MIGHEAL

HEALTH INEQUALITIES AMONG MIGRANT POPULATION

Subproject 2 / Activity 3: Mid-term Workshop

Mid-term workshop Notes

November 8-9, 2016

Deliverable No. 3

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

NATIONAL CENTRE FOR SOCIAL RESEARCH

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Trondheim, Norway

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Partner	Norwegian University of Science and Technology (NTNU), Norway
Principal Investigators	Theoni Stathopoulou Research Director, EKKE Terje Andreas Eikemo, Professor, NTNU

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List of Participants

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Mid-term Workshop Agenda

Tuesday, November 8, 2016

10.00-10.15 Welcome address (Agenda, timetable, MIGHEAL research objectives)

Dr. Terje Andreas Eikemo, Professor, Department of Sociology and Political Science, Norwegian University of Science and Technology, MIGHEAL Scientific Coordinator

10:15 -10:30 MIGHEAL Fieldwork results

Theoni Stathopoulou, Research Director, National Centre for Social Research-EKKE, MIGHEAL Scientific Coordinator

10:30-11:20 Theoretical perspectives on migration and health

Per Stornes, MIGHEAL Researcher, PhD candidate, NTNU

Jennifer Cavounidis, Senior Research Fellow, Centre of Planning and Economic Research (KEPE) - MIGHEAL Advisory Board

Roundtable discussion (20 min.)

11:20- 11.40 Coffee Break

11:40- 12:30 General differences in the migrant and native born population

Native and migrant populations usually differ in many respects, such as age, gender, education, income and occupation distribution. The presentation will review demographic considerations when doing survey research on immigration health in MIGHEAL, and make suggestions for analytical approaches.

Per Stornes, MIGHEAL Researcher, PhD candidate, NTNU

Roundtable discussion (20 min.)

12:30-12:45 Coffee Break

12:45 – 13:45 Migrant and native population health status

An integrated overview of migrant and native population:

- health outcomes (physical and mental)
- health care utilization and
- access to health services

This presentation goes towards both the objective to provide evidence of migrants' health status, health care utilization and access to health services, and to compare migrant health status and care needs with native born population health status and care needs.

Per Stornes, MIGHEAL Researcher, PhD candidate, NTNU

John Yfantopoulos, Professor, School of Economics and Political Science, University of Athens – MIGHEAL Advisory Board

Roundtable discussion (30 min.)

13:45-14:30 Light Lunch

14:30-15.20 Barriers to access and utilization among migrants

One of MIGHEAL's research objectives is to identify barriers to access and utilization of health services among migrants. The presentation will give a brief review on theories and research on the topic, and present some results from the data.

Per Stornes, MIGHEAL Researcher, PhD candidate, NTNU

Roundtable discussion (20 min.)

15:20-16:40 Comparisons with findings in the European Social Survey health module.

The MIGHEAL survey is based on a scaled down version of the European Social Survey 7, with most of the questions from the rotating health module intact. To contextualize the results from MIGHEAL, some comparisons will be made to the results from ESS. This is important in order to assess the validity and reliability of MIGHEAL data.

Per Stornes, MIGHEAL Researcher, PhD candidate, NTNU

Anastasia Kostaki, Professor, Head of Statistics Department, Athens University of Economics and Business - MIGHEAL Advisory Board

Roundtable discussion (20 min.)

16:40 – 17:30 Discussion on the analytical strategy

19:30 Dinner

Wednesday, November 9, 2016

Wrap-up (next steps)

a) main conclusions regarding the analytical strategy of MIGHEAL data.
b) final report
c) short policy paper
d) paper in peer review journal
e) other dissemination activities

f) opportunities for bilateral co-operation

g) final conference in February 2017

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Summary

Mid-term workshop of the MIGHEAL project was held on November 8-9, 2016 in Trondheim at the NTNU offices with the participation of NTNU and EKKE research team as well as the members of the Expert Panel. During the mid-term workshop, participants discussed the results of fieldwork, the preliminary statistical findings, and the optimal analytical strategy.

The presentations delivered and the discussion among participants addressed the following issues:

a) MIGHEAL fieldwork results: Survey design, sampling frame, MIGHEAL data

b) Theoretical perspectives on migrant health: Theoretical considerations to be made when researching migrant health.

c) General differences in the migrant and native born population: Demographic aspects of the MIGHEAL sample, as compared to figures from Eurostat.

d) Migrant and native population health in MIGHEAL: Main results of the preliminary analysis of MIGHEAL data.

e) Barriers to access and utilization among migrants: Prevalences of measures on barriers to access that were added specifically to the MIGHEAL survey.

f) Comparisons with findings in the European Social Survey health module: Population level comparisons with outcomes from the European Social Survey.

1. MIGHEAL Fieldwork results

1.1. Sampling method

This part of the report is based on the presentation of Theoni Stathopoulou, Scientific co-ordinator of the MIGHEAL (αντίστοιχα να βάλουμε και στα άλλα)

Sample selection was based on geographical stratification on a NUTS2 level proportionally to the population data of urban areas and census enumeration in order to establish a probability sample for the survey. Nevertheless, and on the contrary of the procedures usually employed for social surveys, the PSU selection for enumeration didn't derive by a sampling framework incorporating all possible areas/ settlements and randomly selecting PSU's but by approaching the areas with higher density of target groups according to CENSUS 2011.

1.2. Sampling frame

Sample population was divided into two groups, based on respondents' citizenship: migrants and non-migrants. Migrant is a third country national who is not a citizen of an EU country (within the meaning of Article 20 paragraph 1 of the Treaty on European Union). The GDP per capita criterion1 was applied to exclude migrants from developed countries. The sampling specifications for native and migrant population were set as follows:

a) Native Population: individuals aged 15 or over living in private households.

Sampling/ Enumeration: Enumeration precedes fieldwork in order to establish a probability sample for the survey. The PSU selection for enumeration is derived by a sampling framework incorporating all possible areas/ settlements and randomly selecting PSU's (according to CENSUS 2011). After enumeration, addresses are randomly

[1] According to the World Bank, high income countries are those with a GDP per capita of 37.755 current US$ or more.

selected and included in the sample. Random selection of respondent (KISH Grid) when an eligible household is identified. Selected households and selected respondents are not replaced, at least 4 visits/ contacts made to each selected household before appointing a final code to it.

b) Migrant Population: individuals aged 15 or over living in private households having sufficient knowledge of Greek language.

Probability sample: The PSU selection for enumeration is not derived by a sampling framework incorporating all possible areas/ settlements and randomly selecting PSU's but by approaching the areas with higher density of target groups (according to CENSUS 2011).

Focused enumeration (cluster sampling of areas with migrant population according to 2011 CENSUS):

For ensuring the comparability of MIGHEAL with ESS data, the sample of migrant population was drawn using a multi-stage stratified sampling technique. More specifically, the 13 administrative regions of the country were considered as strata, and the sample size of each region was proportional to the size of the migrant population in each region according to the 2011 population census. In total 80 sampling sites from the 13 strata were selected in order to identify individuals who belong to the survey population of migrants. For the native population, 80 sampling sites have also been randomly selected, close to those selected for the migrant population, in order to ensure comparability between the two population groups (matched geographic sample). In addition another 48 sampling points from the urban areas of the country have also been randomly selected, so that the resulting final sample of the native population to

approximate the population distribution of the urban population of the country by region according to 2011 population census (boost sample).

The collection mode was PAPI. Fieldwork was conducted by Metron Analysis S.A. during May 19- July 28, 2016 across Greece. The achieved sample size was 1332 respondents (505 migrants/827 non-migrants) and the response rate was 50%.

1.3. MIGHEAL data

MIGHEAL survey resulted in a representative sample of 1332 individuals (505 migrants and 827 non-migrants), aged 15 or over, living in private households in major Greek cities. Respondents were divided into three groups based on citizenship: a) Greek citizens, b) Albanian citizens and c) third-country citizens corresponding to former socialist regimes of Central and Eastern Europe as well as citizens of countries of Asia, Africa and the Middle East.

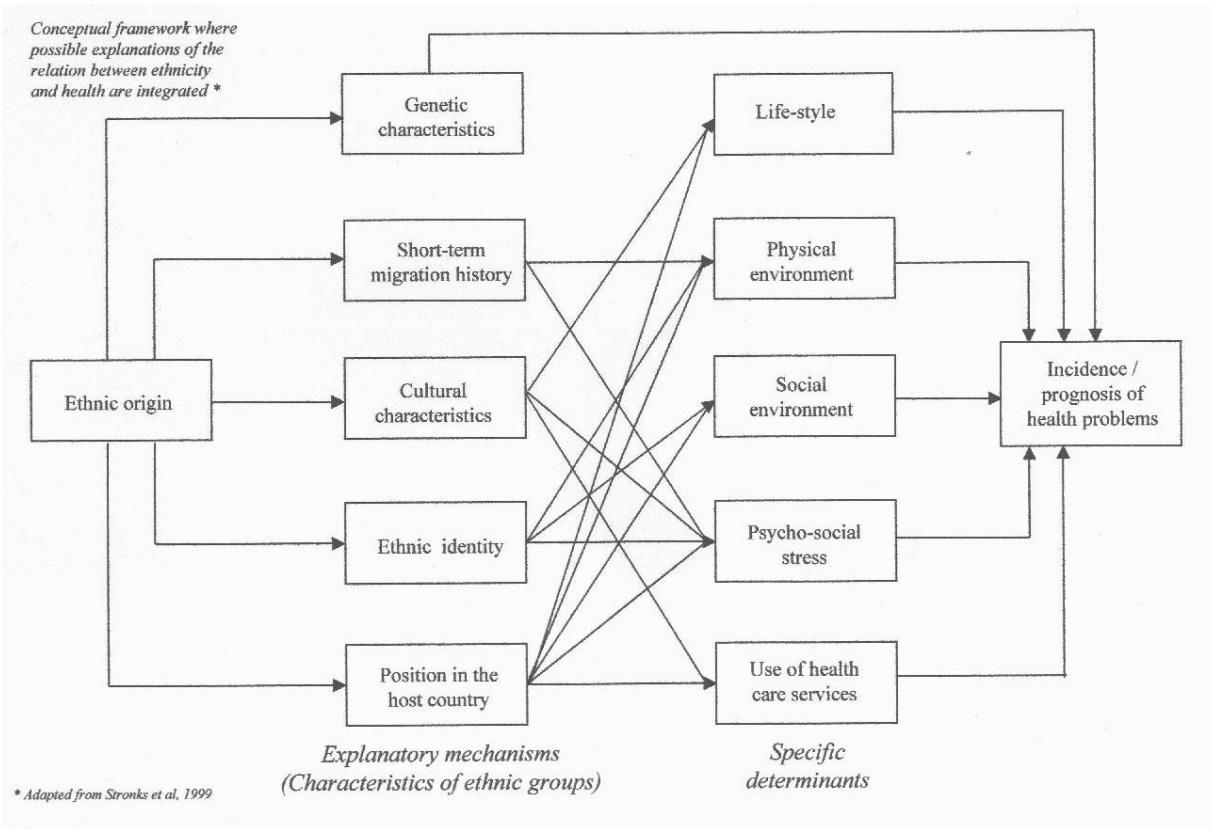
A small group of second generation migrants was identified as most migrants in the sample reported first coming to Greece after 1990, in young adulthood. Because they do not hold Greek citizenship (Greek-born children of foreign citizens were denied access to Greek citizenship until a law passed by Greek Parliament in 2015 facilitated such access), we chose to assign the small number of cases of second generation migrants to groups on the basis of their citizenship. Migrant population in MIGHEAL had a mean length of stay in Greece 14 to 16 years.

