Immigrants’ health and health inequality by type of integration policies in European countries

Davide Malmusi1,2

1 Centro de Investigación Biomédica en Red en Epidemiología y Salud Pública. Spain
2 Health Information Systems Unit, Agència de Salut Pública de Barcelona, IIB-Sant Pau. Barcelona, Spain

Correspondence: Davide Malmusi, Agència de Salut Pública de Barcelona, Pl. Lesseps 1, 08023 Barcelona, Spain, Tel: +34 932027798, Fax: +34 933686943, e-mail: dmalmsu@aspb.cat

Methods: Cross-sectional study with data from the 2011 European Union Survey on Income and Living Conditions. Fourteen countries were grouped according to a typology of integration policies based on the Migrant Integration Policy Index: ‘multicultural’ (highest scores: UK, Italy, Spain, Netherlands, Sweden, Belgium, Portugal, Norway, Finland), ‘exclusionist’ (lowest scores: Austria, Denmark) and ‘assimilationist’ (high or low depending on the dimension: France, Switzerland, Luxembourg). People born in the country (natives, n = 177300) or outside the European Union with >10 years of residence (immigrants, n = 7088) were included. Prevalence ratios (PR) of fair/poor self-rated health between immigrants and for immigrants versus natives within each, were computed adjusting by age, education, occupation and socio-economic conditions. Results: Compared with multicultural countries, immigrants report worse health in exclusionist countries (age-adjusted PR, 95% CI: men 1.78, 1.49–2.12; women 1.58, 1.37–1.82; fully adjusted, men 1.78, 1.50–2.11; women 1.47, 1.26–1.70) and assimilationist countries (age-adjusted, men 1.21, 1.03–1.41; women 1.21, 1.06–1.39; fully adjusted, men 1.19, 1.02–1.40; women 1.22, 1.07–1.40). Health inequalities between immigrants and natives were also highest in exclusionist countries, where they persisted even after adjusting for differences in socio-economic situation. Conclusion: Immigrants in ‘exclusionist’ countries experience poorer socio-economic and health outcomes. Future studies should confirm whether and how integration policy models could make a difference on migrants’ health.

Introduction

People with an immigrant background constitute an increasing proportion of the European Union (EU) population. In 2010, 6.3% of EU residents (31.4 million people) were born outside the EU.1 The debate on policies on immigration control and integration has been high for many years; however, very little is known on how they might be affecting immigrants’ health.

Evidence is consistent with the so-called ‘healthy immigrant effect’, so that recently arrived immigrants from poor areas have generally better health than expected for their socio-economic characteristics, but this health advantage is frequently observed to deteriorate with increasing time of residence.2–4 The self-selection of people able to migrate and work is counterbalanced by cumulative hazardous exposures before migration and in the host country, such as hardship, work hazards, exploitation and discrimination.5,5

These exposures may well be influenced by policies for the control of immigration and the integration of immigrants. Few studies, mainly outside Europe and focusing on undocumented migrants,6 have examined the impact of such policies on immigrants’ health.7,8

The heterogeneity of the orientation of immigration policy across Europe offers an interesting opportunity. Attempts have increased of comparative analysis of immigrants’ mortality across countries, but studies have been mainly descriptive.6–11 Two studies showed that inequalities between natives and immigrants in adverse perinatal outcomes were larger in countries with low naturalization rates, used as a proxy of integration policy.12,13 A recent study found no association, having controlled for several individual factors, between depression in immigrants and their offspring and the country total score in the Migrant Integration Policy Index (MIPEX, www.mipex.eu), including around 200 indicators of policies directed to immigrant populations across seven areas (labour market, family reunion, residence, political participation, nationality, anti-discrimination and education).14

