

# Today

8.2.2022

SPT-E5020

Marketta Kyttä



	11.1.	18.1.	25.1.	1.2.	8.2.	15.2.	22.2
What happens?	Start of the course	Lectures & group work presentations	Lectures & group work presentations	Lecture & group work	Lecture & group work	Lecture & group work	Final session
Teaching mode	Online	Online	Online	Online	Online	Online	Online
Contents of contact session	Introduction	Perceived safety	Restorative Environments	Knowledge from people in planning	Socially sustainable and health promoting environment	Various urban user groups	Final rehearsal?
	Student's pre-tasks concerning personally meaningful places	Functional Environments	Sense of Community	The preparation of PPGIS data for analysis Kamyar Hasanzadeh	Activity space modelling Kamyar Hasanzadeh	Age-friendly environments Tiina Rinne	
		Aesthetic Experiences	Place Attachment	Various levels of PPGIS data analysis Kamyar Hasanzadeh	Urban walkability Anna Kajosaari	Child-friendly environments	Final presentations
				Online and onsite PPGIS data analysis	Residential relocation and travel behavior change Samira Ramezani	Discussion	
Group work	Group work 1 starts	Group work 1 presentations	Group work 1 presentations	Group work 2 starts	Group work 2	Group work 2	
Individual work							

# PROGRAMME OF TODAY

## Lectures

10.15-11.45

Marketta Kyttä: Socially sustainable & health promotive environments

Kamyar Hasanzadeh: Activity space modelling

LUNCH

12.30-14.00

Anna Kajosaari: Urban Walkability

Samira Ramezani: Residential relocation and travel behavior change

# GROUP WORK CONTINUES

Online analysis support clinics by Kamyar & Anna

Groups 1-5 -> Anna: [anna.kajosaari@aalto.fi](mailto:anna.kajosaari@aalto.fi)

Groups 6-10 -> Kamyar: [kamyar.hasanzadeh@aalto.fi](mailto:kamyar.hasanzadeh@aalto.fi)

PLEASE CONTACT Anna & Kamyar to get support!

# NOW

SOCIAL SUSTAINABILITY &  
HEALTH PROMOTIVE ENVIRONMENT

# Discuss with another student:

- What are the essential characteristics of socially sustainable environment?

# THERE ARE MANY DEFINITIONS FOR SOCIAL SUSTAINABILITY ...

“To be socially sustainable, there needs to be equitable distribution and consumption of resources and assets, harmonious social relations, and acceptable quality of life”

Chiu, R. L. H. (2003) Social sustainability, sustainable development and housing development: the experience of Hong Kong, in: R. Forrest & J. Lee (Eds) Housing and Social Change: East-West Perspectives. London: Routledge.

# DEFINITION APPLYING THE HIERARCHY OF NEEDS

Ancell & Thompson-Fawcett  
(2008) The Social Sustainability of  
Medium Density Housing: A  
Conceptual Model and  
Christchurch Case Study. Housing  
Studies, Vol. 23, No. 3, 423–441.

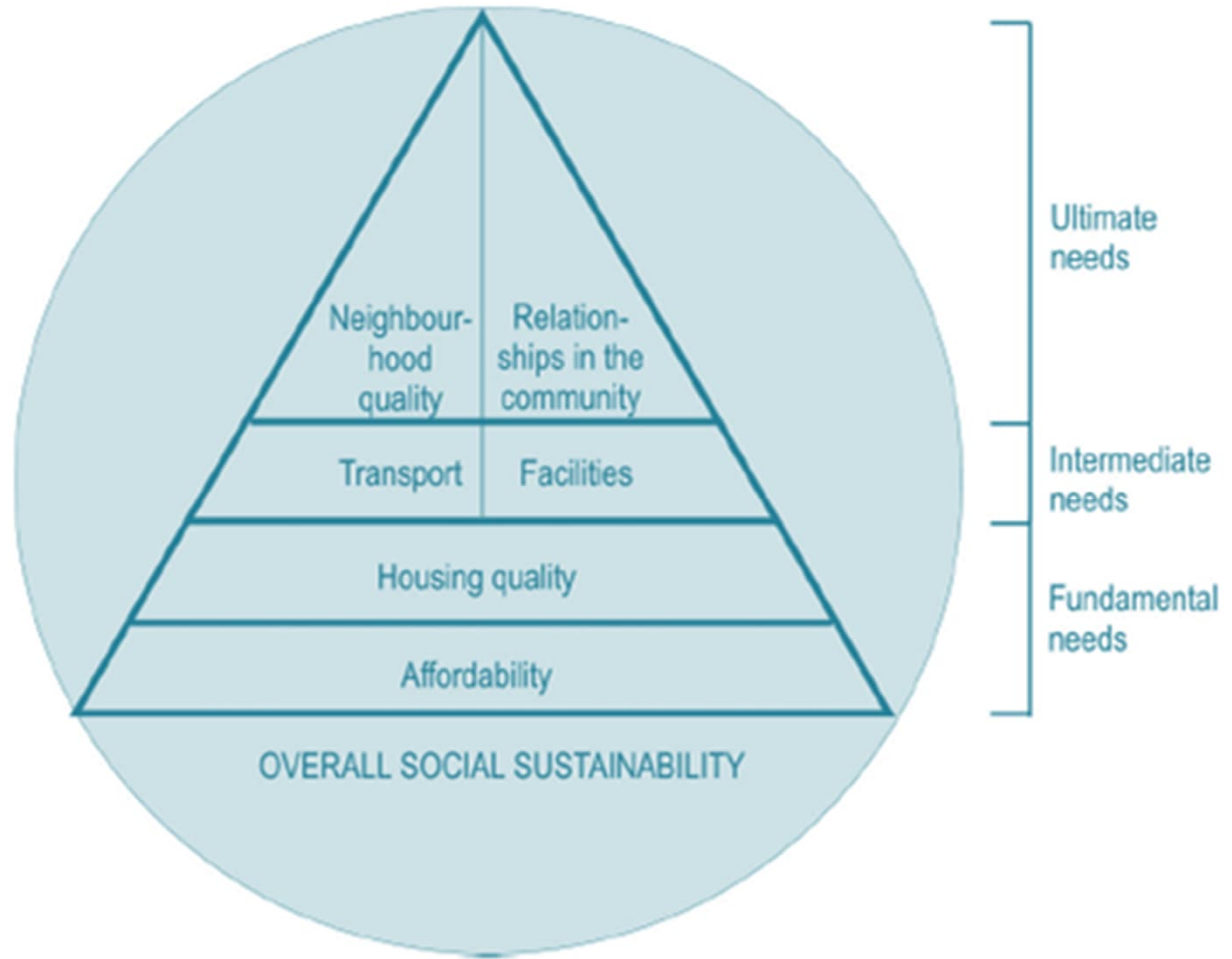


Figure 3. Conceptual evaluation model of the social sustainability of housing



# DEFINITION BY BRAMLEY ET AL.

## Inhabitants' health and well-being

### Sustainability of community

- pride in and attachment
  - social interaction
  - safety or security
- perceived quality of environment
  - satisfaction with the home
    - stability
  - participation in collective groups

### Social equity

- access to services and opportunities
  - shops, schools
  - health centres
- recreational opportunities, open space
  - public transport
    - jobs
  - affordable housing

A Venn diagram with three overlapping circles. The top circle is yellow and labeled 'Health & wellbeing'. The bottom-left circle is teal and labeled 'Perceived environmental quality'. The bottom-right circle is teal and labeled 'Accessibility'. The intersection of the two teal circles is white. The intersection of the yellow circle and the left teal circle is yellow. The intersection of the yellow circle and the right teal circle is yellow. The intersection of all three circles is yellow.

