

HEALTHY URBAN PLANNING

Hugh Barton & Catherine Tsourou



Published on behalf of the
World Health Organization
Regional Office for Europe
by Taylor and Francis



Taylor & Francis
Taylor & Francis Group

Healthy urban planning

Healthy urban planning means planning for people. It promotes the idea that a city is much more than buildings, streets and open spaces: a living, breathing organism, the health of which is closely linked to that of its citizens.

It has long been acknowledged that conditions in cities, sometimes compounded by urban planning practices, can be detrimental to health. *Healthy urban planning* focuses on the positive effects that urban planning can have on human health, wellbeing and quality of life and reflects WHO's broad definition of health. The book explains concepts and principles and draws on the experiences of cities and towns throughout Europe, many of which are part of the Healthy Cities movement. It then goes on to suggest an approach that puts a desire for healthy citizens back at the very heart of urban planning practice.

Professionals involved in planning, designing and regenerating the urban environment will find the ideas and approaches contained in this book refreshing and stimulating. It will also enable public health professionals to learn more about the role urban planners can play in promoting health.

Hugh Barton is an urban planner and Executive Director of the WHO Collaborating Centre for Healthy Cities and Urban Policy at the University of the West of England. **Catherine Tsourou** is a freelance architect and urban planner based in Padua, Italy. Both authors have been involved in WHO's developmental work on healthy urban planning carried out as part of the Healthy Cities project.

Healthy urban planning

A WHO guide to planning for people

Hugh Barton and Catherine Tsourou



Taylor & Francis

Taylor & Francis Group

LONDON AND NEW YORK



Published on behalf of the
World Health Organization
Regional Office for Europe
by Taylor & Francis

First published 2000
By Taylor & Francis
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN
on behalf of the World Health Organization

Simultaneously published in the USA and Canada
By Taylor & Francis
270 Madison Ave, New York NY 10016
on behalf of the World Health Organization

Transferred to Digital Printing 2005

© 2000 World Health Organization

Text editing: David Breuer

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the copyright holder.

The views expressed in this publication are those of the author(s)/contributors and do not necessarily represent the decisions or the stated policy of the World Health Organization.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The name of countries or areas used in this publication are those that obtained at the time the original language edition of the book was prepared.

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library.

Library of Congress Cataloguing in Publication Data
A catalogue record for this book has been requested.

ISBN 0-415-24326-2 (hbk)
ISBN 0-415-24327-0 (pbk)

Contents

<i>List of tables</i>	viii
<i>List of figures</i>	x
<i>Foreword</i>	xii
<i>Acknowledgements</i>	xiii
Introduction	1
PART ONE	
Concepts, principles and practice	5
1 The links between health and urban planning	7
The concept of health	7
The effects of urban planning on health	9
Twelve key health objectives for planners	13
The need for healthy urban planning	22
2 The Healthy Cities project and urban planning	25
Introduction	25
Health for all	25
Agenda 21	26
Links between health and sustainable development	27
WHO Healthy Cities project	29
Conclusions	51
3 Healthy urban planning in practice	
– experiences of cities in the Healthy Cities movement	53
Introduction	53

Survey of cities participating in the second phase of the WHO European network	54
Applying Healthy Cities principles to urban planning	55
Developing the concept of healthy urban planning in cities	65
Conclusions	78
PART TWO	
Guidelines for healthy urban planning	81
4 Settlement planning: making towns and cities good places to live	83
Purpose and scope	83
An ecosystem approach: creating settlements that provide a healthy human habitat	83
Agency remits and the need for cooperation	85
A strategic planning process: collaborative, systematic and open	87
Strategies for urban form: towards integration, regeneration and concentration	91
Location of jobs and facilities: planning for mixed use	97
Housing quality, diversity and accessibility	100
Integrating health, equity and environmental quality in transport planning	103
Resource planning to reduce the ecological footprint and improve health	109
5 Neighbourhood planning: counteracting the trend towards placelessness and virtual communities	121
Introduction	121
Principles	122
Community decision-making	128
Ensuring social inclusion and neighbourhood diversity in housing	130
Promoting access to local facilities	132
Planning for movement	135
Public spaces and open space	139
Conclusions	141
6 Assessing a project	145
Introduction	145
The process of decision-making	146