However, an additive score could overlook qualitative differences more evident with a typological analysis. Several authors have identified, with different names, three types of policies on a combination of cultural, socio-economic and legal-political dimensions.13–18 The ‘multicultural’ or ‘individualistic-civic’ model is characterized by tolerance of cultural differences and legal citizenship based on the ius soli (acquisition through residence or birth), with the UK, Netherlands and Sweden consistently classified in this group. On the opposite pole, the ‘guest worker’, ‘differential exclusionist’ or ‘collectivistic-ethnic’ model assumes a temporary presence of migrants due to labour market needs, bases citizenship on ancestry and displays low social and political tolerance. Germany, Austria, Switzerland and Belgium have been labelled under this category. In between lays the ‘assimilation’ or ‘collectivistic-civic’ model, whose prototype is France, also applies the ius soli, but confines cultural manifestations to the private sphere.

These policy orientations have evolved, sometimes changed and increasingly have converged, especially in the EU context and through confrontation to similar problems.17,19,20 For example, France and Germany have been similar in practice, and Germany, as a response to the long-term settlement of millions of foreigners, has reformed and opened its national identity law.21,22 Moreover, countries that started experiencing net immigration only towards the end of last century, such as Italy, Spain or Finland, have been less consistently classified.15,18,23

Recently, Meuleman and Reeskens24 further elaborated the work on typologies to classify all EU countries based on current policies,
through a latent class analysis of the specific dimensions scores of MIPEX 2007 edition. Again, three groups were identified: one scoring highest on all dimensions, including the three traditional representatives of the multicultural model (UK, Netherlands, Sweden) as well as most of the newer immigration countries; one with low scores, sharing characteristics of the differential exclusionist model and dominated by the Eastern bloc; and a smaller cluster, dominated by France, Germany and Switzerland, restrictive on residence and access to labour market but open on nationality and political participation, that the authors consider an evolution of the assimilationist model.24

The objective of this study is to analyse the differences across European countries with different types of integration policies in the self-rated health status (absolute and compared with natives) of immigrants from outside the EU, and the contribution of socio-economic conditions to such differences.

Methods

Study design, population and data source

This is a cross-sectional study on the population of 14 European countries. Individual data come from the 2011 European Union Survey of Income and Living Conditions (EU-SILC), the instrument for comparative statistics on income distribution and social inclusion of EU and EFTA countries, composed of national surveys with comparable questionnaires harmonized by Eurostat. The study population consists individuals (aged ≥16 years) residing in these countries, either born in the same country of residence or born outside the EU and having resided ≥10 years in the country. We excluded recent migrants as a way to reduce the influence of the healthy immigrant effect,3,5 and immigrants from other EU countries, considering previous research either showing that immigrants from high-income countries are as well-off as natives3 or excluding them from the study population.4

We include all the countries with EU-SILC data that are classified in the typology proposed by Meuleman and Reeskens,24 and retain individuals with valid information on health status and birthplace. We further exclude five countries (Germany, Estonia, Latvia, Malta, Slovenia) where in the data set provided to researchers all foreign-born (both from within and outside the EU) are merged in one category, four (Hungary, Czechia, Slovakia, Poland) that in the resulting data set have <0.5% of immigrants, and one more (Lithuania) where, taking into account that median year of immigration was in the 1970s and >95% of foreign-born were naturalized, most ‘immigrants’ could be actually Russians arrived when Lithuania was still part of the USSR. The final sample is of 184 388 subjects (7088 immigrants).

Variables

The dependent variable is general self-rated health, assessed through the question: ‘How is your health in general?’. The answer was dichotomized into good (very good, good) and poor (fair, bad, very bad).25 Sensitivity analysis was conducted dichotomizing between ‘fair’ and ‘bad’, and with the questions on having a limiting long-standing illness and on limitation in activities because of health problems.

The main independent variables are:

- Birthplace: immigrant, born outside the EU, or native, born in the country of residence.
- Countries of residence grouped according to the typology of integration policies proposed by Meuleman and Reeskens:24
  - ‘multicultural’: United Kingdom, the Netherlands, Belgium, Sweden, Norway, Finland, Italy, Spain, Portugal.
  - ‘assimilationist’: France, Switzerland, Luxembourg.
  - ‘exclusionist’: Austria and Denmark.

