

# Sustainable prevention of obesity through integrated strategies



## SPOTLIGHT

**Periodic Project Report**

**for the SPOTLIGHT project**

**Grant Agreement no: 130516**

**01/03/2011 – 31/08/2012**



**SPOTLIGHT: Sustainable prevention of obesity through integrated strategies**

**Seventh Framework Programme – Health Theme**

**Collaborative Project**

**Grant Agreement no: 130516**

**Start date: 01/03/2012**

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**SPOTLIGHT**



# Publishable Summary

## **Project context and objectives**

The prevalence of overweight and obesity in Europe is high and contributes to the burden of many chronic diseases. Obesity is largely determined by modifiable lifestyle behaviours such as low physical activity, sedentary behaviour and high caloric intake. There is growing evidence that influences on individuals and their lifestyle should not only be addressed in single-level interventions that focus on a distinct individual, social or environmental aspect, but rather in community-based approaches that integrate individual, community, organisational, and societal levels. SPOTLIGHT focuses on integrated health promotion strategies for sustainable behaviour change contributing to prevention of overweight and obesity. For this project, researchers from thirteen organisations in eight European countries join forces, supported by a team of external advisors.

SPOTLIGHT aims to increase the knowledge base on obesogenic determinants in order to obtain a comprehensive overview of the factors necessary for establishing effective and sustainable lifestyle behavioural change interventions. The project also aims to identify community-based intervention approaches that are strong in terms of their reach, effectiveness, implementation and sustainability. The project outcomes will be widely disseminated to various stakeholders.

## **Work performed and main results achieved so far**

During the first 18 months we carried out five systematic literature reviews within three different Work Packages (WPs). All review processes followed tight protocols which were aligned within and between the relevant WPs. We developed a quality assessment instrument to judge the methodological quality of both observational and experimental studies that were included in the reviews.

1. The results of the literature review on Individual-level self-regulation determinants were divided into weight control, physical activity and diet. For long-term weight outcomes, potential mediators with stronger empirical support were: body image, autonomous motivation, flexible eating restraint, self-efficacy, and self-regulatory skills. For physical activity the main predictors were autonomous motivation, self-efficacy and self-regulatory skills. For diet there were no consistent predictors.
2. The systematic review of physical environmental determinants revealed that urban sprawl and land use mix were consistently associated with obesity, but only in North America. Comparison between studies from Europe, North America and Australasia did not generate consistent results due to large heterogeneity of methods and measures used. Assessment of the risk of bias revealed that many studies lacked representativeness, validity and reliability. The review shows that there is not (yet) consistent evidence available on which physical environmental factors are associated with obesity.
3. The systematic review of social environmental determinants pointed towards a general positive direction of effect of social networks in reducing the likelihood of obesity, with social capital and collective efficacy showing significance. However, the low methodological quality of the majority of the studies reviewed, and a lack of methodological consistency, did not allow the drawing of robust generalizable conclusions.
4. The systematic review on remote sensing to define environmental characteristics related to physical activity and dietary behaviours showed that Google Earth and Google Street View are currently the two main free geospatial services used. The agreement between virtual and field audit was generally high, and highest for items related to objectively verifiable measures (e.g. presence of infrastructure and equipment). Subjectively assessed items (e.g. aesthetics, street atmosphere, etc.) had lower agreement. Free geospatial services appear reliable for virtual audits of built environmental characteristics. This outcome is especially relevant for the neighbourhood audits that will be carried out within SPOTLIGHT (WP3) in the upcoming years.
5. This review evaluated the RE-AIM of published studies on multi-level obesity prevention interventions. The outcomes indicate that evidence-based results are largely lacking. The findings of studies that could be analysed indicate that integrated interventions have the potential to reach a large amount of people, including those who can benefit most. Moreover, it seems that multi-level interventions are more likely to be broadly adopted and to be sustained than single-level interventions. The largest public health impact can be achieved if: 1) there is a focus on all levels, from potential program participants to organizational sponsors, at the beginning of the planning process, 2) the diffusion theory is applied to guide the implementation process, and 3) a website to disseminate the intervention is used. Nevertheless, better reporting on factors related to external validity and sustainability is needed to confirm these results.

The cross-EU neighbourhood surveys and audits of the physical environment (WP 3) are in advanced stages of preparation. A pilot survey has been finalised in the five participating member states.

The pilot studies for WP6 were also completed, resulting in revised data collection tools and protocol. Results of the main studies within WP 3, WP 5 and WP 6 will become available in the course of the upcoming months, and will be described in the further project reports.

## **Expected final results and potential impact**

At the end of the project we will be able to:

- Provide additional multi-level entry points for community-based intervention approaches aimed at changing obesogenic behaviours;
- Provide the Reach, Efficacy, Adoption, Implementation and Maintenance (RE-AIM) of examples of multi-level intervention approaches across European Member states, and the RE-AIM of such interventions that are described in the scientific literature;
- Provide factors associated with success-and failure with regard to the implementation of multi-level intervention approaches;
- Provide an evidence-based model for effective multi-level intervention approaches in health promotion practice applicable across European regions, and disseminate the findings to European Member State stakeholders.

## **Project website**

[www.spotlight-project.eu](http://www.spotlight-project.eu)

## List of partners involved in SPOTLIGHT

Partner No.	Name	Country
1 (Coordinator)	VU University Medical Center	The Netherlands
3	London School of Hygiene and Tropical Medicine	United Kingdom
4	The European Association for the Study of Obesity (EASO)	United Kingdom
5	The University of Bergen	Norway
6	The University of Oxford	United Kingdom
7	Ghent University	Belgium
8	Maastricht University	The Netherlands
9	Metropolitan University College Copenhagen	Denmark
10	International Obesity Task Force/ International Association for the Study of Obesity	United Kingdom
11	The Nutrition Epidemiology Unit	France
12	Blox Group	The Netherlands
13	University of Debrecen	Hungary
14	Technical University of Lisbon	Portugal