Contents vii

Choosing the right location	147
Site assessment	150
The development proposal in context	152
Buildings and private spaces	154
7 Conclusions	157
References	159
Annex 1. HEALTH21: health for all targets for the European Region	165
Annex 2. Cities participating in the WHO European Healthy Cities network in phases I, II and III	169
Annex 3. Healthy Cities indicators during the second phase of the WHO Healthy Cities project (1993-1997)	171
<i>Index.....</i>	<i>179</i>

Tables

1.1.	Matrix of planning policy areas and the social and environmental determinants of health	12
2.1.	Comparison between HEALTH21 and Agenda 21 principles and processes	28
3.1.	Results of a survey of cities (n = 29, 37 total responses) participating in the second phase of the WHO Healthy Cities project on using urban planning to promote equity and the compatibility of urban planning practice with equity considerations	57
3.2.	Results of a survey of cities (n = 29) participating in the second phase of the WHO Healthy Cities project on cooperation with urban planners in the activities of healthy cities projects	59
3.3.	Results of a survey of cities (n = 29) participating in the second phase of the WHO Healthy Cities project on the degree of citizen participation in urban planning	63
3.4.	Results of a survey of cities (n = 29, 56 total responses) participating in the second phase of the WHO Healthy Cities project on the greatest contribution urban planning can make to health	67
3.5.	Results of a survey of cities (n = 29, 44 total responses) participating in the second phase of the WHO Healthy Cities project on the meaning of healthy urban planning	69
3.6.	Results of a survey of cities (n = 29, 54 total responses) participating in the second phase of the WHO Healthy Cities project on what is unhealthy in current urban planning practices	71
3.7.	Results of a survey of cities (n = 29, 43 total responses) participating in the second phase of the WHO Healthy Cities project on how to make the process of urban planning healthy	73
3.8.	Results of a survey of cities (n = 29, 39 total responses) participating in the second phase of the WHO Healthy Cities project on how healthy urban planning outcomes should be defined	75

Tables ix

3.9. Results of a survey of cities (n = 29) participating in the second phase of the WHO Healthy Cities project on whether health indicators can be integrated into and influence the urban planning process	77
4.1. Jobs and facilities: categories of location	99
5.1. Issues and policy objectives in healthy neighbourhood planning	124
5.2. Approximate population in catchment areas for local facilities in England in 1995	128

Figures

1.1.	The factors determining health	8
1.2.	The main determinants of health	8
1.3.	The health gradient	9
2.1.	Conceptual model of sustainable development	28
2.2.	Addressing inequalities in health: links for action	33
2.3.	Twenty-first-century problems and nineteenth-century structures	34
2.4.	The wheel of participation	36
2.5.	City of Belfast Healthy City Project	39
2.6.	Members of a healthy city project steering group	40
2.7.	The pillars of health	42
2.8.	Framework of the city health plan of Copenhagen	45
2.9.	Countries in the WHO European Region with Healthy Cities	50
3.1.	Results of a survey of cities (n = 29, 37 total responses) participating in the second phase of the WHO Healthy Cities project on using urban planning to promote equity and the compatibility of urban planning practice with equity considerations	58
3.2.	Results of a survey of cities (n = 29) participating in the second phase of the WHO Healthy Cities project on cooperation with urban planners in the activities of healthy cities projects	60
3.3.	Results of a survey of cities (n = 29) participating in the second phase of the WHO Healthy Cities project on the greatest contribution urban planning can make to health	66
3.4.	Results of a survey of cities (n = 29) participating in the second phase of the WHO Healthy Cities project on the meaning of healthy urban planning	68
3.5.	Results of a survey of cities (n = 29) participating in the second phase of the WHO Healthy Cities project on how to make the process of urban planning healthy	72
3.6.	Results of a survey of cities (n = 29, 39 total responses) participating in the second phase of the WHO Healthy Cities project on how healthy urban planning outcomes should be defined	74