Explanatory variables for health differences between natives and immigrants and between immigrants in the different country policy groups are:

- Educational level reached, classified according to ISCED-97 in pre-primary, primary, lower secondary, upper secondary, post-secondary and tertiary.
- Occupational social class, based on the current or last occupation of the respondent, coded with one-digit ISCO-08 and grouped into managers and professionals (digits 1,2), technicians (3), clerks (4), skilled manual (5–8), elementary occupations (9) and armed forces (0);
- Economic situation of the household, using the following variables:
  - Equivalized household income.26 Country-specific quintiles were computed within the valid sample.
  - Material deprivation, according to the enforced inability to pay for the following nine items: rent, mortgage or utility bills; a television set; a washing machine; a car; a telephone; keeping home adequately warm; facing unexpected expenses; eating meat or proteins regularly; going on holiday. Four or more unaffordable items, corresponding to severe material deprivation,23 were grouped into one category.
  - Ability to make ends meet: with (great) difficulty, with some difficulty, fairly easily, (very) easily.
  - Living in an overcrowded household, as defined by Eurostat.26
- Citizenship status: within immigrants, holding or not the nationality of the host country or another EU country.

Analyses of self-rated health are adjusted by age and all analyses are stratified by sex as potential effect modifier.

Analysis

We describe the distribution of the sample and explanatory variables by country typology, sex and birthplace. We also describe for each country the sample size and age-adjusted prevalence of poor health, calculated with the predicted probability post-estimation function of Poisson regression. Using robust Poisson regression models,27 we estimate prevalence ratios (PR) of poor self-rated health between immigrants living in each country group, and for immigrants versus natives within each country group, sequentially adjusting for age (continuous) and explanatory variables (categorical, adding a category for missing values). Citizenship status and year of arrival were not included as they were not significantly associated with self-rated health once adjusting by age and country typology (results not shown).

All analyses apply the EU-SILC personal cross-sectional weight, correcting sample size in each country for its actual weight in the European population.

Results

Table 1 shows the description of study variables by country typology, sex and birthplace. Compared to natives, immigrants are over-represented in the 30–44 age range in multicultural and exclusionist countries and in the 45–64 range in assimilationist countries. Immigrants in assimilationist countries have spent more years in the host country. A 68% of immigrants in assimilationist, 67% in multicultural and 57% in exclusionist countries hold an EU nationality. Immigrants in exclusionist countries are least likely and those in multicultural countries are most likely (even more than natives) to have completed university education. In all country typologies, immigrants are more likely than natives to be in manual occupations, in the lowest income quintile, and to experience difficulties to make ends meet, material deprivation and overcrowding: for all
Table 1 Description of the study variables by country typology, sex and birthplace