**Health &  
wellbeing**

**Perceived  
environmental  
quality**

**Accessibility**

# DEFINITION BY VALLANCE ET AL.

How to change or promote ecofriendly behavior?

BRIDGE SOCIAL  
SUSTAINABILITY

Why people behave the way they do?

MAINTENANCE  
SOCIAL  
SUSTAINABILITY

How various contexts meet the basic needs of people?

DEVELOPMENT  
SOCIAL  
SUSTAINABILITY

# Our model in Urban Happiness -study: the combination of the two



URBAN  
HAPPINESS  
-PROJECT

# URBAN INTENSIFICATION POLICY

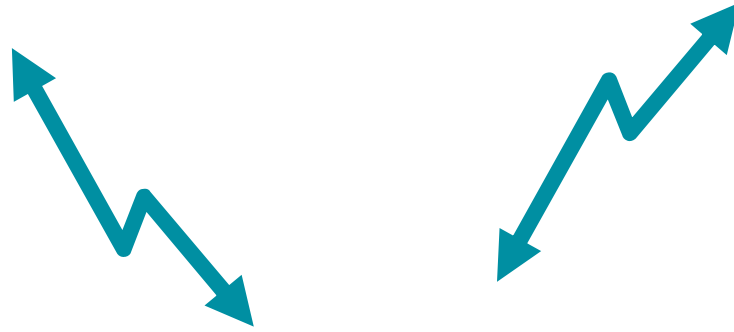
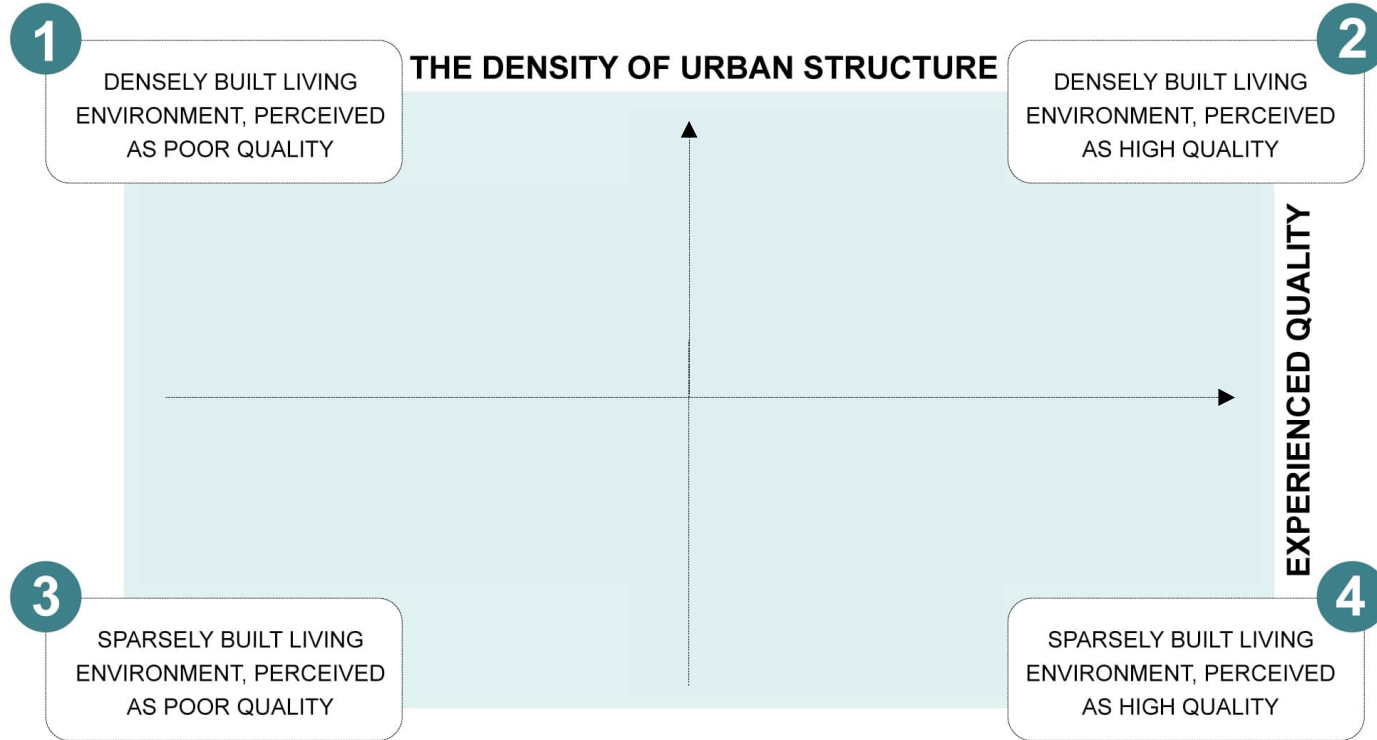


Figure: Sirkku Huisko

# URBAN INFILL POLICY & THE PERCEIVED QUALITY OF ENVIRONMENT







Töölo  
Kallio



Pohjois-Haaga  
Kannelmäki  
Lassila  
Kontula  
Mellunmäki



Suvela  
Leppävaara  
Matinkylä  
Soukka

pehmoGIS HELSINKI

Background info Environment values Propose improvements Everyday places Feedback

Quit x Help i

### Evaluate your living environment

Evaluate your living environment from four different perspectives. Mark on the map positive and negative locations concerning:

Hide my locations

The appearance  
 Positive  Negative

The social life  
 Positive  Negative

The atmosphere  
 Positive  Negative

The functional possibilities  
 Positive  Negative

Previous Next

### Please tell more about the appearance of the environment! Here...

- Personalising this place is possible
- The surroundings are tidy
- Density of development is fine
- The buildings density is adequate
- The surroundings are attractive
- The price-quality ratio of living is appropriate
- The surroundings are finished
- The history is present
- Other?

