

**No.: 045**

**Title:** The use of an interactive urban planning tool in creating activity-friendly neighborhoods; integrating the findings of the Spatial Planning And Children's Exercise (SPACE) study

**Personal details presenter:**

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**Kind of proposal:** breakout

**Qualification of the presenter:**

Luuk Engbers has a background in health science and epidemiology and his research interest is the interaction between health behavior and the physical and social environment. Currently he works at TNO Quality of Life, as a project leader and business developer. His projects range from studies on policy towards creating a PA-friendly infrastructure (the EU-funded IMPALA study: [www.impala-eu.org](http://www.impala-eu.org)) to projects that study the implementation of life-style interventions at the worksite. See for more information: <http://nl.linkedin.com/pub/luuk-engbers/3/a50/17a>.

Sanne de Vries has a background in human movement sciences and epidemiology. She works as a scientific researcher and project manager at TNO Quality of Life and has been involved in more than 60 research projects in the field of physical activity and health in children and adolescents. Sanne has a special interest in activity-friendly urban design, playgrounds, and physical activity assessment methods. See for more information: <http://nl.linkedin.com/pub/sanne-de-vries/24/753/790>

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**Proposal:**

In order to identify characteristics of the built environment that encourage children's physical activity (PA), TNO conducted the Spatial Planning And Children's Exercise (SPACE) study in ten disadvantaged Dutch urban neighborhoods (2004-2005). Five neighborhoods were selected for spatial restructuring and five neighborhoods served as controls. Results showed that children in neighborhoods with a high frequency of parallel parking spaces and a high rating of the PA-friendliness on average spent more time in moderate to vigorous PA than children in less PA-friendly neighborhoods. In addition, children in neighborhoods with a high frequency of pedestrian crossings and a high frequency of parallel parking spaces, on average walked and cycled more often than the children in less PA-friendly neighborhoods.

By 2008, five of the ten neighborhoods had undergone partial restructuring. To examine whether changing the infrastructure lead to more PA among children, all measurements were repeated in 2009. Additional measurements with accelerometers and GPS were conducted in a sub sample to provide information about the spatial context of PA.

The results will be implemented in an interactive, policy support system called Urban Strategy (US). US offers an overview of the built environment in which changes can be implemented in an interactive way (e.g., extra residential areas) and the effects on the quality of the surroundings are shown (e.g., traffic, air quality; noise; safety, accessibility of parks and gardens). To stimulate the inclusion of health in urban planning, an innovative PA-model was developed, in which three determinants of PA are operationalized: [1] location of play facilities [2] service area of play facilities, [3] demographics of children (action radius). With the visualization of white spots in service areas stakeholders are helped to develop PA-friendly public spaces. In this presentation the results of the SPACE study (2009) and a demo of the PA-model of US will be presented.

**Location:**

**Time:**

**Maximum number of participants:**

**Form of presentation:** PowerPoint