<table>
<thead>
<tr>
<th>Study variables</th>
<th>Multicultural countries</th>
<th>Assimilation countries</th>
<th>Exclusionist countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Native</td>
<td>Women</td>
<td>Native</td>
</tr>
<tr>
<td>N</td>
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<td>1953</td>
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<tr>
<td>N weighted</td>
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<td>2840</td>
<td>65655</td>
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<tr>
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<td>15–29 years</td>
<td>18.5%</td>
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</tr>
<tr>
<td></td>
<td>30–49 years</td>
<td>35.9%</td>
<td>52.6%</td>
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<td></td>
<td>50–64 years</td>
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<td>25.7%</td>
</tr>
<tr>
<td></td>
<td>&gt;65 years</td>
<td>20.2%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Year of arrival (median)</td>
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<td>64.1%</td>
<td>69.9%</td>
</tr>
<tr>
<td>EU citizenship (%)</td>
<td>64.1%</td>
<td>69.9%</td>
<td>64.2%</td>
</tr>
<tr>
<td>Material deprivation</td>
<td>9.6%</td>
<td>21.5%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Social class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make ends meet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income quintile</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>吗 Empty meet</td>
<td>19.0%</td>
<td>30.3%</td>
<td>22.1%</td>
</tr>
<tr>
<td>With difficulty</td>
<td>23.6%</td>
<td>39.2%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Some difficulty</td>
<td>29.0%</td>
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<td>Fairly easily</td>
<td>27.4%</td>
<td>19.9%</td>
<td>27.0%</td>
</tr>
<tr>
<td>Easily</td>
<td>20.0%</td>
<td>23.6%</td>
<td>18.2%</td>
</tr>
<tr>
<td>Material deprivation</td>
<td></td>
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<tr>
<td>0 unaffordable items</td>
<td>57.2%</td>
<td>36.9%</td>
<td>53.5%</td>
</tr>
<tr>
<td>1</td>
<td>17.3%</td>
<td>20.2%</td>
<td>18.1%</td>
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<td>2</td>
<td>15.7%</td>
<td>25.7%</td>
<td>17.7%</td>
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<tr>
<td>3</td>
<td>6.2%</td>
<td>10.9%</td>
<td>6.7%</td>
</tr>
<tr>
<td>4 or more</td>
<td>3.5%</td>
<td>6.4%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Overcrowded household</td>
<td>9.6%</td>
<td>21.5%</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

Fourteen European countries, 2011.

Multicultural: United Kingdom, the Netherlands, Belgium, Sweden, Norway, Finland, Italy, Spain and Portugal. Assimilationist: France, Switzerland and Luxembourg. Exclusionist: Austria and Denmark.

Immigrants arrived in the country since 2002 are excluded.

Percentages rounded to one decimal. For variables where they are not reported, ‘not available’ percentages are <0.5%.

variables, differences with natives are largest in exclusionist countries and generally smaller in multicultural than assimilationist countries.

The age-adjusted prevalence of poor health (Table 2) is higher among immigrants in all countries – except Italy, Portugal and among men in Spain. Denmark has the largest differences between natives and immigrants, both absolute and relative. In country typologies overall, differences are smallest in multicultural and largest in exclusionist countries.

Figure 1 shows the results of multivariate models comparing immigrants across different country typologies. The age-adjusted risk of poor health compared to immigrants living in multicultural countries is higher for those in assimilationist countries (PR, 95% CI: men 1.18, 1.20) and multicultural countries (1.05 non-significant, 1.12). PR becomes non-significant in assimilationist countries after adjustment for educational level among men and after further adjustment for socio-economic conditions among women. After all adjustments, a significant association is maintained only in exclusionist countries (PR, 95% CI: men 1.22, 1.30; women 1.22, 1.30) and women in multicultural countries (1.10, 1.20).
Supplementary Figures show that limiting longstanding illness and activity limitation show substantially the same patterns of inequality as self-rated health, while PRs for immigrants in assimilationist and exclusionist countries are even increased when using a different cut-off for poor self-rated health (bad versus fair or good).

Discussion

This is the first cross-country comparative study testing the relationship between integration policy models and adult immigrants’ general health. Immigrants experience better health, even after adjusting for socio-economic conditions, in European countries with high integration policy scores, having adopted an open and respectful model, the ‘multicultural’, than in countries with poor integration policies and an ‘exclusionist’ model. Immigrants in multicultural countries also experience a slight health advantage, partly accounted by a higher education level, compared to those living in countries with a more mixed picture of integration policy, alike the ‘assimilationist’ model. Health inequalities between immigrants and local-born populations are highest in exclusionist countries and lowest in multicultural and assimilationist countries, and are fully or mostly mediated by differences in socio-economic position and living conditions.

Some limitations of the study deserve mention before interpreting the results. The data source, EU-SILC, is a harmonized dataset of country surveys, with heterogeneity in methods of sampling, data collection and response rates, among others. Limited participation and representation of immigrants in population surveys are an issue. However, these surveys have standardized quality procedures and allow reasonably consistent comparisons with native populations and across countries.