Save target  
Remove target

Hide overview map

Map  
Satellite  
Center at Home

Näytä karttamerkki

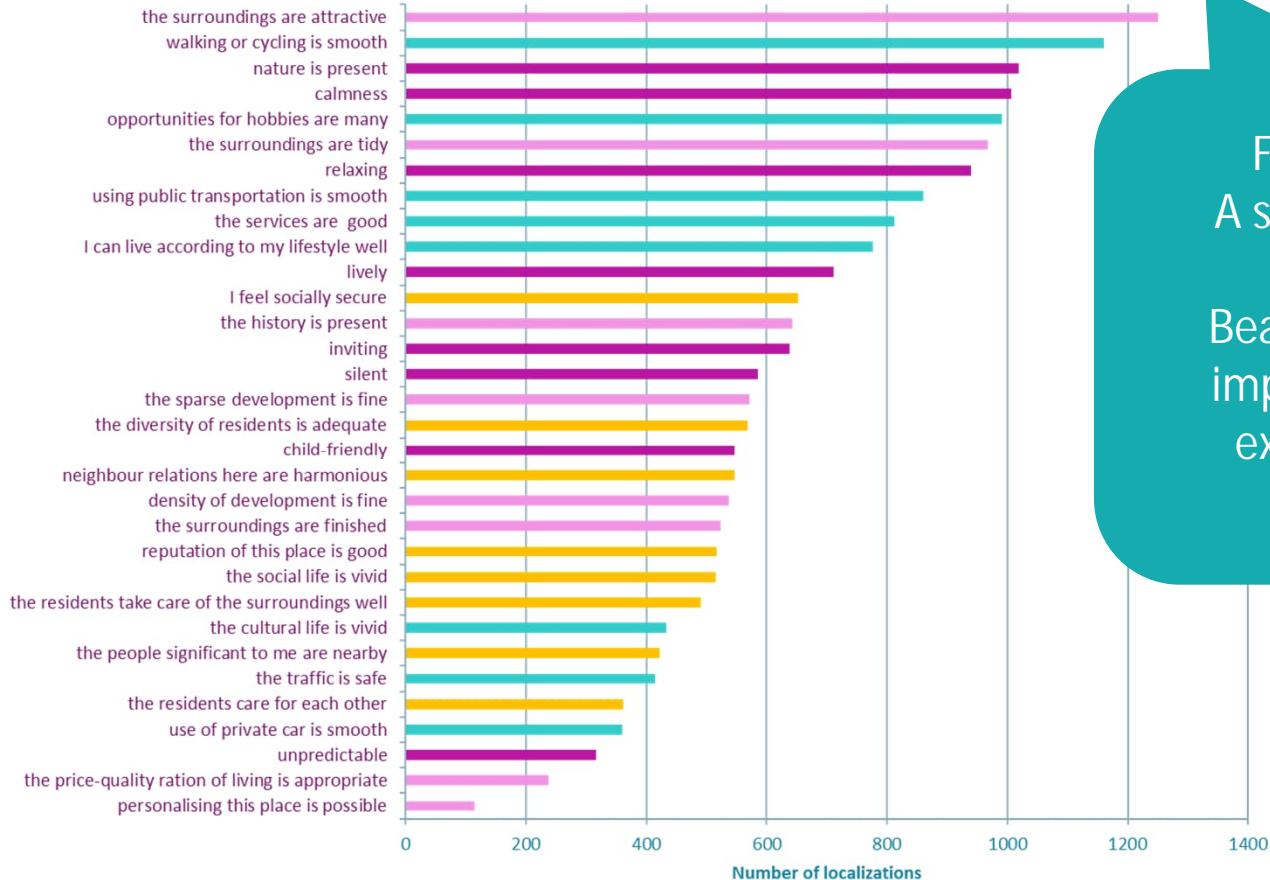
Copyright Pehmogis 2009 kartta-aineisto Maanmittauslaitos 2007, Tiehallinto 2006

Urban  
Happiness –  
survey 2009  
3119  
respondents



# The contents of positive quality factors

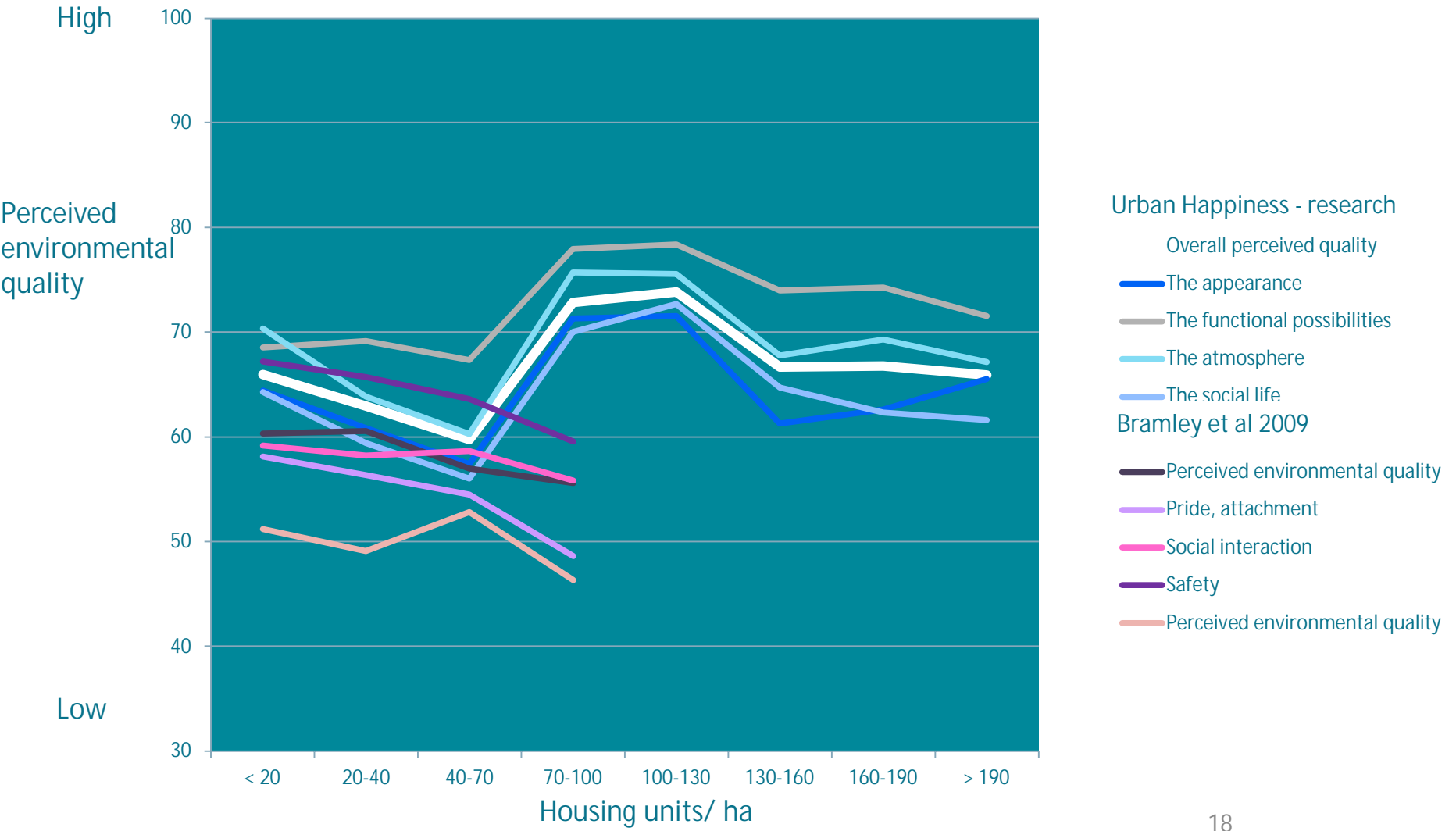
(Urban Happiness –study)



Florida et al. (2011)  
A survey among 28 000 dwellers in US:  
Beauty among the most important factors when explaining residential satisfaction.