2. Theoretical perspectives on migrant health

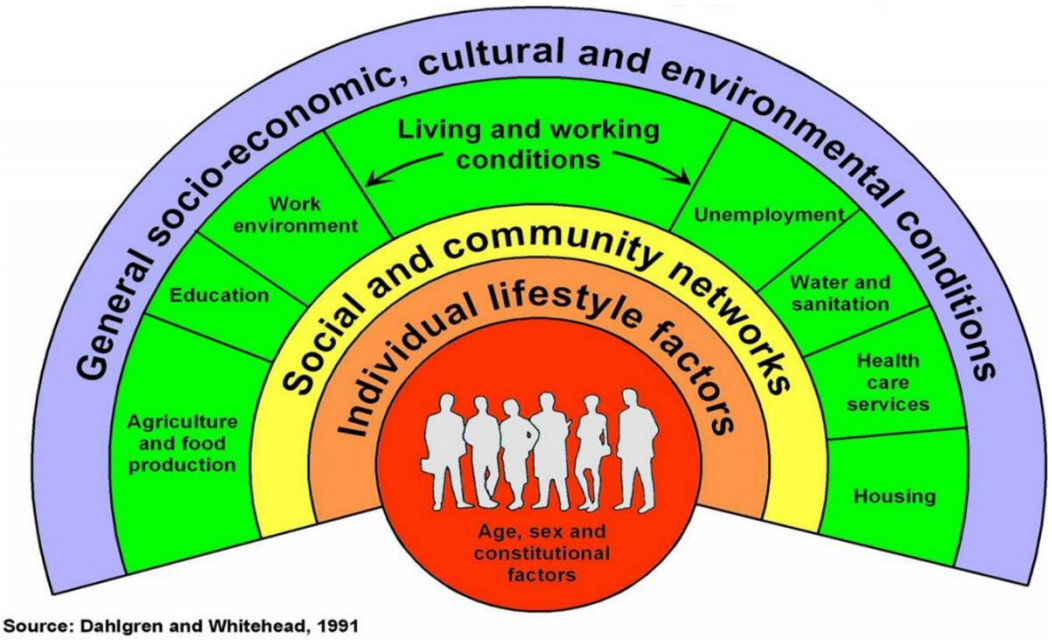
It is very hard to say anything a priori about migrant health. Migrant health might be compared to natives in country of origin, and natives in country of residence, and combinations of these. The process of migration is a process of selection. (Graph 1). How

do those who leave differ from the ones who stay behind? Can there be a general model of migrant health? The study of migrant was placed into the context of social inequalities in general, illustrated by the Dahlgren and Whitehead model (Graph 2), which is one of the most important underpinnings of the research on health inequalities done at NTNU. Various study designs were covered, such as origin, destination and community effects. The healthy migrant paradox was also covered.

Graph 1: Migration and Health Model



Graph 2: Migration as an expression of social inequality in health in general



Source: Dahlgren and Whitehead, 1991

Study designs

- Origin effects: Experiences prior to migration may contribute to risk of poor health.
- Studies within groups of migrants. E.g., Poles vs Swedes in Norway.
- Destination effects: Migrants' current living conditions is influential on health.
- Studies between countries. E.g., Japanese men in Japan, California and Hawaii.
- Community effects: Specific combinations of origin and destination. E.g., Turkish men in Germany versus Turks in Turkey.

The healthy migrant paradox

The Hispanic paradox, or Latino paradox, also known as the "epidemiologic paradox," refers to the epidemiological finding that Hispanic and Latino Americans tend to have health outcomes that paradoxically are comparable to, or in some cases better than, those

of their U.S. White counterparts, even though Hispanics have lower average income and education. The "healthy migrant effect" hypothesizes that the selection of healthy Hispanic migrants into the United States is reason for the paradox.

A second popular hypothesis, called the "Salmon Bias", attempts to factor in the occurrence of returning home to Mexico. This hypothesis purports that many Hispanic people return to Mexico after temporary employment, retirement, or severe illness, meaning that their deaths occur on Mexican soil and are not taken into account by mortality reports in the United States. This hypothesis considers those people as "statistically immortal" because they artificially lower the Hispanic mortality rate.

Hypotheses

Migrants report *poorer* health compared with natives in their country of origin.

Migrants from Islamic countries report *better* health than from non-Islamic.

Migrants report *poorer* health as they originate from countries with political suppression.

Migrants report *better* health as the average reported health status of natives in their country of destination is higher. (Acculturation, convergence.)

Migrants report *poorer* health as natives' attitudes are more disapproving.

Migrants report *better* health as the level of social engagement among natives is higher in destination country.

Migrants report *poorer* health as the level of social engagement among natives is higher in destination country.

Migrants from culturally similar countries have *better* health than from dissimilar countries.

Migrants report *better* health as the relative size of community increases.

Migrants report *poorer* health as the relative size of community increases.

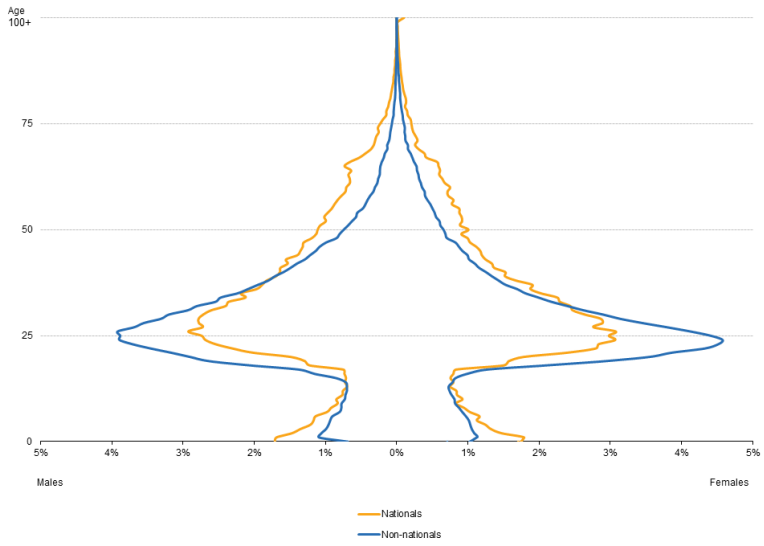
Migrants report better health as the geographical distance between origin and destination increases, due to health selection.

3. General differences in the migrant and native born population

This part of discussion focused on the demographic aspects of the MIGHEAL sample, as compared to figures from Eurostat. The MIGHEAL sample to a large degree reflected the Eurostat figures. Some key areas were discussed in detail.

MIGHEAL data should be compared to Eurostat data[2] and other data to assess how representative the sample is. During the mid-term workshop a preliminary comparative analysis was presented.

Graph 3: Age structure of migrants by citizenship, EU, 2014 (Eurostat)



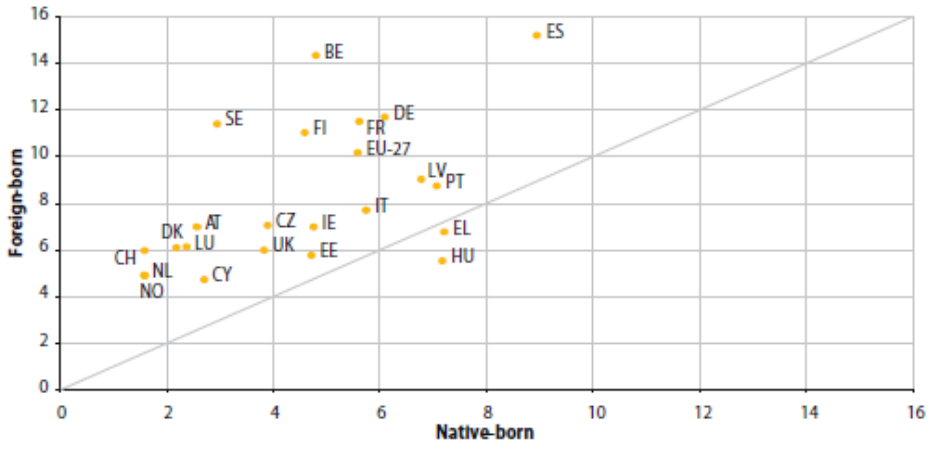
(*) Excluding Slovakia. Bulgaria and Poland: provisional.

[2] Eurostat (2012) "Migrants in Europe 2011 edition. A statistical portrait of the first and second generation"

Most migrants have lower employment rates than natives (Graph 4). Native born have higher incomes in almost all countries. The countries where there are no differences, are low income countries (Graph 5).

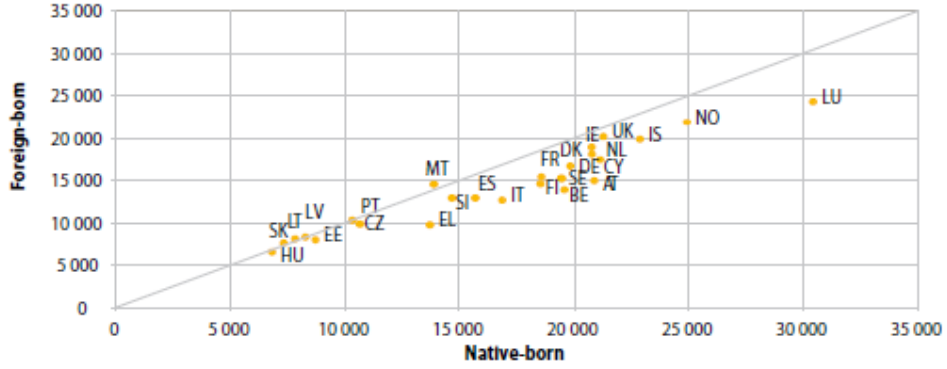
Graph 4: Immigration and Unemployment (Eurostat)

Figure 1.17: Unemployment rate — comparison of foreign-born persons with native-born persons (persons aged 25–54), 2008 (1)
(%)



Graph 5: Immigration and income (Eurostat)

Figure 1.23: Median annual equalised disposable incomes — comparison of foreign-born with native-born persons (aged 25–54), 2008 (1)
(PPS)



3.1. Migrants in MIGHEAL

Distribution using sampling weight

Born in country	Frequency	Percent
Yes	807	60,5
No	526	39,5
Total	1333	100

Distribution using population weight

Born in country	Frequency	Percent
Yes	1178	88,5
No	154	11,5
Total	1332	100

3.2. Country groups

It is observed low rate of females in group "other countries". Moreover, there are very few 2nd generation migrants in the sample. The precise figures need to be calculated, but only 45 respondents who were born in Greece had a mother who was born abroad. The figure for fathers was 43. The analysis does not consider 2nd generation migrants further.