In the EU-SILC dataset released for research purposes, information on birthplace is aggregated into country of residence, rest of EU and outside EU. We cannot rule out that the differences observed are driven by the differences across countries in the composition of immigrant populations (see Supplementary Table S1), and it

<table>
<thead>
<tr>
<th>Country of residence</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Nw</td>
<td>Poor health</td>
</tr>
<tr>
<td>Multicultural countries</td>
<td>60 806</td>
<td>62 128</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6250</td>
<td>17 194</td>
</tr>
<tr>
<td>Italy</td>
<td>17 688</td>
<td>18 291</td>
</tr>
<tr>
<td>Spain</td>
<td>12 770</td>
<td>14 320</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4516</td>
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<tr>
<td>Portugal</td>
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<td>3300</td>
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<td>2819</td>
<td>1604</td>
</tr>
<tr>
<td>Norway</td>
<td>2260</td>
<td>910</td>
</tr>
<tr>
<td>Finland</td>
<td>4445</td>
<td>955</td>
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<tr>
<td>Assimilationist countries</td>
<td>17 246</td>
<td>19 743</td>
</tr>
<tr>
<td>France</td>
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</tr>
<tr>
<td>Switzerland</td>
<td>4797</td>
<td>1893</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>3248</td>
<td>94</td>
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<tr>
<td>Exclusionist countries</td>
<td>7123</td>
<td>3411</td>
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<tr>
<td>Austria</td>
<td>4708</td>
<td>2353</td>
</tr>
<tr>
<td>Denmark</td>
<td>2415</td>
<td>1057</td>
</tr>
</tbody>
</table>

Fourteen European countries, 2011.

Nw: Sample size applying sample weight (rounded to unit). Poor health: Age-adjusted prevalence (predicted probability at age 50 post-logistic regression).

P values for comparisons between natives and immigrants based on age-adjusted logistic regressions: *P < 0.05; **P < 0.01; ***P < 0.001. Immigrants arrived in the country since 2002 are excluded.

Supplementary Figures show that limiting longstanding illness and activity limitation show substantially the same patterns of inequality as self-rated health, while PRs for immigrants in assimilationist and exclusionist countries are even increased when using a different cut-off for poor self-rated health (bad versus fair or good).

Figure 1 Prevalence ratio and 95% confidence interval of poor health in immigrants according to the integration policy typology of country of residence (reference: multicultural). Fourteen European countries, 2011

Table 2 Sample size and prevalence of poor health by country, sex and birthplace
would have been more appropriate to compare populations with reasonably similar ethnic backgrounds. Moreover, some countries, which we opted to exclude, merge together all foreign-born: between these Germany, the country with the largest number of foreign-born residents. So far, specific transnational surveys on immigrants from the same country of origin lack health variables. Nevertheless, we expect integration policies to affect similarly all immigrants from poorer countries.

Length of residence is another potential source of heterogeneity. Having excluded recent migrants, this variable was not significantly linked to health in our study. Moreover, we replicated analyses omitting four countries that became net immigration countries only towards the end of last century (Italy, Spain, Portugal, Finland); in both age-adjusted and fully adjusted models, only the difference between immigrant men in multicultural and assimilationist countries lost significance.

Self-rated health is the main health variable presented. This extensively used question has predictive power for mortality and morbidity, combines the individual’s evaluation of disease, symptoms, function and well-being, and gives valid (or, if any, underestimated) measures of health inequalities by socio-economic position. Different response styles, reference levels or question wording can affect comparisons between countries, and although the few studies in Europe on comparability across ethnic groups show consistency between inequalities observed with self-rated health and with more objective measures of disease, these cross-cultural differences may also influence comparisons between immigrants living in different countries. Nevertheless, a similar pattern has been observed both assessing inequalities between and within countries, and in sensitivity analyses using limiting longstanding illness and health-related activity limitation.

