2	3.4
	F	20.0	20.3	7.0	11.8	38.7	29.6	25.6	17.1	5.1	18.1	6.4	22.8	51.8	6.1	5.0
Slovenia	M	9.4	20.8	7.4	8.6	36.4	19.5	19.4	12.1	3.7	7.7	5.0	35.9	38.6	3.0	4.5
	F	13.7	24.5	9.6	11.7	46.8	24.3	26.2	20.2	4.1	17.8	7.4	27.6	54.1	2.8	5.6
South																
Israel	M	10.7	15.3	7.1	5.7	20.6	12.9	14.0	7.0	4.9	8.9	10.6	18.6	30.1	8.4	5.7
	F	8.6	15.6	7.0	6.3	24.0	13.1	19.0	11.1	5.1	10.3	9.2	19.5	33.0	9.4	4.5
Portugal	M	8.3	20.8	6.9	13.7	45.1	24.9	27.8	16.2	6.9	16.3	8.5	25.7	51.6	1.6	3.9
	F	15.0	22.1	12.6	20.6	49.4	41.9	39.3	18.0	5.3	29.6	9.1	17.5	65.8	2.8	5.9
Spain	M	9.1	15.0	7.9	11.0	33.9	20.3	23.6	12.8	5.5	9.0	5.5	31.4	39.8	1.9	4.8
	F	9.8	17.0	8.3	12.2	46.5	33.9	31.6	17.1	9.5	22.2	5.2	24.8	53.4	2.0	4.2

Source: Huijts et al (2017a) and MIGHEAL (2016). Notes: HBP = high blood pressure. No data for Estonia on chronic conditions except for cancer (current and previous). No data for Czech Republic on cancer (current and previous).

Table ASR16. Unmet need in MIGHEAL and ESS7. Prevalences in %.

		Unmet need	1: Could not pay	2: Had to work	3: Other commitments	4: Not available	5: Waiting list	6: No appointments available	7: Other	Visited GP	Visited specialist	Used alternative treatment
MIGHEAL												
Greece	M	17.1	5.7	0.5	0.5	1.0	7.9	6.7	-	15.2	42.2	8.1
	F	25.7	9.1	1.4	2.0	0.8	9.3	8.2	-	17.5	58.5	12.2
ESS												
ESS pooled	M	12.2	1.3	1.9	1.2	0.9	4.2	4.1	1.2	72.9	40.3	29.8
	F	16.4	2.3	2.1	1.8	1.0	5.2	6.5	1.4	80.4	49.7	38.7
North												
Denmark	M	5.8	0.2	0.7	0.1	0.3	2.0	2.2	1.1	75.9	35.6	35.3
	F	8.0	1.2	0.8	0.4	0.1	2.9	1.8	1.2	83.2	41.4	44.8
Finland	M	16.9	0.5	1.8	1.8	0.6	6.5	5.9	2.6	68.1	35.0	39.3
	F	22.0	1.2	2.5	2.0	2.6	7.5	9.7	2.0	71.5	44.6	51.8
Norway	M	11.3	0.1	2.0	0.8	0.7	4.6	4.1	0.5	75.0	24.8	33.7
	F	16.1	1.3	1.6	1.1	1.8	5.9	4.8	2.1	85.0	30.0	42.9
Sweden	M	8.2	0.1	1.0	1.0	0.3	1.6	2.0	2.4	51.6	27.6	36.2
	F	12.9	1.0	1.2	1.6	1.6	2.8	3.0	3.7	63.1	37.4	45.9
West												
Austria	M	4.1	0.1	0.8	1.0	0.4	1.8	2.3	0.0	72.4	41.5	35.4
	F	6.0	0.5	0.9	0.9	0.8	1.8	3.1	0.2	82.0	55.1	44.7
Belgium	M	9.0	2.1	1.2	1.2	0.5	2.3	2.0	0.7	77.4	38.3	30.0
	F	11.5	2.7	2.2	1.9	0.2	4.0	1.5	0.9	85.7	51.0	37.2
France	M	15.0	3.0	2.0	1.7	0.6	4.1	3.7	2.1	80.2	40.1	35.9
	F	21.7	6.9	3.1	3.7	0.3	5.2	5.8	1.5	85.9	51.1	46.9
Germany	M	13.4	1.4	3.1	0.7	0.8	4.3	4.6	1.4	80.1	55.3	38.9
	F	19.0	1.9	3.4	2.1	1.0	5.9	7.4	2.9	83.3	69.3	54.7
Ireland	M	5.6	0.9	0.8	0.3	0.0	1.9	1.5	0.1	61.7	18.4	21.9
	F	7.8	1.7	0.7	0.3	0.2	3.4	2.2	0.1	74.2	20.0	29.7
	M	3.8	0.8	0.6	0.6	0.4	1.1	0.5	0.4	65.2	39.3	34.1
Netherlands												
	F	4.0	1.2	0.3	0.3	0.5	0.7	0.6	0.4	76.1	46.7	39.0
	M	4.8	0.8	1.5	0.8	0.3	0.4	0.9	0.2	66.4	36.2	39.7
Switzerland												
	F	8.1	1.3	1.9	1.1	0.0	1.3	1.8	0.8	74.9	45.7	56.7
UK	M	10.9	0.4	1.7	1.2	0.7	2.2	4.9	1.5	72.8	29.9	24.3
	F	14.9	0.6	1.4	0.5	0.6	3.2	10.3	1.4	78.9	33.9	32.1
Central/East												
Czech Rep	M	6.2	0.5	1.3	1.2	1.2	1.3	1.5	0.0	70.0	31.8	24.9
	F	6.3	1.7	0.5	1.1	1.7	2.2	1.1	0.3	76.5	39.0	33.4

Table ASR16. Unmet need in MIGHEAL and ESS7. Prevalences in %.

		Unmet need	1: Could not pay	2: Had to work	3: Other commitments	4: Not available	5: Waiting list	6: No appointments available	7: Other	Visited GP	Visited specialist	Used alternative treatment
Estonia	M	15.4	0.6	0.8	0.8	1.8	9.7	4.6	1.3	65.6	39.7	29.8
	F	19.9	1.8	1.1	1.5	1.8	10.7	8.3	1.6	77.6	57.0	46.3
Hungary	M	4.6	0.4	0.6	0.2	1.6	1.6	1.6	0.1	59.0	26.7	10.3
	F	6.7	1.3	0.5	0.9	1.7	3.2	2.2	0.0	69.6	33.3	14.6
Lithuania	M	11.3	1.0	1.7	0.0	2.0	5.2	5.1	0.1	52.4	21.1	29.0
	F	15.1	2.4	1.9	0.5	3.5	6.0	7.6	0.5	71.7	29.4	45.0
Poland	M	18.6	0.8	1.4	1.6	2.6	10.1	7.2	1.2	63.6	40.7	16.3
	F	25.8	1.2	1.8	1.8	3.9	10.3	12.0	0.8	77.2	48.4	19.7
Slovenia	M	7.9	0.7	2.0	1.9	0.5	4.5	0.2	0.9	75.0	37.3	27.9
	F	8.4	0.4	0.2	1.3	0.5	4.0	0.8	0.8	79.9	42.0	32.6
South												
Israel	M	15.9	2.6	4.1	3.3	5.3	10.8	7.5	1.9	76.3	55.1	22.3
	F	22.2	3.4	4.4	4.3	7.2	13.1	11.1	1.5	85.2	64.3	27.8
Portugal	M	18.7	2.4	1.8	3.0	0.4	6.9	4.7	1.4	77.9	35.1	22.9
	F	18.6	5.4	2.6	1.9	0.0	3.2	7.1	1.1	83.4	38.2	19.8
Spain	M	11.7	1.7	2.1	0.6	0.3	4.1	3.0	1.0	74.5	42.2	22.3
	F	13.1	1.7	2.2	1.0	0.0	5.1	3.8	0.7	83.9	52.7	29.9

Source: Huijts et al (2017a), MIGHEAL (2016). Note: No data on "other reasons" in MIGHEAL.

Table ASR17. Risk behaviour in MIGHEAL and ESS7. Prevalences in %.

		Smoking current	Smoking previous	20 or more cigs per day	Alcohol > once per week	Units on weekday (mean)	Units on weekend day (mean)	Binge at least weekly	Physical activity on 3-4 days	Physical activity on 5-7 days	Fruit and veg at least once/day
MIGHEAL											
Greece	M	35.8	41.6	25.5	24.5	4.5	4.6	11.8	20.1	37.7	-
	F	35.2	22.8	14.0	9.8	6.4	7.3	7.1	18.2	37.7	-
ESS											
ESS pooled	M	30.6	53.8	36.3	34.8	3.9	7.0	5.5	20.2	35.6	55.8
	F	24.2	54.3	22.0	15.9	2.3	4.3	2.3	19.5	31.3	68.8
North											
Denmark	M	27.1	61.4	37.0	38.6	4.5	9.3	3.3	20.9	37.7	53.5
	F	22.4	64.7	19.1	22.4	3.1	6.2	1.4	25.7	34.6	74.2
Finland	M	28.6	61.8	29.3	16.9	3.9	9.3	1.4	28.9	37.5	56.9
	F	22.9	62.3	20.4	6.1	2.4	5.8	0.4	25.9	42.5	72.5
Norway	M	22.1	66.4	20.6	20.0	4.7	9.7	1.1	25.8	29.7	58.9
	F	19.0	71.6	18.8	8.9	2.9	5.9	0.4	25.9	27.4	73.5
Sweden	M	15.1	77.8	18.5	22.0	4.0	8.4	2.2	24.4	33.0	49.8
	F	14.8	76.2	10.7	10.6	2.7	5.4	0.8	25.9	33.3	70.4
West											
Austria	M	33.1	46.0	56.8	37.8	4.2	6.7	9.2	23.8	33.6	44.1
	F	28.3	44.7	41.7	13.4	2.6	4.3	2.4	24.6	30.8	56.9
Belgium	M	28.2	55.6	33.6	38.9	3.7	6.5	3.1	19.4	32.5	58.3
	F	23.9	52.1	33.0	23.6	2.0	3.8	2.1	18.2	25.1	68.9
France	M	31.0	54.6	32.8	41.7	2.6	5.1	2.9	18.7	27.5	59.2
	F	26.5	53.4	18.7	17.4	1.6	2.9	0.9	14.7	18.5	71.7
Germany	M	34.2	52.9	38.4	36.9	3.2	6.1	4.4	23.5	40.9	49.9
	F	29.2	52.5	19.4	15.1	1.9	3.6	1.7	23.1	39.4	65.9
Ireland	M	24.6	51.5	40.0	22.8	6.3	12.5	5.1	25.9	44.8	67.0
	F	21.5	52.8	27.3	10.7	4.0	8.0	2.4	25.4	38.0	76.9
	M	31.4	52.9	22.1	44.8	3.1	6.1	4.9	24.0	34.9	55.7
Netherlands											
	F	22.3	61.5	23.7	29.2	1.8	3.4	5.1	24.4	34.9	68.6
	M	28.5	52.5	37.6	39.8	3.3	5.3	5.5	22.1	37.5	62.6
Switzerland											
	F	24.9	53.8	16.7	20.8	1.9	3.2	1.8	23.3	41.5	81.2
UK	M	22.9	60.4	24.7	38.3	5.7	9.5	11.2	18.9	39.7	65.3

Table ASR17. Risk behaviour in MIGHEAL and ESS7. Prevalences in %.

		Smoking current	Smoking previous	20 or more cigs per day	Alcohol > once per week	Units on weekday (mean)	Units on weekend day (mean)	Binge at least weekly	Physical activity on 3-4 days	Physical activity on 5-7 days	Fruit and veg at least once/day
	F	20.4	59.7	18.1	25.3	3.6	6.4	4.0	22.1	35.5	74.1
Central/East											
Czech Rep	M	34.8	41.0	25.4	24.8	6.4	10.0	4.6	21.2	24.3	33.3
	F	20.2	47.5	13.8	6.7	4.3	6.3	0.6	21.8	23.7	50.8
Estonia	M	37.4	50.2	38.3	17.4	3.9	8.7	3.4	21.2	44.5	52.1
	F	21.0	57.6	14.0	3.7	2.1	4.1	1.1	17.9	43.7	65.6
Hungary	M	41.3	34.2	47.9	22.1	6.0	11.6	7.2	14.7	20.3	28.3
	F	26.2	41.7	20.7	2.4	3.0	6.9	1.6	10.5	20.4	31.6
Lithuania	M	45.8	42.3	32.7	19.7	7.0	13.4	7.5	20.8	41.6	45.9
	F	16.7	57.9	11.2	3.3	3.5	5.9	1.1	20.5	33.1	58.7
Poland	M	34.2	52.9	48.5	17.4	4.9	8.5	3.1	15.0	38.7	55.8
	F	21.7	52.3	29.2	3.5	2.0	4.3	2.5	15.6	30.9	69.6
Slovenia	M	29.7	51.5	50.6	27.1	3.4	4.7	3.0	16.5	34.2	66.0
	F	26.8	46.1	20.9	9.5	2.0	2.5	1.6	19.9	26.6	78.2
South											
Israel	M	31.5	36.0	51.9	10.2	4.3	5.3	4.5	20.3	18.2	66.8
	F	17.7	38.2	32.1	3.1	3.2	3.8	1.3	17.8	15.7	72.0
Portugal	M	33.0	53.6	41.4	47.5	3.8	5.0	17.5	13.1	19.4	76.2
	F	14.7	51.1	14.5	15.3	1.9	2.9	5.2	11.5	22.7	82.7
Spain	M	31.3	51.7	30.0	40.1	2.2	4.9	6.5	17.8	39.4	56.2
	F	26.3	48.6	22.5	16.7	1.2	2.9	3.2	14.7	33.4	69.1

Source: Huijts et al (2017b), MIGHEAL (2016). Note: No data on fruit and veg consumption in MIGHEAL.