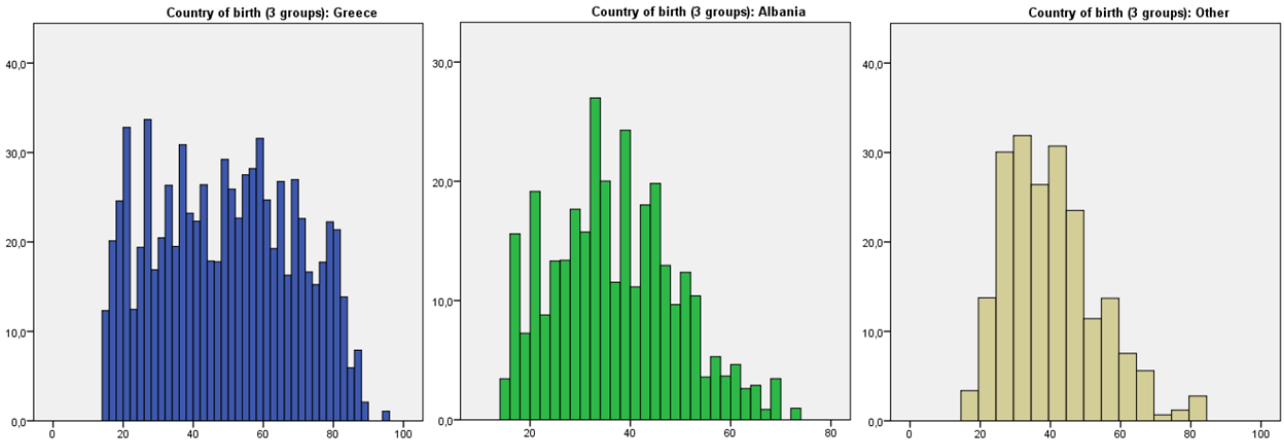
	Greece	**Albania**	**Other**	**Total**
N	807	320	206	1333
%	61 %	24 %	15 %	100 %

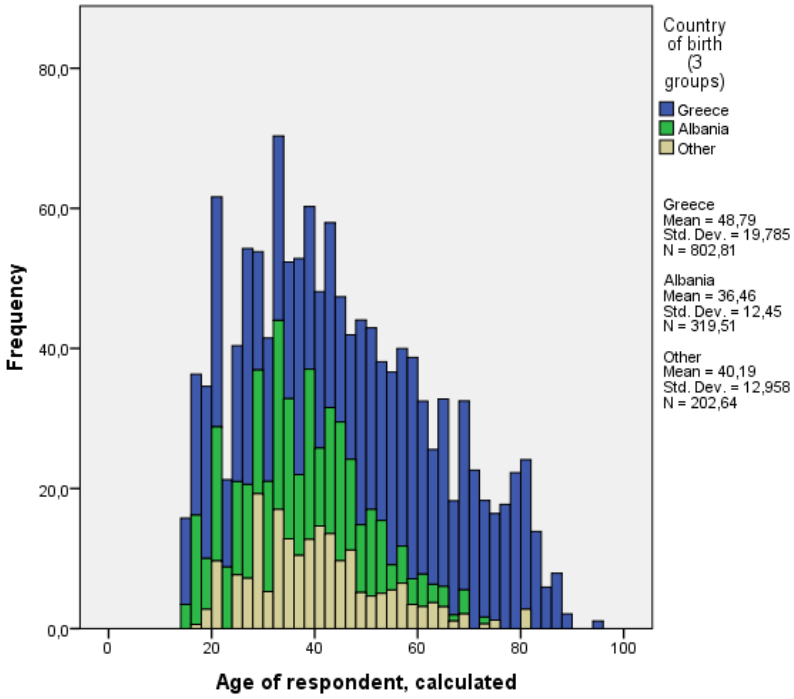
Variable	**Greece**	**Albania**	**Other**
N	807	320	206
Females (% within group)	53	52	42
Age (mean)	49	37	40
Age on arrival (mean)	-	20	24
Length of stay (mean)	-	17	16
Poor health (% within group)	26	11	20

3.3. Regional distribution of the sample

Region	N	% of total	% Migrants
Attiki	591	44	42 %
Central Macedonia	237	18	40 %
Crete	74	6	37 %
Easter Macedonia Thrace	64	5	30 %
Ionian	13	1	54 %
Ipeiros	32	2	53 %
North Aegean	16	1	13 %
Peloponnisos	51	4	29 %
South Aegean	27	2	30 %
Sterea Ellada	51	4	31 %
Thessaly	83	6	58 %
West Greece	71	5	32 %
West Macedonia	23	2	9 %
Total	1333	100	40 %

3.4. Age distribution in MIGHEAL using 3 country groups





During this session, definitions of migrants were discussed. The preliminary analysis used the population groups Greeks, Albanians and third countries divided by transitional and developing countries. The EKKE team did not find the initial groupings of the Greek and migrant population satisfactory, and the EKKE and NTNU team agreed to work on a precise definition of migrant groups for the final report. The main criterion established was nationality.

A major issue in the discussion was the age distribution. The migrant sample had very low counts after age 64, and strategies for dealing with this was discussed. After deliberation, it was decided to compare Greeks and migrants in the age range 20-64. Prevalences of health outcomes would be age standardized to the migrant population. Additionally, the division into transitional and developing countries did not produce satisfactory group sizes when taking into account gender distributions.

4. Migrant and native population health in MIGHEAL

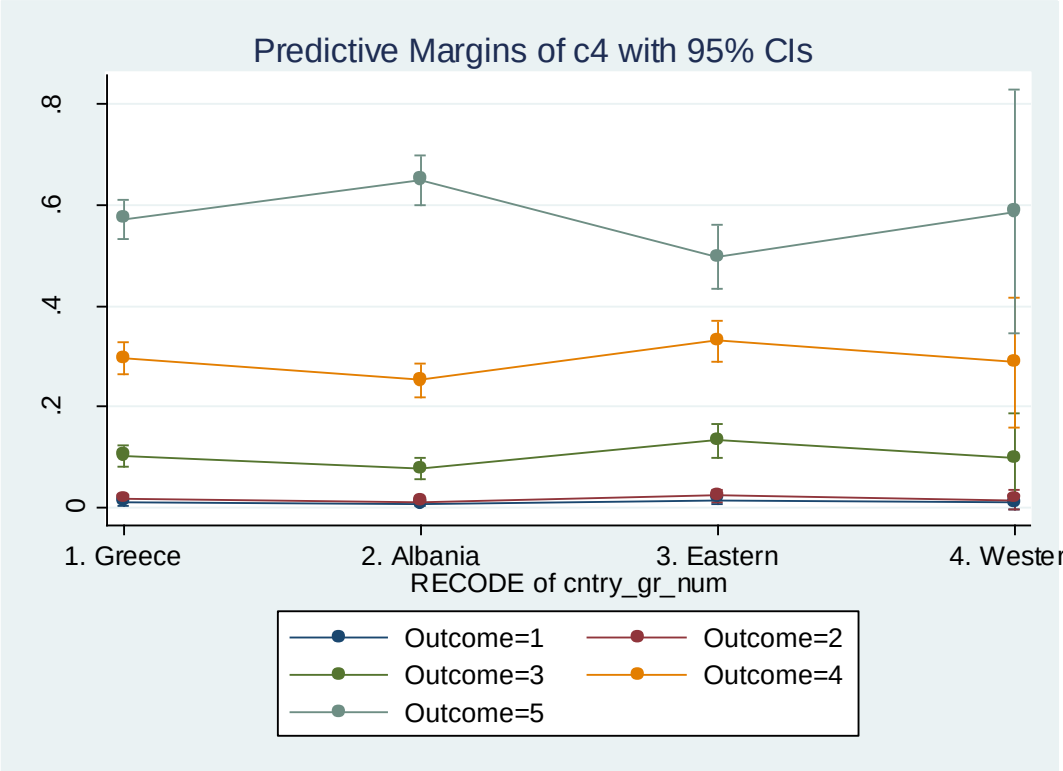
During this session, the results from the preliminary data analysis were presented and discussed. Prevalence rates for self-reported health outcomes such as general health, depressive symptoms, non-communicable diseases, health care use and access, risk behaviours, and social determinants of health were presented. As these rates were not age standardized, and the country groupings were not found to be fully satisfactory, we do not summarize any findings here, expect that the prevalence of depressive symptoms was very high, compared to findings from the European Social Survey.

4.1. Mortality as the «true measure» of health / Self-reported health as a proxy

"Global self-rated health is an independent predictor of mortality in nearly all of the studies, despite the inclusion of numerous specific health status indicators and other relevant covariates known to predict mortality." "Self-ratings represent a source of very valuable data on health status. Global self-ratings, which assess a currently unknown array of perceptions and weight them according to equally unknown and varying values and preferences, provide the respondents' views of global health status in a way that nothing else can. We would argue that the global rating represents an irreplaceable dimension of health status and in fact that an individual's health status cannot be assessed without it." "Men who reported "Fair/Poor" SRH showed relative hazard of death of 2.13 (CI95% 1.03-4.40) and women, 3.43 (CI95% 1.23-9.59), as compared with those who reported "Very good" SRH."[3]

[3] Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: a review of twenty-seven community studies. Journal of health and social behavior, 21-37. https://www.jstor.org/stable/pdf/2955359.pdf

Probability of SRH by 4 country groups



Outcomes: 1 (Blue): Very poor health, 2 (Red): Poor, 3 (Green): Fair, 4 (Orange): Good, 5 (Green): Very poor. Unweighted, controlled for age, capped at 60.

Based on ordinal logit. Further analysis uses Fair/Poor/Very Poor as outcome.

Albanians are more likely to report very good health. Eastern=Transitional/developing.

4.2. Prevalence of health outcomes and determinants using 4 country groups

All measures are estimated using sampling weights. All measures are capped at 60 years of age. Most measures are either binary originally, or have been dichotomized. Exceptions are noted. Most measures are given as prevalences in percentages within country groups. Estimates are divided into Greece, Albania, transitional and developing countries. Developed countries are excluded.

Estimates have not been age standardized. Due to the sheer number of estimates, they have not been tested using chi-square tests. Few examples of gender differences are provided.

For detailed analysis of measures and prevalences see Appendix.

4.3. Key conclusions on prevalences

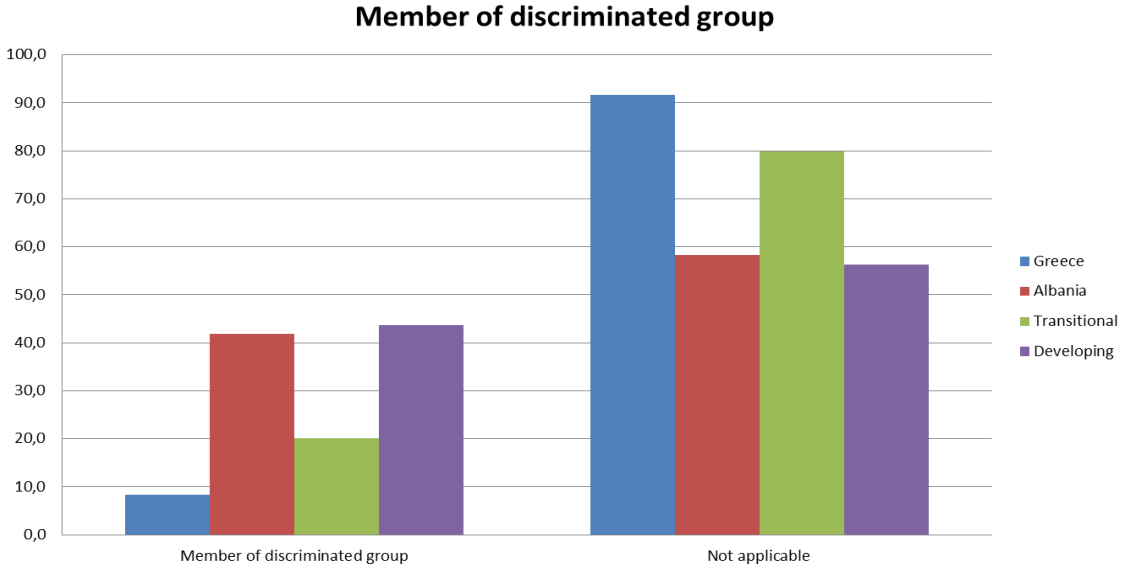
- Migrants from transitional countries appear to be at higher risk of morbidity.
- Albanians overall have very good outcomes.
- Migrants tend to have lower rates of smoking and drinking, particularly those from developing countries.
- Working conditions are worse among migrants, likely due to the sectors they work in. MIGHEAL does not contain information on occupational class. Some information can be inferred from income and educational level, although migrants can be overqualified.
- The estimates hide sometimes substantial gender differences.
- Age capping has a substantial effect on estimates, especially for Greece.