■ = The atmosphere  
■ = The appearance  
■ = The social life  
■ = functional possibilities

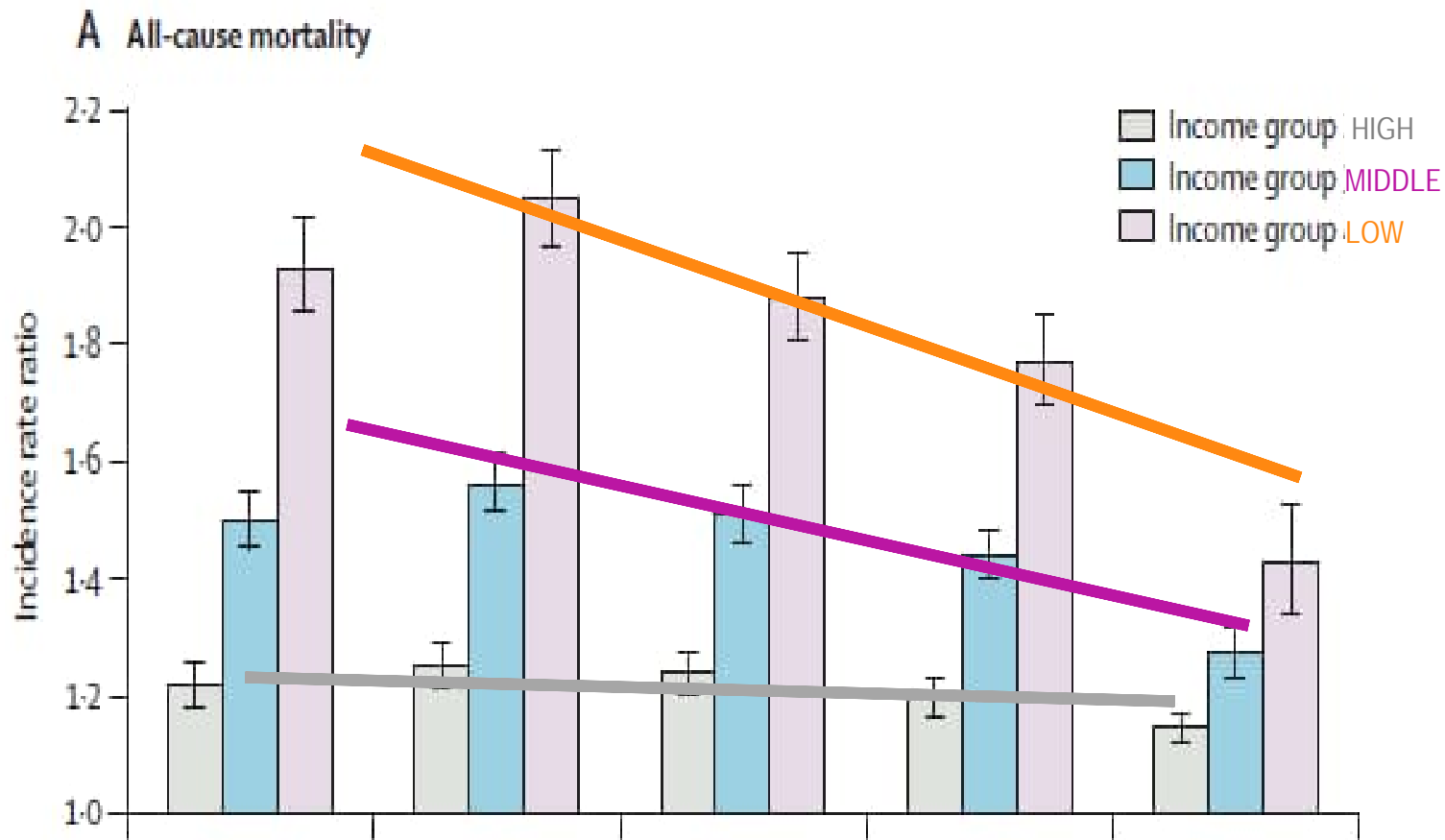
# URBAN DENSITY & PERCEIVED ENVIRONMENTAL QUALITY



# INDIVIDUALLY SENSITIVE ANALYSIS OF URBAN STRUCTURE



# GREEN STRUCTURE AND MORTALITY IN VARIOUS SOCIO-ECONOMIC GROUPS



Mitchell, R & Popham, F. (2008) Effect of exposure to natural environment on health inequalities: an observational population study. *The Lancet*, Vol.372, Issue 9650, 1655-1660.

# ALSO GREEN PLACES EXTREMELY VALUABLE EXPERIENTIALLY!

Green structure proportion & various types of quality places



BUT

HOW ABOUT HEALTH AND WELLBEING?

*"Planning and health is big news"*

(Boarnet, 2006)

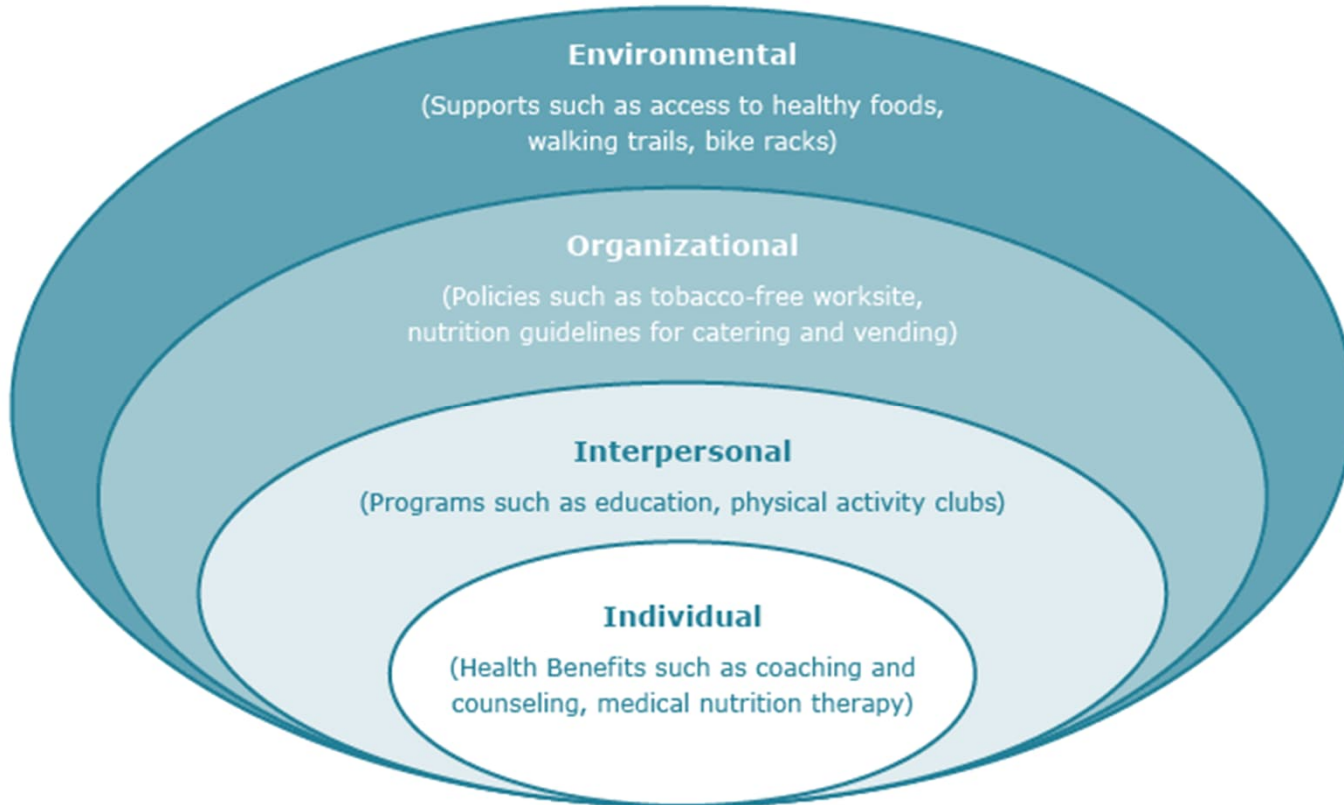
# TWO WAVES OF ENVIRONMENTAL HEALTH PROMOTION RESEARCH

