



PROMOTING MENTAL WELL-BEING IN OLDER AGE IN THE CITY

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Erasmus MC

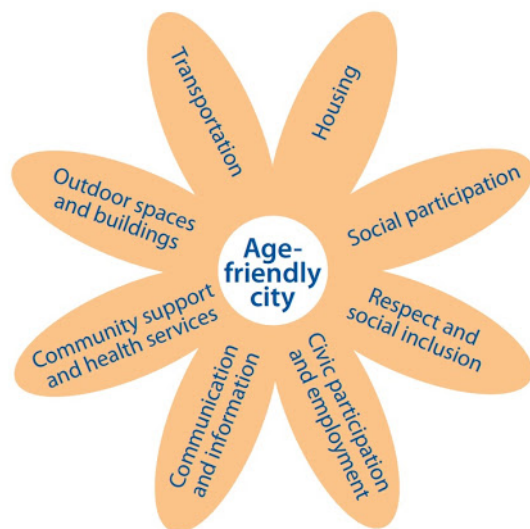
Mauricio Avendano
King's College London



Promoting mental well-being and healthy ageing in cities



Our contribution



Source: Global Age-friendly Cities: A Guide (World Health Organisation, 2007)



The Global Network for Age-friendly Cities and Communities

Looking back over the last decade,
looking forward to the next



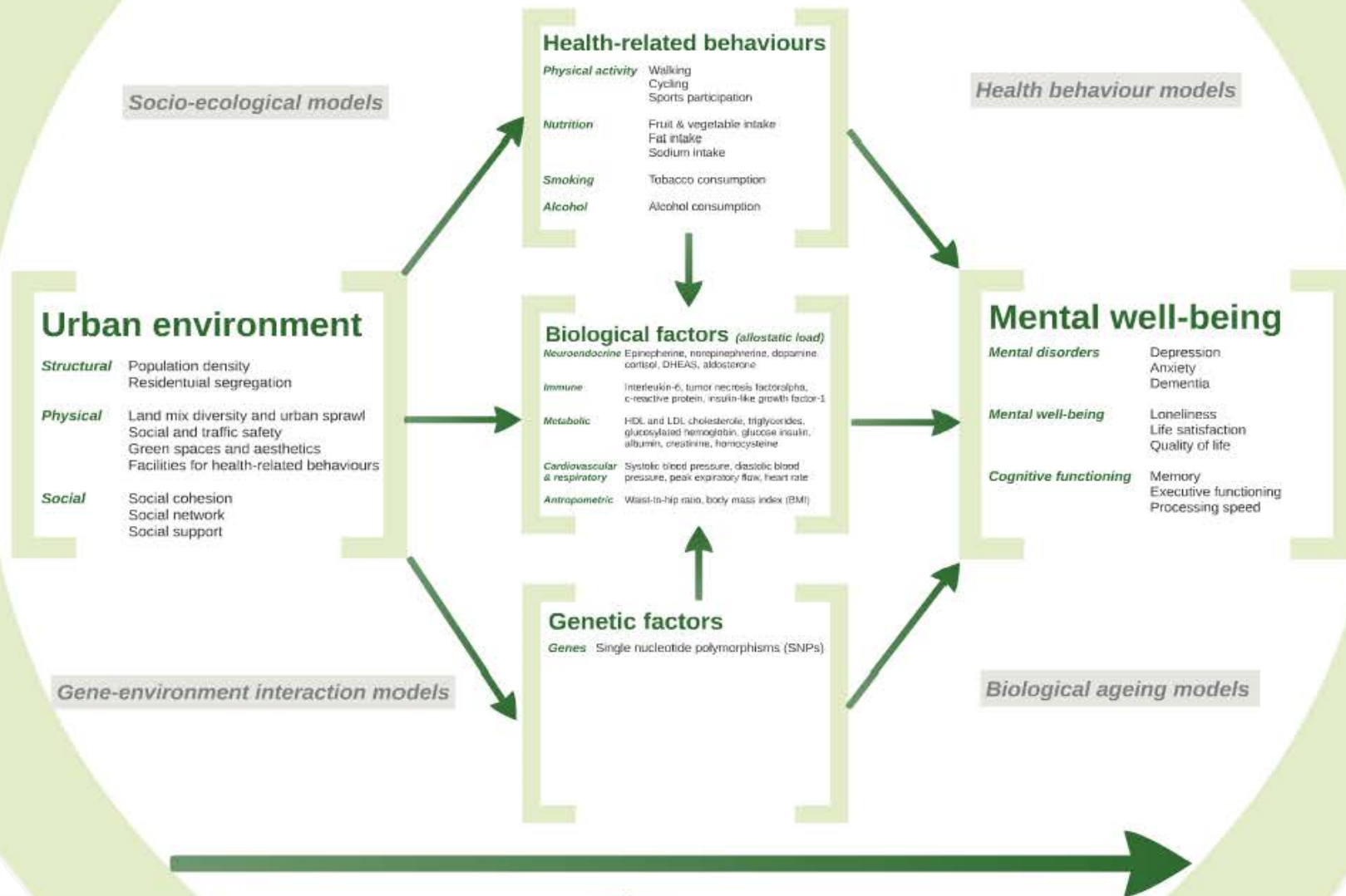


THE MINDMAP CONSORTIUM

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Drexel University Philadelphia	Ana Diez Roux	USA
McMaster University Hamilton	Parminder Raina	Canada
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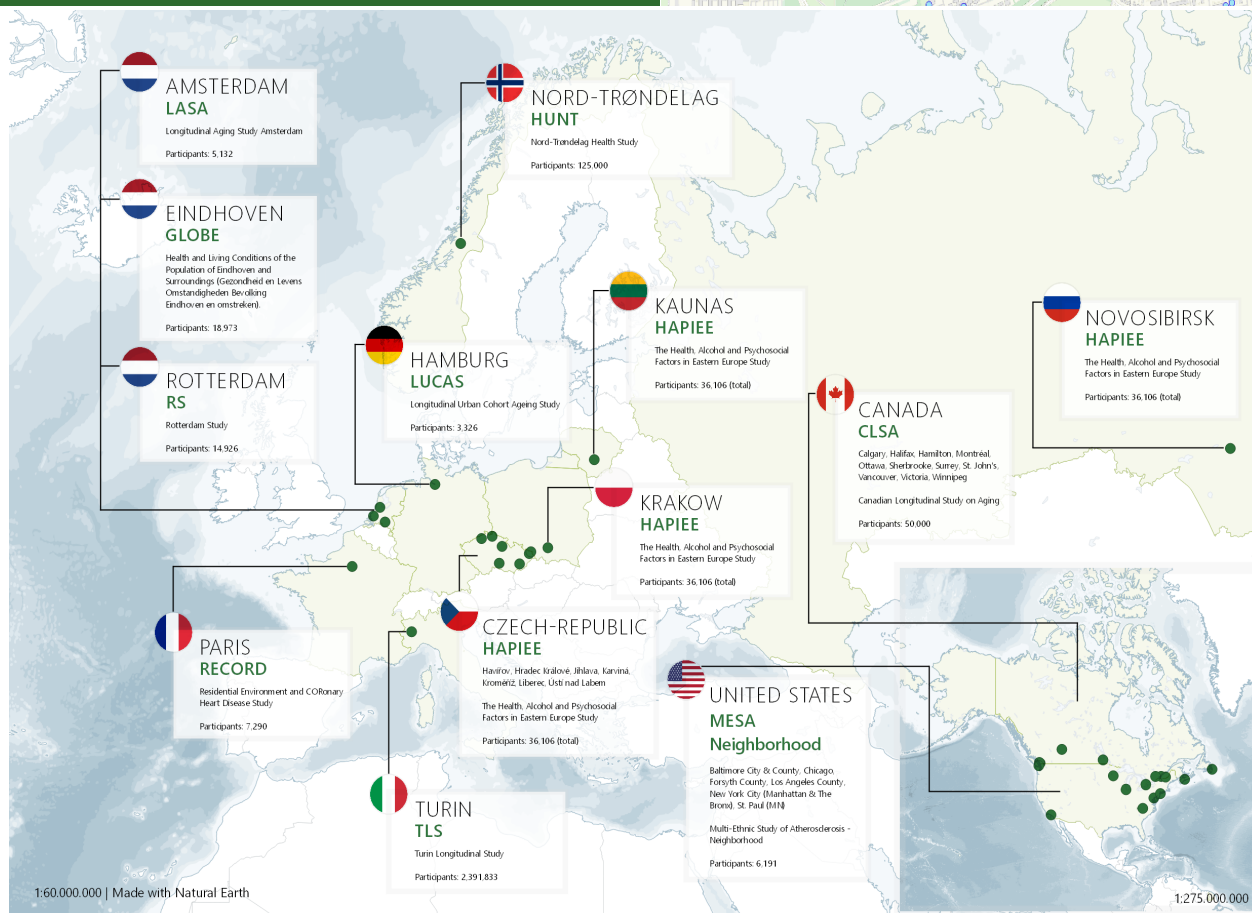
Urban policies