Table ASR18. Social determinants of health in MIGHEAL and ESS7. Prevalences in %.

		Any ergonomic hazards (%)	Any material hazards (%)	Often/always conflict growing up (%)	Often/always hardship growing up (%)	Provide unpaid care (%)	>10 hours of unpaid care/week (%)
MIGHEAL							
Greece	M	50.7	53.3	6.7	25.6	12.8	39.2
	F	37.7	32.9	8.1	26.9	17.2	53.3
ESS							
ESS pooled	M	66.8	64.0	10.0	15.3	31.0	19.3
	F	52.1	37.6	14.2	18.6	35.8	26.4
North							
Denmark	M	68.4	63.3	12.2	11.8	40.0	16.2
	F	60.6	48.0	19.1	13.7	46.1	16.6
Finland	M	80.8	77.3	7.3	14.5	39.7	10.5
	F	75.0	56.7	15.3	20.0	45.5	12.6
Norway	M	64.3	62.8	5.6	6.2	34.9	8.2
	F	54.4	40.9	11.2	10.0	45.1	11.8
Sweden	M	72.4	69.8	9.6	11.7	39.5	7.1
	F	66.6	48.9	16.0	14.7	39.4	16.5
West							
Austria	M	62.9	55.2	7.1	13.6	18.1	22.0
	F	41.8	27.4	13.2	15.7	25.4	31.0
Belgium	M	65.1	63.6	11.6	13.7	36.3	15.7
	F	49.8	33.4	15.4	13.8	39.4	21.1
France	M	72.7	68.4	12.7	15.7	37.4	14.6
	F	58.6	40.4	19.4	23.4	39.8	20.4
Germany	M	70.5	66.6	12.3	12.8	32.1	15.2
	F	56.5	39.2	19.0	16.6	37.1	19.9
Ireland	M	51.0	44.5	6.2	18.4	21.7	29.0
	F	28.2	25.6	7.6	15.8	30.1	41.3
Netherlands	M	58.4	55.6	10.3	14.4	31.9	20.8
	F	46.8	29.2	15.1	13.2	38.1	18.2
Switzerland	M	54.7	51.8	10.2	11.9	32.8	13.0
	F	41.1	29.7	15.3	13.4	41.8	16.9
UK	M	60.9	60.5	11.8	16.2	29.4	33.0
	F	38.9	29.6	14.5	20.7	31.0	30.1
Central/East							

Table ASR18. Social determinants of health in MIGHEAL and ESS7. Prevalences in %.

		Any ergonomic hazards (%)	Any material hazards (%)	Often/always conflict growing up (%)	Often/always hardship growing up (%)	Provide unpaid care (%)	>10 hours of unpaid care/week (%)
Czech Rep	M	46.7	44.8	7.0	15.1	31.6	16.5
	F	33.1	25.3	6.5	17.8	37.1	37.7
Estonia	M	71.7	64.0	8.7	25.0	26.5	25.1
	F	53.8	45.6	15.0	24.9	35.8	39.1
Hungary	M	60.3	44.9	12.3	24.6	5.4	28.6
	F	40.0	30.7	11.9	24.4	9.9	38.4
Lithuania	M	67.0	48.3	11.9	22.9	16.7	27.8
	F	45.9	36.9	9.7	26.4	25.1	46.5
Poland	M	69.7	72.3	6.3	17.2	32.8	18.2
	F	55.4	44.7	7.0	19.1	38.5	37.6
Slovenia	M	67.4	68.7	5.7	15.5	30.0	18.0
	F	56.2	46.0	12.9	25.6	34.6	18.7
South Israel	M	45.2	44.7	10.3	18.4	35.5	19.2
	F	31.3	23.0	11.1	24.6	38.7	31.4
Portugal	M	71.7	70.2	7.2	25.7	35.0	33.1
	F	66.1	45.2	11.9	24.2	33.1	43.3
Spain	M	72.0	66.2	4.4	15.4	23.3	29.4
	F	58.6	43.1	6.1	14.7	32.5	42.2

Source: Huijts et al (2017b), MIGHEAL (2016). Note: No data on job control and housing problems in MIGHEAL.

Chapter 7: Health, socio-economic position and migration in MIGHEAL

In the chapter on prevalences of health outcomes, we established that there were significant differences between immigrants and Greeks on a number of measures after controlling for age differences in the population groups. There is good reason to believe that some of these differences can be explained by structural differences between immigrants and Greeks. For example, the immigrant portion of the sample contained almost no respondents in the categories of retired or permanently sick and disabled. This group is very likely to have more health problems, and could therefore inflate the rate of health problems in the Greek population. On the other hand, immigrants tend to have lower education and a higher degree of financial strain, which could inflate the rate of health problems among immigrants.

All health related measures that were reported in the section on prevalences were therefore subjected to further regression modelling, provided there were enough cases. In addition to controlling for age, all measures were controlled for socio-economic position in the form of education, occupation and level of financial strain. Upper education, paid work and no financial strain were used as reference categories.

The variables for health care were also additionally controlled for the degree of medical need, which was measured by fair/poor self-reported health. This is a common way of measuring overall medical need (Idler & Benyamini 1997). Good/very good health was used as the reference category.

The regressions are found at the end of this chapter. All regressions are logistic, split by gender. Here, we first give an overall report on the findings on socio-economic position, as well as the updated results for immigrant groups after adjusting for SEP and medical needs. We report significant odds ratios, truncated to one decimal. Secondly, we summarize the adjusted results for immigrant groups.

7.1. Results

The results for immigrant groups are summarized in the next section on "Health status of immigrants after controlling for education, occupation and financial strain". Odds ratios (OR) are reported in parentheses.

Health outcomes controlled for SEP

The lower educated are more likely to report fair/poor self-reported health (2.1 F), depressive symptoms (2.1 M), high blood pressure (2.8 F), back pain (2.8 M), severe headaches (4.8 M), and diabetes (4.3 F).

The unemployed are more likely than those in paid work to report depressive symptoms than those in paid work (2.5 M).

The retired/disabled are more likely than those in paid work to report fair/poor health (3.7 F, 6.8 M), being hampered by illness (4.9 F, 11.1 M), and depressive symptoms (3.3 F). For NCDs, they are more likely to report heart problems (15.5 F, 18.0 M), HBP (7.2 F, 8.2 M), breathing problems (5.7 F), foot pain (3.1 F), skin problems (13.0 M), diabetes (6.7 F), and multiple conditions (3.2 F). The high odds ratios for the retired probably inflate the rate of health problems among Greeks.

House-workers are more likely to report overweight than those in paid work (2.3 F).

We only report on the highly financially strained. Very financially strained are more likely to report poor/fair health (3.5 F, 3.2 M), hampering (13.9 F, 6.0 M) and depressive symptoms (8.2 F, 3.7 M). For NCDs, the very financially strained are more likely to report heart problems (11.8F, 23.3 M), stomach problems (4.6 M), severe headaches (4.4 F), and multiple conditions (6.7 F).

Albanians are less likely than Greeks to report poor health (0.4 M), hampering (0.2 F), and depressive symptoms (0.4 F). For NCDs, they were less likely to report HBP (0.2 F), back pain (0.2 M), foot pain (0.2 M), and severe headaches (0.3 F). Albanians were more likely to report no conditions (3.4 F, 3.0 M), less likely to report

one condition (0.4 F, 0.4 M) and multiple conditions (0.5 F, 0.4 M). (Due to the reciprocity of odds ratios, they can be inverted, so an OR of 0.2 for example, means that the reference group has 1/0.2=5 times higher odds. Thus, inverted odds ratios of 0.1=10, 0.2=5, 0.3=2.2, 0.4=2.5, 0.5=2)

Third country nationals are more likely to report fair/poor health (2.6 F), and less depressive symptoms (0.4 F). They are more likely to report heart problems (7.2 F), and less likely to report multiple conditions (0.3 M).

Health care controlled for medical need and SEP

The unemployed are more likely to visit GPs (2.6 F, 3.1 M), as are retired females (3.9) and financially strained males (2.3). Retired males (0.4) and female house-workers (0.6) are less likely to not use GP/specialist.

Lower educated females (1.7) are more likely to report any unmet need, while retired/disabled ones (0.2) are less likely. Very financially strained report unmet need for several reasons, notably overall (4.5 F, 4.6 M) could not pay (11.7 F, 3.9 M), waiting lists (3.6 F, 3.9 M) and no appointments available (4.1 M).

Albanian females report lower odds of unmet need overall (0.4), and for not being able to pay (0.4).

Risk factors controlled for SEP

In terms of smoking behaviours, unemployed females are less likely to report present smoking (0.3), while the very financially strained are more likely (2.7 F, 1.8 M). Lower educated females are more likely to report high smoking (3.6), and Albanian females are less likely to smoke at present (0.2)

For drinking behaviour, highly strained males are less likely to report weekly drinking (0.4), as are most immigrants (0.3 Albanian F, 0.2 other F, 0.1 third country M). The retired (3.9) and Albanian (2.6) males are more likely to report binge drinking

When it comes to high physical activity, lower educated males are less likely to report this (0.6), while immigrant males are more likely (Albanian 2.1, third country 3.0)

Determinants controlled for SEP

The lower educated are more likely to report ergonomic work hazards (1.8 F, 2.7 M), as are the financially strained (2.0 F, 2.3 M). The highly strained are more likely to report material hazards (2.6 F, 4.0 M). Lower educated males are also more likely to report material hazards (2.0).

For childhood conditions, the lower educated males are more likely to report childhood conflict (4.8). Albanians are less likely to report childhood conflict (0.1 F, 0.3 M). The lower educated report more financial hardship in childhood (1.9 F, 2.8 M), as do third country males (2.2).

The financially strained are more likely to report both childhood conflict (3.9 F) and childhood hardship (4.4 F, 3.7 M).

Even after controlling for SEP, immigrants are more likely to report ergonomic hazards (Albanians 2.3 F, 6.3 M, third country 3.4 F, 2.9 M) and material hazards (Albanian 6.3 M, third country 2.6 M).

7.2. Health status of immigrants after controlling for education, occupation and financial strain

The table below summarizes the findings on immigrant health after controlling for socio-economic position, and health care needs where relevant, and compares them with the previous results which adjusted for age only. A plus sign indicates that the group is more likely than the Greek reference group to report the measure, and a minus sign less, for the given gender.

Table E1. Summary of immigrant health after controlling for SEP

	Adjusted for SEP		Adjusted for age only	
Measure	*Albanians*	*Third country*	*Albanians*	*Third country*
Fair/poor health	-M	+F		+F
Hampering	-F		-F	
Depressive	-F	-F		-F
Overweight/obesity				-M
Back pain	-M		-F	
Foot pain	-M		-M	
Diabetes				+M
Headaches	-F			
Heart problems		+F		
HBP	-F		-M	-M
No NCD	+FM		+FM	
One NCD	-FM		-F	
2+NCDs	-FM	-M	-M	-M
No GP/Specialist			+F	
Specialist use			-F	
Unmet need overall	-F			
Could not pay	-F			
Smoking at present	-F		-F	
Binge drinking	+M		+M	
Frequent drinking	-F	-FM	-F	-FM
High physical activity	+M	+M	+M	+M
Childhood conflict	-FM		+FM	+M
Childhood hardship		+FM	-F	
Ergonomic hazards	+FM	+FM	+FM	+FM
Material hazards	+M	+M	+FM	+M

After controlling for socio-economic position, **Albanian females** are less likely to report being hampered, depressive symptoms, HBP, and severe headaches than Greek females. They are more likely to report no NCDs, and less likely to report one or multiple NCDs. They report less unmet need overall and due to not being able to pay. They are less likely to smoke at present and to drink frequently. They are less likely to report childhood conflict. They have higher odds of ergonomic hazards than Greek females. Most of the differences to Greek females remained significant, and odds ratios did not change substantially. Differences in health care use and financial hardship in childhood were no longer significant after adjusting for SEP. Albanian

female became significantly less likely to report depressive symptoms after adjusting for SEP, the same went for severe headaches, overall unmet need (and could not pay).

Albanian males are less likely to report fair/poor health, back and foot pain. As was the case for Albanian females, they are more likely to report no NCDs, and less likely to report one or multiple NCDs. Albanian males are more likely to report binge drinking, but also high physical activity. They are less likely to report childhood conflict. Finally, they have higher odds of both ergonomic and material hazards. Most of the differences remained significant after controlling for SEP, and odds ratios did not change substantially. Differences in HBP were no longer significant. After adjusting for SEP, Albanian males became significantly less likely to report fair/poor health.

Third country females are more likely to report fair/poor health and heart problems, but less likely to report depressive symptoms than Greek females. They are less likely to report frequent drinking, but more likely to report childhood hardship and ergonomic hazards. Most of the differences remained significant after controlling for SEP, and odds ratios did not change substantially. After adjusting for SEP, they became significantly more likely to report heart problems and childhood hardship.

