

Chapter 1

Neighbourhood Structure and Health Promotion: An Introduction

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Introduction to the Theme

A growing body of literature suggests that neighbourhood context may affect the health and health behaviours of adults and young people. It has been hypothesised that socially disadvantaged areas may induce health risks either directly (e.g. air pollution) or more indirectly, through the ability to lead a healthy life. For example, poorer areas may have poorer social and material infrastructure (e.g. fewer local amenities), although this may vary by local and national context and by the neighbourhood resources examined. Beyond neighbourhood features resulting from social deprivation it is also relevant to determine which characteristics of the physical environment promote or discourage healthy lifestyles such as the availability of parks and green spaces, traffic infrastructure, housing characteristics etc. While geographic information systems can be used to provide objective data on the physical environment and neighbourhood structure, individuals' perceptions of their social environment are also important to understand their lifestyle choices. Therefore data on subjective factors, such as peoples' perceptions (e.g. the extent to which it is attractive and safe) of their neighbourhood and the quality of facilities that might encourage them to develop and maintain health-relevant behaviours are also highly relevant.

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This chapter provides an overview over the content of the book “Neighbourhood Structure and Health Promotion” that is organised into three main parts (1) understanding health as a matter of place, (2) measuring and monitoring neighbourhood structure and (3) neighbourhoods and lifestyle. Taking different perspectives on neighbourhood characteristics and different analytical methods to measure them into account, this book addresses several questions: Which theories and sociological perspectives are relevant to understand how people interact with their neighbourhood? What are innovative, qualitative and quantitative methods for assessing neighbourhood structures and health resources? How does the social and physical structure of neighbourhoods affect a person’s ability to maintain a healthy lifestyle? Do neighbourhood influences contribute to social and/or gender inequalities in health? What can we learn from this research to develop health promotion interventions addressing neighbourhoods as well as people?

About this Book

The idea for this book was born during the European Public Health Conference in Amsterdam 2011, where Christiane Stock and Thomas Abel organised a workshop on the topic of neighbourhood structure and health promotion as activity of the health promotion section of the European Public Health Association (EUPHA). Around the workshop, lively discussions about the recent research in Europe arose leading finally to the idea to publish this book. The intention with this book is to address theoretical models and pathways through which neighbourhood factors potentially affect health and the ability to lead a healthy life. It also aims to provide information on relevant as well as innovative methods and techniques to study and analyse neighbourhood structure. It specifically summarises present knowledge on the contribution of neighbourhood factors in shaping lifestyle and health-relevant behaviours. The book not only focuses on analysing the relationship between neighbourhood structure and health behaviour of different population groups but also puts an emphasis on the health promotion, policy and intervention implications of this research. We acknowledge that important research on area effects on health has been conducted in the United States, New Zealand or Australia. However, conclusions from this research may not be valid in the European context with different political, economic and social environments as well as different data sources available. The aim was therefore to put a focus on the European setting, and most of the chapters build on examples from European studies. We feel confident that the material presented in this volume will prove a suitable and timely tool for researchers, policy makers, practitioners and teachers who wish to explore and apply this approach in the European context. The book is organised into three parts.

Part 1: Understanding Health as a Matter of Place

This part of the book lays the basis for the relationship between neighbourhood and health by summarising the existing ideas and concepts about the potential influence and its underlying causal pathways. This is done through a number of chapters that provide the reader with theoretical knowledge relevant to study neighbourhood influences on health and health behaviour of residents.

The chapters in this first part of the book are mainly focused on exploring different theoretical approaches to understanding neighbourhood effects on health.

In Chap. 2, Meijer provides an overview of existing research in social epidemiology on area effects, focusing on mortality as an outcome. Drawing on 40 multilevel studies from throughout the world, the results from a meta-analysis show that the relative risk of all-cause mortality is 1.07 among those living in deprived neighbourhoods compared to those living in more affluent areas. Meijer outlines the models and pathways through which neighbourhood factors potentially affect various health outcomes, examining factors such as income inequality, air pollution and the welfare models in different countries and assesses their area-level effects on health. This chapter ends with a proposed theoretical model which suggest that neighbourhoods are connected to mortality through four distinct pathways: health policy and health resources, health behaviour, perceptions of neighbourhood and the physical quality of an area.