3.7. Results of a survey of cities (n = 29) participating in the second phase of the WHO Healthy Cities project on whether health indicators can be integrated into and influence the urban planning process	76
4.1. Monitoring the settlement as an ecosystem	84
4.2. The idealized process of making policy through planning	88
4.3. Sample matrix for assessing the compatibility of objectives, policies and proposals related to transport in a city region	90
4.4. Interconnections between resource and development decisions	111
5.1. Towards healthy policies	133
5.2. Principles of public transport planning	138
5.3. Neighbourhood policy analysis: local employment	142

Foreword

The urban planning movement, like the public health movement, evolved as a response to conditions in the rapidly expanding cities of nineteenth-century Europe. The effects of poor-quality and unsanitary housing on the health of factory workers supporting the growing industrial economy gave rise to a new group of professions concerned with improving the health and quality of life of citizens. Much has happened in urban planning and public health since those early days, and we now know much more about the determinants of health. Nevertheless, since that time, the links between urban planning and health have become increasingly undervalued, ignored and perhaps even forgotten. The planning systems of Europe have focused more and more on the built environment as a means to achieve a narrowly defined version of an efficient city, promoting short-term financial gain to the detriment of the inhabitants. The health and quality of life of the citizens need to be given priority throughout Europe. This should not be an afterthought or a peripheral activity but an approach compatible with sustainable economic growth, where the needs of a city's people are truly at the centre of urban planning.

The concept of healthy urban planning has been developed as part of the WHO Healthy Cities project, a longstanding programme that addresses all aspects of health in the urban context. Urban planning practices in common with cities themselves can affect the health of individual citizens both positively and negatively. The links are complex and have many dimensions, including social, environmental and economic. Healthy urban planning focuses on the positive aspects. It aims to refocus urban planners on the implications of their work for human health and wellbeing and, in particular, to make health objectives central to the decision-making process. In this way it places people at the very centre of the urban planning agenda. Health is a core element of sustainable development, and healthy urban planning aims to improve both the quality of the built environment and the quality of life of individuals and communities in cities. It can help to create a healthy economy, a healthy environment and a healthy society.

Marc Danzon
WHO Regional Director for Europe

Acknowledgements

Healthy urban planning is the result of a collaboration between the Centre for Urban Health of the WHO Regional Office for Europe, the WHO Collaborating Centre for Healthy Cities and Urban Policy at the University of the West of England, Bristol and the Institute of Architecture at the University of Venice. We thank the following people for their role as supporting authors and their valuable contributions in the drafting process: Jim Claydon and Isobel Daniels (University of the West of England) and Giuseppe Longhi (University of Venice).

Thanks are due to the City of Milan, hosts of the WHO Seminar on Healthy Urban Planning held in October 1999 at which a preliminary version of this book was discussed, and the participants for their comments and contributions during the Seminar. Thanks also go to Claire Mitcham (focal point for urban planning at the WHO Centre for Urban Health) for coordinating, editing, and guiding the production of this document.

The following people have provided much appreciated input into this book by giving comments and suggestions on earlier drafts: Roderick Lawrence (University of Geneva), Pierre Dubé (National Capital Commission for Canada), Julia Muschner (Dresden Healthy City Project), Batya Waschitz (Jerusalem Healthy City Project), Hank Van Tilborg (Planning Department, City of Rotterdam), Eva Stankova (Planning Department, City of Brno), Bjarne Gregersen (Planning Department, Municipality of Horsens), Robert Pedersen (6 a day project, Copenhagen), and Aileen Robertson and Xavier Bonnefoy (WHO Regional Office for Europe). A special word of thanks goes to Anne Mette Nielsen for her excellent assistance and for typesetting this book. Finally, many thanks to David Breuer, who significantly improved the language and style of this book.

Introduction

The condition of the urban environment and how it is managed and used by its inhabitants are fundamental to human health and wellbeing. Many of the problems in cities today relate to poor residential and other environments, poverty, inequity, pollution, unemployment, lack of access to jobs, goods and services, and lack of community cohesion. Urban planners influence the social, physical and economic environments and how cities function. They therefore have a key role to play in addressing these problems and securing conditions in cities conducive to health and wellbeing and a high quality of life.