5. Barriers to access and utilization among migrants

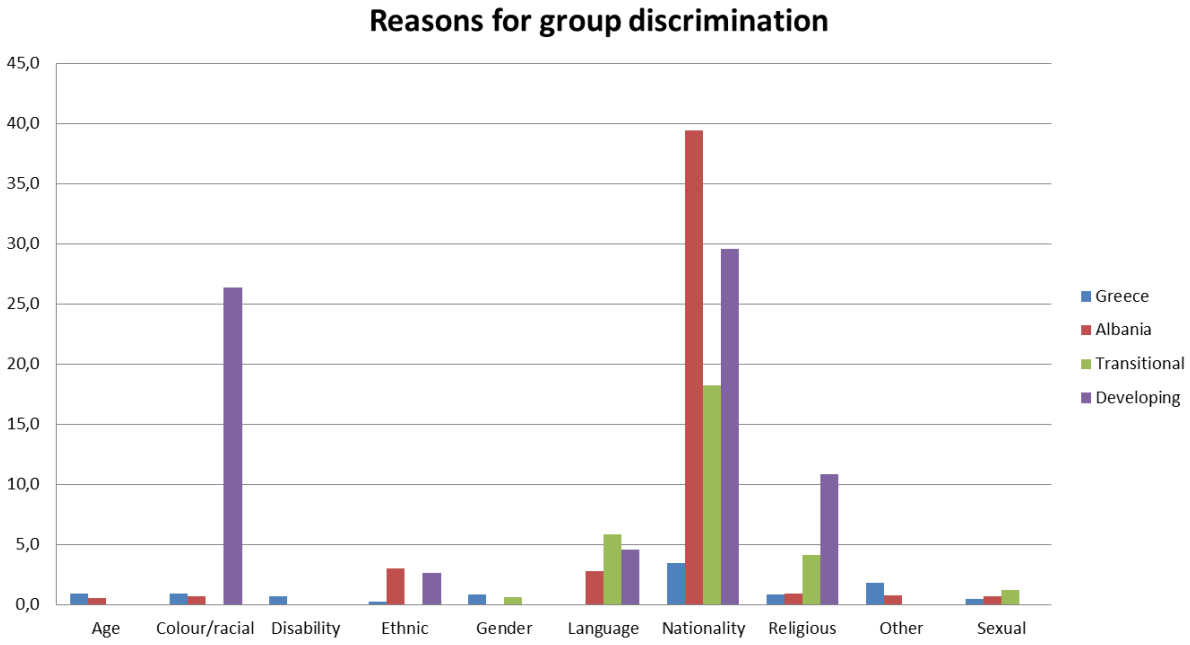
Barrier	Description	
Discrimination	Discrimination on the basis of migrant status.	
Communication ability	Not speaking or understanding the dominant language to communicate with health care providers. Also cultural challenges to understanding the nuances of another culture and expressing one's problems so that they are understood and not ignored	
Knowledge of the health care system	Little knowledge about how the "system" works, what rights to health care exist, and how to navigate the health care system at all levels	

Source: Hacker, K., Anies, M., Folb, B. L., & Zallman, L. (2015). Barriers to health care for undocumented migrants: a literature review. *Risk management and healthcare policy*, *8*, 175.

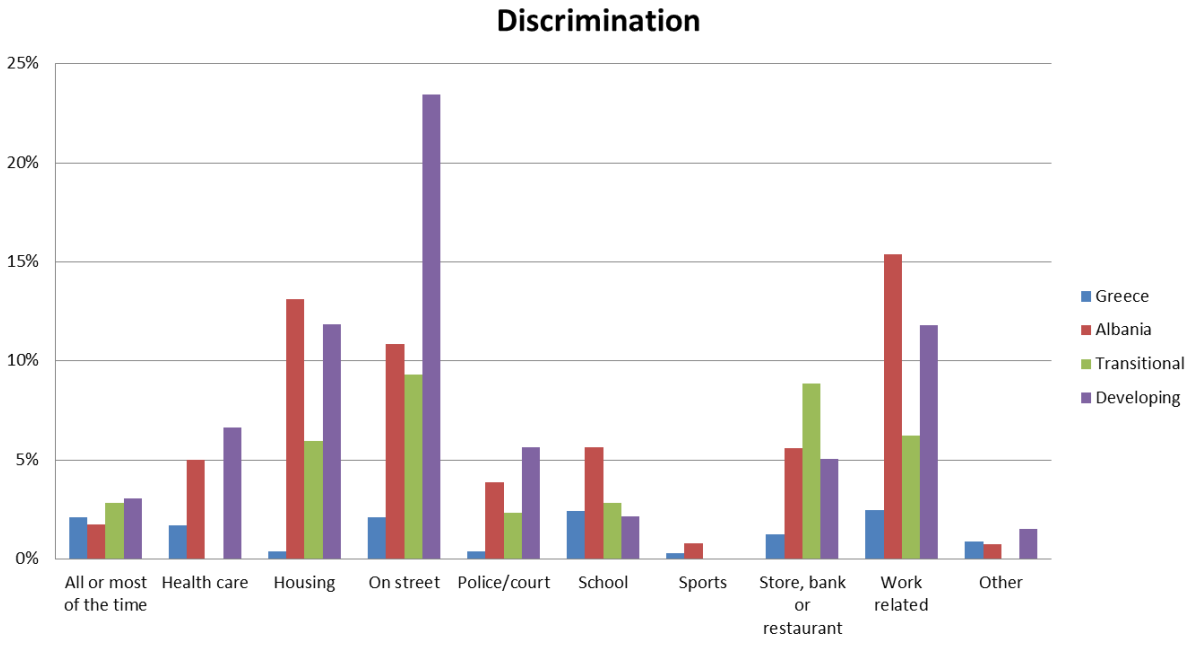
5.1. Discrimination at group level



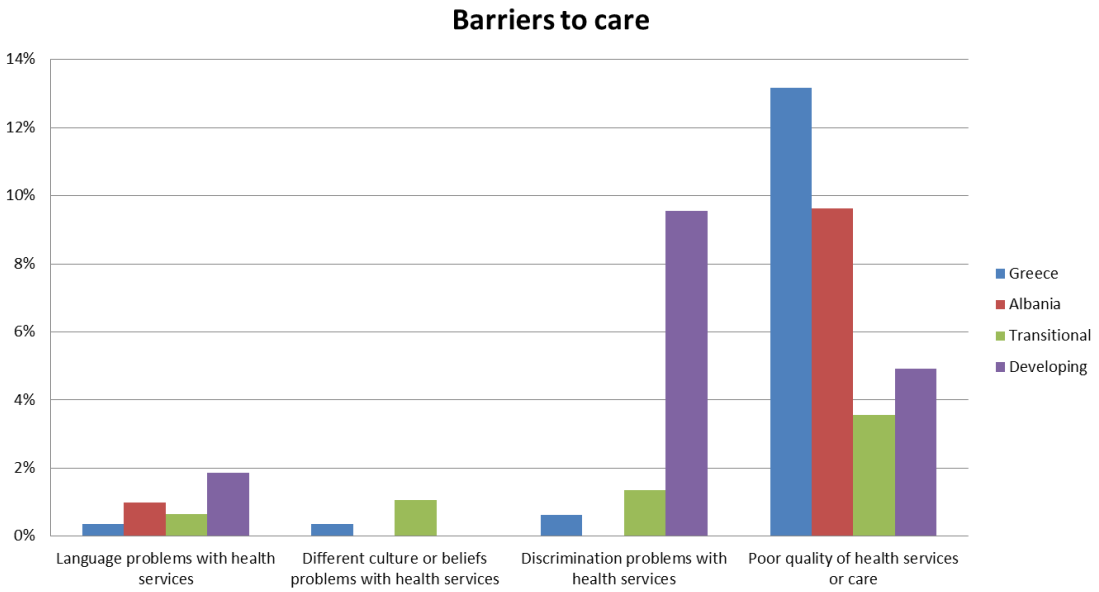
Note: All estimates are design weighted, and capped at 60 years of age.



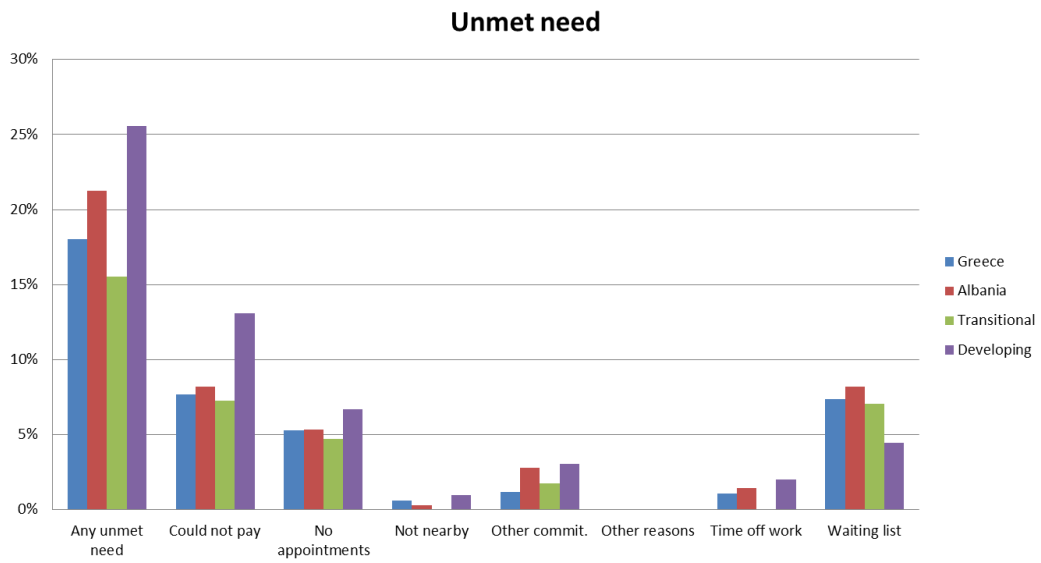
The most prevalent arena for discrimination is on the street, in housing and work related. Perceived discrimination in health care is relatively rare (see below).



Only migrants from developing countries report problems with health services. The major problem stated is poor quality of services (See below).