Indirect **Health promotive** characteristics of environment

Direct **Illness producing** characteristics of environment

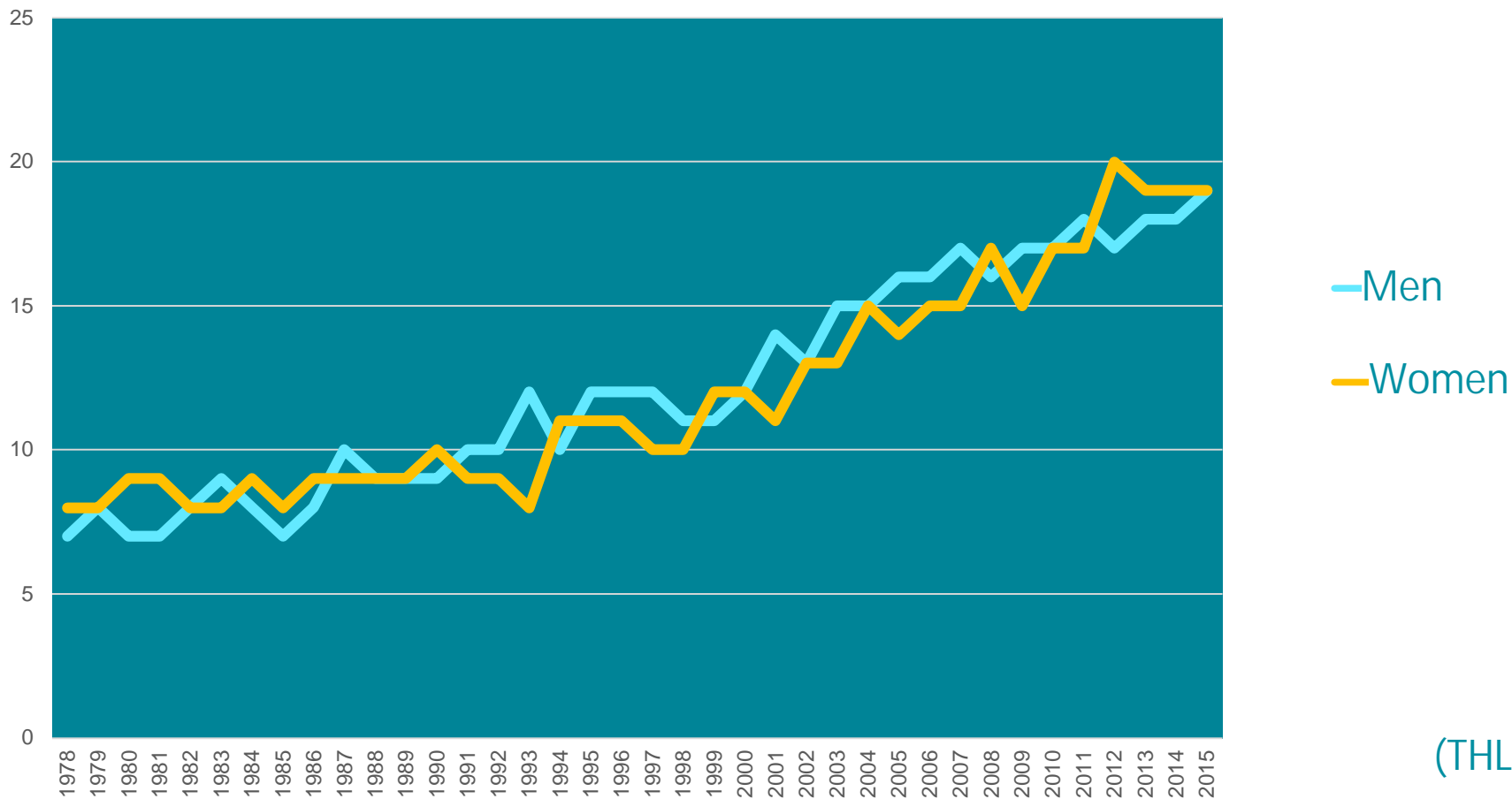


# ECOLOGICAL MODEL(S) OF ENVIRONMENTAL HEALTH PROMOTION



# THE PROPORTION OF OVERWEIGHT 25-65-YEAR-OLDS FINNS BETWEEN 1978-2015

(Self-reported weight and height, BMI>30)



(THL)