Urban planning makes decisions about the use and development of land and buildings in cities. It has evolved throughout Europe, as a way to ensure that these decisions are taken with the public interest in mind. A variety of names for this process have emerged in different European countries as a result of the various legislative and institutional processes within which urban planners work. These terms were identified by the European Commission (*1*) and include: spatial planning, land-use planning, town and country planning, physical planning, urban and regional planning, territorial planning and space management systems.

Healthy urban planning highlights the importance of recognizing the health implications of policy and practice in urban planning and the need to go one step further, by pursuing health objectives as a central part of urban planning work. Healthy urban planning is a concept that has evolved through the work of the Healthy Cities movement. In Europe, the third phase of the WHO Healthy Cities project (1998–2002) is developing healthy urban planning principles and practices as a priority. The aim is to show that urban planning principles are closely aligned with the Healthy Cities approach to urban management and to refocus urban planning on health and the quality of life. If cities are to become healthy and attractive places to live in the future, it is vital that urban planners in every country focus on people and how they use buildings and developments, rather than simply on the buildings themselves, as has become the case in many of our cities. Duhl & Sanchez (*2*) highlighted the historical links between urban planning and health. The complexities of urban life and urban problems make it essential to relearn

2 Introduction

why the links between health and urban planning are of key importance in cities and to act accordingly.

This book forms part of the developmental work on healthy urban planning of the Centre for Urban Health of the WHO Regional Office for Europe, and its form and content has evolved as part of that work. The draft text was the subject of the WHO Seminar on Healthy Urban Planning in Milan, Italy, in October 1999, at which urban planners from across Europe discussed the issues and explored ways of taking WHO's initiative forward. The book complements and builds on previous publications and documents related to urban planning produced by the Regional Office (2–8). It is not intended to be definitive nor to provide all the answers but to help to stimulate and inform the debate on healthy urban planning.

The authors do not seek to examine the differences between urban planning systems in Europe. Numerous commentators have done this (8–11). Instead, the book illustrates why urban planning should bring the consideration of health effects into the heart of the decision-making process. Since planning systems and techniques across Europe sometimes differ quite widely, every country and every city must find the most appropriate ways to implement the concept of healthy urban planning. The aim is therefore to provide assistance to urban planners in integrating health more fully into their decision-making processes.

This book is intended to be used by professionals working in a variety of disciplines that contribute to urban planning: land-use and town planners, architects, developers, urban designers, transport planners and people working on the regeneration, renewal and economic development of urban areas. It will also appeal to academics and students in those professions. Finally, it will enable public health professionals to learn more about the role of urban planners in improving the health of citizens. Reading the whole book provides a comprehensive picture of healthy urban planning, but readers can also return to the book again and again, dipping into different sections to refer to conceptual issues, guidance and case studies as the need arises.

Part one introduces the concept of healthy urban planning. Chapter 1 presents WHO's definition of health, whereby health is not merely the absence of disease but includes human wellbeing and quality of life. It outlines the links between health and urban planning and defines the health objectives of planning. Chapter 2 describes the unique value of the Healthy Cities approach to urban management, showing why the movement is relevant to urban planners. Chapter 3 goes on to discuss the extent to which healthy urban planning has become a reality in cities participating in the WHO Healthy Cities project since 1987, providing viewpoints and case studies from a recent survey. Part two of the book gives detailed advice on how to plan in healthy ways at different levels. Chapter 4 describes strategies for an entire city or urban region. A clear strategy for urban form is recommended that considers the location of jobs and facilities, housing provision and density, integrated transport planning and planning for key resources. Chapter 5 translates

the principles of healthy urban planning to the neighbourhood level, arguing that communities should have greater power over the decision-making processes that affect their neighbourhood. In chapter 6, a series of checklists is provided that are intended to assist in assessing the compatibility of new development sites and proposals with the principles of healthy urban planning. Case studies are provided throughout the book.