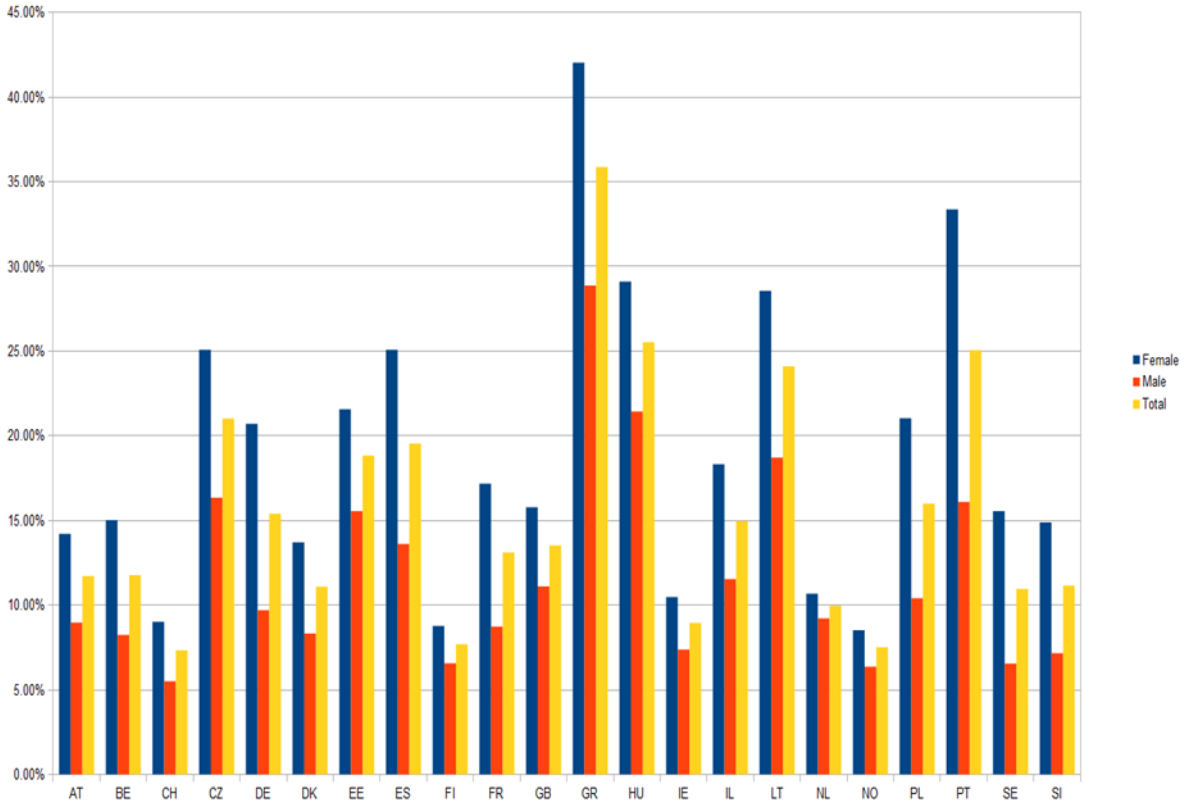
"In the last 12 months … were you ever unable to get a medical consultation or the treatment you needed for any of the reasons listed on this card?"



6. Comparisons with findings in the European Social Survey health module

The last session of the mid-term workshop covered population level comparisons with outcomes from the European Social Survey. Comparing MIGHEAL depression scores (population weighted) with ESS7 data by country (post stratification weighted), the prevalence of depressive symptoms was high in Greece, as shown in the figure below.

Figure: Prevalence of depressive symptoms in Greece and Europe, measured by CESD-8. Data from MIGHEAL and ESS7



For more figures and graphs related with comparison of MIGHEAL with ESS data, see Appendix.

References

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Hacker, K., Anies, M., Folb, B. L., & Zallman, L. (2015) Barriers to health care for undocumented migrants: a literature review. *Risk management and healthcare policy*, *8*.

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Appendix

Differences in migrant and native born population in MIGHEAL.

With a special view towards age and country of origin.

MIGHEAL mid-term workshop
NTNU, November 8-9, 2016
Per Stornes, PhD student, NTNU

Norwegian University of Science and Technology

NTNU

Background

- Some background data from Eurostat:
- "Migrants in Europe 2011 edition. A statistical portrait of the first and second generation"
- MIGHEAL data should be compared to these and other data to assess how representative the sample is.
- This has only been done to a limited degree.

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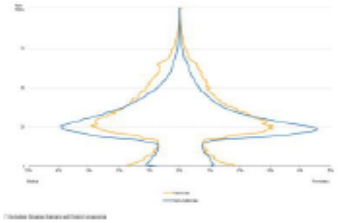
Age structure of immigrants by citizenship, EU, 2014 (Eurostat)



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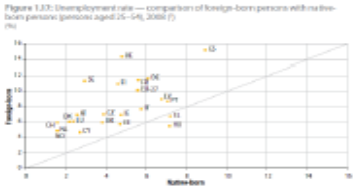
Immigration and age

NTNU

Immigration and unemployment



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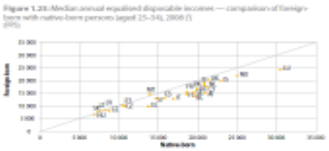
Immigration and income



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Immigrants in MIGHEAL

N=1.332

Distribution using sampling weight:

Born in country	Frequency	Percent
Yes	807	60,5
No	526	39,5
Total	1333	100

Distribution using population weight:

Born in country	Frequency	Percent
Yes	1178	88,5
No	154	11,5
Total	1332	100

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Distribution by country (unweighted)

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Greece, Albania and other countries

Note low rate of females in «other» group.
NB! There are very few 2nd generation immigrants in the sample. The precise figures need to be calculated, but only 45 respondents who were born in Greece had a mother who was born abroad. The figure for fathers was 43. The analysis does not consider 2nd generation immigrants further.

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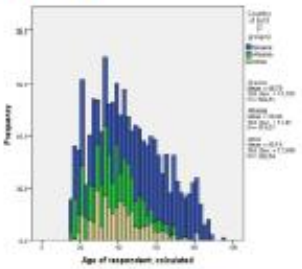
Regional distribution of sample

NTNU

Age distribution in MIGHEAL using 3 country groups.



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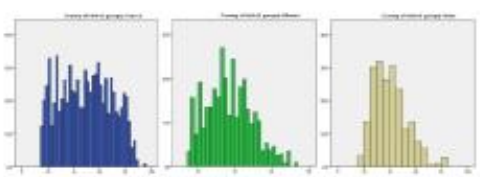
Age among 3 country groups



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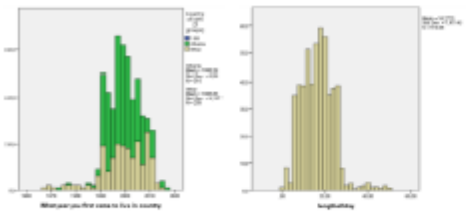
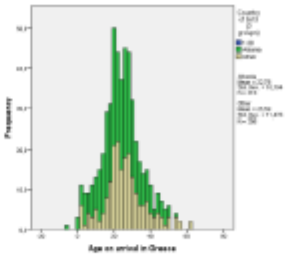
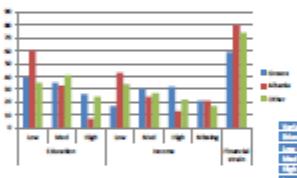


Age on arrival



Education and income



	Greece	Albania	Other
Education (% of group, sum=100%)			
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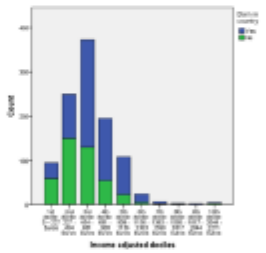
Missing	21	26	17
Financial strain			
Strain	50	60	74

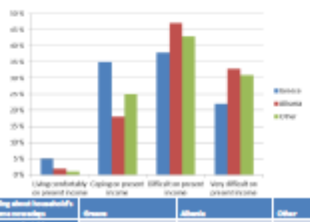
Distribution of income in deciles

NB! Around 20% missing



Alternative: Financial strain

(We suggest collapsing comfortably and coping)



Feeling about household's income nowadays	Greece	Albania	Other
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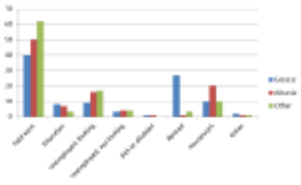
Occupation



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Education	6	7	5
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Major differences between groups

- Age: There are very few immigrants in the older age groups, making comparisons to Greeks impossible in this category.
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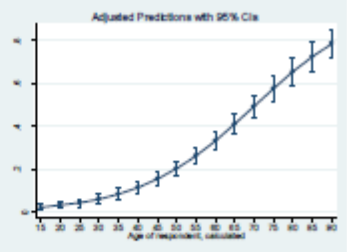
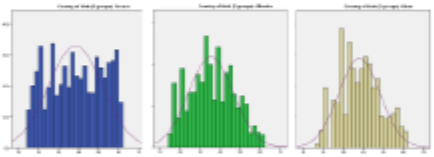


Capping age at 60



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Country groupings by world regions

Here are the "other" countries grouped by geographical world region. Groups are small.

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- "Other countries" account for only 200 cases, but constitute a very diverse group of countries, with different origin effects, and different health selection mechanisms.
- Ideally, there should be a maximum of two such country groups, considering the group sizes.
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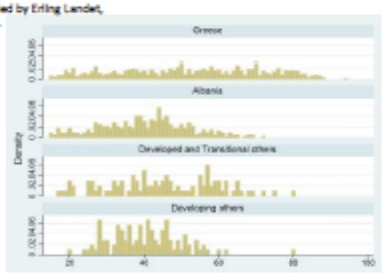
Age distribution by WESP

Supplied by Erling Landet, NTNU.



Countries by development

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Summary

- Our recommendation is to cap age at around 60 to be able to reliably compare Greeks and immigrants. The small remaining numbers of Greek retired and disabled could be removed, as they skew the comparison. We suggest paid work, unemployment, and houseworkers as main occupational categories.
- Attention should be given to country groupings.
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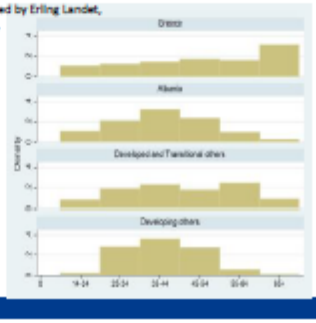

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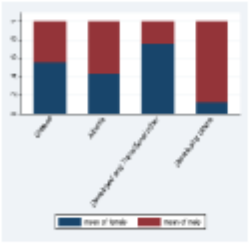
Appendix: Gender by WESP

Supplied by Erling Lendet, NTNU.



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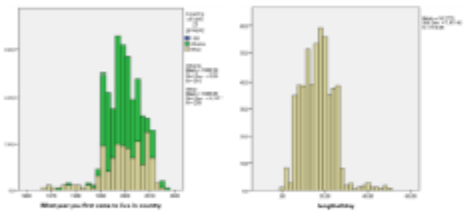

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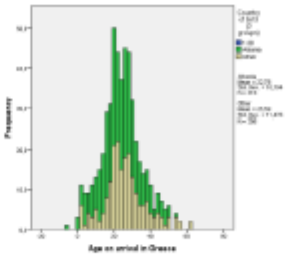

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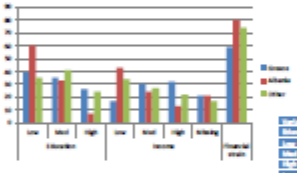

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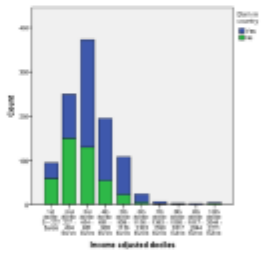

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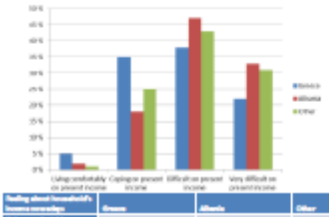

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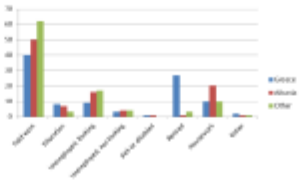

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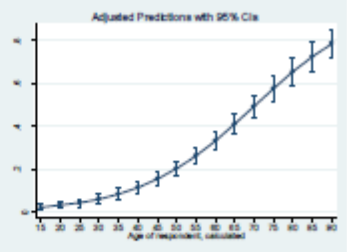

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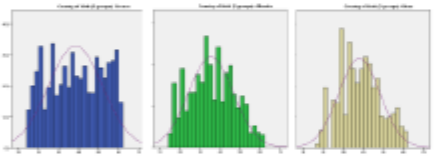

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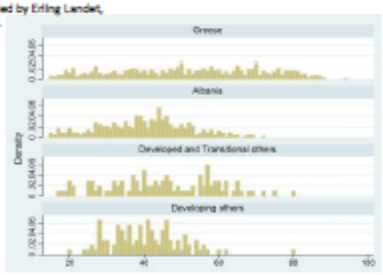

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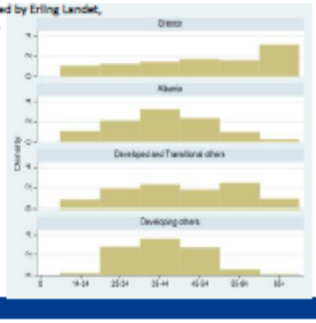

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Appendix: Gender by WESP

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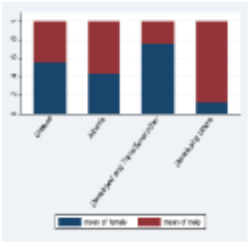

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Migrant and native population health in MIGHEAL

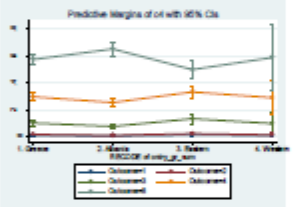
MIGHEAL mid-term workshop
NTNU, November 8-9, 2016
Per Stornes, PhD student, NTNU
All estimates on prevalences, and some tables, have been supplied by Erling Landet, NTNU.