Third country males are less likely to report multiple conditions and frequent drinking. They are more likely to report high physical activity, hardship in childhood, and both material and ergonomic hazards. Some differences that were significant when only controlling for age turned out insignificant after controlling for socio-economic position. This applied to HBP, obesity and diabetes, as well as childhood conflict.

Conclusion

The results show that differences in health related outcomes between Greeks and immigrants can only be partially explained by differences in socio-economic position. Third country males seem more affected by their socio-economic position, as

several associations became insignificant after controlling for SEP. Overall, the results suggest that there are additional explanations to the differences we observe. Immigrant groups tend to report better outcomes than Greeks in many cases, the notable exception is physical work hazards, where immigrant groups have markedly higher exposure. This suggests that there are factors relating to experiences prior to migration that could be influential, as well as selection mechanisms that point to the health resources of the immigrants. Predisposed genetic factors, personality traits, and acculturation strategies may also affect health outcomes.

Chapter 8: Absolute effects of socio-economic position on health among Greeks and immigrants.

8.1. The effects of age, education, occupation and financial strain

The previous regressions on socio-economic position (SEP) showed the relative effect of age, education, occupation and financial strain on health. In this section, we show the absolute effects of SEP on fair/poor self-rated health and depressive symptoms. Based on the regressions, probabilities were calculated using Stata's margins function. The results are graphed below, and full tables are found at the end of this section in tables E1-E9.

The graphs show the absolute predicted probability of poor health and depressive symptoms under the following assumptions, using the example of poor self rated health among Greeks as an example:

Age and health among Greeks and immigrants

Greek females (figure E1 below, red bars to the left) in the age range 20-39 are about 10% likely to report poor self-reported health, while females in the age range 40-64 are a little over 25% likely. We can also note rather large confidence intervals, meaning that the estimates are quite uncertain. Albanian females are somewhat less likely to report poor health, while third country females are quite a lot more likely. The strong effect of age means that older third country females have around 45% probability of poor health. Absolute differences between Greeks and immigrants therefore become larger in the older age groups.

It is important to note that the effect of education, occupation and strain is kept constant at average levels.

Depressive symptoms (figure E2 below) are not as sensitive to age as poor health. The notable result here is the higher rates of depressive symptoms among Greek females (around 40%), with only a slight increase in probability of depressive

symptoms with older age. Estimates for third country nationals are more uncertain due to low N, but the overall impression remains strong.

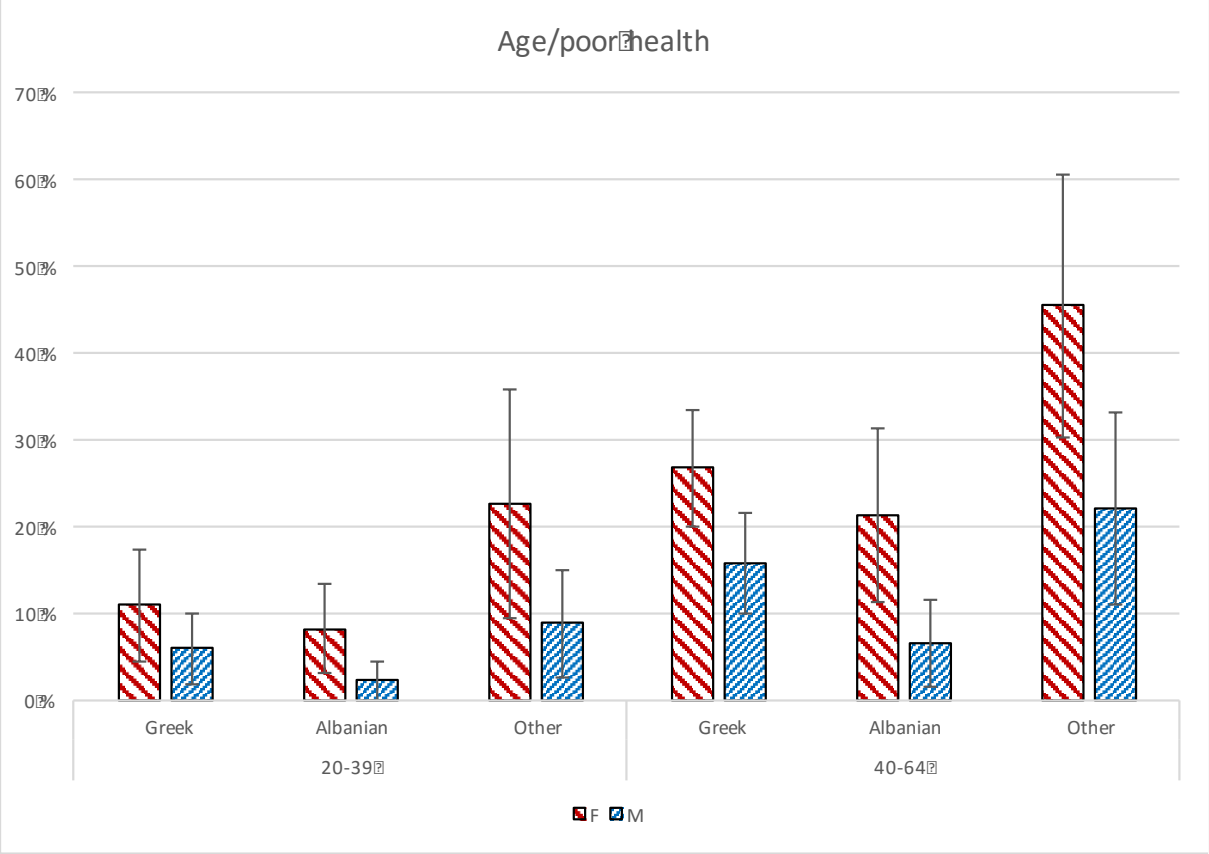


Figure E1. The effects of age on the probability of poor self-reported health

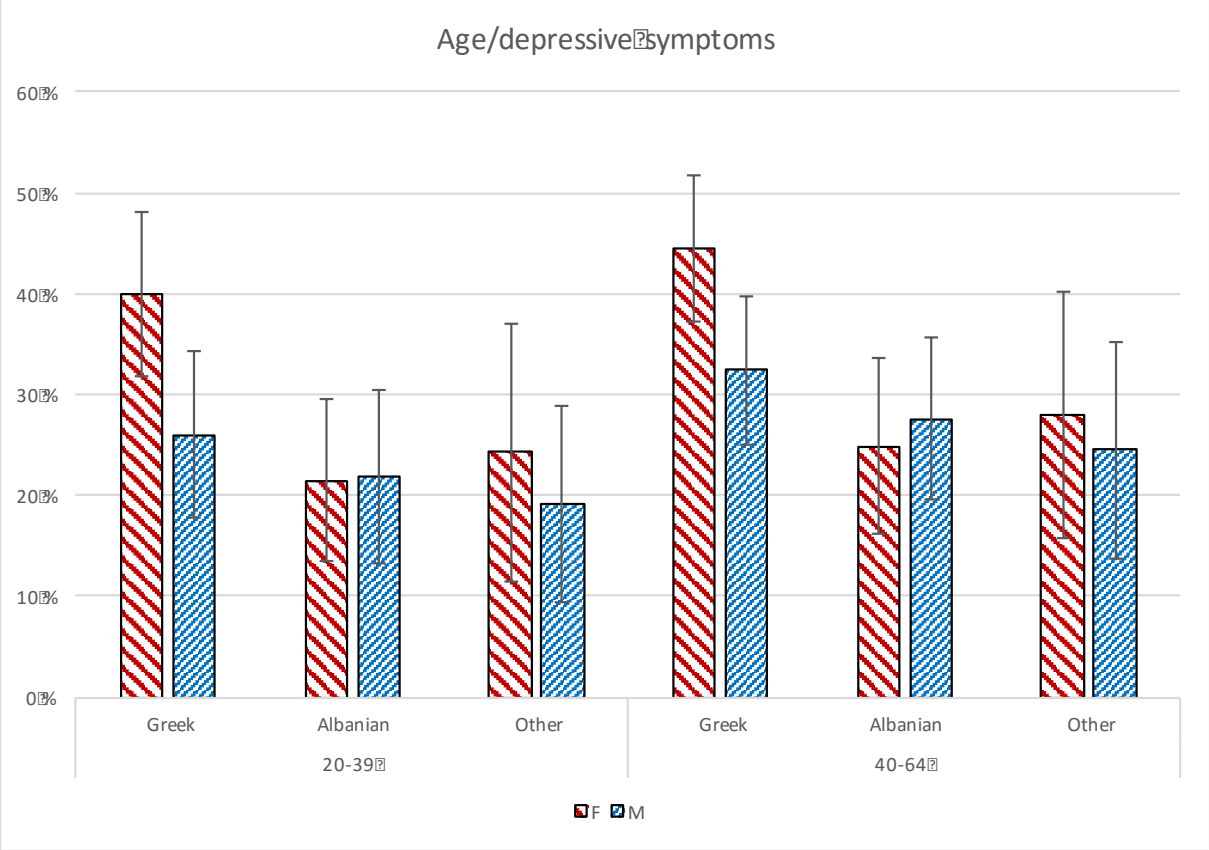


Figure E2. The effects of age on the probability of depressive symptoms.

Education and health among Greeks and immigrants

There is a notable effect of education on self-reported health (figure E3 below). Greek females with upper education (tertiary and upper secondary) have about 15% chance of reporting poor health, which increases to around 25% among the lower educated. Although the confidence intervals are wide, third country females with lower education still appear at the highest risk of poor health. On the other hand, although lower educated Albanian males have a higher risk of poor health (4%) than the higher educated (6%), the differences are not pronounced in absolute terms.

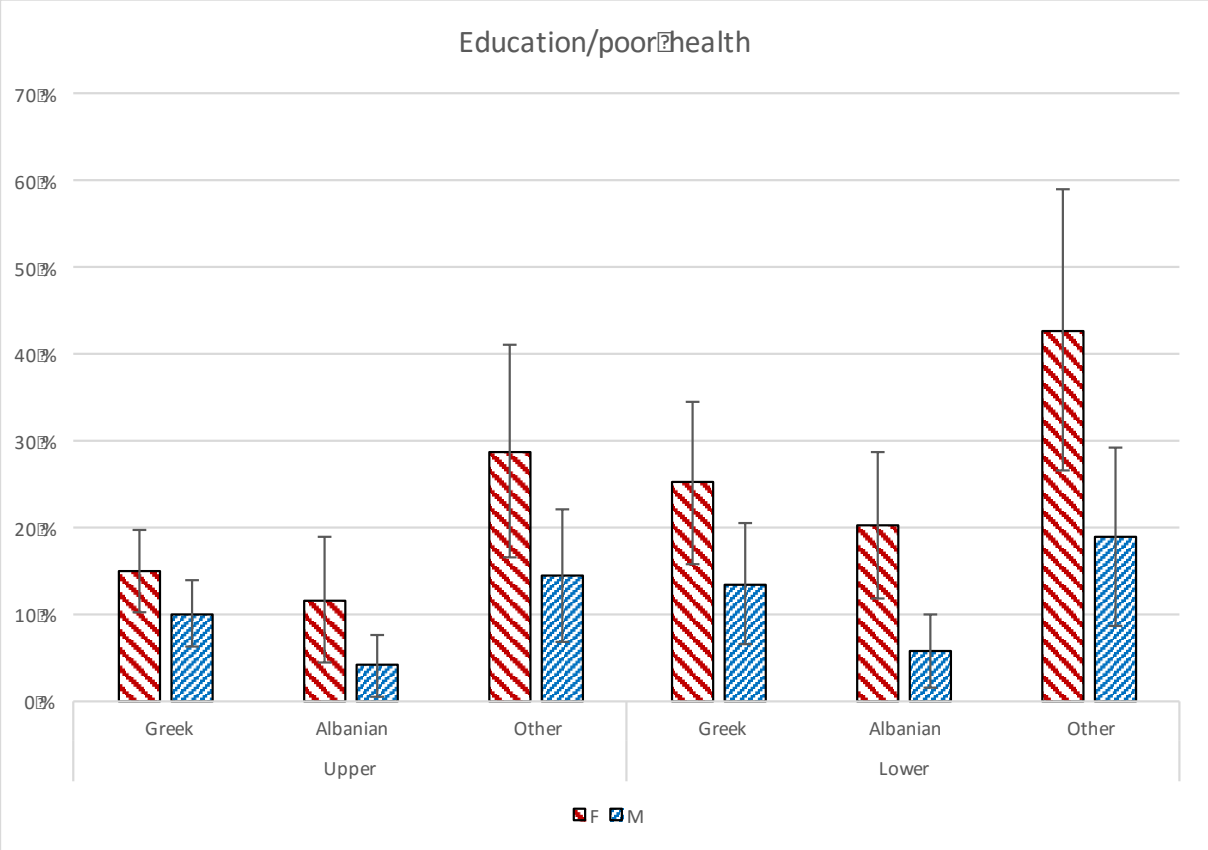


Figure E3. The effects of education on the probability of poor self-reported health.

For education and depressive symptoms (figure E4 below), the notable result is the gender difference between Greek males and females. Lower educated Greek females have only slightly higher chances of depressive symptoms (around 45%) than

the higher educated (around 40%) in absolute terms. However, Greek males with lower education have almost 40% chance of reporting depressive symptoms, compared to around 25% among higher educated.