References

- European Commission Expert Group on the Urban Environment. *European sustainable cities* (<http://europa.eu.int/comm/environment/urban/rport-en.pdf>) Luxembourg, Office for Official Publications of the European Communities, 1994 (CR-17-98-863-EN-C) (accessed 30 May 2000).
- Duhl, L.J. & Sanchez, A.K. *Healthy cities and the city planning process - a background document on links between health and urban planning* (<http://www.who.dk/healthy-cities/hcppub.htm#Plan>) Copenhagen, WHO Regional Office for Europe, 1999 (accessed 30 May 2000).
- Town planning and health.* Copenhagen, WHO Regional Office for Europe, 1997 (Local Authorities Health and Environment Briefing Pamphlet Series, No. 16).
- Contaminated land.* Copenhagen, WHO Regional Office for Europe, 1997 (Local Authorities Health and Environment Briefing Pamphlet Series, No. 17).
- Green cities, blue cities.* Copenhagen, WHO Regional Office for Europe, 1997 (Local Authorities Health and Environment Briefing Pamphlet Series, No. 18).
- The city of the future.* Copenhagen, WHO Regional Office for Europe, 1997 (Local Authorities Health and Environment Briefing Pamphlet Series, No. 27).
- Walking and cycling in the city.* Copenhagen, WHO Regional Office for Europe, 1997 (Local Authorities Health and Environment Briefing Pamphlet Series, No. 35).
- Towards a new planning process. A guide to reorienting urban planning towards Local Agenda 21* (<http://www.who.dk/healthy-cities/hcppub.htm#book3>). Copenhagen, WHO Regional Office for Europe, 1999 (document EUR/ICP/ POLC 06 03 05C , European Sustainable Development and Health Series, No. 3) (accessed 30 May 2000).
- Newman, P. & Thornley, A. *Urban planning in Europe* . London, Routledge, 1996.
- Cin, A.D. & Lyddon, D. , ed. *International manual of planning practice* . The Hague, International Society of City and Regional Planners/Association internationale des urbanistes, 1992.
- Green, G. *Health and governance in European cities: a compendium of trends and responsibilities for public health in 46 member states of the WHO European Region* . London, European Hospital Management Journal Ltd, 1998.
- Lalonde, M. *A new perspective on the health of Canadians* . Ottawa, Health and Welfare Canada, 1974.
- Whitehead, M. & Dahlgren, G. What can we do about inequalities in health. *The lancet* , 338: 1059-1063 (1991).
- Laughlin, S. & Black, D. , ed. *Poverty and health: tools for change* . Birmingham, Public Health Trust, 1995.
- Marmot, M. & Wilkinson, G. , ed. *Social determinants of health* . Oxford, Oxford University Press, 1999.
- Wilkinson, R. & Marmot, M. , ed. *The solidfacts: social determinants of health* (<http://www.who.dk/healthy-cities/hcppub.htm#SD>). Copenhagen, WHO Regional Office for Europe, 1998 (document EUR/ICP/CHVD 03 09 01) (accessed 30 May 2000).
- Barton, H. , ed. *Sustainable communities: the potentialfor eco-neighbourhoods* . London, Earthscan, 1999.
- Kuhl, D. & Cooper, C. Physical activity at 36 years: patterns and childhood predictors in a longitudinal study. *Journal of epidemiology and community health* , 46: 114—119 (1992).
- Draft urban food and nutrition action plan* (<http://www.who.dk/nutrition/pdf/Urban99.pdf>). Copenhagen, WHO Regional Office for Europe, 1999 (accessed 30 May 2000).
- McMichael, A. J. et al., ed. *Climate change and human health: an assessment prepared by a Task Group on behalf of the World Health Organization, the World Meteorological Organization and the United Nations Environment Programme* . Geneva, World Health Organization, 1996 (document WHO/EHGI/ 96.7).
- Luke, J. *Catalytic leadership: strategies for an interconnected world* San Francisco, Jossey-Bass Publishers, 1998.
- Global strategy for health for all by the year 2000* . Geneva, World Health Organization ("Health for All" Series, No. 3).
- Health for all in the 21st centwy* . Geneva, World Health Organization, 1998 (document WHA 51/5).
- Health21 - the health for all policy frameworkfor the WHO European Region* (<http://www.who.dk/cpa/h21/h21long.htm>). Copenhagen, WHO Regional Office for Europe, 1999 (European Health for All Series, No. 6) (accessed 30 May 2000).
- Ottawa Charter for Health Promotion* (<http://www.who.dk/policy/ottawa.htm>). Copenhagen, WHO Regional Office for Europe, 1986 (accessed 30 May 2000).
- Agenda 21* (<http://www.un.org/esa/sustdev/agenda21text.htm>). New York, United Nations Division for Sustainable Development, updated 20 March 2000 (accessed 30 May 2000).
- World Commission on Environment and Development. *Our common future* . Oxford, Oxford University Press, 1987, p. 43.
- Rio Declaration on Environment and Development* (<http://www.un.org/documents/ga/conf151/aconf15126-1 annex 1.htm>). New York, United Nations Department of Social and Economic Affairs, 12 August 1992 (accessed 30 May 2000).
- Price, C. & Dube, P. *Sustainable development and health: concepts, principles and framework for action for European cities and towns* (<http://www.who.dk/healthy-cities/hcppub.htm#sustdev>). Copenhagen, WHO Regional Office for Europe, 1997 (document EUR/ICP/POLC 06 03 05a, European Sustainable Development and Health Series, No. 1) (accessed 30 May 2000).
- City planning for health and sustainable development* (<http://www.who.dk/healthy-cities/hcppub.htm#planning>). Copenhagen, WHO Regional Office for Europe, 1997 (document EUR/ICP/POLC 06 03 05B , European Sustainable Development and Health Series, No. 2) (accessed 30 May 2000).
- Hancock, T. & Duhl, L. *Promoting health in the urban context* . Copenhagen, FADL, 1988 (WHO Healthy Cities Papers, No. 1).
- Tsouros, A. , ed. *World Health Organization healthy cities project: a project becomes a movement - review of progress 1987 to 1990* . Copenhagen, FADL and Milan, Sogess, 1990.
- WHO Healthy Cities project phase III: 1998-2002. The requirements and the designation process for WHO project cities* (<http://www.who.dk/healthy-cities/pdf/phase3e.pdf>). Copenhagen, WHO Regional Office for Europe, 1997 (accessed 30 May 2000).
- Athens Declaration for Healthy Cities* (<http://www.who.dk/healthy-cities/hcppub.htm#Declaration>). Copenhagen, WHO Regional Office for Europe, 1998 (document CHDV 03.01.01/BG3E) (accessed 30 May 2000).
- Hancock, T. Planning and creating healthy and sustainable cities: the challenge for the 21st century. In: Price, C. & Tsouros, A. , ed. *Our Cities, our future: policies and action plans for health and sustainable development* (http://www.who.dk/healthy-cities/hcppub.htm#Our_Cities). Copenhagen, WHO Regional Office for Europe, 1996, pp. 65-88 (document EUR/ICP/HCIT 94 01/MT04(A)) (accessed 30 May 2000).

