

Seminar

Exploring Rural Health Through Living Labs: Dynamic Networks as Social Determinants of Cancer

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Chair

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Abstract

This presentation introduces an ongoing study investigating the social determinants of health in a rural Eastern European living lab, with a particular focus on cancer prevention. Conducted in the Leresti community in Romania as part of the 4P-CAN HORIZON project, the study employs a mixed-panel longitudinal design with adaptive link-tracing sampling and participant retention strategies to monitor evolving egocentric networks across multiple waves. Analyses incorporate two interconnected data layers - link-tracing network data and personal network data - enabling a detailed examination of social influences on health behaviors such as smoking, diet, and physical activity. Two approaches to managing name generators to ensure data consistency and reduce bias are discussed. The presentation explores the methodological challenges encountered, discusses improvements for future waves, and outlines strategies for refining data collection protocols. Future plans include two additional waves of data collection and the establishment of a living lab in a different country (Bulgaria), drawing on insights from the Romanian living lab to enhance cross-country comparisons. This research contributes to the understanding of social networks and their role in shaping health outcomes in rural settings, offering evidence to support public health interventions and inform cancer prevention strategies in vulnerable populations.

Bio

[Marian-Gabriel Hâncean](#) is a sociologist interested in social networks, statistical modeling, and computational social science. His research integrates methods from sociology, data science, and computer science to analyze human behavior through the detection and analysis of complex network patterns. Most recently, he has focused on applying advanced statistical and computational models, such as Relational Hyperevent Models, to study phenomena like virus spread in networks and scientific collaboration. His most recent work has been published in outlets such as the Journal of the Royal Statistical Society Series A (Statistics in Society), Network Science, the Journal of Medical Internet Research, Scientific Reports, Field Methods, the Journal of Complex Networks, and Plos ONE. Prof. Hâncean is Full Professor at the University of Bucharest, where he coordinates the Complex Systems research and training group of the University's [Interdisciplinary School of Doctoral Studies](#). Additionally, he serves as director for the Research Group on Graphs and Social Networks ([GraphNets](#)). Since 2023, GraphNets has closely partnered with the Romanian Center for Innovation in Medicine on the research project "Personalised CANcer Primary Prevention research through Citizen Participation and digitally enabled social innovation" ([4P-CAN](#)), funded by the HORIZON-MISS-2022-CANCER-01 program (project ID 101104432) and conducted by a cross-national consortium of over fifteen academic and clinical organizations.