Another interesting result is that there is a general gender divide. Where Greek females have the highest risk of depressive symptoms regardless of educational level, the differences between males are much smaller. Considering the large confidence intervals, it could be argued that males have more or less the same chances of depressive symptoms regardless of nationality. For males, the educational effect is stronger than the effect of nationality.

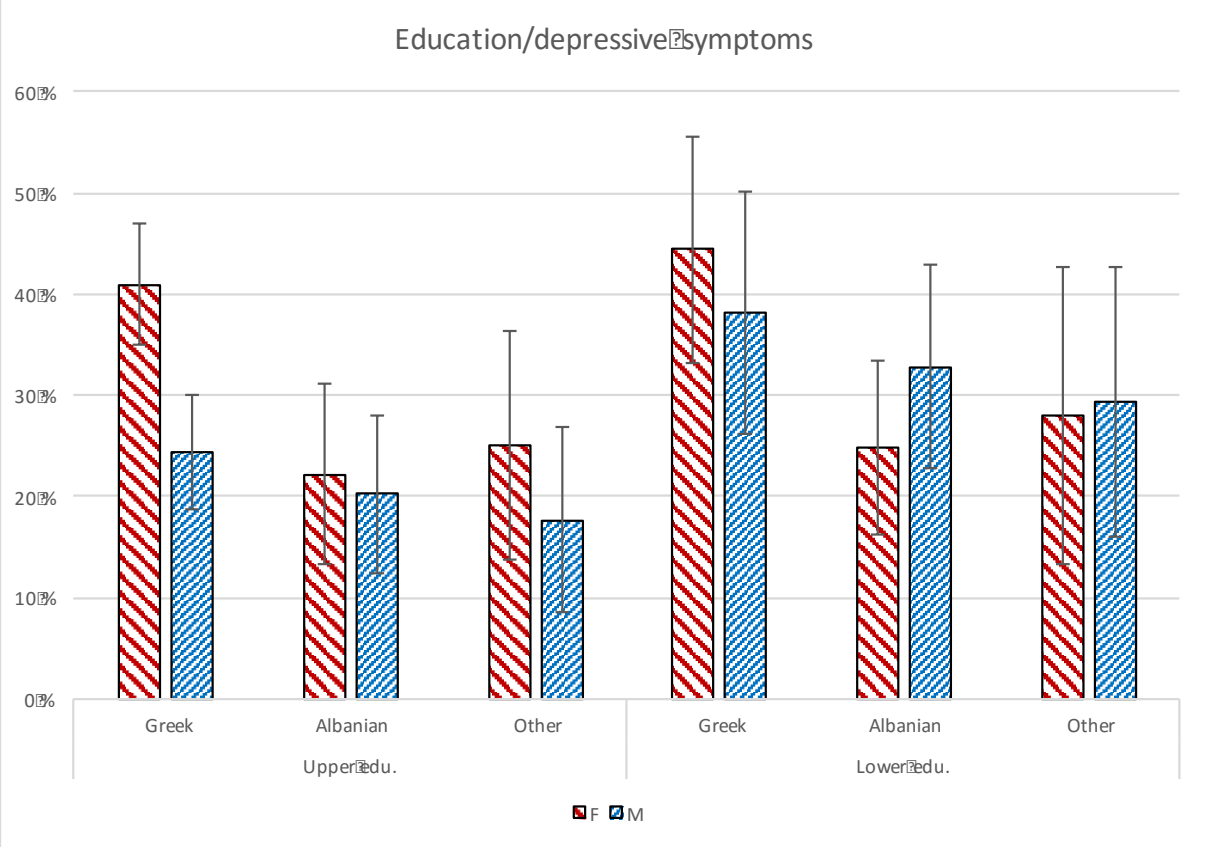
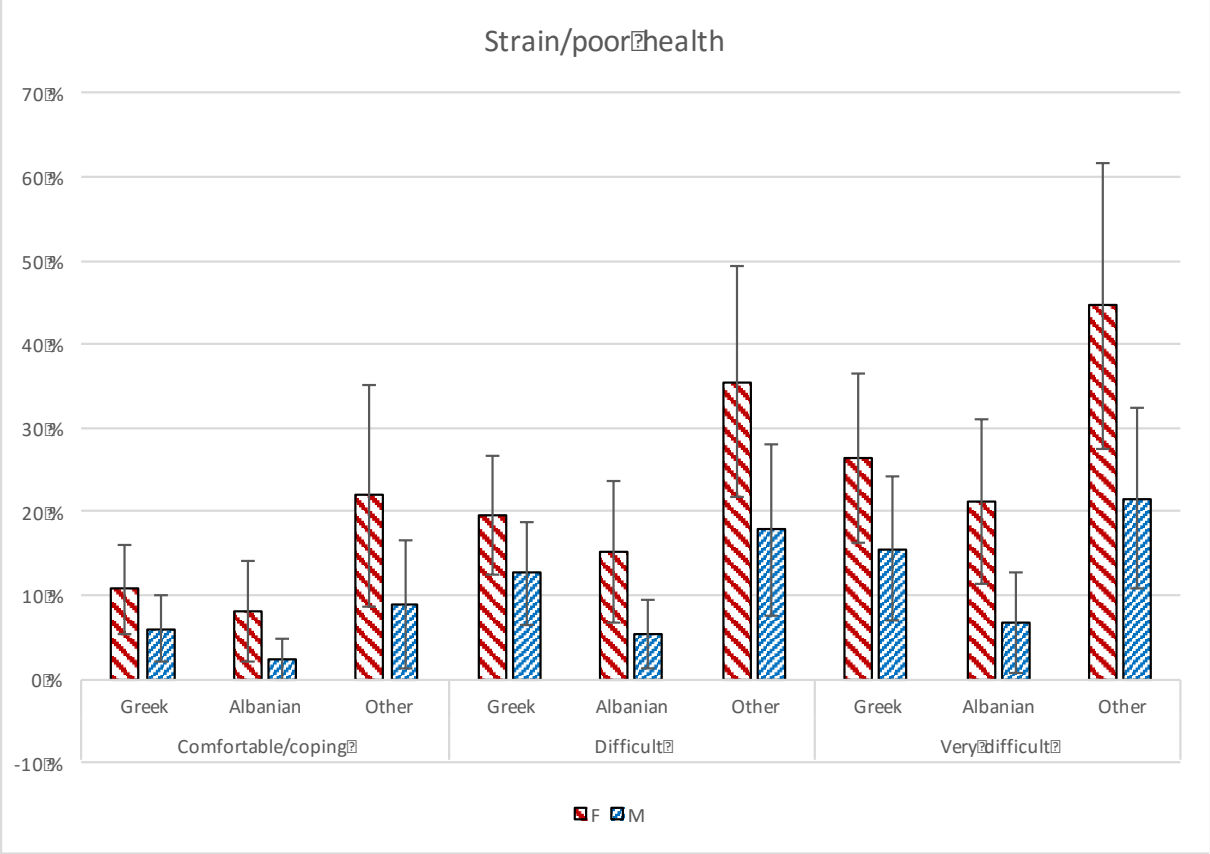


Figure E4: The effects of education on the probability of depressive symptoms.

Financial strain and health among Greeks and immigrants

Financial strain has a very substantial effect on the chances of reporting poor health (figure E5). There is a clear gradient, where increasing financial strain is associated with poor health. Here, third country females appear at the highest risk. Even when experiencing no financial strain, third country females have a 20% chance of reporting poor health on average, increasing to around 45% among the highly financially strained. On the other hand, Albanian males do not have a high increase in absolute terms due to financial strain. Even though estimates are uncertain in some cases due to low N, the effects of financial strain are strong.

The effects of financial strain are very strong on depressive symptoms (figure E6). The pattern is very similar to education, where Greek females are highly affected by financial strain. The chances of reporting depressive symptoms for Greek females increase from around 20% with no strain, to almost 60% for the highly strained. Immigrant males are slightly less likely to report depressive symptoms than Greeks, regardless of the level of strain.



FigureE5: The effects of financial strain on the probability of poor self-reported health.

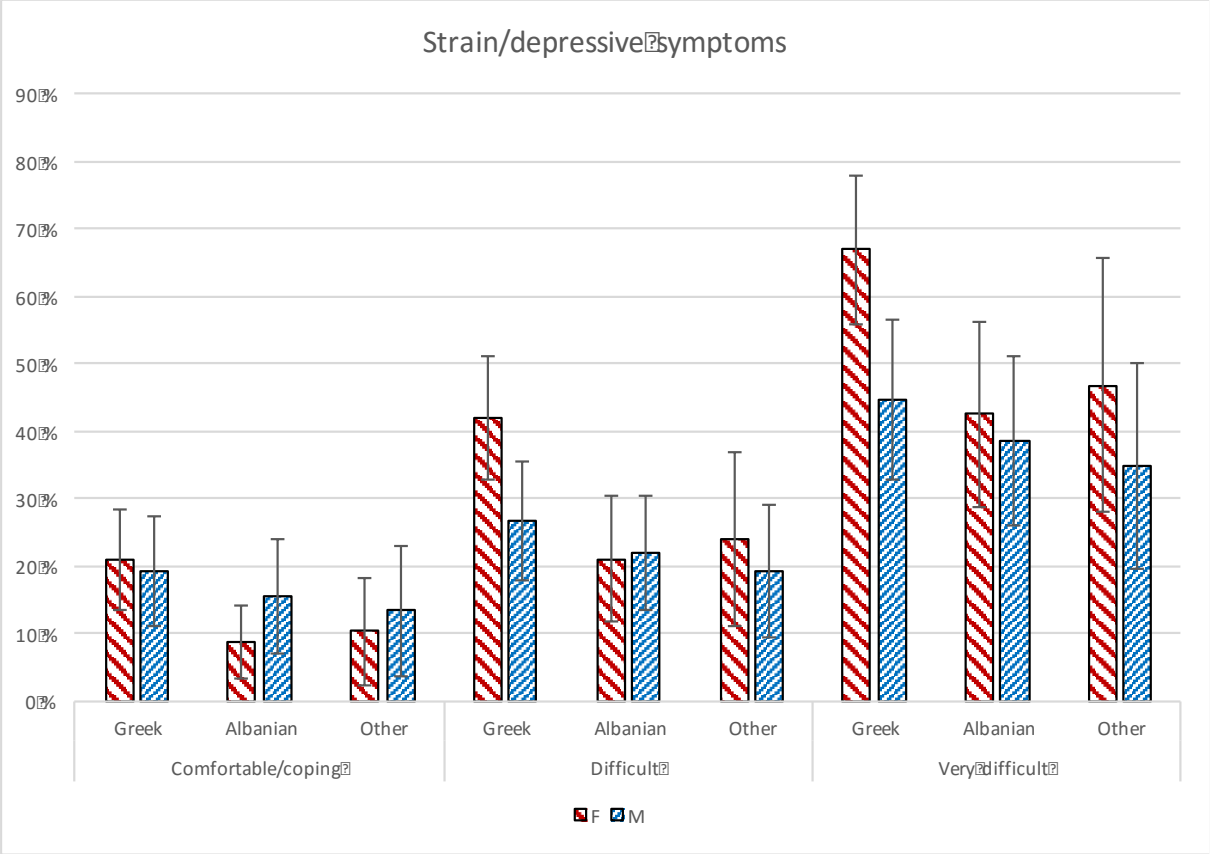


Figure E6: The effects of financial strain on the probability of depressive symptoms.

Occupation and health among Greeks and immigrants

The main effect of occupational groups on poor health is among the retired/disabled (figure E7 below). This group primarily consists of Greeks, so these estimates are very uncertain for immigrant groups. There is an increase in the chances of reporting poor health among the unemployed, but this effect is not as pronounced as with financial strain. Therefore, the notable result is that house-workers tend to report more poor health. Take note that this applies to females only, as there were no cases of male house-workers. Third country house-workers have high chances of reporting poor health, although estimates are uncertain.

For depressive symptoms, the results are very similar to the results on poor health (E8).

