ARE AREA-LEVEL AND INDIVIDUAL-LEVEL SOCIOECONOMIC FACTORS ASSOCIATED WITH SELF-PERCEIVED HEALTH IN ADULT URBAN CITIZENS ?

Martina Behanova[1,3],
Jitse P van Dijk[1,4],
Zuzana Katreniakova[1,3],
Iveta Nagyova[1,3],
Sijmen A Reijneveld[4]

[1] Graduate School Kosice Institute for Society and Health, Safarik University, Kosice, Slovak Republic
[2] Institute of Public Health - Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovak Republic
[3] Slovak Public Health Association, Kosice, Slovak Republic
[4] Department of Social Medicine, University Medical Center Groningen, University of Groningen, The Netherlands

KISH   SAVEZ   university of groningen

Background and aim

Residents living in deprived neighbourhoods have been shown to report poorer health (1, 2). This may be due to both the socioeconomic (SE) characteristics of these residents and of the areas where they live. Evidence on Central European countries is lacking, however. This study aims to assess the association of area-level and individual-level SE factors with poor self-perceived health (SPH) among urban citizens in Slovakia.

Methods

Sample

- 3200 citizens approached from the two largest cities in Slovakia, Bratislava and Kosice, stratified by age (19-64, ≥65) and gender
- n=1154 responded (overall response rate 39%) from 31 neighbourhoods
- Age 61.1±16.3 years (range 19-93)
- 46.5% males

Measures

* Individual level

EURO-URHIS2 self-administered postal questionnaire including questions on:

| SELF - PERCEIVED HEALTH a single question: How is your health in general? very good (1), good (2), fair (3), bad (4), very bad (5), dichotomized as good health (1, 2) and poor health (3, 4, 5) | EDUCATION a question on the highest educational level attained (primary, secondary, university) | HOUSEHOLD INCOME self-reported annual household income. Income per capita was adjusted for household size using the OECD modified scale and divided into quartiles |

* Area level
2001 Census data were split into three categories of DEPRIVATION – LOW, MEDIUM, HIGH for each neighbourhood indicator

| TOTAL PROPORTION OF UNEMPLOYED PEOPLE Unemployed ≥ 16 years old, looking for their first job or having worked before | TOTAL PROPORTION OF PEOPLE WITH PRIMARY EDUCATION Population 25-64 years old, with incomplete primary education or without education | TOTAL PROPORTION OF PEOPLE WITH UNIVERSITY EDUCATION Population 25-64 years old, with a university degree |

* Respondents were assigned with a particular tertile according to their place of residency
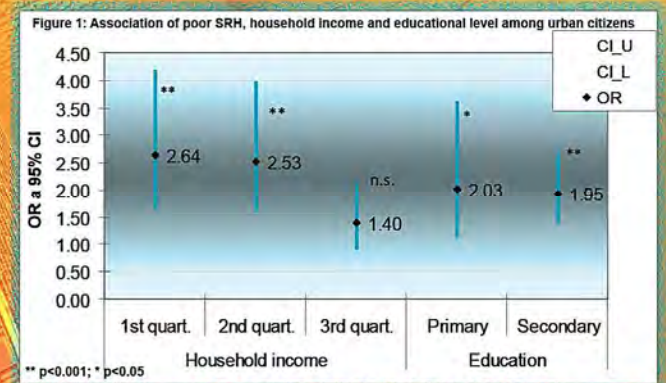
Analysis

Multilevel logistic regression analyses were used to explore the association of individual-level and area-level SE factors with poor SPH.
All analyses were performed using SPSS 18.0 for Windows and MLwiN 2.02.

Results

Residents with primary and secondary school education (p<0.01, OR=2.03-1.9, 95% CI 1.15-3.59; respectively) and with lower household income (p<0.01, OR=2.64-2.53, 95% CI 1.61-4.16) reported poor SPH more often when compared with respondents having a university education and a higher household income (Fig.1). Respondents from areas with low SE characteristics did not report poor SPH more often than those from the better off areas (var = 0.069, CI=-0.02-0.16). Furthermore, differences in poor SPH between neighbourhoods did not vary significantly (0.093; CI=-0.01-0.2).