Norwegian University of Science and Technology

Measurement: self-reported health

- Mortality as the «true measure» of health
- Self-reported health as a proxy
  - "Global self-rated health is an independent predictor of mortality in nearly all of the studies, despite the inclusion of numerous specific health status indicators and other relevant covariates known to predict mortality."
  - "We conclude that self-ratings represent a source of very valuable data on health status. Global self-ratings, which assess a currently unknown array of perceptions and weight them according to equally unknown and varying values and preferences, provide the respondents' views of global health status in a way that nothing else can. We would argue that the global rating represents an irreplaceable dimension of health status and in fact that an individual's health status cannot be assessed without it."
  - Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: a review of twenty-seven community studies. Journal of health and social behavior, 21-37. https://www.jstor.org/stable/pdf/2955359.pdf
  - "...men who reported "Fair/Poor" SRH showed relative hazard of death of 2.13 (CI95% 1.03-4.40) and women, 3.43 (CI95% 1.23-9.59), as compared with those who reported "Very good" SRH."

Probability of SRH by 4 country groups



Outcomes: 1 (Blue): Very poor health, 2 (Red): Poor, 3 (Green): Fair, 4 (Orange): Good, 5 (Green): Very poor. Unweighted, controlled for age, capped at 60.
Based on ordinal logit. Further analysis uses Fair/Poor/Very Poor as outcome.
Albanians are more likely to report very good health. Eastern=Transitional/developing.

Overview of measures 1

Overview of measures 2

Prevalence of health outcomes and determinants using 4 country groups.

- All measures are estimated using sampling weights.
- All measures are capped at 60 years of age.
- Most measures are either binary originally, or have been dichotomized. Exceptions are noted.
- Most measures are given as prevalences in percentages within country groups.
- Estimates are divided into Greece, Albania, transitional and developing countries. Developed countries are excluded.
- Estimates have not been age standardized.
- Due to the sheer number of estimates, they have not been tested using chi-square tests.
- I will provide a few examples of gender differences.
- I will follow with more detailed analysis of some measures.

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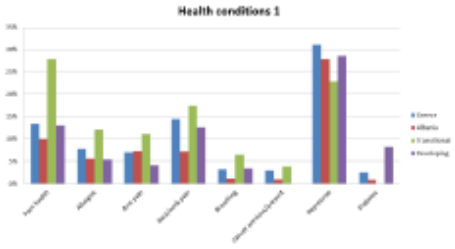
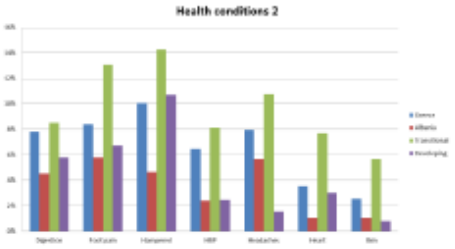
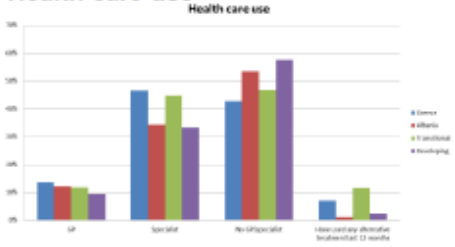
Self-reported conditions 1



Self-reported conditions 2

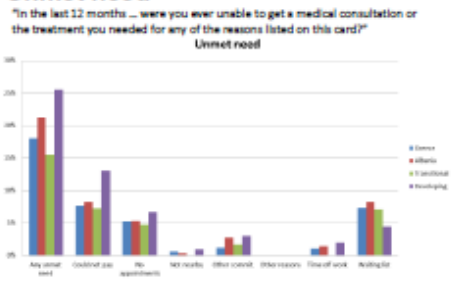


Health care use

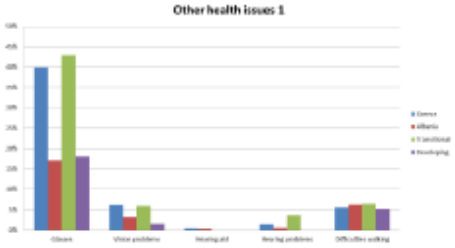


NBI GP use is not comparable with ESS7 figures, due to different wording.

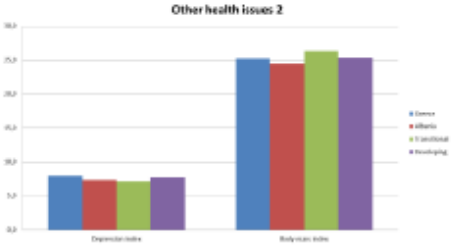
Unmet need



Other health issues 1



Other health issues 2.



Depression index: mean values of the 24-point scale.
BMI: Mean values.

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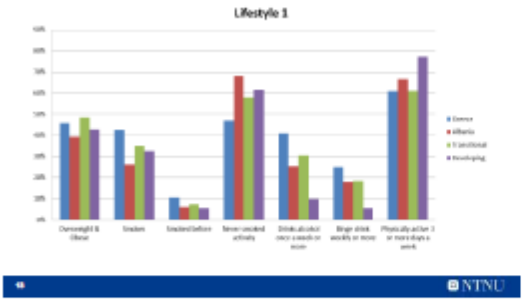
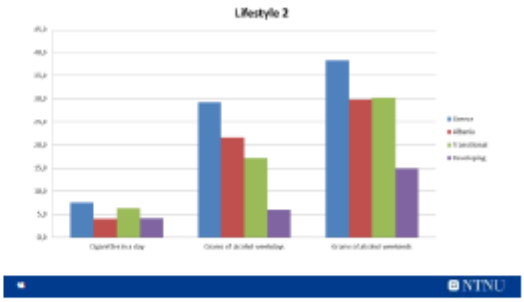
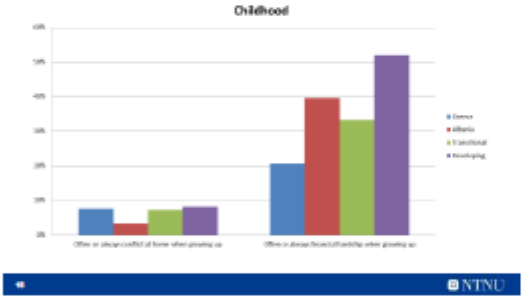
Lifestyle factors 1



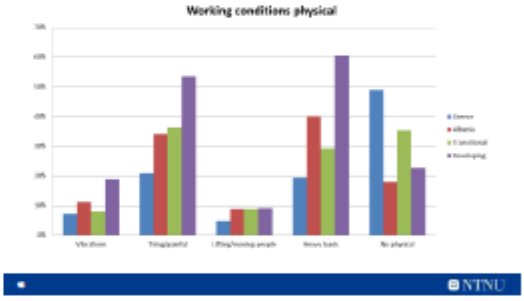
Lifestyle factors 2



Childhood conditions

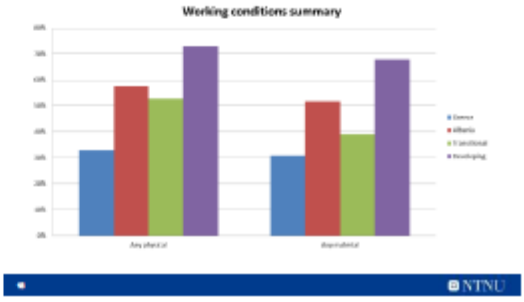


Working conditions 1



Working conditions 2

Working conditions summary



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Consequences of country groupings

- One option to increase group sizes is to combine the transitional and developed countries.
- Group size increases to around 200, and the two country groups are fairly equally weighted.
- Important differences in the country groupings might disappear.

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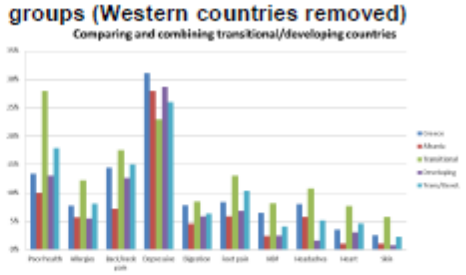
Comparison between 4 and 3 country groups (Western countries removed)



We see that country differences are reduced when collapsing.

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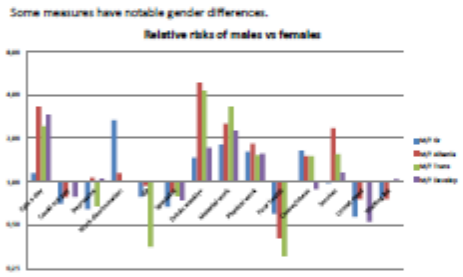
Relative differences between genders

Some measures have notable gender differences.



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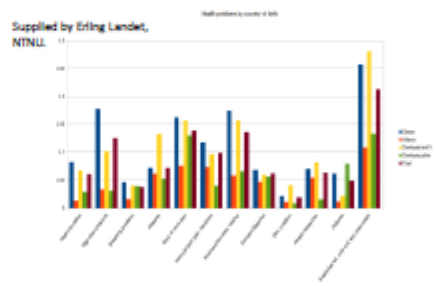
Effects of age capping on prevalence 1

Example with all ages

Supplied by Erling Landet, NTNU.



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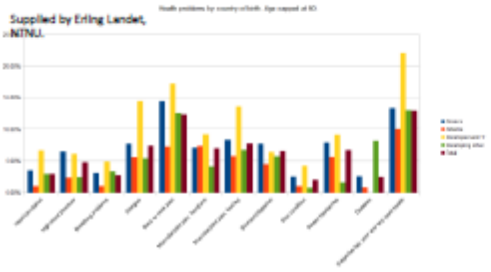
Effects of age capping on prevalence 2

Example with age capped at 60

Supplied by Erling Landet, NTNU.



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Conclusion on prevalences

- Immigrants from transitional countries appear to be at higher risk of morbidity.
- Albanians overall have very good outcomes.
- Immigrants tend to have lower rates of smoking and drinking, particularly those from developing countries.
- Working conditions are worse among immigrants, likely due to the sectors they work in. MIGHEAL does not contain information on occupational class. Some information can be inferred from income and educational level, although immigrants can be overqualified.
- The estimates hide sometimes substantial gender differences.
- Age capping has a substantial effect on estimates, especially for Greece.

