

About the Case**Health issue:** Physical inactivity**Type of intervention:** Spatial plan, strategy, advocacy tool**Spatial Level:** National, city-region/metropolitan, city/municipal, neighbourhood**Key focus areas:** Transport and mobility, compact cities, public space, urban planning, physical activity

Despite the numerous health benefits of sport and exercise, many people do not achieve the targets set by public health guidelines on recommended levels of physical activity.

Studies worldwide have shown that living in highly walkable neighbourhoods is related to more physical activity. A highly walkable neighbourhood is characterized by high residential density, land-use mix diversity and street connectivity. Despite the advantages of neighbourhoods with a high walkability score, Flanders (northern region of Belgium) is characterized by a spread residential pattern with high levels of “ribbon development”, i.e. lower walkability scores. This is related to higher social costs, difficulties with the efficient supply of sewerage, higher costs for public transport and higher car dependency (resulting in lower physical activity levels).

However, very few practical tools are available to policymakers to assess neighbourhood walkability scores in order to prioritize neighbourhood environmental interventions. The objective of this project was to develop a practical and objective walkability scoring tool that can be used by (local) policymakers in Flanders. The targeted users are employees of local governments, including spatial planners, health promoters and politicians. The tool is part of a larger project on healthy public spaces which focuses on topics such as stimulating a healthy food environment and a healthy climate, and aims to discourage smoking, to reduce noise and air pollution and to promote physical activity.

The development and functions of the tools

The tool was developed by the Flemish Institute for Healthy Living and the Department of Environment and Spatial Development of Flanders. Its aim is to facilitate discussion about healthy public spaces across different policy domains (e.g. health, spatial and urban planning) and to stimulate local governments in the development of a more integral local health policy (i.e. Health in All Policies). The tool also aims

to provide support for local governments in making more evidence-based decisions on spatial planning and design. In the future, the addition of other relevant health indicators will be considered.

Based on the inputs from an urban planners and policy makers panel session, the prototype walkability score tool was developed using geographical information systems (GIS). This prototype was tested and adjusted based on feedback from focus groups with civil servants in five different municipalities of different scales. The final tool was launched in September 2018. The Flemish walkability score tool is the first European tool that maps and compares the objective walkability scores of neighbourhoods in a larger region.

With the tool, the walkability-score and its three different components (land-use mix diversity, street connectivity and residential density) can be viewed. There is also a function to compare different locations on their walkability-score as well as other relevant data layers (i.e. median annual household income, number of children and elderly) at statistical-sector level (statistical sectors are the smallest administrative units at which data are available in Flanders).

Local health networks personnel are being trained to disseminate information on the project to the local governments.

Aligned to other documents

The walkability score tool is aligned to other documents. Several cities and municipalities in Flanders focus on developing more compact cities and municipalities and the tool can support and provide evidence to initiatives which target these issues.

It is also in line with the *Strategic vision of the Spatial Policy Plan for Flanders* approved by the Government of Flanders. A key element of this plan is to encourage new spatial developments in nearby locations with several sustainable mobility nodes (e.g. public transport stops, bicycle infrastructure, etc.) and functions.

Healthy Municipalities

The Flemish Institute for Healthy Living has also developed the Healthy Municipality Project through which local health networks support local governments to work on a health policy. An important instrument of this project is the “healthy municipality matrix”. As an exercise, local governments complete these matrices with actions from their local health policy on different scales (e.g. targeting the individual and specific groups, the neighbourhood, the whole municipality and the regional scale) and with different strategies (education,

environmental interventions, agreements and regulations, care and coaching). According to “Healthy Municipality”, a good policy is a mix of actions at different scales and with different strategies. The walkability score tool can be situated mainly at the strategy level of environmental interventions. Besides the use of the tool, other strategies will be necessary to create healthy municipalities (e.g. education on the importance of healthy municipalities, rules and regulations to reduce motorized transport, etc.).

Guidelines in the tool

The tool can support local decision-making processes in an evidence-based manner. Depending on the walkability score of a neighbourhood, guidelines are provided for possible future developments in the neighbourhood.

For the lowest walkability scores (open space), it is generally advised that open space be kept that way and to make it accessible by public transport and for pedestrians and cyclists for (active) recreation.

If the walkability score of a neighbourhood is low to average and the neighbourhood is located far from the centre of the municipality, it is advised that this area is not further developed. However, if the neighbourhood is located near the centre or public transport, it can be valuable to further develop this area based on three walkability indicators (street connectivity, residential density and street connectivity). Nonetheless, decisions must always be dependent on the local context.

For neighbourhoods with the highest scores, it is advised that they are further developed in consideration of street connectivity, residential density and land-use mix diversity. However, it is important to develop these neighbourhoods in a sustainable and liveable way, so micro-factors should be accounted for; for example, to provide play facilities for children, well-maintained pedestrian and cycling infrastructure, and accessible greenspaces. Attention to social and traffic safety and vulnerable groups in these high-walkability neighbourhoods is necessary.

To gain more insight into contextual factors, additional data layers with information (e.g. on the annual income of different neighbourhoods) were provided, including data on the number of children and elderly.

The data, in combination with the walkability score, can help to define priority neighbourhoods in which interventions are strongly needed. For example, if there are two comparable neighbourhoods with a high walkability score but in the first the median annual household income is low, it is advised that the focus be on this neighbourhood as the potential health gains might be bigger there. Furthermore, by focusing on lower-income neighbourhoods, a reduction of the existing health gap between higher- and lower-income areas can be attained.



[The tool's] aim is to facilitate discussion about healthy public spaces across different policy domains (e.g. health and spatial planning) and to stimulate local governments to develop a more integral local health policy (i.e. 'Health in All Policies').



Challenges

In spite of these achievements, a few challenges were encountered during the testing phase of the tool. At a local policy level, it is not common practice yet to think across different policy domains. On the one hand, it is a challenge to stimulate local health promoters in thinking about the spatial design of neighbourhoods, while on the other, spatial planners are not used to thinking about health in their planning process. This tool can stimulate and support discussion and collaboration in different policy domains.

Another challenge is that the tool cannot provide general guidelines on the further development of the neighbourhood. The walkability score needs to be interpreted in relation to other important contextual factors (e.g. score relative to the municipality and Flanders, location in Flanders, public transport services, and others).

Micro-factors (such as the state of pedestrian paths, cycle paths, aesthetics of the neighbourhood, greenspace and others) are not currently taken into account in the walkability score. However, these factors are important in the promotion of physical activity, thus the need to stress these potential interventions in the broader project of “healthy public spaces”.

Based on the results so far, it is expected that increasing the walkability score of a neighbourhood will increase the physical activity levels of its residents. It is also expected that inhabitants of neighbourhoods with increased walkability scores will be less car dependent, which may result in healthier streets with reduced exhaust gases and less noise. People will have more social contact with each other due to more physical mobility and will have easier access to healthy food due to an increased land-use mix and diversity.

At the policy level, the tool could contribute to the principle of “health in all policies”. It can bring health promoters, urban planners and civil servants of different policy domains together to think about creating healthier neighbourhoods and will support more evidence-based decisions on spatial planning and design.

Key Words: [Walkability](#) | [residential density](#) | [land use mix diversity](#) | [street connectivity](#) | [physical activity](#) | [active mobility](#) | [environmental health](#)



Authors:

Ellen De Smet
Flemish Agency for Care and Health

Peter Vervoort
Department of Environment and Spatial Development of Flanders

Sara D'Haese, An Verdeyen, & Ragnar Van Acker
Flemish Institute for Healthy Living

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