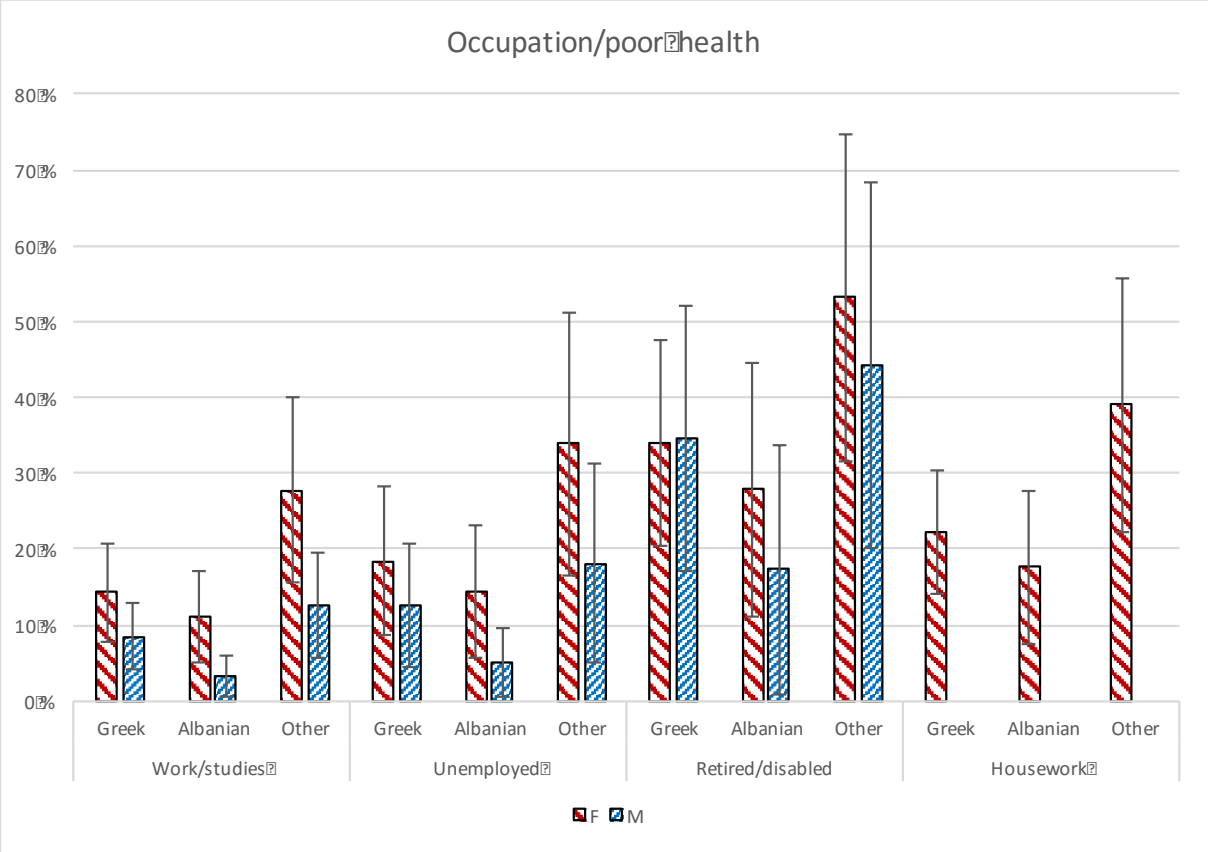


Figure E7: The effects of occupation on the probability of poor self-reported health.

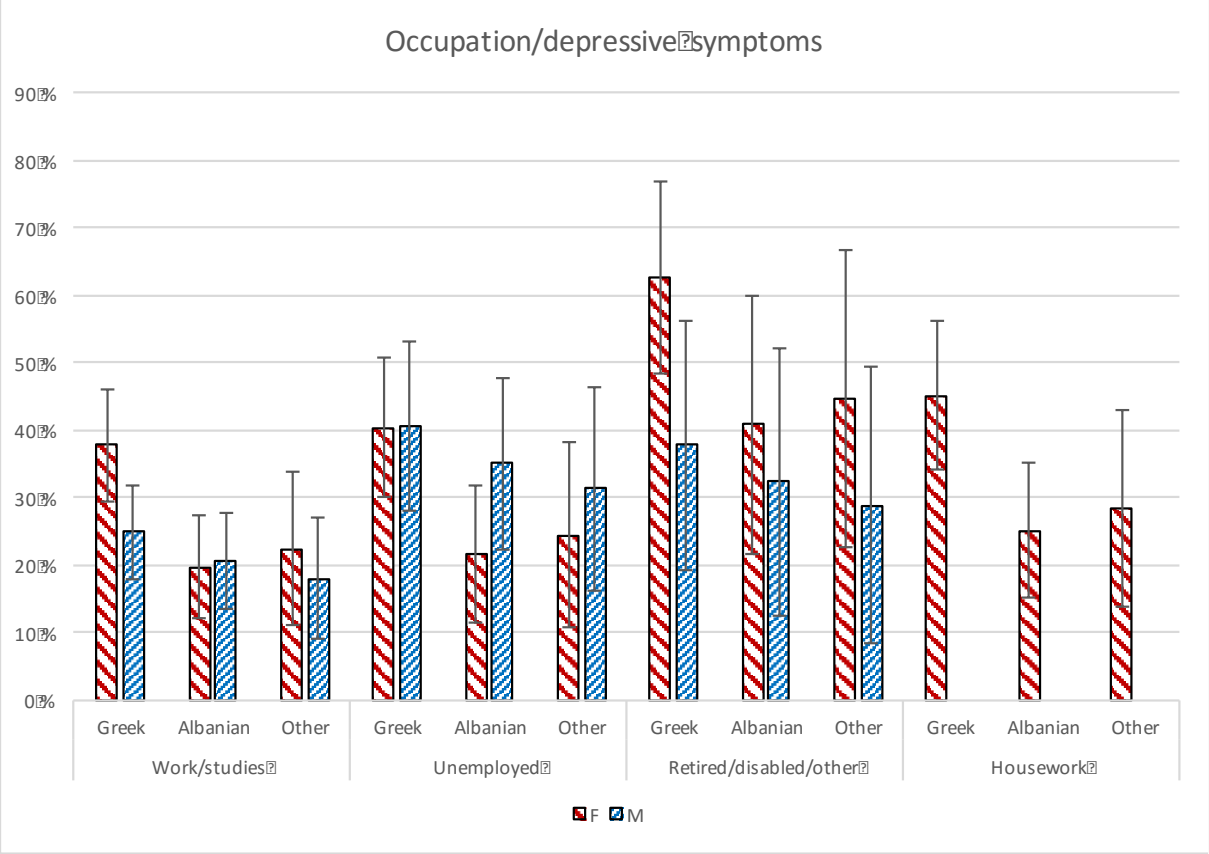


Figure E8: The effects of occupation on the probability of depressive symptoms.

Summary of absolute effects of SEP on health among Greeks and immigrants

The most noteworthy result from the analysis of absolute probabilities of poor health, is that financial strain seems to be the strongest SEP driver on both poor self-reported health and depressive symptoms, both in relative and absolute terms. For example, high financial strain increases the chances of poor health from around 20% among third country females, to over 40%. For depressive symptoms, the effect of financial strain is even more profound. Greek females with no strain report around a 20% chance of depressive symptoms, which increases to almost 70% for the highly financially strained.

8.2. Differences between lowest and highest SEP among Greeks and immigrants

Socio-economic position, particularly financial strain, was shown to be highly influential on health outcomes. At the same time, there still remained significant and unexplained differences between Greeks and immigrants, even after controlling for SEP. In order to get a perspective on how important these differences between Greeks and immigrants are in terms of health, we compared the highest and the lowest SEP groups in each population group (Greeks, Albanians and third country nationals), to see how likely the high and low SEP groups were to report poor health.

The regression analyses for poor self-reported health and depressive symptoms, showed that education, occupation and financial strain all had a significant effect on health. In addition, the older age group had higher odds of poor self-reported health. Using Stata's margins function, two extreme opposing cases were constructed, and probabilities were calculated.

The first group consisted of the younger age group, the more highly educated, in paid work, and with no financial strain. This group should have the lowest probability of poor health. The second group consisted of the older age group, the lower educated, the retired/disabled, with very high financial strain. This group should have the highest probability of reporting poor health. Although it is very unlikely that any individual case exists that matches this ideal typical construction, it shows the range of influence that SEP has on health.

The results are graphed below; numbers are found in table E9 at the end of this section.

Poor self-reported health among high and low SEP groups

The graphs below compare high and low SEP groups, split by gender and population groups. As expected, the high SEP groups have the lowest chances of reporting poor health.

Greek females in the high SEP group have only a 3% chance of reporting poor health, while a third country female in the high SEP group has a 6% chance. So, while there is still a difference between Greek and third country females, this difference is quite low in absolute terms, and both groups are at very low risk of reporting poor health.

Any differences between Greek females and immigrants are dwarfed by the effects of SEP (figure E9 below). A Greek female in the older age group, with lower education, being retired/disabled, and with high financial strain, would have over a 70% chance of reporting poor health. A low SEP female from a third country would have over 80% chance of reporting poor health. As shown in the previous section, a large portion of this difference can be attributed to financial strain.

The results for males are very similar (figure E10 below). An Albanian male of high SEP would have almost no chance of reporting poor health, while low SEP would increase the chance to over 40%, all else assumed to be equal. Even with large confidence intervals, there is evidence to argue that any health differences between Greeks and immigrants are less influential than the effects of SEP.

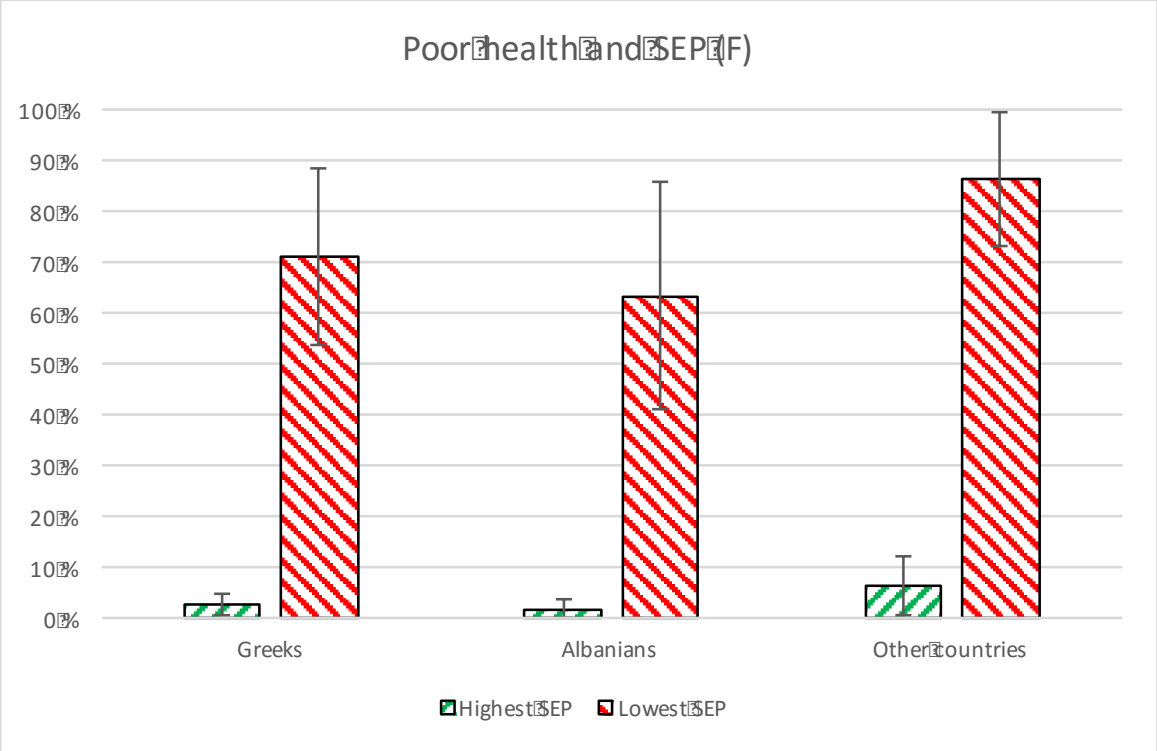


Figure E9: Comparison between high and low SEP females' chances of poor self-reported health.

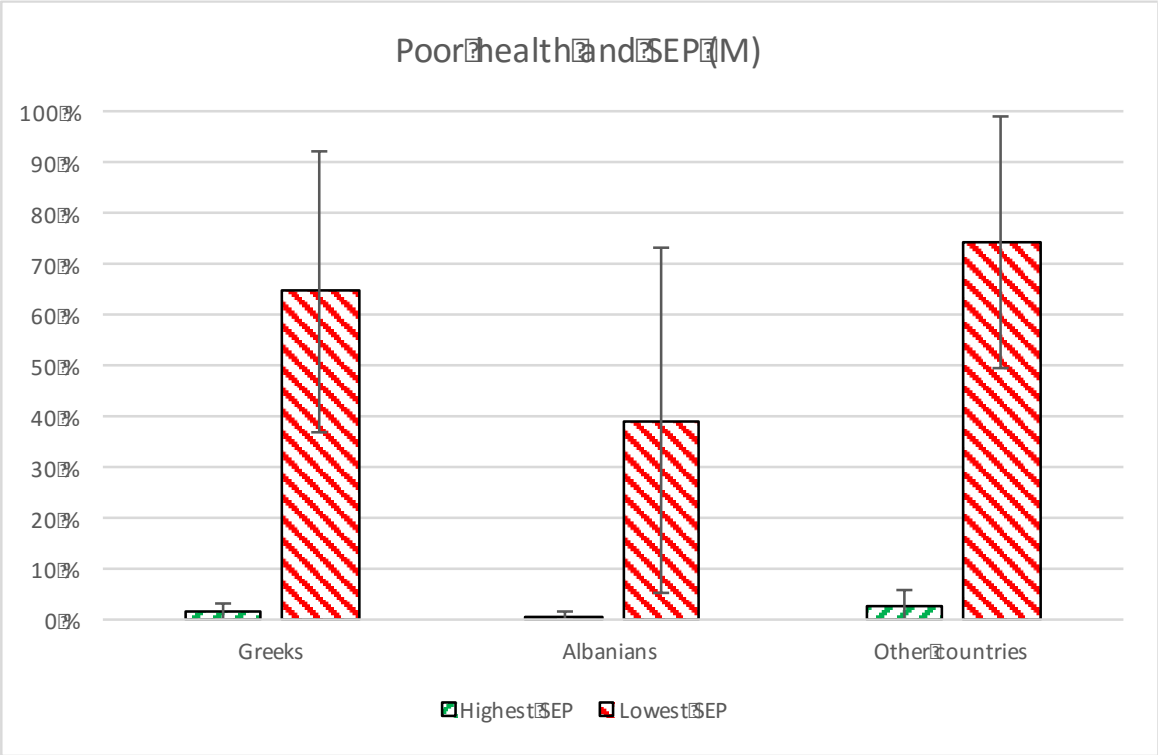


Figure E10: Comparison between high and low SEP males' chances of poor self-reported health.

