

and panic reactions in times of crises concerning food safety indicate that consumers are not always able to live up to this responsibility. In order to change this situation, consumers have to become more aware of food and nutrition. A suitable approach appears to be addressing primary school children, for 'what is learnt in the cradle lasts till the tomb'.

#### Description of the problem

The aim of Taste Lessons is to increase, by means of sensorial and practical education, the knowledge of, the interest in and the ability to make choices concerning nutrition & health and food & food quality of youngsters in primary schools. The programme consists of practical lessons in which taste is the main aspect. Children will discover new flavours and products, and will learn more about food and aspects that are linked to food, e.g. the composition, the origin and the ways it can be produced and prepared. The children's curiosity will increase,

as will their knowledge on food. Primary school teachers teach the lessons themselves. To be able to do this they receive a box with teaching material. In addition they can be present during an instruction meeting. An additional possibility is to receive a visit of a chef or a student in the class.

#### Results

Taste Lessons started in The Netherlands in 2005. In 2010 ~25% (2000) of all primary schools in The Netherlands have started with the programme. The programme is received very positively by teachers and children.

#### Lessons

Taste Lessons is a promising initiative. In The Netherlands there is a big need to provide an integrated offer to schools in which a programme as Taste Lessons is embedded. In addition the need for lunch provision at schools is increasing rapidly.

## 5.9. Workshop: Neighbourhood structure and health promotion

*Chair: Christiane Stock, Denmark and Thomas Abel, Switzerland*

Organizer: EUPHA Section on Health Promotion

Neighbourhoods have become the focus of studies in Health Promotion and in Social Epidemiology. They provide the physical environment and social context in which health is developed or at risk. Neighbourhoods are also representations of social distinctions and class and health is found to be divided along their borders. Neighbourhoods provide material and non-material structures within which people act to reproduce those structures or to challenge even change them. Theoretical contributions to our understanding on the relationships between neighbourhoods and health can thus come from the structure-agency debate. The focus of the workshop will be on empirical or theoretical studies addressing issues of neighbourhoods and their perception by the people attached to them relevant for health promotion research and practice. As an introduction to the workshop theme a systematic review and meta-analysis on neighbourhood factors and health will be presented (Mathias Meijer, Denmark). To what extent socio-economic differences in neighbourhood perceptions can be explained by objective neighbourhood features will be the focus of the following presentation (Carlijn Kamphuis, The Netherlands). A contribution from Portugal will present quantitative data on associations between perceptions of neighbourhood environment and physical activity and sports among adolescents (Nuno Loureiro, Portugal), while a study conducted in Romania will focus on improvements of the daily period of being physically active outdoors after the restoration old and neglected parks among elderly (Corina-Aurelia Zugravu, Romania).

### Do neighbourhoods have an effect on mortality?

#### A systematic review and meta-analysis

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#### Background

Recent research suggests that the neighbourhoods in which people live have independent effects on mortality. These questions the emphasis put on individual lifestyles in public health policies. The results of previous studies, however, have been ambiguous and the objective of this study is to review the literature and to quantify the association between area-level socio-economic status (SES) and all-cause mortality measured in previous studies.

#### Methods

Articles were retrieved from Medline, Embase, Social Sciences Citation Index and Psycinfo. Only multilevel studies which controlled for individual SES were included. For each study in the meta-analysis all area-level SES estimates were combined into a single estimate using weighted linear regression. The analysis utilized combined estimates with random effects to account for heterogeneity between studies.

#### Results

A significant effect of area-level SES ( $\beta = 0.06$ , SE = 0.03–0.08) on all-cause mortality was found indicating that those living in more disadvantaged areas have higher mortality.

#### Conclusions

This study shows that areas have independent effects on all-cause mortality and that public health initiatives not only should focus on behaviours and characteristics of people but also on the areas in which they live.

### Why do poor people perceive poor neighbourhoods? The role of objective neighbourhood features and psychosocial factors

Carlijn Kamphuis

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#### Background

Low socio-economic (SES) groups are more likely than high SES groups to perceive their neighbourhood as unattractive and unsafe, which is associated with their lower physical activity. Agreement between objective and perceived environmental factors is often low, so it is questionable to what extent 'creating supportive neighbourhoods' would improve residents' neighbourhood perceptions, and with that, increase their activity levels. We investigate to what extent SES differences in neighbourhood perceptions are related to objective neighbourhood features and other factors.

#### Methods

Participants ( $N=814$ ) residing in 14 neighbourhoods of Eindhoven (The Netherlands) reported on their household income (SES-indicator), perceived neighbourhood safety and attractiveness, social neighbourhood factors, and psychosocial factors. Objective neighbourhood design, safety, aesthetics, and destination features were collected by environmental audits.

