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**Public Health**  
Babeş-Bolyai University



# How can community health worker availability affect marginalization rates across Romania?

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# Introduction

- The Romanian healthcare system suffers from critical shortages of healthcare workers, particularly in rural and remote areas.
- Moreover, the level of health expenditure in Romania is well below the EU average. Current evidence shows that a low level of population access to health professionals is more predominant among areas and communities with an increased social deprivation index.
- In Romania, community healthcare workers (community nurses and Roma health mediators) emerged in the past 20 years as professional categories essential in decreasing health service-related inequalities, given their ability to reach underserved communities.
- For this study, we aimed to evaluate if the documented marginalization rates in Romania are predicted by the selected health worker-related variables.

# Methods

- Retrospective database
  - on community nurses and Roma health mediators
  - 935 observations
  - 9 variables (NUTS 2 region, terrain type, type of settlement, marginalization rate, three variables on different metrics related to GPs, two variables on supplementary vacancies for community workers and health mediators)
- Gaussian regression – bidirectional stepwise selection (BIC criterion)
- 2 models – NUTS 2 and terrain type

# Results

## Model 1

	$\beta$ Coefficient (SE)	p-value
<b>(Intercept)</b>	0.781 (0.025)	<0.001 ***
GP variable 1	-0.049 (0.011)	<0.001 ***
Additional vacancies for CN	-0.100 (0.025)	<0.001 ***
Additional vacancies for Roma mediators	0.113 (0.042)	0.008 **

**AIC: 1289.64 (reduced) vs 1292.07 (full); all VIFs < 1.08**

# Results

## Model 2

	$\beta$ Coefficient (SE)	p-value
<b>(Intercept)</b>	11.000 (0.283)	<0.001 ***
Settlement type – communes	-10.280 (0.284)	<0.001 ***
Settlement type – towns	-7.585 (0.310)	<0.001 ***
GP variable 1	-0.035 (0.007)	<0.001 ***
Additional vacancies for CN	-0.069 (0.015)	<0.001 ***
Additional vacancies for Roma mediators	0.123 (0.025)	<0.001 ***

**AIC: 302.54 (reduced) vs 306.14 (full); all VIFs < 1.05**

# Discussion

- The results of our analyses show that marginalization rates decreased as the number of community health worker vacancies and the GP-related metric (the number of GP offices having a contract with NHIH) decreased as well.
- The marginalization rates increased as vacancies needed for Roma health mediators increased as well.
- Additional analyses are needed in order to account for the health status of the NUTS2 regions and settlements types in Romania, together with descriptive analyses on the current number of employed community nurses and Roma health mediators.
- However, our analysis underscores the importance of adequate access to health professionals in preventing marginalization in Romanian population.

A cluster of colorful geometric shapes (triangles and polygons) in shades of pink, teal, and blue, positioned above the main text.

# THANK YOU