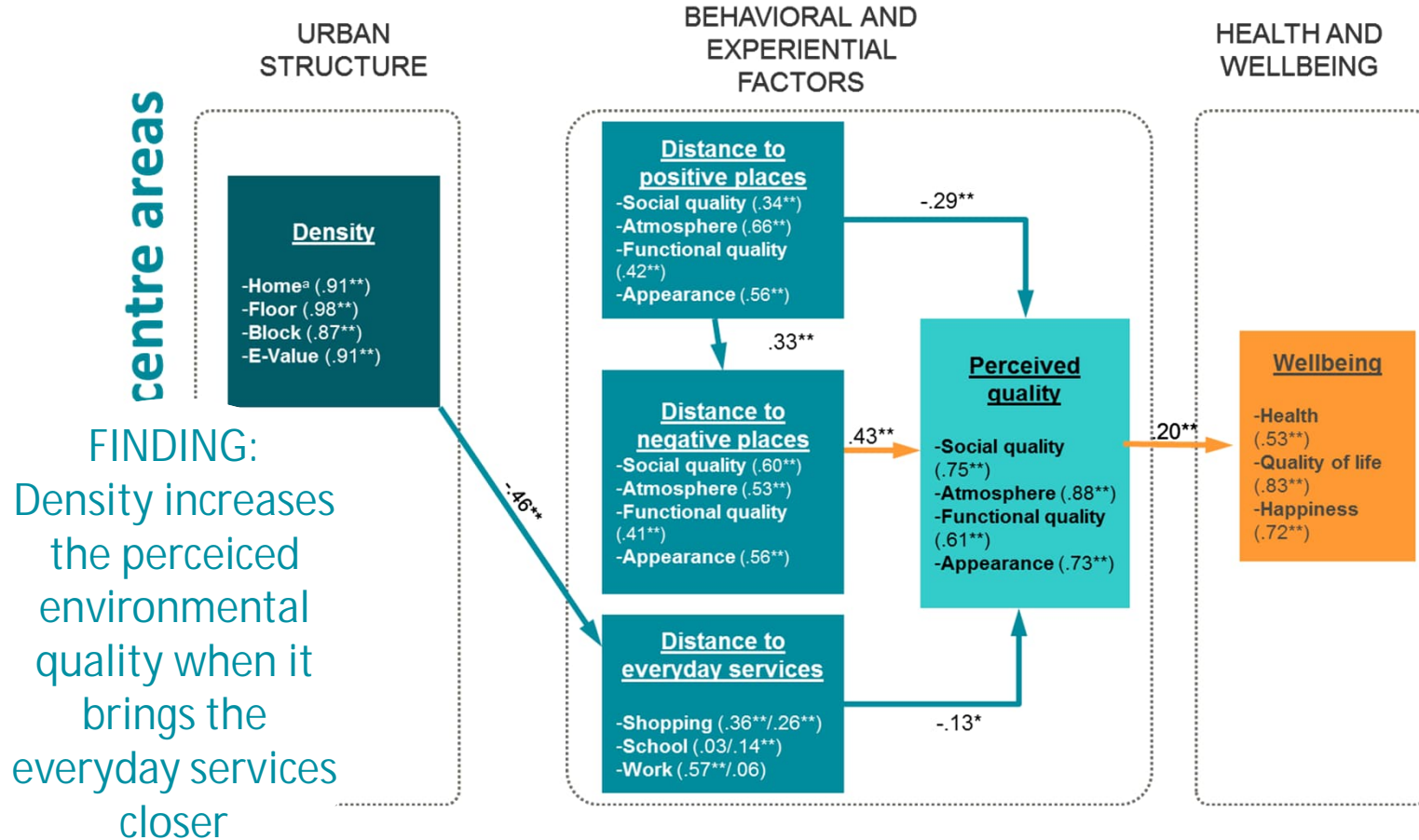
# RESEARCH ON THE HEALTH PROMOTIVE CHARACTERISTICS OF LIVING ENVIRONMENT



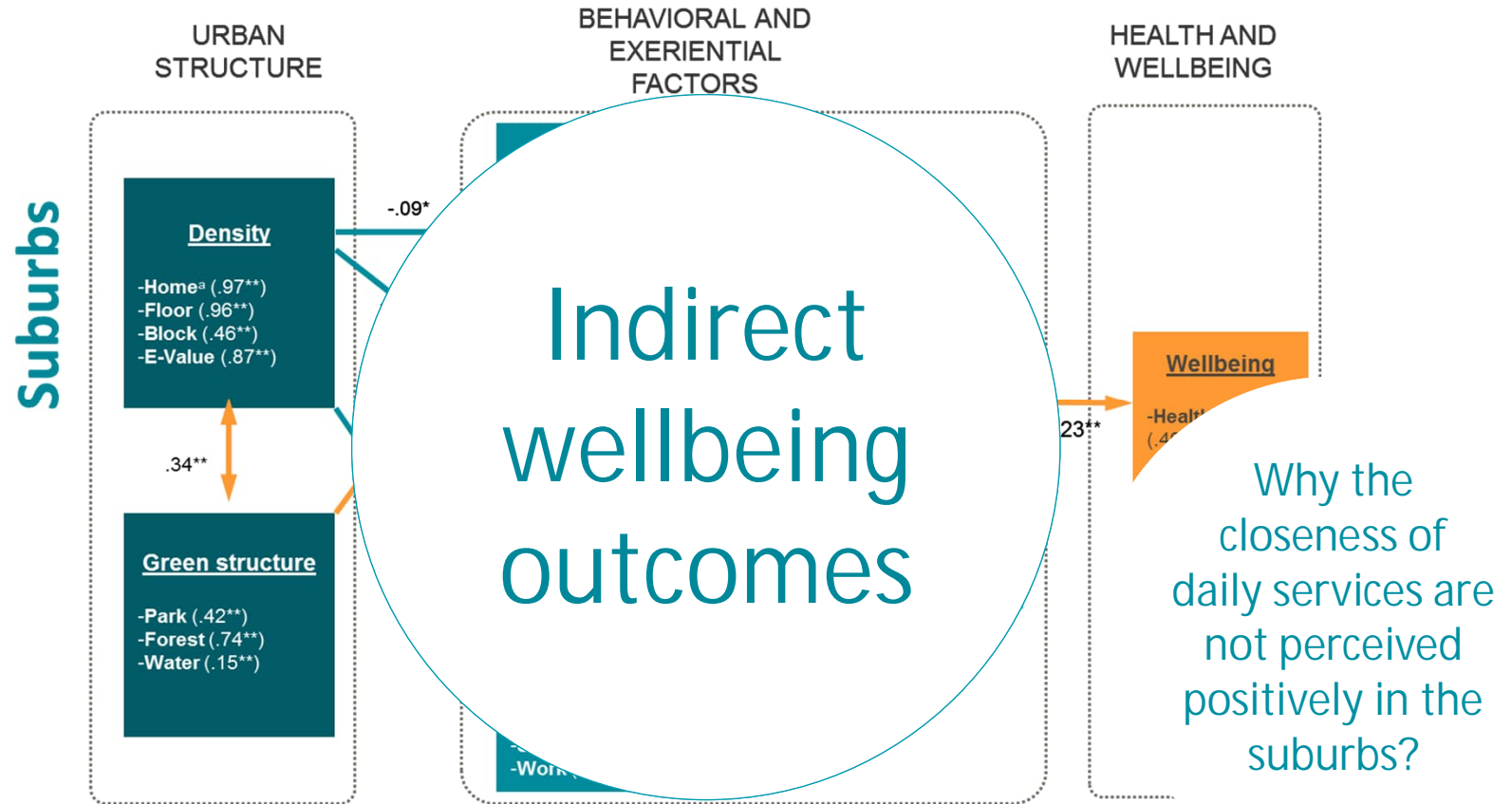
# Our model: health is an outcome of socially sustainable environment