Depressive symptoms among high and low SEP groups

For depressive symptoms, the pattern is very much the same as for poor self-reported health (figure E11 below). Greek females of high SEP have a 15% chance of reporting depressive symptoms, while Greek females of low SEP have a chance of almost 90%. For males (figure E12 below), the increase is still very strong, although not as strong as for females, from 10% for high SEP Greek males, to 70% for low SEP Greek males.

The chances of reporting depressive symptoms could therefore be argued to be more influenced by differences in SEP, than any unexplained and underlying difference between Greeks and immigrant groups.

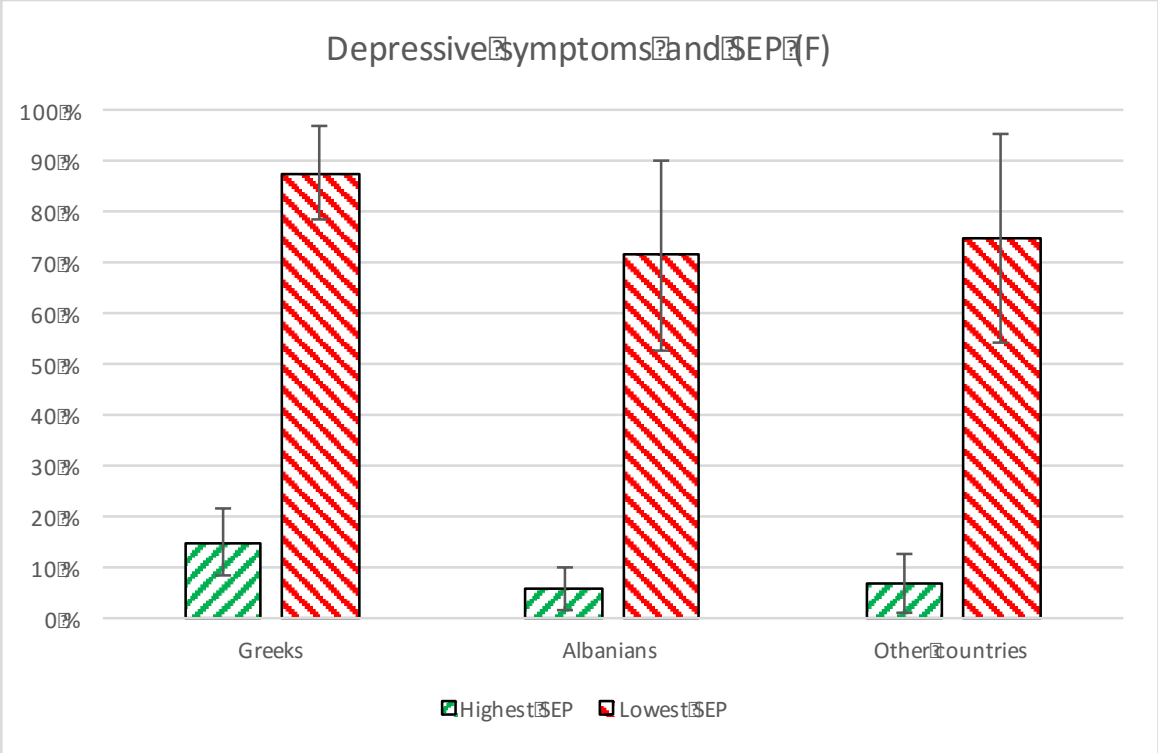


Figure E11: Comparison between high and low SEP females' chances of depressive symptoms.

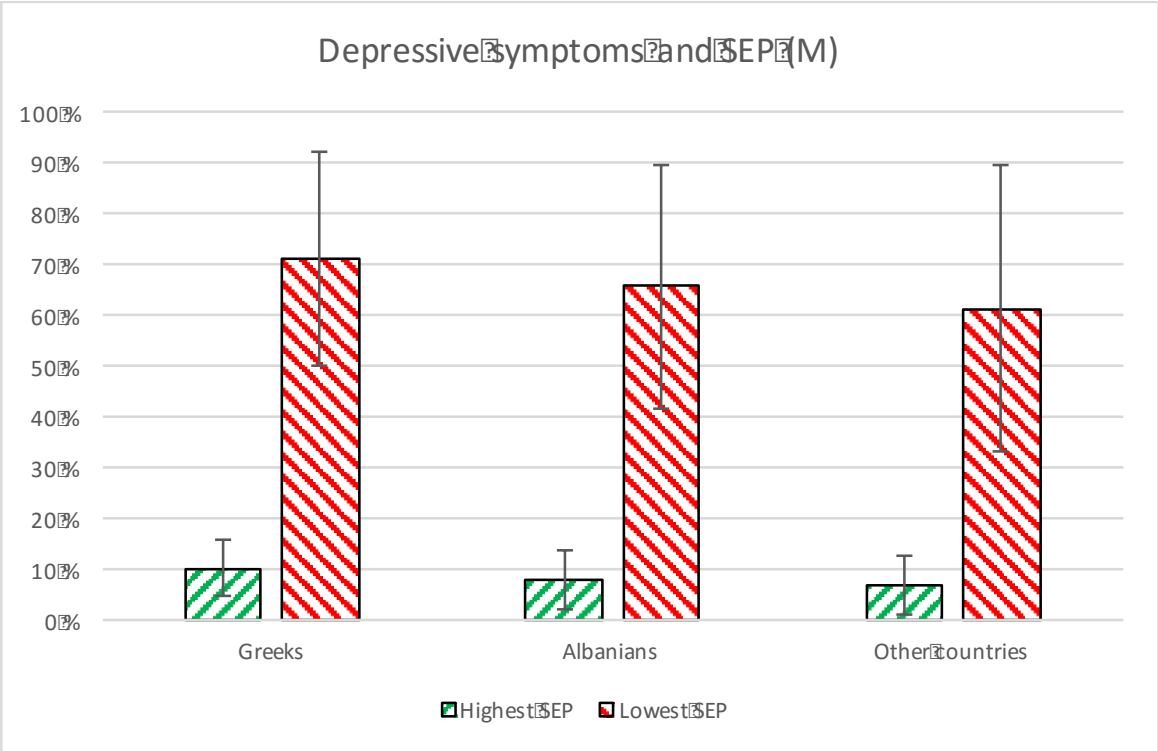


Figure E12: Comparison between high and low SEP males' chances of depressive symptoms.

Conclusion on differences between high and low SEP among Greeks and immigrants

All the results on the differences between high and low SEP point in the same direction: SEP contributes overwhelmingly to the inequalities in health in Greece. As shown in the previous section, financial strain appears to be very influential, as it contributes heavily towards the chances of reporting poor health both in relative and absolute terms.

The results also indicate a very important point towards immigrant health: Although there remain unexplained differences between Greeks and immigrants even after controlling for SEP, these differences are very small in absolute terms, and SEP contributes much more to differences in health than does immigrant status in absolute terms.

An important assumption here is that SEP affects immigrants in the same way as the native population. This assumption may not hold in practice, due to selection effects. This is discussed in the comparison of Albanians living in Greece versus those living in Albania.

Tables: Absolute effects of socio-economic position on health

Table E1. The effects of age on poor health. Predicted values in %.

Age/poor health		F	F CI 95-	F CI 95+	M	M CI95-	M CI95+
20-39	Greek	11 %	4 %	17 %	6 %	2 %	10 %
	Albanian	8 %	3 %	13 %	2 %	0 %	4 %
	Other	23 %	9 %	36 %	9 %	3 %	15 %
40-64	Greek	27 %	20 %	33 %	16 %	10 %	22 %
	Albanian	21 %	11 %	31 %	7 %	2 %	12 %
	Other	46 %	30 %	61 %	22 %	11 %	33 %

Table E2. The effects of age on depressive symptoms. Predicted values in %.

Age/depressive symptoms		F	F CI 95-	F CI 95+	M	M CI95-	M CI95+
20-39	Greek	40 %	32 %	48 %	26 %	18 %	34 %
	Albanian	22 %	14 %	30 %	22 %	13 %	30 %
	Other	24 %	12 %	37 %	19 %	9 %	29 %
40-64	Greek	44 %	37 %	52 %	32 %	25 %	40 %
	Albanian	25 %	16 %	34 %	28 %	20 %	36 %
	Other	28 %	16 %	40 %	25 %	14 %	35 %

Table E3. The effects of education on poor health. Predicted values in %.

Education/poor health		F	F CI 95-	F CI 95+	M	M CI95-	M CI95+
Upper	Greek	15 %	10 %	20 %	10 %	6 %	14 %
	Albanian	12 %	4 %	19 %	4 %	1 %	8 %
	Other	29 %	17 %	41 %	14 %	7 %	22 %
Lower	Greek	25 %	16 %	35 %	14 %	7 %	21 %
	Albanian	20 %	12 %	29 %	6 %	1 %	10 %
	Other	43 %	27 %	59 %	19 %	9 %	29 %

Table E4. The effects of age on depressive symptoms. Predicted values in %.

Education/depressive symptoms		F	F CI 95-	F CI 95+	M	M CI95-	M CI95+
Upper	Greek	41 %	35 %	47 %	24 %	19 %	30 %
	Albanian	22 %	13 %	31 %	20 %	12 %	28 %
	Other	25 %	14 %	36 %	18 %	9 %	27 %
Lower	Greek	44 %	33 %	56 %	38 %	26 %	50 %
	Albanian	25 %	16 %	34 %	33 %	23 %	43 %
	Other	28 %	13 %	43 %	29 %	16 %	43 %

Table E5. The effects of occupation on poor health. Predicted values in %.

Occupation/poor health		F	F CI 95-	F CI 95+	M	M CI95-	M CI95 +
Work/studies	Greek	14 %	8 %	21 %	8 %	4 %	13 %
	Albanian	11 %	5 %	17 %	3 %	0 %	6 %
	Other	28 %	16 %	40 %	13 %	6 %	19 %
Unemployed	Greek	18 %	9 %	28 %	13 %	4 %	21 %
	Albanian	14 %	6 %	23 %	5 %	1 %	10 %
	Other	34 %	17 %	51 %	18 %	5 %	31 %
Retired/disabled/other	Greek	34 %	21 %	47 %	35 %	17 %	52 %
	Albanian	28 %	11 %	45 %	17 %	1 %	34 %
	Other	53 %	32 %	75 %	44 %	20 %	68 %
Housework	Greek	22 %	14 %	30 %			
	Albanian	18 %	8 %	28 %			
	Other	39 %	22 %	56 %			

Table E6. The effects of occupation on depressive symptoms. Predicted values in %.

Occupation/depressive symptoms		F	F CI 95-	F CI 95+	M	M CI95-	M CI95+
Work/studies	Greek	38 %	30 %	46 %	25 %	18 %	32 %
	Albanian	20 %	12 %	28 %	21 %	13 %	28 %
	Other	22 %	11 %	34 %	18 %	9 %	27 %
Unemployed	Greek	40 %	30 %	51 %	41 %	28 %	53 %
	Albanian	22 %	11 %	32 %	35 %	22 %	48 %
	Other	24 %	11 %	38 %	31 %	16 %	47 %
Retired/disabled/other	Greek	63 %	48 %	77 %	38 %	19 %	56 %
	Albanian	41 %	22 %	60 %	32 %	13 %	52 %
	Other	45 %	23 %	67 %	29 %	8 %	49 %
Housework	Greek	45 %	34 %	56 %			
	Albanian	25 %	15 %	35 %			
	Other	28 %	14 %	43 %			

Table E7. The effects of financial strain on poor health. Predicted values in %.

Strain/poor health		F	F CI 95-	F CI 95+	M	M CI95-	M CI95+
Comfortable/coping	Greek	11 %	5 %	16 %	6 %	2 %	10 %
	Albanian	8 %	2 %	14 %	2 %	0 %	5 %
	Other	22 %	9 %	35 %	9 %	1 %	17 %
Difficult	Greek	20 %	13 %	27 %	13 %	7 %	19 %
	Albanian	15 %	7 %	24 %	5 %	1 %	9 %
	Other	36 %	22 %	49 %	18 %	8 %	28 %
Very difficult	Greek	26 %	16 %	37 %	16 %	7 %	24 %

	Albanian	21 %	11 %	31 %	7 %	1 %	13 %
	Other	45 %	28 %	62 %	22 %	11 %	32 %

Table E8. The effects of financial strain on depressive symptoms. Predicted values in %.

Strain/depressive symptoms		**F**	**F CI 95-**	**F CI 95+**	**M**	**M CI95-**	**M CI95+**
Comfortable/coping	Greek	21 %	14 %	29 %	19 %	11 %	27 %
	Albanian	9 %	3 %	14 %	16 %	7 %	24 %
	Other	10 %	2 %	18 %	13 %	4 %	23 %
Difficult	Greek	42 %	33 %	51 %	27 %	18 %	35 %
	Albanian	21 %	12 %	30 %	22 %	14 %	30 %
	Other	24 %	11 %	37 %	19 %	9 %	29 %
Very difficult	Greek	67 %	56 %	78 %	45 %	33 %	57 %
	Albanian	43 %	29 %	56 %	39 %	26 %	51 %
	Other	47 %	28 %	66 %	35 %	20 %	50 %

Table E9. Comparison between effects of highest and lowest SEP on health.

