## Identifying the Effects of the Rural Demographic Changes in the Northern Netherlands: A Holistic Approach to Create Healthier Environment

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Abstract: The Northern region of the Netherlands has beautiful landscapes, a nice diversity of green and blue areas, and dispersed settlements. However, some recent population changes can become threats to health and wellbeing in these areas. The rural areas in the three northern provinces -Groningen, Friesland, and Drenthe, see youngsters leave the region for which reason they are aging faster than other regions in the Netherlands. As a result, some villages have faced major population decline that is leading to loss of facilities/amenities and a decrease in accessibility and social cohesion. Those who still live in these villages are relatively old, low educated and have low-income. To develop a deeper understanding of the health status of the people living in these areas, and help them to improve their living environment, the GO!-Method is being applied in this study. This method has been developed by the National Institute for Public Health and the Environment (RIVM) of the Netherlands and is inspired by the broad definition of health by Machteld Huber: the ability to adapt and direct control, in terms of the physical, emotional and social challenges of life, while paying extra attention to vulnerable groups. A healthy living environment is defined as an environment that residents find it pleasant and encourages and supports healthy behavior. The GO!-method integrates six domains that constitute a healthy living environment: health and lifestyle, facilities and development, safety and hygiene, social cohesion and active citizens, green areas, and air and noise pollution. First of all, this method will identify opportunities for a healthier living environment using existing information and perceptions of residents and other local stakeholders in order to strengthen social participation and quality of life in these rural areas. Second, this approach will connect identified opportunities with available and effective evidence-based interventions in order to develop an action plan from the residents and local authorities perspective which will help them to design their municipalities healthier and more resilient. This method is being used for the first time in rural areas to our best knowledge, in close collaboration with the residents and local authorities of the three provinces to create a sustainable process and stimulate social participation. Our paper will present the outcomes of the first phase of this project in collaboration with the municipality of Westerkwartier, located in the northwest of the province of Groningen. And will describe the current situation, and identify local assets, opportunities, and policies relating to healthier environment; as well as needs and challenges to achieve goals. The preliminary results show that rural demographic changes in the northern Netherlands have negative impacts on service provisions and social cohesion, and there is a need to understand this complicated situation and improve the quality of life in those areas.

**Keywords:** population decline, rural areas, healthy environment, Netherlands

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