# CONTEXTUALLY VARYING ASSOCIATIONS



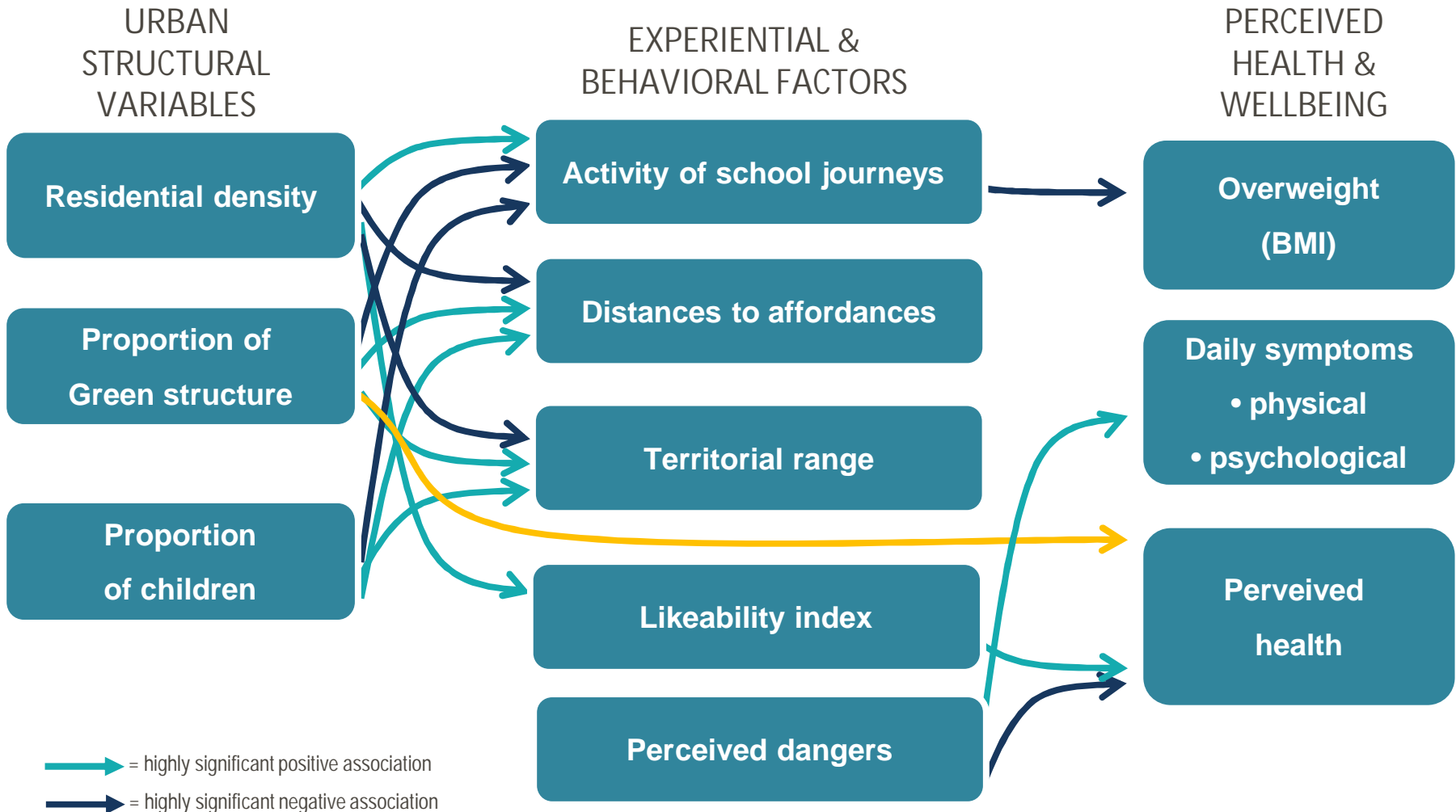
# CONTEXTUALLY VARYING ASSOCIATIONS







# Factors that predict childrens' environmental experiences and their perveived health and wellbeing





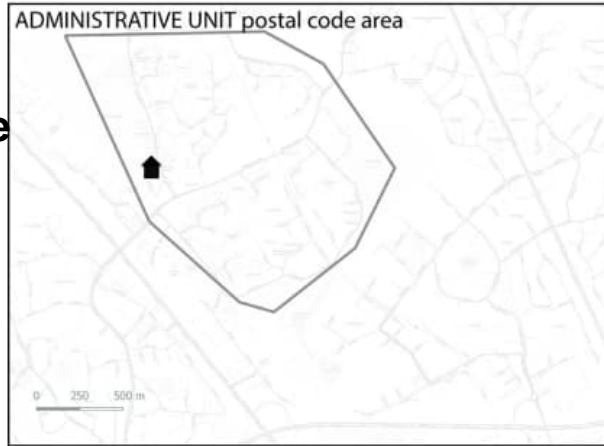
WHAT IS  
THE  
PROBLEM?



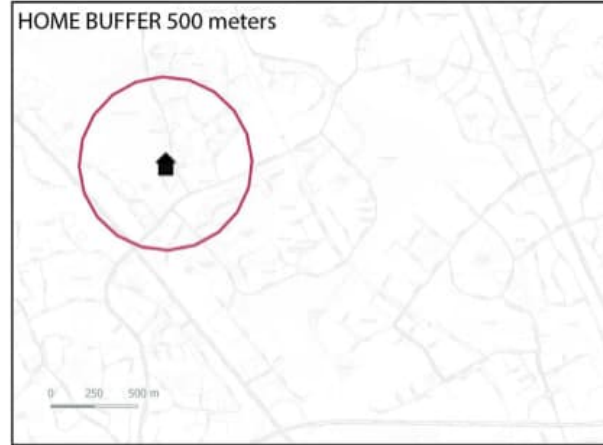
# DEFINING THE INDIVIDUAL, DYNAMIC ACTIVITY SPACE

Hasanzadeh, K. (2018) IASM: Individualized activity space modeler.  
*SoftwareX*, Volume 7, January - June 2018, Pages 138-142

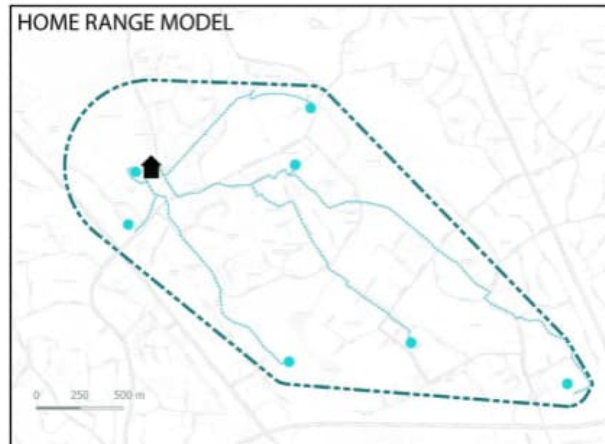
**1. Static administrative area**



**2. Static buffers around home**



**3. Dynamic, individual activity space**



**4. Dynamic fabric of an individual activity space**



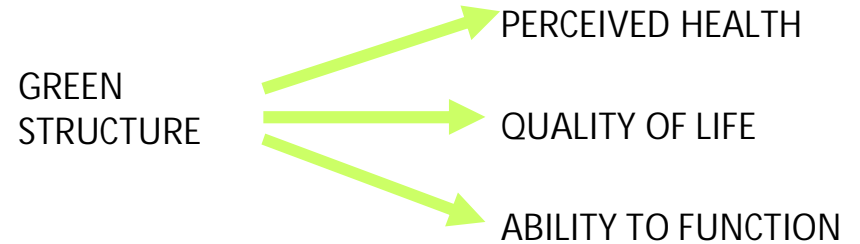
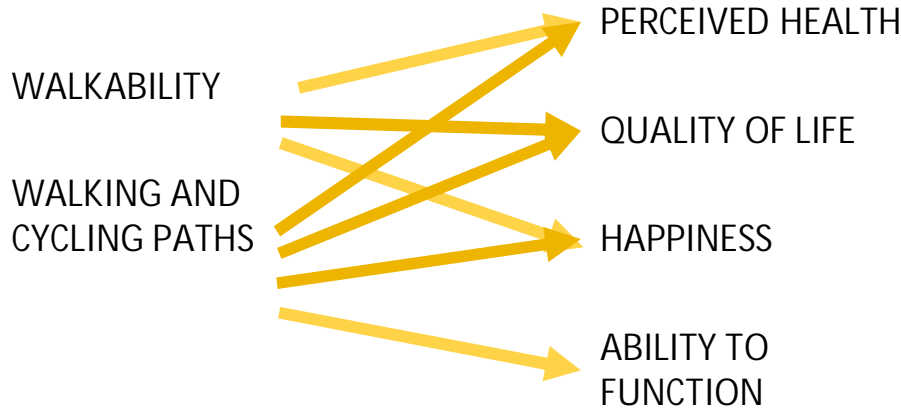
# ACTIVE AGING

