SOCIAL DETERMINANTS OF HEALTH

SELECTION OF SES FACTORS FOR CONSTRUCTION OF SOCIOECONOMIC DEPRIVATION INDEX IN THE CZECH REPUBLIC

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Objective: In the Czech Republic (CR) any socio-economic deprivation index (SESDI) has been constructed for the use in ecological studies yet. The aim of this study was selection of SES factors for construction the SESDI. The study was financed by the grant agency of the Czech MoH (Project NR 8480-3).

Material and methods: The SESDI components were selected from the census data (2001) that are routinely collected at the level of 77 districts in the CR. The pilot study was provided using the census data of the Moravian region (6 districts) and for verification of selected components the census enumeration districts (ED) data were used. The goal of the pilot study was to identify indicators with different distribution between districts and to omit indicators with low frequency. The selection was done according 5 domains of material and social deprivation (housing quality, material standard, access to phone/PC/internet, family status and education). Five indicators of material deprivation out of 18 applicable indicators were selected for further analysis and 4 indicators out of 5 social indicators were selected. Material deprivation was represented by ownership of accommodation (including cottage houses), car, phone and density of housing. Social deprivation was indicated by education, proportion of singles, economical activity and unemployment. Then the order of districts was ranged according each selected factor. Further step of analysis was done on the level of ED (5,114 ED – each ED maximum 140 flats or 400 inhabitants) in the Moravian region with the total population of 1.253,000 inhabitants. Following factors were chosen for the first analysis: type of ownership of accommodation, density of housing (average/ED), ownership of cottage houses (%), one or more cars (%), phone (%), singles (%), education (weighted distribution), economical activity (%) and unemployment (%). Weighted distribution for each ED was grouped into categories for accommodation (5 categories), education (4 categories) and also frequency distribution (%) was categorized. The 6 districts were assigned by the average ratings and were visualized by GIS. The differences between districts for specific components were tested using the χ^2 test on 5% significance level. The order of districts by deprivation level slightly changed for different components e.g. flat or house ownership was different in rural and urban districts (better in rural), while in urban districts occurrence of recreational houses was higher. Therefore both components were included into the final set of components. The detail ED level analysis results were verified by the ranking of the 6 pilot districts. The final selection of factors was done by omitting the similar ones with the same distribution and a factor with different distribution was included (incomplete families with children).

Results: Based on detail analysis the following 8 factors were selected: ownership of accommodation, car, phone and density of housing, proportion of basic education, unemployed, singles and incomplete families with children.

Conclusion: The final set of components was a basis for construction of the socio-economic deprivation index.