## Results

Low SES groups were more likely to perceive their neighbourhoods as unattractive [odds ratio (OR) = 1.75, 95% confidence interval (CI) 0.85–3.58] and unsafe (OR = 2.97, 95% CI 1.55–5.67) than high SES groups. Objective neighbourhood features contributed substantially to the gradient in perceived neighbourhood attractiveness. Social neighbourhood and psychosocial factors contributed to both the gradients in perceived attractiveness and safety.

## Conclusions

Our findings suggest that improvements of neighbourhood perceptions are most likely to be achieved if environmental change strategies (e.g. improving neighbourhood aesthetics and safety) are combined with community interventions to increase residents' involvement in social processes and improve their psychosocial circumstances.

## Neighbourhood and physical activities of Portuguese adolescents

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## Background

This study examines associations between perceptions of neighbourhood environment and physical activity and sports within Portuguese adolescents.

## Methods

The sample consisted of 4877 individuals of both genders, with an average age of 14 years. The instrument used was the Health Behaviour School-aged Children questionnaire.

## Results

Perceptions of the neighbourhood being unsafe for children to play and having no place to spend leisure time were associated with lower levels of exercise among adolescents. The perceptions of the neighbourhood being unsafe for children to play [odds ratio (OR) = 1.3,  $P < 0.005$ ] and the fact of not having a place to spend leisure time (OR = 1.3,  $P < 0.005$ ) were associated with lower levels of exercise among adolescents. The perception of these variables is associated to a lower probability of exercising. The neighbourhood characteristics are more important to the practice of outdoor sports than of indoor sports.

## Conclusions

The perceptions of the neighbourhood may influence adolescent's physical activity and sports, in different ways.

## Old parks and green spaces renewal—a chance for a higher quality of life at the third age

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## Background

Being active in the neighbourhood keeps old persons in touch with the community and with people of similar ages, allowing interaction and keeps away feelings of exclusion, isolation, depression and loneliness. In this context, a green environment can act as a facilitator.

## Methods

In a popular district of the northern area of Bucharest, where the elderly population represents >50% of the inhabitants (64.5%), the local council concentrated funding in renovating two old and neglected parks and arranged five 'green spaces' with benches and alleys between big groups of flats. We evaluated a representative sample of the population >70 years from the neighbourhood 1 month before the works started and 2 months after everything has been finished. Our questionnaires measured the level of time spent outdoors, the duration of being physically active during a day and quality of life (QoL) by the WHO QoL questionnaire.

## Results

Statistically significant improvements have been noticed ( $P < 0.05$ ), with almost a doubling of daily period of being physically active outdoors after the restoration and a higher score at the QoL questionnaire. A non-systematic investigation among the local medical practitioners indicated a lowering with 5.7% of the number of consultations solicited by the seniors in the same period of time, but we couldn't link directly this percentage with the municipal works in the area.

## Conclusions

A friendly and healthy environment in big cities has enormous effects on the well-being of people of every age. Seniors are a main area of concern, especially in an emerging country like Romania, confronted with economical problems, were programmes oriented towards helping old age people are scarce and insufficient.

## 5.10. Cardiovascular diseases

### WHO programmes 'Register of acute myocardial infarction', 'MONICA' in Russia: the 30-year myocardial infarction morbidity, mortality and fatality rate

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## Background

To investigate myocardial infarction (MI) morbidity, mortality and fatality rates in 1977–2006, and their determinants in a high-risk population in Russia.

## Methods

The WHO programmes 'Register of Acute Myocardial Infarction', 'MONICA'. During 30 years (1977–2006), 23 137 MI cases were registered, with 7630 cases thereof having lethal outcomes.

## Results

Our results have shown the MI morbidity in a high-risk population (Novosibirsk) in Russia to be among the highest in the world. The 30-year MI morbidity behaviour is defined by relative stabilization except for the years of 1988, 1994 and 1998, and the reduction in 2002–04, 2006. Mortality and fatality rates were stable throughout all 30 years except for the years of 1977–1978, when a decrease was registered, as well as for the years of 1988, 1994, 1998, and 2002–05, when a reliable increase of the mortality and fatality rates was recorded; the reduction in 2006. As with men, pre-hospital mortality and fatality prevail with women throughout the entire observation period. The connection of the MI figures with psychological and social factors (the increase of anxiety level recorded by three screening studies of the years of 1984, 1988, 1994, accordingly) was determined.

## Conclusions

The MI morbidity and mortality rates in a high-risk population in Russia are among the highest in the world. They are markers of the increasing social and economic instability in the country. The paradoxical fact of the absence