	Highest SEP			**Lowest SEP**		
Depressive	***F***	*CI-*	*CI+*	***F***	*CI-*	*CI+*
Greeks	**15 %**	8 %	22 %	**88 %**	79 %	97 %
Albanians	**6 %**	2 %	10 %	**71 %**	53 %	90 %
Third countries	**7 %**	1 %	13 %	**75 %**	54 %	96 %
Depressive	***M***	*CI-*	*CI+*	***M***	*CI-*	*CI+*
Greeks	**10 %**	5 %	16 %	**71 %**	50 %	93 %
Albanians	**8 %**	2 %	14 %	**66 %**	42 %	89 %
Third countries	**7 %**	1 %	13 %	**61 %**	33 %	89 %
Poor health	***F***	*CI-*	*CI+*	***F***	*CI-*	*CI+*
Greeks	**3 %**	1 %	5 %	**71 %**	54 %	88 %
Albanians	**2 %**	0 %	4 %	**63 %**	41 %	86 %
Third countries	**6 %**	1 %	12 %	**86 %**	73 %	100 %
Poor health	***M***	*CI-*	*CI+*	***M***	*CI-*	*CI+*
Greeks	**2 %**	0 %	3 %	**65 %**	37 %	92 %
Albanians	**1 %**	0 %	1 %	**39 %**	5 %	73 %
Third countries	**3 %**	0 %	6 %	**74 %**	50 %	99 %

Chapter 9: The role of religion

One common finding in the literature is that religious observance is associated with better health outcomes (Koenig 2014). In the context of migration, Islam has been argued to contribute to better health outcomes among migrants, due to strong sanctions against unhealthy behaviour in Muslim cultures (Huijts & Kraykaamp 2012), in particular regarding the consumption of alcohol (Hjern and Allebeck, 2004), but also contributing to lower levels of smoking among females in Arabic countries (Lindstrom and Sundquist, 2002). Moroccans and Turks have lower mortality rates than other immigrant groups in the Netherlands (Bos et al., 2004; Stirbu et al., 2006b), which has been attributed to adherence to Islam. This is not necessarily due to religious adherence to Islam, it could be due to cultural norms, influencing the whole population of Muslims.

Greece is a country where religion is also an important societal factor (Stathopoulou and Kostaki 2014, Stathopoulou 2010, Stathopoulou 2007). MIGHEAL asked the question 'How religious are you" on a scale of 0 to 10, and the mean value was 6.4, compared to the pooled ESS7 mean of 4.4, and higher than any ESS country. Only 39% of Albanians answered affirmatively. Third country nations generally were on a higher level than Greece.

We will therefore investigate the link between religious indicators and some key health indicators.

9.1. Measures

The MIGHEAL questionnaire contains several questions on religious attitudes and behaviour.

Respondents were asked: 'Do you consider yourself as belonging to any particular religion or denomination?' The distribution among population groups is given below, for age ranges 20-64. The rates are not age standardized.

Table F1. Belonging to particular religion or denomination				
	Greeks	*Albanians*	*Third countries*	*Total*
Yes	83,6 %	77,1 %	96,7 %	83,9 %
No	16,4 %	22,9 %	3,3 %	16,1 %
Total	*100,0 %*	*100,0 %*	*100,0 %*	*100,0 %*

83% of Greeks, 77% of Albanians, and 97% of third country nationals report belonging to a religious denomination.

In the table below, those who report being religious are broken down into denominations. Eastern Orthodox is predominant among Greeks at 98%. The two major religions among Albanians are Eastern Orthodox (57%) and Islam (27%). For third countries, Islam is the major denomination, followed by Eastern Orthodox. Albania and third nationals are therefore not uniform in their religious background.

Table F2.	**Religion or denomination belonging to at present**			
	Greeks	*Albanians*	*Third countries*	*Total*
Roman Catholic	0,8 %	8,7 %	2,7 %	3,1 %
Protestant		0,5 %	1,4 %	0,4 %
Eastern Orthodox	97,8 %	57,7 %	29,3 %	76,1 %
Other Christian denomination			2,0 %	0,4 %
Jewish	0,2 %			0,1 %
Muslim	0,4 %	27,4 %	56,5 %	16,7 %
Eastern religions		1,4 %	7,5 %	1,6 %
Other non-Christian religions	0,8 %	4,3 %	0,7 %	1,6 %
Total	*100,0 %*	*100,0 %*	*100,0 %*	*100,0 %*

The table below shows the mean level of religiosity among the three population groups on a scale of 0 to 10, where 0 is not at all religious and 10 is very religious. Greeks and Albanians are at the same level of religiosity (6.1-6,2), while third countries are at a higher level of religiosity (7.9).

Table F3. How religious are you (0-10)?

	Mean	*N*	*SD*
Greeks	6,13	847	2,72
Albanians	6,16	299	2,65
Third countries	7,85	160	2,30
Total	*6,35*	*1307*	*2,71*

Since countries are not religiously homogenous, the following table breaks religiosity down by denomination. Eastern Orthodox denominations have a mean level of 6.7, while Muslims are at 7.3. Muslims are therefore slightly more religious.

Table F4.	**How religious are you (0-10)?**		
	Mean	N	SD
Roman Catholic	6,78	28	2,15
Protestant	8,34	2	1,69
Eastern Orthodox	6,66	886	2,26
Other Christian denomination	7,01	5	2,74
Jewish	5,00	1	0,00
Muslim	7,33	148	2,62
Eastern religions	8,89	14	1,23
Other non-Christian religions	6,70	15	2,81
Total	**6,78**	**1100**	**2,33**

The following table shows the distribution of religious behaviour in the form of attendance at religious services.

Table F5.	**How often attend religious services apart from special occasions**			
	Greeks	*Albanians*	*Third countries*	*Total*
Every day	0,8 %		6,8 %	1,4 %
More than once a week	5,6 %	3,9 %	10,6 %	5,8 %
Once a week	15,1 %	18,4 %	36,0 %	18,4 %
At least once a month	21,0 %	21,4 %	13,0 %	20,1 %

Only on special holy days	38,8 %	23,9 %	11,2 %	32,0 %
Less often	12,0 %	16,5 %	7,5 %	12,5 %
Never	6,7 %	15,9 %	14,9 %	9,8 %
Total	*100,0 %*	*100,0 %*	*100,0 %*	*100,0 %*

The differences are easier to spot of we split the groups into two, those who attend services at least monthly, and those who attend less. Here we see that the level of religious attendance is higher among third country nationals (66%) than Greeks and Albanians (43%-44%).

Table F6. How often attend religious services apart from special occasions.

	Greeks	*Albanians*	*Third countries*	*Total*
Monthly	42,5 %	43,7 %	66,4 %	45,7 %
Less	57,5 %	56,3 %	33,6 %	54,3 %
Total	*100,0 %*	*100,0 %*	*100,0 %*	*100,0 %*

Religious behaviour in the form of prayer is found in the table below.

Table F7.	**How often pray apart from at religious services**			
	Greeks	*Albanians*	*Third countries*	*Total*
Every day	32,6 %	32,5 %	58,3 %	36,4 %
More than once a week	19,8 %	18,1 %	15,2 %	18,7 %
Once a week	9,0 %	14,8 %	15,9 %	11,6 %
At least once a month	10,1 %	9,2 %	2,0 %	8,6 %
Only on special holy days	3,4 %	1,8 %	2,6 %	2,9 %
Less often	14,3 %	12,9 %	4,0 %	12,4 %
Never	10,8 %	10,7 %	2,0 %	9,4 %

Total	100,0 %	100,0 %	100,0 %	100,0 %

Once again, the pattern is easier to see if we separate between those who pray at least monthly or less:

Table F8.	**How often pray apart from at religious services**			
	Greeks	*Albanians*	*Third countries*	*Total*
Monthly	71,5 %	74,6 %	91,4 %	75,3 %
Less	28,5 %	25,4 %	8,6 %	24,7 %
Total	*100,0 %*	*100,0 %*	*100,0 %*	*100,0 %*

72%-75 of Albanians pray at least monthly, while the figures for third countries are 91%.

9.2. Religion and health

Based on the description above, we can summarize that third country nationals have a higher proportion of religious respondents, with the predominant denominations being Eastern Orthodox (Greeks, Albanians and third country nationals in descending order) and Islam (Third countries, Albania). Muslims report slightly higher levels of religiosity, while third country nationals report higher attendance of religious services, and higher levels of praying.

First, we take a look at the distribution of poor self-reported health and depressive symptoms among the religious and non-religious.

Table F8. Self-reported health and religion among population groups			**G/VG**	**F/P/VP health**	
Greeks	Belonging to particular religion or denomination	Yes	82,6 %	17,4 %	100,0 %

					100,0
		No	92,9 %	7,1 %	%
		Total	84,3 %	15,7 %	100,0 %
Albanians	Belonging to particular religion or denomination	Yes	89,0 %	11,0 %	100,0 %
					100,0
		No	91,9 %	8,1 %	%
		Total	89,7 %	10,3 %	100,0 %
Third countries	Belonging to particular religion or denomination	Yes	79,1 %	20,9 %	100,0 %
			100,0		100,0
		No	%		%
		Total	79,7 %	20,3 %	100,0 %
Total	Belonging to particular religion or denomination	Yes	83,6 %	16,4 %	100,0 %
					100,0
		No	92,7 %	7,3 %	%
		Total	85,1 %	14,9 %	100,0 %

For self-reported health:

17% of religious Greeks report poor health, compared to 7% of the non-religious. 11% of religious Albanians report poor health, compared to 8% of the non-religious. 21% of third country nationals report poor health, but there are not non-religious respondents. A likely influencing factor here is that the rates are not age-standardized, and older age groups may tend to be more religious.

Table F9. Depressive symptoms and religion among population groups		**Above depression cut-off value**	
Greeks	Belonging to particular religion or denomination	Yes	35,2 %
		No	22,3 %
		Total	33,1 %
Albanians	Belonging to particular religion or denomination	Yes	27,9 %
		No	27,6 %
		Total	27,9 %
Third countries	Belonging to particular religion or denomination	Yes	25,5 %
		No	25,0 %
		Total	25,5 %
Total	Belonging to particular religion or denomination	Yes	31,7 %
		No	24,4 %
		Total	30,6 %

There is a difference in the prevalence of depressive symptoms among religious and non-religious Greeks, where religious Greeks report higher rates of depressive symptoms (35% to 22%). For the immigrant groups, however, there is very little difference (25%-28% in all groups).

The following table shows the percentage who report fair/poor health in in each combination of religious group and country.

Table F10.	**Very poor, poor or fair health**		
	Greeks	Albanians	Third countries
Eastern Orthodox	18 %	15 %	40 %
Muslim	50 %	4 %	13 %

The table shows that 18% of Orthodox Greeks report poor health, while 50% of Greeks Muslims do. The 50% refers to a single respondent. Orthodox Albanians report slightly less poor health at 15%, while third country Orthodox report 40%. 4% of Muslim Albanians report poor health, compared to 13% of third country nationals. There is reason to believe that the figures are skewed by age differences, but the age distribution among Albanians and third countries is fairly similar.

The table below shows the prevalence of depressive symptoms in the same groups as the previous table. Muslim Greeks refers to two cases. Depressive symptoms are highest among Greek Orthodox. Albanian and third country Muslims have lower rates than the Greek, but the lowest are among the immigrant Eastern Orthodox.

Table F11.	**Depressive symptoms**		
	Greeks	Albanians	Third countries
Eastern Orthodox	34,9 %	25,4 %	20,9 %
Muslim	100,0 %	32,7 %	26,8 %

To fully account for the variation in poor health due to religious attitudes and behaviours, a regression model was tested.

9.3. Results

Reference categories have been omitted from the tables to save space.

Models Health 1 and health 2 compare the odds of reporting fair to poor self-reported health according to whether the respondents indicate being religious or not. Health 1 controls for age, gender and population groups, while Health 2 additionally controls for SEP. In both cases, there were no significant differences in the odds of reporting poor health between the religious and the non-religious.

Models Health 3 and Health 4 compare the odds of reporting fair to poor self-reported health according to whether the respondents indicate being Eastern Orthodox or Muslim, and whether the respondents attend religious services and pray frequently. The non-religious and other denominations are excluded from the analysis. Health 3 controls for age, gender and population groups, while Health 4 additionally controls for SEP. In both cases, Muslims have lower odds of reporting poor health (OR 0.5 in Health 3, OR 0.4 in Health 4). Religious behaviour in the form of services and prayer showed no significant difference.

A noteworthy result from Health 3 and 4 is that even though Muslims report lower odds of poor health, third country nationals report higher odds of poor health in model Health 3 (OR 2.9) and model Health 4 (OR 4.0). Third country nationals thus are at a health disadvantage, but adhering to Islam moderates this disadvantage.

Models Depressive 1 to Depressive 4 are organized the same way as Health 1-4, except that the dependent variable is depressive symptoms. As was the case for self-reported health, there was no significant difference in the odds of depressive symptoms among the religious and non-religious (Depressive 1 and 2), but in contrast with Health 3 and 4, there were no significant differences between Muslim and Orthodox. Neither was there any significant difference due to religious behaviour.