**PhD project:**

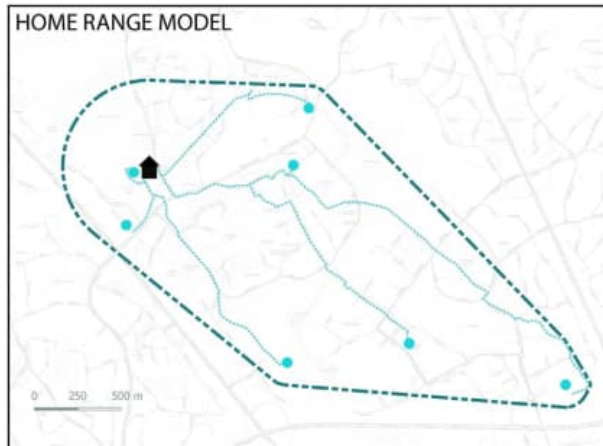
**Tiina Laatikainen**



# AGAIN: HOW ABOUT HEALTH & WELLBEING?



### 3. Dynamic, individual activity space



### 4. Dynamic fabric of an individual activity space

# RECENT STUDY: 14 CITIES, 10 COUNTRIES, 5 CONTINENTS

Urban structural characteristics promoting active living:



- Population density  $p=0.001$



- Intersection density  $p=0.019$



- Public transportation stop density  $p=0.0007$



- Number of parks  $p=0.010$

**68–89**  
min/week  
more  
physical  
activity

Sallis, J.F. et al. (2016) Physical activity in relation to urban environments in 14 cities worldwide: a cross-sectional study. *The Lancet* 6736(16):348.



# TO CONCLUDE: RESEARCH ON THE HEALTH PROMOTIVE CHARACTERISTICS OF LIVING ENVIRONMENT



# LINEAR PARKS!

Brown, G. Schebella, M.F. & Weber, D. (2014) Using participatory GIS to measure physical activity and urban park benefits. *Landscape and Urban Planning*, 121, 34-44.





**EE**

**Everyday mobility +  
Exposure to vitamin Green**



# HELSINKI MASTER PLAN PROJECT: Locations for infill development

## Support for the idea of urban boulevards?





# HOW ABOUT JOINT EFFECTS?

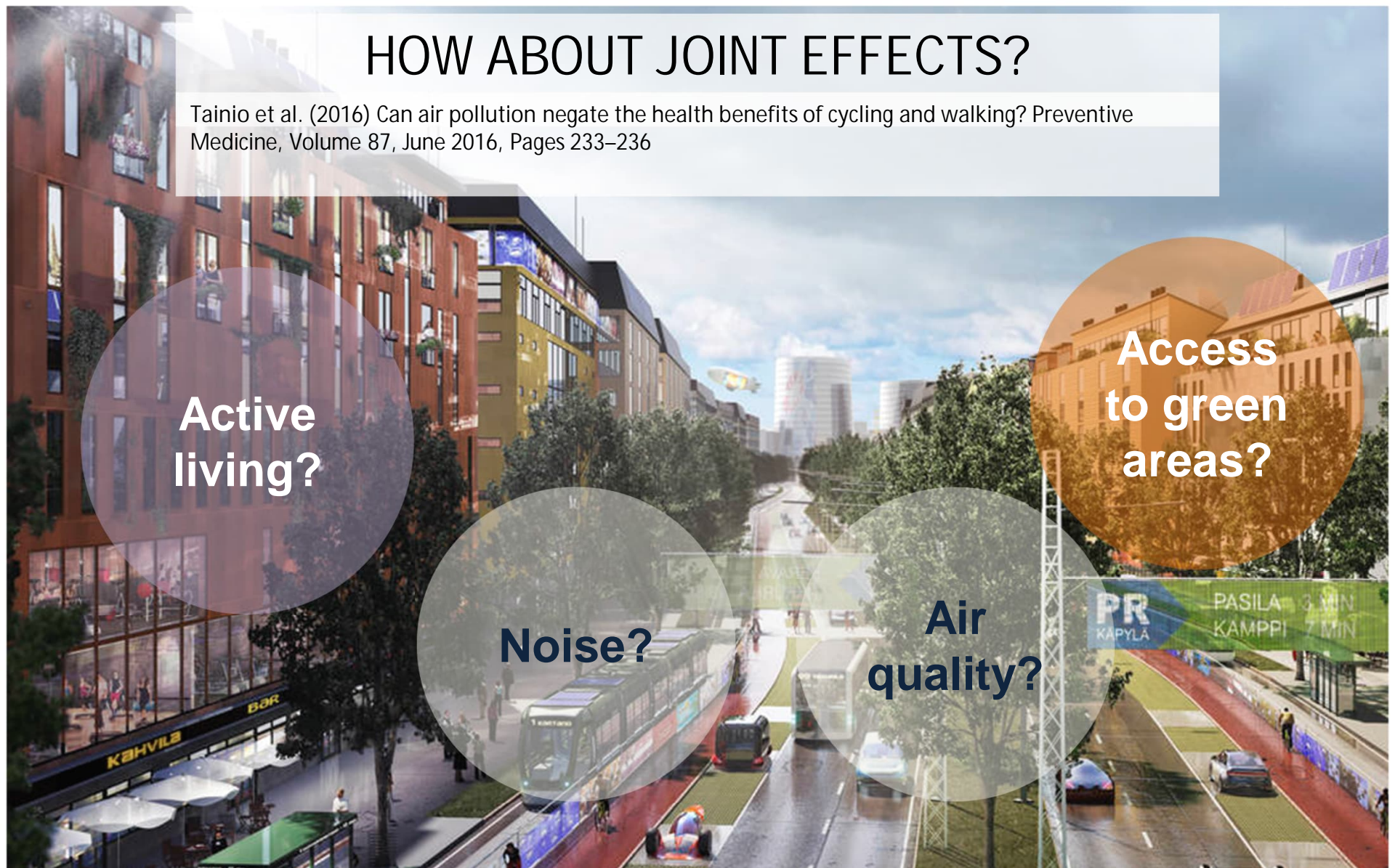
Tainio et al. (2016) Can air pollution negate the health benefits of cycling and walking? Preventive Medicine, Volume 87, June 2016, Pages 233–236

Active living?

Noise?

Air quality?

Access to green areas?





**THANK  
YOU!**