Figure 1: Association of poor SRH, household income and educational level among urban citizens

** p<0.001; * p<0.05

Ref. cat.: good health, 4th quartile, university education.
Adjusted for age, gender and its interactions; 1st quartile < € 3600; 2nd quartile = € 3601-4800; 3d quartile = € 4801-6960; 4th quartile > € 6961.

Conclusion

In these two Central European cities, area-level SE characteristics were not associated with the SPH of residents, whereas individual SE factors such as education and household income were. This lack of area-level effects deserves additional study.

Correspondence
Martina Behanová, MSc.
Safarik University, Faculty of Medicine
Graduate School KISH
Trieda SNP 1
040 11 Košice, Slovakia
e-mail: martina.behanova@upjs.sk

References
1. Stafford, M., Bartleya, M., Mitchell, R., Marmot, M.: Characteristics of individuals and characteristics of areas: investigating their influence on health in the Whitehall II study. Health & Place 7 (2001) 117–129
2. Omariba, D.W.R.: Neighbourhood characteristics, individual attributes and self-rated health among older Canadians. Health & Place 16 (2010) 986–995
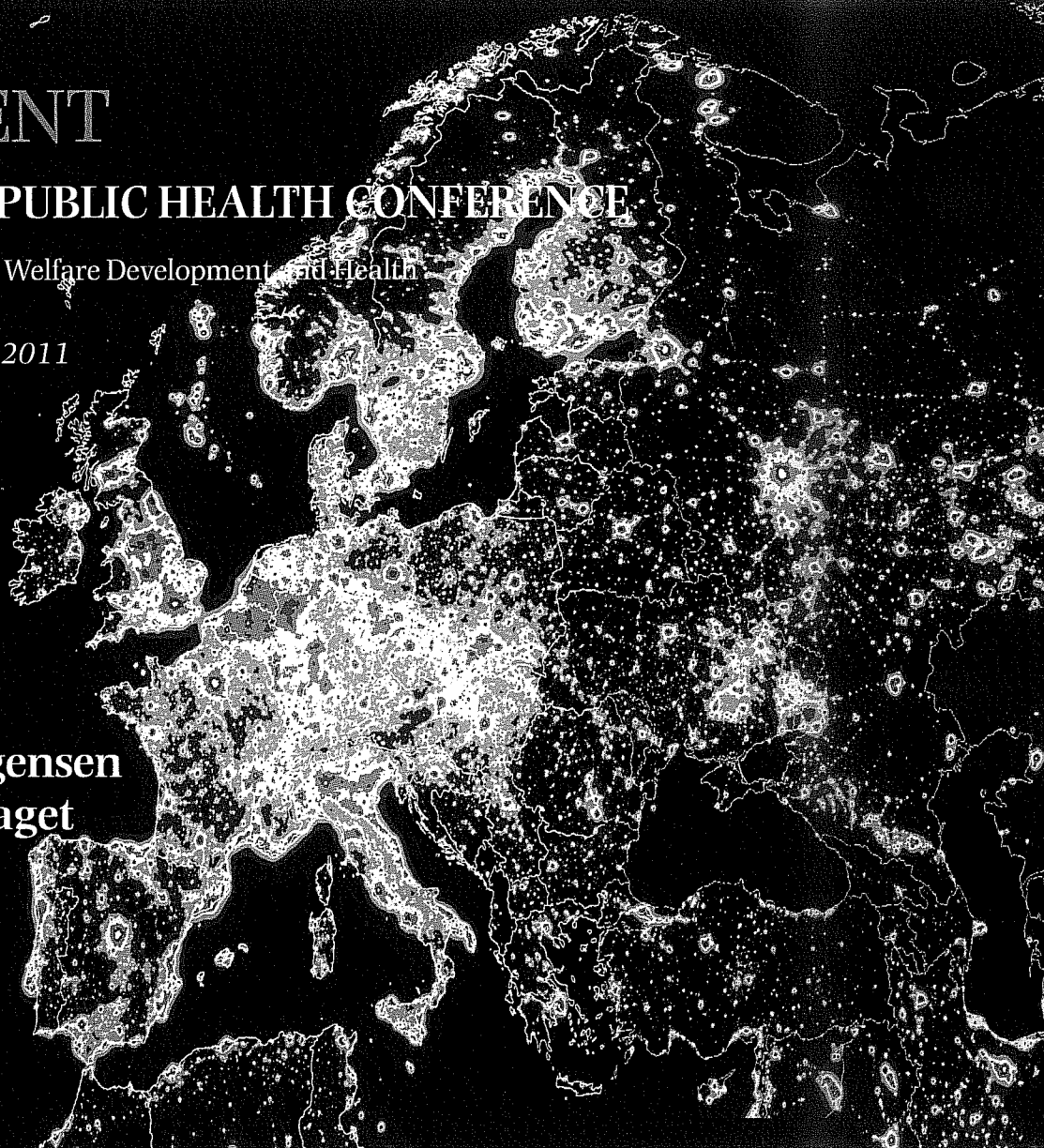
EUROPEAN JOURNAL OF PUBLIC HEALTH