City health planning: the framework . Copenhagen, WHO Regional Office for Europe, 1996 (document EUR/ICP/HCIT 94 01/MT06/7).
Rogers, R. *Cities for a small planet* . London, Faber and Faber, 1997.
Community participation in local health and sustainable development: a working document on approaches and techniques (<http://www.who.dk/healthy-cities/hcppub.htm#community>). Copenhagen, WHO Regional Office for Europe, 1999 (document EUR/ICP/POLC 06 03 05D , European Sustainable Development and Health Series, No. 4) (accessed 30 May 2000).
Davidson, S. Spinning the wheel of empowerment. *Planning* , issue 1262 (3 April): 14-15 (1998).
Waxes, N. & Knevitt, C. *Community architecture: how people are creating their own environment* . London, Penguin, 1987.
Twenty steps for developing a Healthy Cities project (<http://www.who.dk/healthy-cities/hcppub.htm#Steps>). 3rd ed. Copenhagen, WHO Regional Office for Europe, 1997 (document EUR/ICP/HSC 644(2)) (accessed 30 May 2000).
Application for designation to phase III of the WHO Healthy Cities project . Belfast, Belfast Healthy Cities, 1998.
City health profiles - how to report on health in your city (<http://www.who.dk/healthy-cities/hcppub.htm#CityHealth>). Copenhagen, WHO Regional Office for Europe, 1995 (document ICP/HSIT/94/01 PB 02) (accessed 30 May 2000).
City health profiles - a review of progress (<http://www.who.dk/healthy-cities/hcppub.htm#Profile>). Copenhagen, WHO Regional Office for Europe, 1998 (document EUR/ICP/CHDV 03 01 01/1) (accessed 30 May 2000).
Healthy city plan of the City of Copenhagen, 1994-1997 . Copenhagen, Healthy City Project, Copenhagen Health Services, 1994.
Sharpening the focus on health: a city health development plan . Stoke on Trent, Stoke on Trent Healthy City, 1999.
National healthy cities networks. 3rd ed. Copenhagen, WHO Regional Office for Europe, 1997 (document ICP/HSC 644) .
Guidelines for multi-city action plans - WHO Healthy Cities project, phase II 1993 1997 ([http://whqlibdoc.who.int/euro/1994-97/EUR_ICP_HSC_640\(B\).pdf](http://whqlibdoc.who.int/euro/1994-97/EUR_ICP_HSC_640(B).pdf)). Copenhagen, WHO Regional Office for Europe, 1994 (document EUR/ICP/HSC 640(B)) (accessed 30 May 2000).
Healthy urban planning. Report on a WHO seminar, Milan, Italy, 17-18 October 1999 (<http://www.who.dk/healthy-cities/meetmila.htm>). Copenhagen, WHO Regional Office for Europe, 2000 (document EUR/ICP/CHDV 03 03 03) (accessed 30 May 2000).
Tsourou, C. *Proceedings of a seminar on healthy urban planning organized by WHO, Milan, Italy, 17-18 October 1999* . Milan, Municipality of Milan, Healthy Cities Project Office, 2000.
Tsourou, C. *Pianificazione urbanistica e salute implicazioni della strategia dell'oms "salute per tutti" nella pianificazione urbanistica in Europa* [Urban planning and health: implications of the WHO strategy for health for all for urban planning in Europe]. Thesis. Venice, Institute of Architecture, University of Venice, 1998.
Healthy City Office. *Il progetto bambino urbano* [The urban child project]. Milan, City of Milan, 1996.
Healthy Newcastle - our city application for designation, WHO Healthy Cities project, phase III 1998-2002 . Newcastle, Newcastle Health Partnership, 1998.
Waschitz, B. *The Jerusalem Association of Community Councils and Centers - a case study in democratization* (<http://www.who.dk/healthy-cities/pdf/israel.pdf>, pp. 5 8). Copenhagen, WHO Regional Office for Europe, 1998 (accessed 30 May 2000).