APPROACH

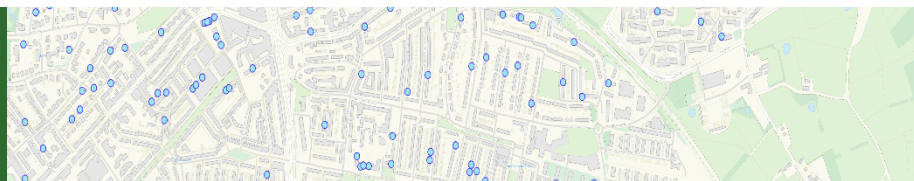
PARTICIPATING COHORTS





APPROACH

URBAN DATA COLLECTION



- **INSPIRE: European collaboration on spatial data:**
 - A substantial part of the requested environmental will be available for every European city as part of the INSPIRE directive

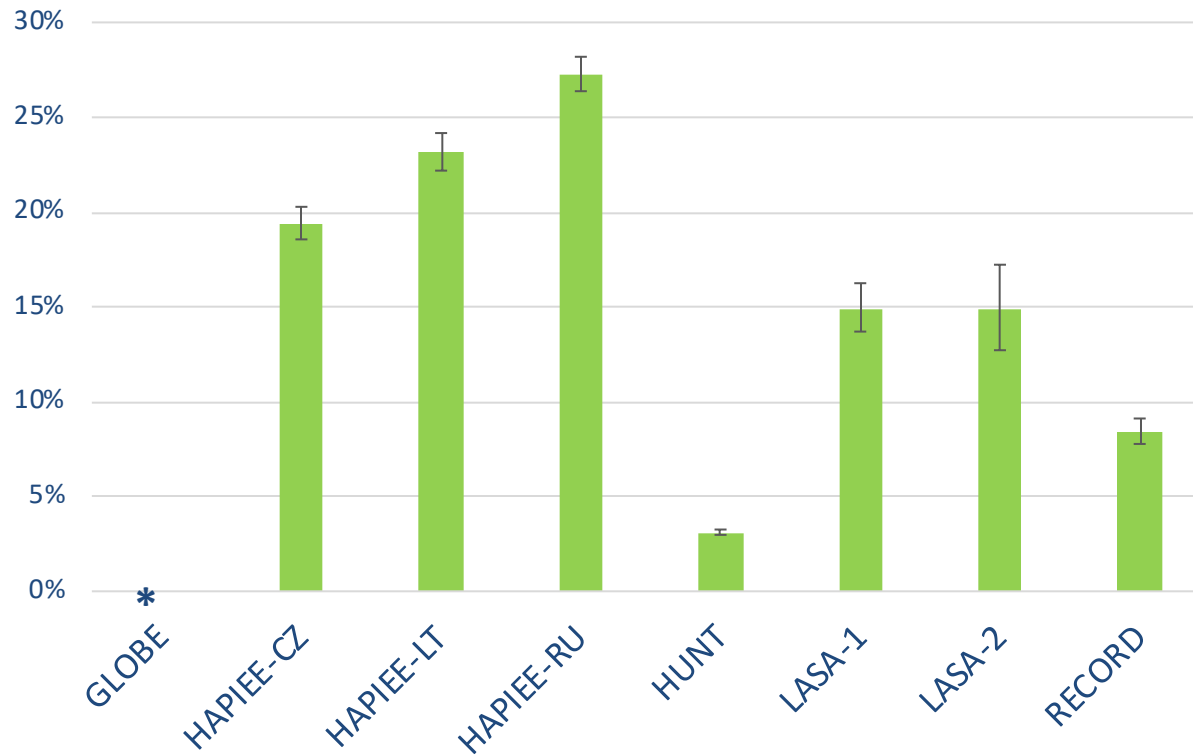
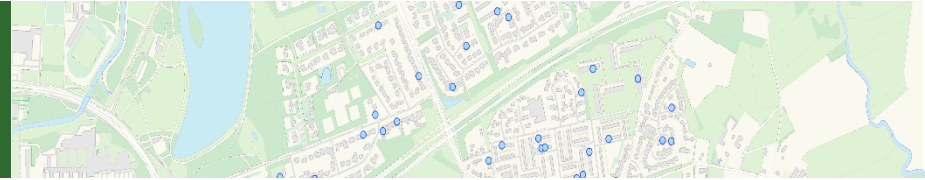


