## Grünau bewegt sich (Grünau moves)

# Community-based health promotion and obesity prevention for children living in a deprived district.

### Leipzig, Sachsen, Germany

#### Short summary description of the practice

There is evidence that the development of obesity is related to environmental factors ("obesogenic environments"). Obesity development is thus influenced by socio-economic factors and living conditions. Consequently, prevention approaches that focus solely on behavioural changes in individuals without taking the context into account are not very promising or sustainable. To reduce health inequalities, complex intervention approaches are needed that strengthen individuals and communities as well as change living conditions. Official data of Leipzig showed large differences in obesity prevalences between districts. Grünau as a socially deprived area had a threefold higher proportion of overweight children compared to more affluent districts. Moreover, Grünau seemed to be a good intervention area to test community-based health promotion strategies because it is quite segregated (large housing estate at the periphery of the city) but has a lot of resources (low traffic, lots of green spaces, networks). The adoption of the prevention bill in 2015 was also supportive.

#### **Overall goal and specific objectives**

Complex multilevel long-term intervention with focus on social work and community organizing. Participatory development and implementation of sustainable and cultural appropriate interventions. Particular consideration of social and environmental conditions. Focus on building relationships, transparency, trust and activation.

- Creating health promoting settings (childcare, schools) via increasing awareness, knowledge and skills, professional self-esteem, cooperation between local actors;
- Creating environments to promote physical activity (PA) and health via advocacy and persuasion of policy makers changes in street design, youth welfare planning;
- Increasing PA and healthy diet in children and families with a focus on social norms, recognition and self-esteem.

#### Indicators

Interventions: number of participants, proportion of participants compared to entire target group (reach), activities (contents), personnel (involved partners), qualification, resources and costs Meetings per audio recordings and transcripts: duration and content of conversations, focus groups, meetings of the health network with parents, children, stakeholders and partners of the network Prevalence of overweight/obesity, leisure activity, screen time, daily consumption of fruits and vegetable in preschool children aged 5 to 6 Development of overweight/obesity in primary school children Standardized observation (SOPARC) of pedestrians physical activity levels Changes in cooperation within the district.

#### **Target population**

The focus of the interventions was on children (4-12) and their environmental and living conditions as well as all persons (e.g. parents, educators, teacher, sport clubs, city planner, decision-makers from the city administration and health authority) who have a share and influence in shaping structures and conditions in a socially disadvantaged district in Leipzig.

#### Methodology

The study design is based on two related models: PRECEDE-PROCEED and intervention mapping. These can be applied to action research and community-based participatory research and are conducive to the systematic and theory-led development, implementation, and evaluation of complex intervention projects. The emphasis lies on a detailed and comprehensive description of the starting situation. To this

end, determinants – in terms of risks and resources – at individual, institutional, and public levels are identified by means of different methodological approaches.

Continued involvement by stakeholders ensures that needs and potentials can be recorded, interventions suitable for the target group can be developed and implemented, and the sustainability of the project can be improved. At first the social and health problems and resources in the area of intervention were analysed.

The most important influence factors on child overweight and its associated behaviours were identified and an understanding of the norms, values, limits etc. of the district was developed. Analogous to the stages of intervention mapping, the previously determined individual and situational objectives to prevent obesity were defined in greater detail in collaboration with the planning group Netzwerk Gesundheit (Health Network).

All interventions were implemented according to a jointly-determined concept with support from the project employees and participating actors and institutions.

#### Main outcomes

The project confirmed differences in the community nutrition environment and opportunities for PA promotion for children between advantaged and disadvantaged districts (health inequity).

- 648 children of primary and secondary schools and 828 children of Kindergartens participated in interventions within the disadvantaged district (20% of children aged 6 to 15).
- 1799 visits of children in project office "motion detector" (weekly open youth work).
- Tailored low threshold offers with fine-tuning via a local health network: Increase in PA in children on decorated footpaths (OR 2.63) (pre-post design).
- Increase in daily outdoor play (12,8%) and sports club membership (9,4%).
- All primary (n=9) and secondary (n=4) schools and all kindergartens (n=19) in the study area participated in at least one intervention.
- Cooperation between schools/ kindergartens and sports clubs increased.
- The prevalence rate of obesity decreased from 13% to 10% in the intervention area.

Moreover, children visiting the project office were empowered in persuading policy makers to maintain the project office and (establish) open youth work in their neighbourhood. Two footpaths were permanent decorated with coloured markings according to children's votings. A health network has been set up permanently. A social worker with focus on community organizing and health promotion will continue to be financed.

#### **Regional funding**

The project and its evaluation (personal costs) has been funded for 5 years by three health insurance companies (AOK PLUS, Knappschaft, and TK). The background was targeted prevention of obesity in children's living environments in a socially disadvantaged district. Local food retailers supported all healthy eating actions in the district (food donations). Nutrition advisors got involved on a voluntary basis or through separate project agreements (Verfügungsfonds kommunale Gesundheitsförderung). The health department of the city of Leipzig and scientific advisors from two universities in Leipzig support the establishment and implementation of the project financially free of charge (participation in the steering committee and in the local health network, involvement of educators from municipal kindergartens). After the end of the project end of 2019, a resolution of the Leipzig City Council secured the employment of a community organising staff member for one year. The inclusion of such a position in the budget of the social welfare office of the city of Leipzig for the socially disadvantaged district (48.000 residents) is in progress. Funds for the establishment of a local health network and individual interventions tailored to a neighbourhood are to be submitted as project applications to the respective state association for health promotion for funding (Landesvereinigungen für Gesundheitsförderung). Funding is provided in accordance with the German Prevention Act (§ 20a para. 1 SGB V).