Barton, H. et al. *Sustainable settlements: a guide for planners, developers and designers* . Bristol, University of the West of England and Luton, Local Government Management Board, 1995.
Project Hammarby Sjöstad. A new district where technology meets ecology . Stockholm, Stockholm Water Company, 1999.
Barton, H. & Bruder, N. *A guide to local environmental auditing* . London, Earthscan, 1995.
Commission of the European Communities. *Green paper on the urban environment* . Luxembourg, Office for Official Publications of the European Communities, 1990.
Report on a technical meeting on transport and health, Udine, Italy . Copenhagen, WHO Regional Office for Europe, 1999 (unit document, Centre for Urban Health).
Implementation of human settlements policies on urban renewal and housing modernization — Vienna case study . Geneva, United Nations Economic Commission for Europe, 1998 (ECE/HBP/106).
Health principles of housing . Geneva, World Health Organization, 1989.
Report: Third Ministerial Conference on Environment and Health, London, 16-18 June 1999 (<http://www.who.dk/london99/report.htm>). Copenhagen, WHO Regional Office for Europe, 15 July 1999 (document EUR/ICP/EHCO 02 02 05/19) (accessed 30 May 2000).
Charter on Transport, Environment and Health (<http://www.who.dk/london99/transporte.htm>). Copenhagen, WHO Regional Office for Europe, 1999 (document EUR/ICP/EHCO 02 02 05/9 Rev.4) (accessed 30 May 2000).
Crowhurst-Lennard, S.H. & Lennard, H.L. *Livable cities* . Southampton, NY, Gondolier Press, 1987.
ADONIS Project (Analysis and Development of New Insights into Substitution of Short Car Trips by Cycling and Walking). Summary of the ADONIS report . Gentofte, Denmark, Danish Council of Road Safety Research, 1998.
How to substitute short car trips by cycling and walking . Gentofte, Denmark, Danish Council of Road Safety Research, 1997.
Best practice to promote cycling and walking . Copenhagen, Road Directorate, 1997.
Mills, G. Fuel savings from park and ride schemes, In: Farthing, S. , ed. *Towards sustainability conference papers* . Bristol, Faculty of the Built Environment, University of the West of England, 1997, pp. 41-61 (Working Paper No. 38).
Lyon Pare Auto, Lyon, France: integration of parking and urban policies (<http://www.cities21.com/egpis/egpc-048.html>). Bristol and Freiburg, EURONET/ ICLEI Consortium, 1996 (accessed 30 May 2000).
Metropolitan Bilbao, Spain: strategic plan for the revitalisation of Metropolitan Bilbao (<http://www.cities21.com/egpis/egpc-052.html>). Bristol and Freiburg, EURONET/ICLEI Consortium, 1996 (accessed 30 May 2000).
Lyon, A. *Housing improvement, public health and the local economy: better housing, better health*. In: Price, C. & Tsouros, A., ed. *Our cities, our future: policies and action plans for health and sustainable development* (http://www.who.dk/healthy-cities/hcppub.htm#Our_Cities). Copenhagen, WHO Regional Office for Europe, 1996, pp. 98-101 (document EUR/ICP/HCIT 94 01/MT04(A)) (accessed 30 May 2000).
Project profile community heating: Glasgow, Hutchesontown . London, Combined Heat and Power Association, 1998. and for further information
Scottish Homes. *Evaluation of energy efficiency measures at Hutchesontown multi-storey blocks* (<http://www.scot-homes.gov.Uk/pdfs/pubs/51.pdf>). Edinburgh, Scottish Homes, 1999 (Precis Research Report No. 88) (accessed 30 May 2000).
WHO guidelines for air quality, 1999 (<http://www.who.int/peh/air/Airqualitygd.htm>). Geneva, World Health Organization, 1999 (accessed 30 May 2000).