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In Chap. 3, Frohlich draws on social theorists such as Weber and Bourdieu to provide an overview on the distinction between behaviour, lifestyle and collective lifestyles, placing particular emphasis on the role of social constraints and opportunities in shaping individual behaviour. Building on this, Frohlich explores the concepts of environmental and spatial justice and their implication for research, policy and practice. A novel theoretical framework is then outlined which addresses some of these issues.

In Chap. 4, Andersen outlines the ways in which sociological theory can contribute to a deeper understanding on the complexities of individuals' everyday lives in community settings. In doing so, this chapter complements Chap. 3 by drawing on other social theorists such as Schultz (who explored the importance of the norms, assumptions and behaviour of everyday life), Durkheim and Putnam on the concept of social capital and Goffman's notion of social stigma. Anderson then goes on to describe the application of a specific sociological analysis of a health promotion initiative in a deprived neighbourhood in Denmark.

The final chapter in this section is Chap. 5, written by Larsen, and the main purpose of this chapter is to provide a theoretical overview of the interaction between people and place. Drawing on anthropological theory and case studies, the chapter addresses three key issues (1) how social relationships are practised in public places,

(2) how people culturally construct meanings of places and (3) how public places shape human behaviour. The chapter ends by suggesting that the dialectic relationship between people and place are relevant perspectives for understanding how people relate to their neighbourhood and how neighbourhood architecture invites residents to socially interact and how this might be important for creating healthy neighbourhoods.

Part 2: Measuring and Monitoring Neighbourhood Structure

In this part of the book, the chapters are mainly concerned with the various ways in which neighbourhood structure can be measured and analysed.

In Chap. 6, Voigtländer, Berger and Razum examine the challenges facing the study of neighbourhood conditions on health. Issues that present a challenge include the delineation of neighbourhoods, the importance of examining both the socio-demographic composition of the population as well as the amenities in the neighbourhood, the non random distribution of people to places, the differential impact of particular neighbourhood features on particular groups, the importance of studying neighbourhood effects across the life course and finally the effect of changes to the material and social infrastructure of particular places over time. The authors provide an overview of the quantitative and qualitative methods required to address these challenges and apply these methods to a theoretical framework linking social position, neighbourhood environment and health.

In Chap. 7, Ellaway, Ferguson, Lamb and Ogilvie provide a brief overview of the existing literature on the importance of the built environment to obesity and examines how local facilities, such as physical activity amenities, are distributed across different sorts of neighbourhoods. The issue of access to these facilities using different forms of transport (walking, cycling, bus or car) is explored using data from a Scotland-wide study.

In Chap. 8, Schipperijn, Ejstrup and Troelsen introduce geographical information systems (GIS) and their application to research on area effects on health. An overview of the benefits and limitations of GIS for this research theme is provided and an application of GIS to a range of Danish data sets on health is described.

Another new technological development which is increasingly being used in the study of neighbourhoods and health, global positioning systems (GPS) is described by Maas, Sterkenburg, de Vries and Pierik in Chap. 9. While most of the existing research uses relatively general descriptions of neighbourhood characteristics, GPS provides a new approach to study the interaction between a neighbourhood and its residents in the analysis of area of residence on health and health behaviours. The chapter describes the opportunities, as well as the limitations, that the use of GPS devices offers to study this type of interaction. It also outlines the potential of using new methods and gives recommendations for future research.

In Chap. 10, Grittner and Bloomfield explore the use of the statistical technique, multilevel modelling, in the study of neighbourhoods and health. As the authors

note, most of the research studying neighbourhood effects on health aims to adjust for individual socio-economic factors in the analysis, and this requires the use of multilevel modelling as data are nested at different levels (e.g. individuals and areas). The authors provide practical guidance on how to apply multilevel modelling to this type of research and how to best present the results of the analysis.

Part 3: Neighbourhood and Lifestyle

In this section, the chapters focus on specific health behaviours such as alcohol use, smoking and obesity-related behaviours such as dietary intake and physical activity and the influence of different neighbourhood spaces in these behaviours.

In Chap. 11, Maas outlines the evidence on the overall health effects of green spaces on health. She discusses the potential pathways through which existing associations can be explained, while putting a special emphasis on the role of physical activity. The chapter finishes by applying findings from existing research in the Netherlands and beyond to the development and implementation of urban health policies and health promotion interventions.