Having said that, the most consistent finding is the poor health experienced by immigrants in exclusionist countries, compared both with natives and with immigrants elsewhere. These countries are characterized by a consideration of migrants as temporary guest workers, with more difficulties for attaining citizenship and full political rights, strict rules on long-term residence or family reunification, and little initiatives to combat discrimination. This approach results, as this study shows, in the arrival of migrants with the lowest education level, segregating in the least qualified occupational classes and experiencing the poorest living conditions. Health outcomes are also the poorest, and inequalities persist even after controlling for socio-economic disadvantage. Previous studies have shown lower tolerance towards immigrants in exclusionist countries and that MIPEX scores are inversely related with perceived group threat from immigrants: this may rebrand in immigrants’ ill-health through discrimination and lack of support. Only two countries in this cluster had valid data for our study, Austria and Denmark, and in both countries immigrants show a large health disadvantage compared with natives. Interestingly, Switzerland, a country falling in the ‘assimilationist’ cluster but previously classified by scholars in the exclusionist model and with a low MIPEX score, also showed a large health inequality between immigrants and natives.

On the other hand, in multicultural and assimilationist countries, immigrants’ health disadvantage is more limited and fully explained by the socio-economic situation. These two typologies share an active development of policies to facilitate immigrants’ integration and a civic approach to nationality acquisition based on the principle of jus soli, and they seem to succeed in limiting immigrants’ socio-economic disadvantage, and in obtaining a level of health inequalities that does not go beyond the effects of this disadvantage. Differences between the two typologies are less conclusive, despite a tendency to better immigrants’ health in multicultural countries. This ‘multicultural advantage’ is partly accounted by a higher education level, which can be considered a selection factor (although a quarter of immigrants in the sample arrived before the age of 16 years). It should be reminded that the model considered as most integrative lies outside Europe, in classical immigration countries labelled as pluralist.

Studies of country typologies have been quite extended in social epidemiology, and grouping is based on policy similarities. The use of typologies may have brought to surface the link of integration policies with health uncovered in a previous study using MIPEX total score. Nevertheless, differences between countries within each typology should not be overlooked. Some prominent representatives of the multicultural model, such as the Netherlands or Sweden, the country with the highest MIPEX score, do display a relatively large health disadvantage for immigrants, coherently with previous studies. This could be partly explained by reason for migration, as refugees usually have poorer health and these countries have a large tradition of asylum: for example, Iraqi refugees are the largest non-EU community in Sweden.

Conclusions and recommendations

Different integration policy models appear to make a difference on migrants’ self-rated health across Europe. The ‘exclusionist’ model is associated with larger socio-economic segregation and poorer health for migrants. These results open the door to future studies to test the health effects of the socio-political context of immigrants’ integration. Comparisons of surveys and other health data sources with adequate samples of immigrants with similar origins may further confirm the role of policy context beyond background differences. Multilevel models adding country-level variables may identify the specific dimensions of integration policy that are linked to health
outcomes. Qualitative studies could uncover the mechanisms of why and how integration policy may get under the skin. While waiting for definitive evidence, public health practitioners working on migrants’ health promotion should look upstream and advocate for more inclusive integration policies. Policymakers should consider the health consequences of their decisions in this field.

Supplementary data

Supplementary data are available at EURPUB online.

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Aitor Dominguez-Aguayo for collaboration in statistical analysis; Carme Borrell, Laia Palencia, Anton Kunst, Danielle Kramer, Andrea Madasarova Geckova, SOPHIE colleagues and anonymous reviewers for useful comments.

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Conflicts of interest: None declared.

Key points

- The growing wealth of comparative research on immigrant integration policy and on immigrants’ health across countries have rarely been combined so far.
- Immigrants of both sexes report worse health in European countries with poor integration policies and an ‘exclusionist’ model, even after adjusting for socio-economic conditions.
- Future comparisons of immigrants with similar origins and of different health outcomes may confirm the role of policy context on immigrants’ health.