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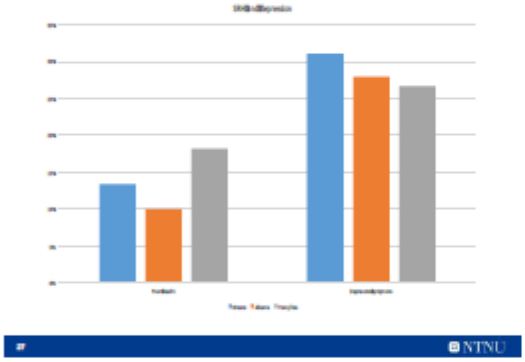
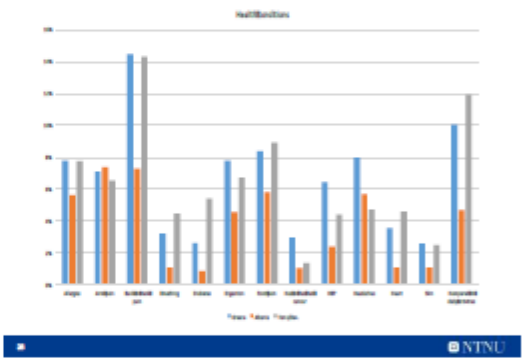
Next: Regression analyses of health

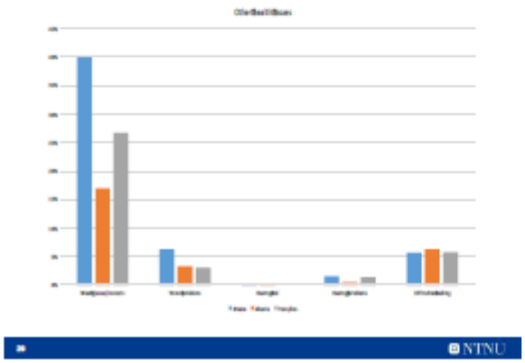
- The prevalence rates suggest differences in several health outcomes between country groups.
- Additionally, the descriptions suggest sometimes large gender differences.
- The differential effect of age has not been taken into account in these estimates.
- The health outcomes need to be analysed by multivariate regression analysis, to account for country, gender and age differences as a minimum.

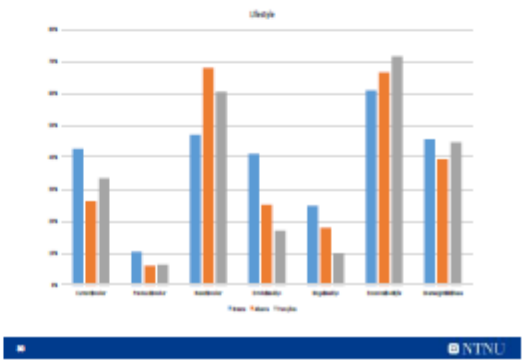
Optional:
Health measures, using 3 country groups

- These measures compare Greeks, Albanians and a combined category of developed/transitional economies.
- Estimates are weighted and capped at 60.
- Developed countries have been excluded.
- All estimates and graphs in this section have been supplied by Erling Landet, NTNU.









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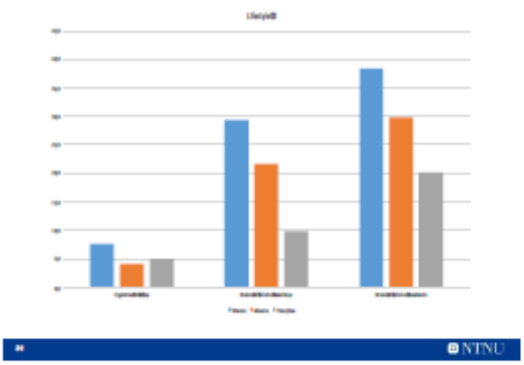

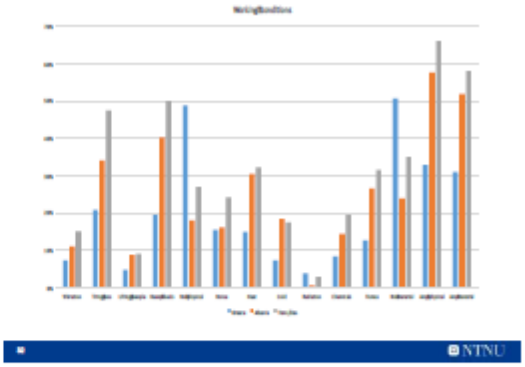

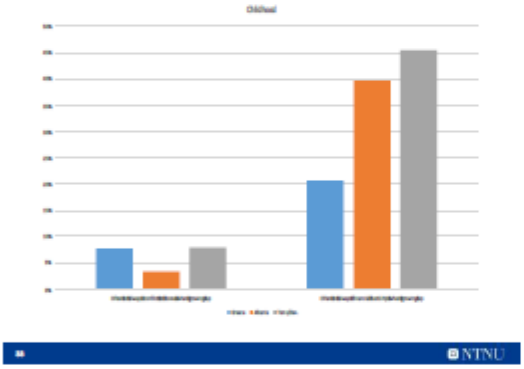

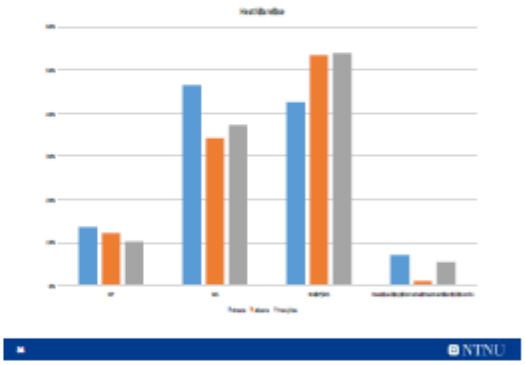

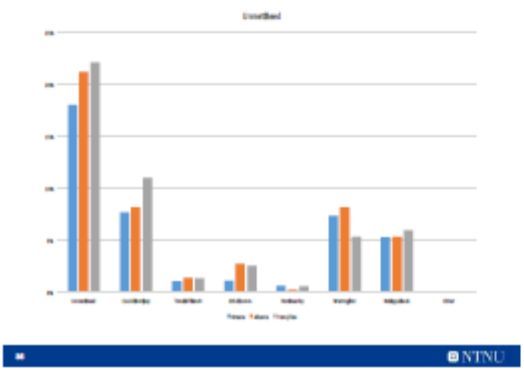

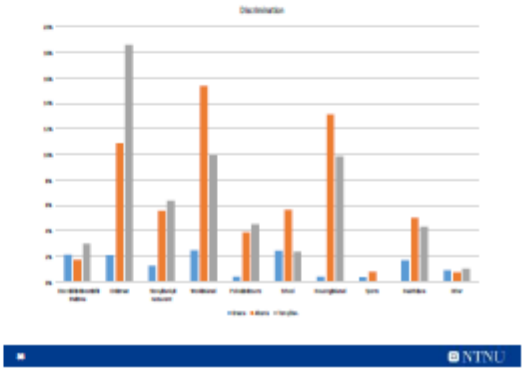

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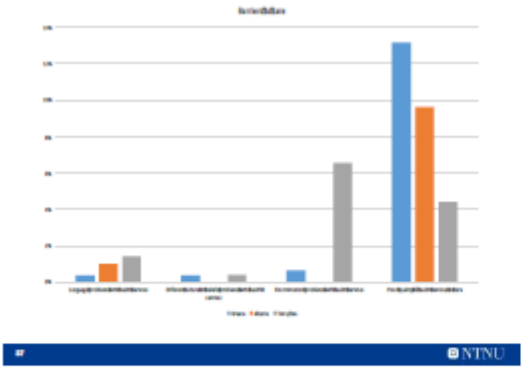

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Barriers to access in health care among migrants

MIGHEAL mid-term workshop
NTNU, November 8-9, 2016
Per Stornes, PhD student, NTNU
All estimates the graphs are based on, have been supplied by Erling Landet, NTNU.

Norwegian University of Science and Technology

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Aspects of barriers to care

Barrier	Description
Discrimination	Discrimination on the basis of immigrant status.
Communication ability	Not speaking or understanding the dominant language to communicate with health care providers. Also cultural challenges to understanding the nuances of another culture and expressing one's problems similar they are understood and not ignored.
Knowledge of the health care system	Little knowledge about how the "system" works, what rights to health care exist, and how to navigate the health care system at all levels.

In the last 12 months, how often have you experienced discrimination or unfair treatment?	In which places or situations do you feel you have experienced discrimination or been treated unfairly?
<1> All of the time	<1> On the street
<2> Most of the time	<2> In a store, bank or restaurant
<3> Some of the time	<3> At work or when applying for a job or promotion
<4> Rarely	<4> When dealing with the police or courts
	<5> In school or classes
	<6> When deciding where to live or when renting or buying a home
	<7> When participating in sports/a sports organization
	<8> When dealing with public hospitals or health care workers

Hacker, K., Anies, M., Folb, B. L., & Zallman, L. (2015). Barriers to health care for undocumented immigrants: a literature review. *Risk management and healthcare policy*, *8*, 175.

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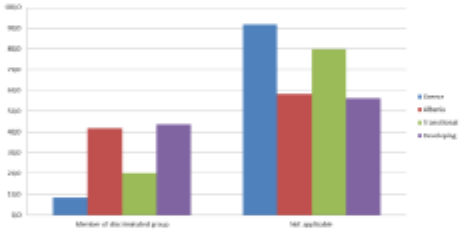
Discrimination at group level

All estimates are design weighted, and capped at 60 years of age.



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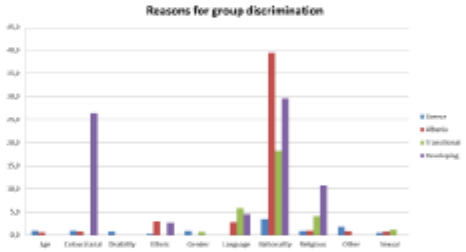
Reasons for group discrimination



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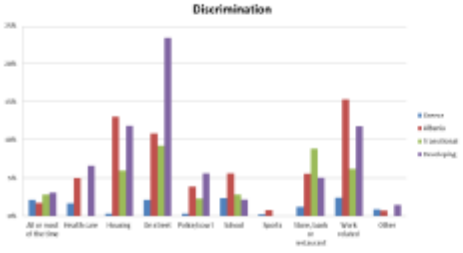
Discrimination at individual level



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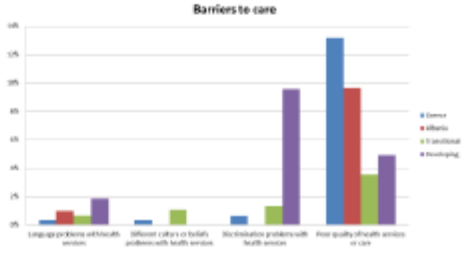
Barriers to care



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Comparisons to ESS7 findings

MIGHEAL mid-term workshop
NTNU, November 8-9, 2016
Per Stornes, PhD student, NTNU
All estimates on prevalence rates,and some graphs, have been supplied by Erling Landet, NTNU.

Norwegian University of Science and Technology

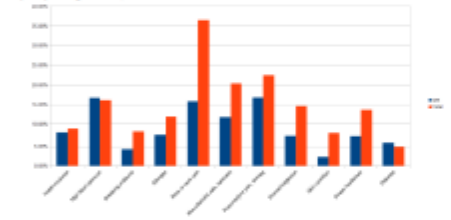
A few simple examples

- Here is an example comparing MIGHEAL data (population weighted) with pooled mean ESS7 data (post stratification weighted).