In Chap. 12, Kamphuis and van Lenthe examine the ways in which neighbourhood factors may influence socio-economic differences in physical activity. Through the application of theoretical models such as the Theory of Planned Behaviour, Kamphuis and van Lenthe describe findings from their studies in the Netherlands on participation in sports and walking for recreation and the role of subjective and objective neighbourhood characteristics.

Chapter 13 by Troelsen outlines the role of physical characteristics of the neighbourhood in influencing levels of physical activity and the part played by different approaches to city planning, landscaping, traffic regulation and health policies in different contexts. The chapter describes new approaches to health promotion such as ‘nudge’ theory and outlines a theoretical model through which physical activity can be encouraged by means of activating space and land use.

In Chap. 14, Shareck and Frohlich review the literature on area effects and social inequities in smoking among young people. They present a health promotion perspective which involves two key principles: the notion that health is produced in everyday life environments (home, work, study and play) and an explicit focus on equity. Shareck and Frohlich end by describing how they have applied this perspective to an ongoing research project on smoking among young people in Montreal.

In Chap. 15, Bloomfield and Stock provide an overview of the existing research on area effects on alcohol and drug use among different population groups and outline the potential and limitations of health promotion and prevention measures aiming at changes in neighbourhood context and resources.

For a number of years, there has been interest in understanding how to successfully promote healthy nutrition in different population groups and whether and how place and income affect nutritional attitudes and behaviour. In Chap. 16, Crawford provides an overview of the existing research on area effects on food choices and

nutrition among different population groups and discusses health promotion and prevention measures aiming at changes in neighbourhood context and resources.

Due to the urgency in global health agendas to create community-based and coordinated policies to address obesity in children, in Chap. 17 Swastisalee highlights several primary research study areas aimed at examining built environments surrounding schools and associations with dietary behaviour, active transport, physical activity and obesity. In closing, this chapter addresses the potential contributions of school environments within obesity prevention policy.

In Chap. 18, Ellaway and Emslie review the literature on gender differences in environmental perception. They focus then on two health behaviours (smoking cigarettes and drinking alcohol) in order to explore how relationships between gender, space and smoking and drinking vary across contexts and by scale.

In the concluding chapter of the book, Stock summarises in Chap. 19 the existing knowledge from neighbourhoods and health behaviour studies and discusses how this research can inform policy and health promotion practice. By providing examples from existing programmes aimed at reducing health inequalities between richer and poorer neighbourhoods, Stock suggests the way forward from intervention research to the policy and practice of health promotion.

Limitations

A relevant limitation to mention is that the contributions in this book are mainly from European authors and from Canada. Although we acknowledge that significant contributions to this the field of neighbourhood and health research originates from the USA, New Zealand or Australia, it was the intention of this book to focus on European examples. Although this is a limitation in terms of geographical coverage, such limitation is also necessary because the political and economic context in Europe differs substantially from the USA or other parts of the world.

Even within Europe do political systems and economies show large differences. Some of the Southern European countries are heavily hit by the financial crisis, and some Eastern European countries are still in transition from former socialist economies and governmental structures. This book is unable to cover all the differences in political contexts as it mainly presents examples from the Northern and Western part of Europe (e.g. Scotland, the Netherlands, Denmark and Germany).

This book aimed at not only focusing on analysing the relationship between neighbourhood structure and the health behaviour but also at putting an emphasis on the health promotion, policy and intervention implications of this research. We admit that in most of the chapters the analysis part is still much larger than the intervention and health promotion practice part. This reflects the existing research and knowledge available, which is still sparse in the area of neighbourhood-level interventions.

Conclusions

We hope that this book will be useful for many readers as it covers a very broad range of topics that are relevant to the study of neighbourhoods and health promotion—from the practical application of appropriate techniques to discussing findings which have implications for the development of policy and practice. In particular is our hope that the book will inform further research but even more health promotion practice using environmental and contextual approaches. In line with Lawrence Green’s words that “if we want more evidence-based practice, we need more practice-based evidence” (Green 2006), we would like to stimulate multi-sectoral approaches in order to improve the health conditions of neighbourhoods and residential areas and at the same time encourage effectiveness studies and evaluation research around such approaches.

Reference

Green, L. (2006, June). *If we want more evidence-based practice, we need more practice-based evidence: External validity and health promotion research*. 5th Nordic Health Promotion Research Conference, Esbjerg, Denmark