- The municipal plan of Horsens* . Horsens, Denmark, Municipality of Horsens, 1993.
- Handbook on neighbourhood planning: the Gasvej neighbourhood project, 1987-91* . Horsens, Denmark, Municipality of Horsens, 1991.
- Department of Health. *Our healthier nation: a contract for health* (<http://www.ohn.gov.uk/ohn/ohn.htm>). London, The Stationery Office, 1998 (accessed 30 May 2000).
- Milton Keynes planning manual* . Milton Keynes, Milton Keynes Development Corporation, 1992.
- Hillman, M. & Whalley, A. *Walking is transport* . London, Policy Studies Institute, 1979.
- Kleiner, D. Innovative eco-neighbourhood projects. In: Barton, H. et al., ed. *Sustainable settlements: a guide for planners, developers and designers* . Bristol, University of the West of England and Luton, Local Government Management Board, 1995, pp. 66-85.
- City of Enschede, the Netherlands: Oikos, suburban sustainable development of 600 houses in the east of the Netherlands, by the German border* (<http://www.cities21.com/egpis/egpc-077.html>). Bristol and Freiburg, EURONET/ ICLEI Consortium, 1996 (accessed 30 May 2000).
- The Povel experience: a local solution for a global challenge - Germany* (<http://www.bestpractices.org/cgi-bin/bp98.cgi?cmd=detail&id=147>). New York and Nairobi, Together Foundation and United Nations Centre for Human Settlements, 1998 (accessed 30 May 2000).