References

1. Vasileva K. 6.5% of the EU population are foreigners and 9.4% are born abroad. Eurostat - Statistics in Focus 2011.
Prevalence of metabolic syndrome among Roma: a comparative health examination survey in Hungary

Zhigmond Kósa1, Ágota Moravcsik-Kornicky2,3,4, Judit Dioszegi2,3, Bayard Roberts5, Zoltán Szabó6, János Sándor2, Róza Ádány2,3,4

1 Department of Methodology for Health Visitors and Public Health, Faculty of Health, University of Debrecen, Nyíregyháza, Hungary
2 Department of Preventive Medicine, Faculty of Public Health, University of Debrecen, Debrecen, Hungary
3 MTA-DE Public Health Research Group of the Hungarian Academy of Sciences, University of Debrecen, Debrecen, Hungary
4 Department of Preventive Medicine, WHO Collaborating Centre on Vulnerability and Health, University of Debrecen, Debrecen, Hungary
5 Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK
6 Institute of Internal Medicine, University of Debrecen, Debrecen, Hungary

Correspondence: Róza Ádány, Department of Preventive Medicine, Faculty of Public Health, MTA-DE Public Health Research Group of the Hungarian Academy of Sciences, Department of Preventive Medicine, WHO Collaborating Centre on Vulnerability and Health, Faculty of Public Health, University of Debrecen. 26 Kassai Street, Debrecen H 4012, Hungary. Tel: +3652417267/77147, Fax: +3652460195, e-mail: adany.roza@sph.unideb.hu

Objectives: The objective of our study was to compare the health status of the Roma people with that of the general population in Hungary. Methods: A health examination survey to define the prevalence of metabolic syndrome and its components was performed in a representative random sample (n = 646) of the Roma population aged 20–64 years living in segregated colonies, and data were compared with that obtained in a representative random sample (n = 1819) of the Hungarian population. Results: The risks for central obesity, hypertension and raised triglyceride level among Roma adults were not different from the Hungarian references, while raised fasting plasma glucose or known type 2 diabetes mellitus (OR = 2.65, 95% CI 1.90–3.69), reduced HDL cholesterol level or treated lipid disorder (OR = 2.15, 95% CI 1.65–2.79) were significantly more frequent in all age groups in the Roma sample. The prevalence of metabolic syndrome (OR = 1.37, 95% CI 1.03–1.83) was also significantly higher among Roma than in the general Hungarian population. Conclusions: Besides tackling the socio-economic determinants of the poor health of Roma people, specific public health interventions considering increased genetic susceptibility to metabolic disturbances are needed to improve their health status.

Introduction

Roma are the largest ethnic minority in Europe with an estimated number between 12 and 15 million. Their representation in the population is greatest in Bulgaria, Romania, Slovakia, Hungary, the Czech Republic and Slovenia, but the EU enlargements of 2004 and 2007 have enabled increasing numbers to migrate into and to settle in other countries of the EU. The Roma are concentrated in economically deprived regions, often living in segregated parts (colonies) characterized by severely unfavourable environmental conditions of human habitats. Independent of the country where they live, the common problems that this population group experiences are poverty, restricted access to education, high level of unemployment and social exclusion.

On the base of the predominantly low socio-economic status of the Roma population and socio-economic status as determinant of health, it is a reasonable assumption that their health status is much worse and their average life expectancy is much shorter than that of the majority population, as is frequently mentioned both in research and public communications. Considering the fact that recording Roma ethnicity is not permitted in any kind of official documentation including medical records, birth and death certificates as well as some major obstacles that hinder or prevent the collection of reliable data on Roma and other minorities, these cannot be considered as evidence proved.

In a longitudinal study conducted in 2011 covering the entire population of Bulgaria between 1992–98, Kohler and Preston presented ‘the first reliable life table measures and cause-specific mortality indicators according to ethnicity and religion’ by linking data in the 1992 census to subsequent death records. Although identification of Roma was found to be the least reliable among the groups considered and they were most likely to be misclassified, resulting in undercounting, their mortality was found to be high.