Greece vs ESS average

Here is an example comparing MIGHEAL data (population weighted) with pooled mean ESS7 data (post stratification weighted).

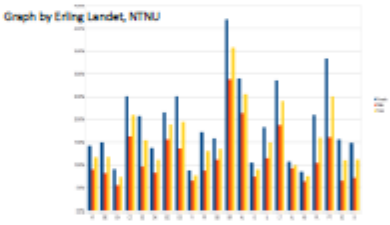
Graph by Erling Landet, NTNU



Depression MIGHEAL vs ESS, full sample, weighted

Here is an example comparing MIGHEAL depression scores (population weighted) with ESS7 data by country total (post stratification weighted).

Graph by Erling Landet, NTNU



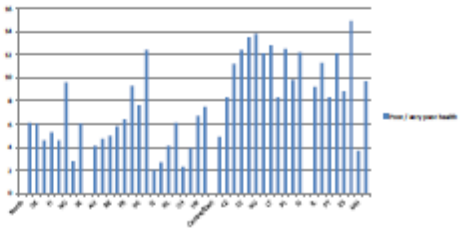
Optional extra material comparing ESS and MIGHEAL.

- **Assumptions**:
- All rates for ESS7 have been age standardized, so they are comparable between countries.
- The rates for Greece have been weighted with population weight IMWFIN2.
- The rates for Greece have not been standardized, but the age distribution approximates the European Standard Population of 2013.
- All rates are split by gender, and most are given as percentages, note exceptions.
- I apologize for the poor graphs.

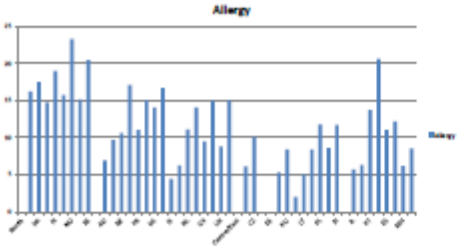
ESS vs MIGHEAL

The table is split by country and gender: The first bar is male, the second female. Greece to the far right (MH). Note gender difference in Greece.

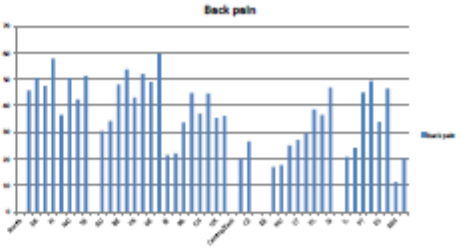
Poor / very poor health



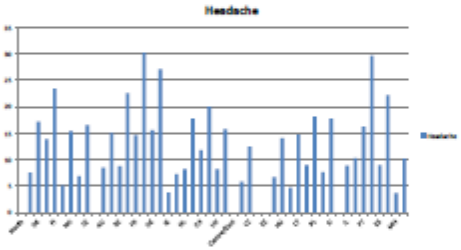
Low scores on allergies



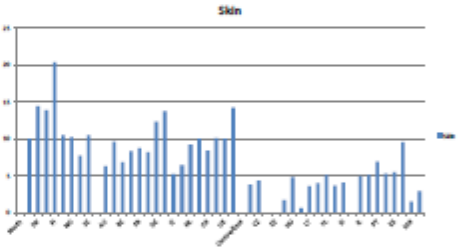
Low scores on back pain



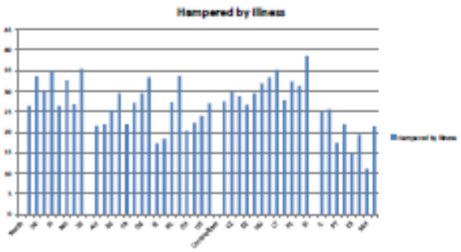
Low scores on severe headaches



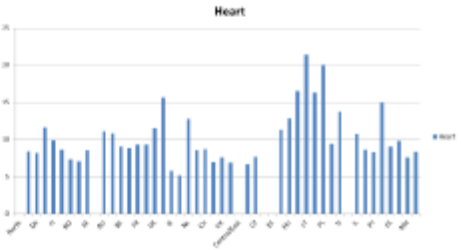
Low scores on skin problems



Low scores on long-term limitations



Medium scores on heart problems



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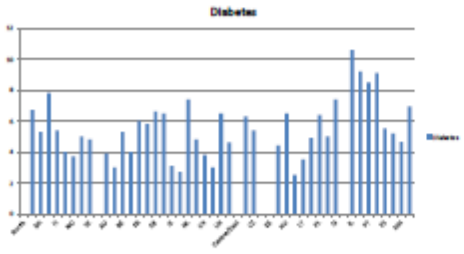
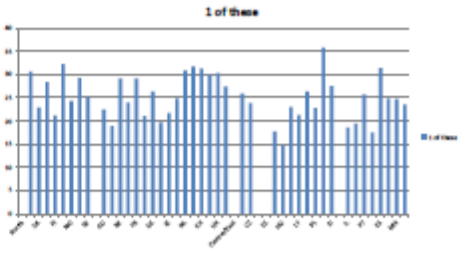
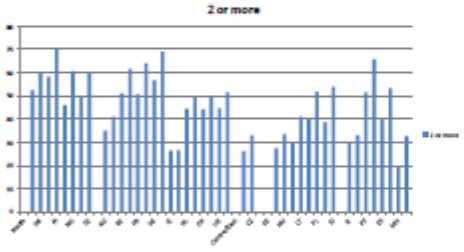
Medium/high scores on diabetes



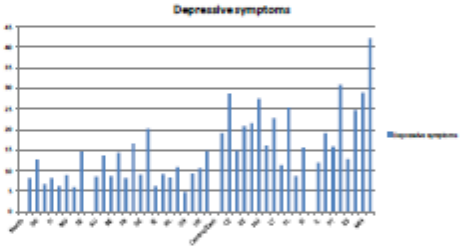
Medium scores on one condition



Low scores on multiple conditions

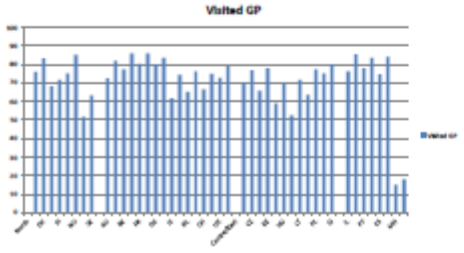


High rates of depressive symptoms for males, extreme scores for females.

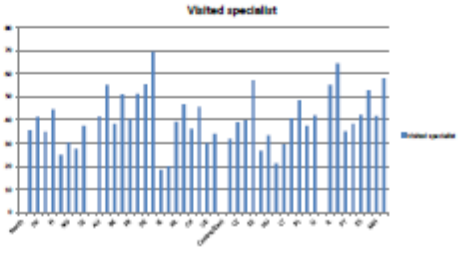


Low rates for GP use

Due to wording of question and exclusion of pathologists

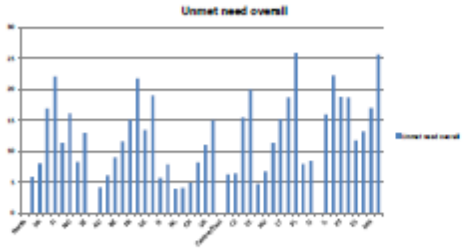


Medium high rates for specialist use

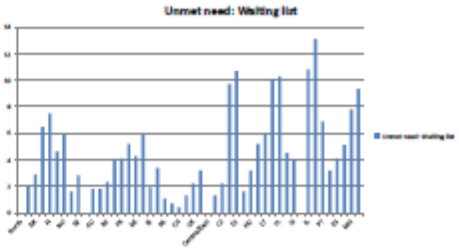


MINISTRY OF EDUCATION, RESEARCH AND RELIGIOUS AFFAIRS
GENERAL SECRETERIAT FOR RESEARCH AND TECHNOLOGY
PROGRAMME OPERATOR

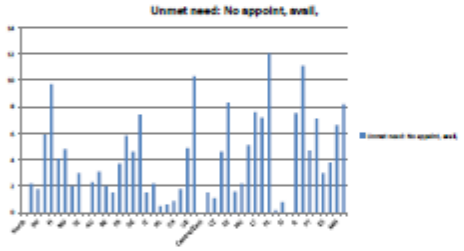
High overall unmet need, M/F



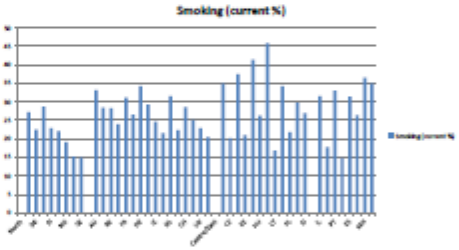
High rates of long waiting lists



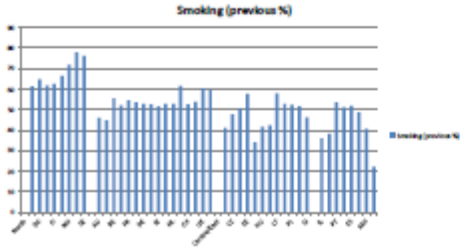
High rates on lack of appointments



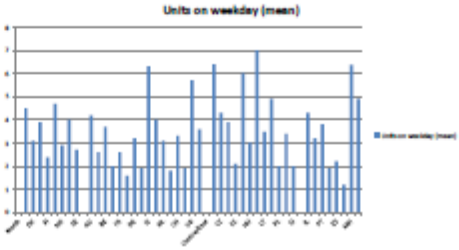
Medium high rates of smoking (F)



Low rates of previous smoking



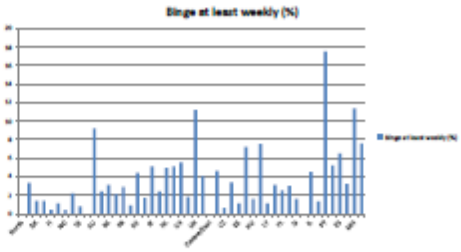
High number of weekday units



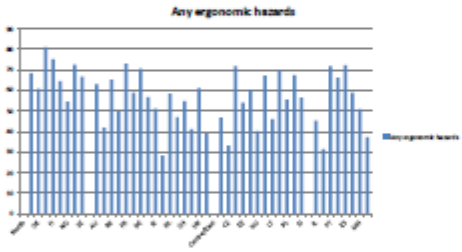
NATIONAL CENTRE FOR SOCIAL RESEARCH

Low number of weekend units

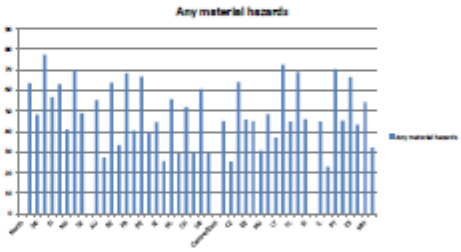
High degree of binge drinking



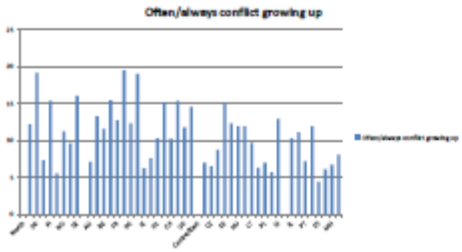
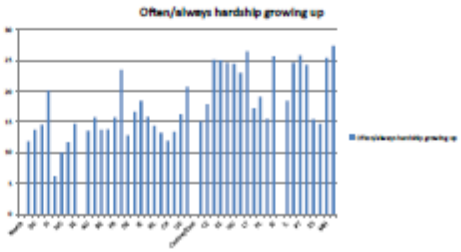
Medium/low ergonomic harzards



Medium/low material hazards



Low rates of childhood conflict



High rates of childhood hardship