SUPPLEMENT

4TH EUROPEAN PUBLIC HEALTH CONFERENCE

Public Health and Welfare – Welfare Development and Health

Copenhagen, 9–12 November 2011

Guest editors:
Torben Jørgensen
Finn Kamper-Jørgensen
Dineke Zeegers Paget

EUPHA
EUROPEAN PUBLIC HEALTH ASSOCIATION

ASPHER
The Association of Schools of Public Health
in the European Region

Danish Society of Public Health

OXFORD
UNIVERSITY PRESS

EUROPEAN JOURNAL OF
PUBLIC HEALTH

SUPPLEMENT

4TH EUROPEAN PUBLIC HEALTH CONFERENCE

Public Health and Welfare - Welfare Development and Health

Copenhagen, 9–12 November 2011

ABSTRACT SUPPLEMENT

Guest editors: Torben Jørgensen, Finn Kamper-Jørgensen, Dineke Zeegers Paget

CONTENTS

PARALLEL SESSION 2: MODERATED POSTER PRESENTATIONS
Thursday, 10 November, 16:00–17:00
2.A. Urban health

Associations between availability of public transport and commuting physical activity
Sune Djurhuus

S Djurhuus[1,2], M Aadahl[1], HS Hansen[2], C Glümer[1]
[1]Research Centre for Prevention and Health, The Capital Region of Denmark
[2]Institute of Planning, Aalborg University, Denmark
Contact details: sdju0005@glo.regionh.dk

Background
Few studies have described public transit as connectivity parameter in studies of physical activity. Distance to and connectivity of public transport are determinants of walking and biking to stops/stations and thus important parameters when studying commuting physical activity. This study investigates the associations between public transport availability and self-reported commuting physical activity in the Capital Region of Denmark.

Methods
Cross-sectional data on self-reported distance to work and daily commuting duration using bike or walking is obtained from The Health Survey questionnaire ''How are you 2010'' in the Capital Region of Denmark. A stratified random sample of 95,150 inhabitants aged 16+ were asked about physical activity and 52.3% responded. Socio-demographic variables are obtained from national registers. Public transport data containing geocoded stops and timetables are obtained from the register Rejseplanen.dk. Geographical Information System (GIS) will be used to calculate distances to public transits and create network neighbourhoods to exam association to patterns of commuting physical activity. Principal Component Analysis will be performed on public transport variables to identify main components of variance. Data will be analysed by multivariate regression analysis with duration of commuting physical activity as outcome and public transportation availability as exposure variable. Control for potential confounders as socioeconomic factors, age and gender will be conducted.

Results
Preliminary results show that 90% of the population either walk or bike when commuting in Copenhagen City Centre. In some rural areas the proportion of inhabitants who walk or bike when commuting is as low as 55%. 33% neither walk nor bike to work when the distance to work is more than 10 km as opposed to 15% for distances less than 10 km. Further results on the effects of public transportation will be presented.