Models Unmet N1 to N4 are organized in the same way as Health 1-4, and the dependent variable is unmet need. There were no significant differences in unmet need between either the religious and the non-religious, or between Orthodox and Muslims.

Conclusion

The analysis lends support to previous findings of Muslims reporting better health than non-Muslims. However, third country nationals are at higher risk of reporting poor self-reported health. Muslim religious identification appears to moderate the disadvantage of originating from a third country. There were no differences according to whether respondents were religious or not, and no differences according to whether they attended religious services or prayed frequently.

Religiosity, ESS7	
How religious are you? (0-10)	
Country	*Mean*
Austria	4,6
Belgium	4,7
Switzerland	5,0
Czech Republic	2,1
Germany	4,3
Denmark	3,9
Estonia	3,5
Spain	4,1
Finland	4,6
France	4,6
United Kingdom	3,7
Hungary	3,5
Ireland	4,9
Israel	4,9
Lithuania	5,2
Netherlands	4,1
Norway	3,7
Poland	6,2
Portugal	5,3
Sweden	3,1
Slovenia	4,6
Total	4,4

Chapter 10: The health of Albanians in Greece and in Albania.

Albanians in the MIGHEAL sample compare favourably to Greeks in many measures. An interesting question is how Albanians in Greece compare to Albanians in Albania. Fortunately, we have comparable and recent microdata available on a few measures to answer that question.

The European Social Survey round 6 was fielded in 2012, four years before the MIGHEAL data were collected, and Albania participated in this round. Self-rated health is a fairly stable measure, which is correlated with mortality (Idler & Benyamini 1997). Life expectancy in Albania changed from 77.4 in 2012 to 77.8 in 2014 (most recent data), while the figures for Greece are 80.6 in 2012 to 81.3 in 2014 (World Bank 2017). The time interval between surveys should therefore not be very influential. This ESS round did not contain the special module on health, but there were three health items included in the questionnaire that overlap with MIGHEAL. We outline these measures, and compare prevalences for Albanians residing in Greece (MIGHEAL data) and Albania (ESS data).

First, there was the question on overall self-reported health, which was measured in exactly the same way in both data sets. Here, we report on the prevalence of fair to very poor health.

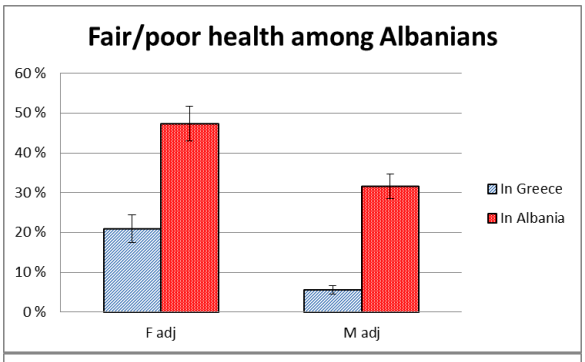
Second, there was a question on limiting long-standing illness, which was also measured in the same way. We report hampered in daily activities due to health problems.

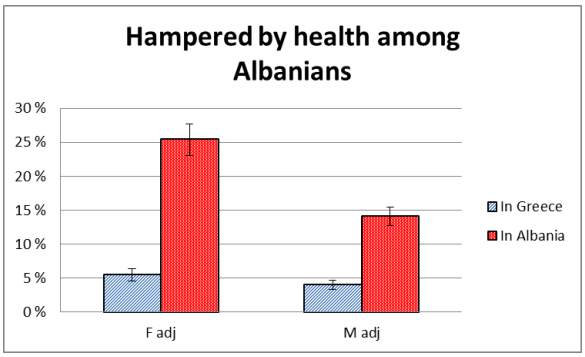
Third, the items on depressive symptoms were included in the Albanian questionnaire. However, here there was a slight deviation. For the eighth item on depressive symptoms, 'Could not get going, how often past week', no data was collected due to a CAPI error (NSD 2016). Therefore, the computed depression scale was based on only seven items, but was rescaled to fit the 0-24 range. Mean imputation was applied if respondents reported valid answers to at least 4 out of 7 items. The

scale had a sufficient Chronbach's alpha of 0.747 for the sample. We report the dichotomized measure where values 10-24 indicate serious depressive symptoms, as in MIGHEAL. The MIGHEAL and ESS measures are thus not 100% comparable. The item on 'could not get going' was reported most or all of the time among around 30% of the full MIGHEAL sample, which is close to the average reported depressive symptoms in the full MIGHEAL sample. Assuming this would be similar in the ESS sample, the exclusion of this item should not be very influential on the overall prevalence of depressive symptoms in the ESS data.

The rates for ESS data were calculated the same way as the rates for MIGHEAL data. First, the age was capped at 20-64 to match the age range of the MIGHEAL sample. Second, the rates were age standardized in two age groups. The age group 20-39 was weighted 44.8%, and the age group 40-64 was weighted 55.2%. The estimates are weighted by the included post stratification weight, which roughly relates to the design weight (IMWFIN) in MIGHEAL. Thus, the rates are also comparable to all other prevalence estimates.

The rates are graphed below (figure G1), with details found in the table at the end.





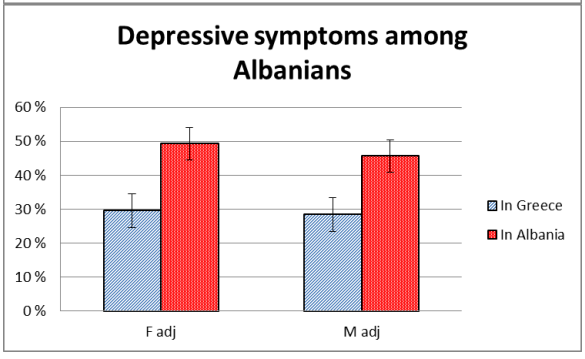


Figure G1. Prevalence of poor health, hampering and depressive symptoms among Albanians residing in Greece and Albania. Data from MIGHEAL and ESS6.

The results clearly show that Albanians in Greece are in better health than Albanians in Albania. 20% of females residing in Greece report fair/poor health, and 47% of females residing in Albania. This pattern is the same for both genders in all measures, and confidence intervals do not overlap.

There are explanations for these results. First of all, the composition of the two populations can be assumed to be different. The distributions previously shown for occupation indicated that there were almost no Albanians residing in Greece that were retired or permanently sick or disabled. Second, there is good reason to believe that Albanians migrating to Greece have good health upon migration, as the situation for Albanians is very comparable to the "Hispanic paradox".

The Hispanic paradox, or Latino paradox, also known as the "epidemiologic paradox," refers to the finding that Hispanic and Latino Americans tend to have health outcomes that are favourable to those of their U.S. White counterparts, even though Hispanics have lower average income and education (Markides & Corell 1986). The "healthy migrant effect" hypothesizes that the selection of healthy Hispanic immigrants into the United States is the reason for the paradox.

The figures for better health among Albanians in Greece could be interpreted as an indication that this health selection takes place among Albanian immigrants to Greece.

A second and related hypothesis, called the "Salmon Bias", takes into consideration the occurrence of Hispanic workers returning home to Mexico. It argues that many Hispanic people return to Mexico after temporary employment, retirement, or severe illness. This hypothesis has been contested, as studies have shown that the Hispanic paradox is still present when non-returning migrants are observed (Abraído-Lanza et al 1999).

The figures for Albanian health in Greece do not contradict the Salmon bias. One possible reason for better health outcomes of Albanians is that those with poor health return to Albania. However, it is also possible that the relatively recent flow of immigration that is recorded in the sample, with few immigrants arriving before 1990, as well as the young average age on arrival in Greece, means that the health disadvantage of Albanians in Greece, as seen in the high prevalence of physical work hazards is not yet possible to be observed.

Table G1. Comparison of Albanians in Greece and Albania. Data from MIGHEAL and ESS6

	F crude	***F adj***	*F SE*	*F 95% CI-*	*F 95% CI+*	*M crude*	***M adj***	*M SE*	*M 95% CI-*	*M 95% CI+*
Fair/poor health										
In Greece	15,6 %	**20,9 %**	*0,018 0*	17,5 %	24,4 %	5,4 %	**5,6 %**	*0,004 9*	4,7 %	6,6 %
In Albania	47,9 %	**47,3 %**	*0,022 3*	43,0 %	51,7 %	31,2 %	**31,6 %**	*0,015 5*	28,6 %	34,7 %
Hampered										
In Greece	5,0 %	**5,5 %**	*0,005 0*	4,6 %	6,4 %	3,8 %	**4,0 %**	*0,003 5*	3,3 %	4,7 %
In Albania	25,9 %	**25,4 %**	*0,012 0*	23,1 %	27,8 %	13,8 %	**14,1 %**	*0,006 9*	12,7 %	15,4 %
Depressive										
In Greece	26,9 %	**29,6 %**	*0,026 0*	24,6 %	34,6 %	28,7 %	**28,4 %**	*0,025 0*	23,5 %	33,4 %
In Albania	49,9 %	**49,4 %**	*0,024 5*	44,6 %	54,2 %	45,8 %	**45,6 %**	*0,024 2*	40,9 %	50,4 %

Chapter 11: The health of third country migrants upon arrival in Greece.

We do not have access to micro level data on self-reported health for third country citizens. In this case, the best data available is data on overall mortality rates for the countries in question. The mean age of arrival for third country citizens was around 25. The mean year of arrival was 2000. Thus, the best simple estimate for the overall health of migrants upon arrival in Greece would be the mortality rate for people aged 25 in the year 2000. The mortality rates (nMx) for the age group 20-25 were extracted from life tables supplied by WHO (2017), and are given in table E1 below, by country of citizenship.

As migrant groups vary in their population size in the sample, a population weighted average for males and females was calculated for the group of third countries. It was calculated by multiplying the population count with nMx, and dividing by the population total. For male Afghans, for example, 2*0.001/104. This figure was multiplied by 1000 to get the expected number of Afghan deaths pr. 1000 of the population. The country rates were then added together to yield a population weighted rate of 1.115 for females and 2.144 for males. This means that in the third country group, the expected average death rate at the age of 20 would be 1.115 out of 1000 females, and 2.144 out of 1000 males.

The corresponding figures for Greek and Albanian citizens are given in table E2 below. Greek females had a death rate of 0 in 1000 at age 20 in the year 2000, while males had a rate of 1 in 1000. Albanian females had a rate of 1 in 1000, while Albanian males had a rate of 2 in 1000.

Thus, third country males would be expected to have the worst health, due to their higher mortality rate at age 20, followed by Albanian males. The same pattern would apply to females.

The regression results have consistently shown that Albanian males and females have better health outcomes than Greeks on several measures. There is

therefore good reason to assume that Albanians migrating to Greece are of better health than the average mortality rate would suggest.

The regression results suggested that third country females are worse off than Greek females on several counts. This would be in line with the higher mortality rates of third country females at age 20, and suggests a possible cumulative disadvantage for third country females.

The regression results did not show many significant differences between third country and Greek males. This is in contrast to the average mortality rate, which would suggest poorer health for third country males. The results can be interpreted in the context of a health selection mechanism for third country males.

Table E1. Mortality rates at age 20 in 2000. Third countries

Third countries	**Population count**		**nMx***		**Population weighted**	
Citizenship	*F*	*M*	*F*	*M*	*F*	*M*
Afghanistan		2	0.001	0.002	0.000	0.038
Armenia	2	3	0.000	0.001	0.000	0.029
Bangladesh	1	15	0.001	0.001	0.019	0.144
Belarus	1		0.001	0.003	0.019	0.000
Bulgaria	4	1	0.001	0.001	0.077	0.010
China	1		0.001	0.001	0.019	0.000
Egypt	1	9	0.001	0.001	0.019	0.087
Ethiopia		1	0.005	0.007	0.000	0.067
Georgia	13	6	0.000	0.001	0.000	0.058
India	4	2	0.003	0.002	0.231	0.038
Iraq		1	0.001	0.002	0.000	0.019
Jordan		1	0.001	0.001	0.000	0.010
Kazakhstan	1		0.001	0.004	0.019	0.000
Kenya	1		0.005	0.005	0.096	0.000
Lithuania	1		0.001	0.003	0.019	0.000
Moldova. Republic of	3		0.001	0.002	0.058	0.000
Nigeria		3	0.006	0.007	0.000	0.202
Pakistan	1	51	0.002	0.002	0.038	0.981
Poland	1		0.000	0.001	0.000	0.000
Romania	2		0.000	0.001	0.000	0.000
Russian Federation	5	1	0.001	0.005	0.096	0.048
Senegal		2	0.003	0.004	0.000	0.077
Sierra Leone	1	2	0.012	0.013	0.231	0.250
Sri Lanka	1		0.001	0.003	0.019	0.000
Syrian Arab Republic		1	0.001	0.001	0.000	0.010
Turkey		1	0.001	0.002	0.000	0.019
Ukraine	8	2	0.001	0.003	0.154	0.058

Total count	**52**	**104**	**Weighted rate**	**1.115**	**2.144**

Table E2. Mortality rate at age 20. Greece and Albania

nMx*	**F**	**M**
Greece	0.000	1.000
Albania	1.000	2.000

*nMx is defined as the age-specific death rate between the beginning of the age group x and the beginning of the next age group x+n, n being the interval of the age group (WHO 2017).

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