

univariate spatial model with unstructured normally distributed error and spatially structured random effect. After normalization/standardization of the geographically smoothed indicators, Principal Component Analysis (PCA) was used to investigate the construct validity of the indices.

Results

Pairwise correlations were generally low to moderate with the highest correlation coefficient being $r = 0.64$ between divorced or widowed population and single person households. Most indicators exhibit moderate to marked geographical clustering with percentage of spatially structured variability ranging from 13.3% (unemployment) to 73.5% (education). PCA analysis produced two factors explaining 65.7% of the total variance. The first factor included the indicators: at most lower secondary education, single person households, divorced or widowed and single-parent households (negative loading). This factor was highly correlated with remoteness measures (population density and population potential). The second factor included: unemployment economically active population and not owner occupied households reflecting aspects of urban material deprivation.

Conclusions

Material and social aspects of deprivation may not be adequately captured using these six indicators. A wider set may be necessary to understand the varying aspects of urban versus rural deprivation.

Key messages:

- Different aspects of socioeconomic disadvantage may be important in rural and urban areas.
- A wider set of indicators are necessary to reflect the distinction between material and social deprivation.

A small-area validation of deprivation using 2011 census data from Cyprus

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Background

Area-level measures of material and social deprivation are important for understanding and describing health inequalities. In Cyprus, there is no established area level deprivation index.

Methods

Six area-level indicators thought to tap on material and/or social deprivation (% of at most lower secondary education, % of unemployed economically active population, % of non-owner occupied households, % of single-person households, % of divorced or widowed and % of single parent households) were obtained from the 2011 census for 369 communities. The geographical patterning in each indicator was investigated in a