Conclusions
Commuting physical activity seems more prevalent in areas of high availability of public transport. Proximity of public transport may be important for commuting to/from stations/stops. Whether higher connectivity and availability of public transportation increases commuting physical activity needs to be further investigated.

Are area-level and individual-level socioeconomic factors associated with self-perceived health in adult urban citizens?
Martina Behanova

M Behanova[1,2,3], JP van Dijk[1,4], Z Katreniakova[1,2,3], I Nagyova[1,2,3], SA Reijneveld[4]
[1]Graduate School Kosice Institute for Society and Health, PJ Safarik University, Kosice, Slovak Republic
[2]Institute of Public Health - Department of Social Medicine, Faculty of Medicine, PJ Safarik University, Kosice, Slovak Republic in the EURO-URHIS 2 project on behalf of the SAVEZ
[3]Slovak Public Health Association - SAVEZ, Kosice, Slovak Republic
[4]Department of Social Medicine, University Medical Center Groningen, University of Groningen, The Netherlands
Contact details: martina.behanova@gmail.com

Background
Residents living in deprived neighbourhoods have been shown to report poorer health. This may be due to both the socioeconomic (SE) characteristics of these residents and of the areas where they live. Evidence on Central European countries is lacking, however. This study aims to assess the association of area-level and individual-level SE factors with poor self-perceived health (SPH) among urban citizens in Slovakia.

Methods
Data on SPH, annual household income and educational attainment was collected using a self-administered postal questionnaire within the project co-funded by the European Union (EURO-URHIS 2) in the two largest cities in Slovakia, Bratislava and Kosice. Potential respondents were randomly selected from the files of the Population Registry Office and stratified by age (19–64, $\geq$65) and gender. The results of this study are based on the EURO-URHIS 2 preliminary data. The overall response rate was 39% (n = 1155). Respondents lived in 31 neighbourhoods. SE data on the neighbourhood level (unemployment rate, % of primary educated and university educated citizens) was obtained from the 2001 census. Multilevel logistic regression analyses were used to explore the association of individual-level and area-level SE factors with poor SPH.

Results
Residents with primary and secondary education (p < 0.01, OR = 2.03–1.9, 95% CI 1.15–3.59; respectively) and with lower household income (p < 0.01, OR = 2.64–2.53, 95% CI 1.61–4.16) reported poor SPH more often when compared with respondents having a university education and a higher household income. Respondents from areas with low SE characteristics did not report poor SPH more often than those from the better off areas (MOR = 1.28, var = 0.069, CI = −0.02–0.16). Furthermore, differences in poor SPH between neighbourhoods did not vary significantly (0.093; CI = −0.01–0.2).

Conclusions
In these two Central European cities, area-level SE characteristics were not associated with the SPH of residents, whereas individual SE factors such as education and household income were. This lack of area-level effects deserves additional study.

Degree of urbanization and substance use among Slovak adolescent boys and girls in 2010
Lukas Pitel

L Pitel[1,2], A Madarasova Geckova[3], SA Reijneveld[4], JP van Dijk[6,7]
[1]Graduate School Kosice Institute for Society and Health, Medical Faculty, PJ Safarik University, Kosice, Slovakia
[2]Public Health Institute - Department of Health Psychology, Medical Faculty, PJ Safarik University, Kosice, Slovakia,
[3]Graduate School Kosice Institute for Society and Health, Medical Faculty, PJ Safarik University, Kosice, Slovakia
[4]Public Health Institute - Department of Health Psychology, Medical Faculty, PJ Safarik University, Kosice, Slovakia),
[5]Department of Social Medicine, University Medical Centre Groningen, University of Groningen, Groningen, The Netherlands),
[6]Graduate School Kosice Institute for Society and Health, Medical Faculty, PJ Safarik University, Kosice, Slovakia
[7]Department of Social Medicine, University Medical Centre Groningen, University of Groningen, Groningen, The Netherlands
Contact details: lukas.pitel@upjs.sk