- **Green spaces**
- **Pollution**
- **Residential density**
- **Transportation**
- **Facilities**



VARIATION ACROSS STUDIES

PROBABLE DEPRESSION

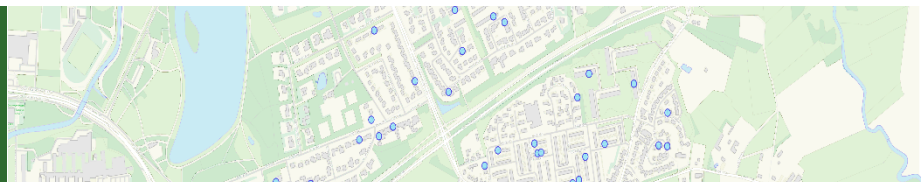


Ruiz et al., in preparation



POLICY RELEVANCE

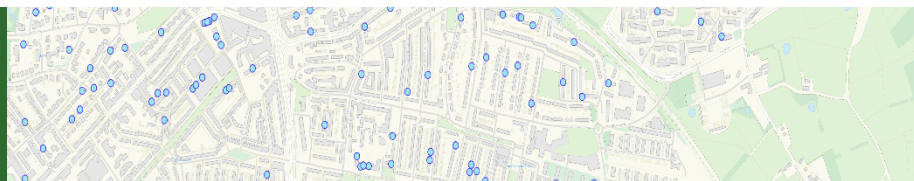
- **NEED FOR:**
- **COMPARATIVE APPROACH AND COLLABORATION**
- **COMPARATIVE URBAN DATA IMPORTANT**
- **CONTEXT DRIVEN UNDERSTANDING**





GREEN SPACE AND MENTAL HEALTH

CHANGES IN GREEN SPACE 2004 - 2011

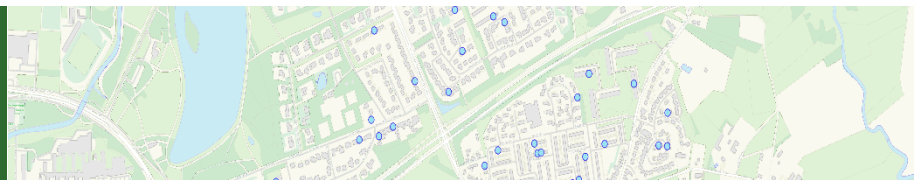


Noordzij et al., submitted



POLICY RELEVANCE

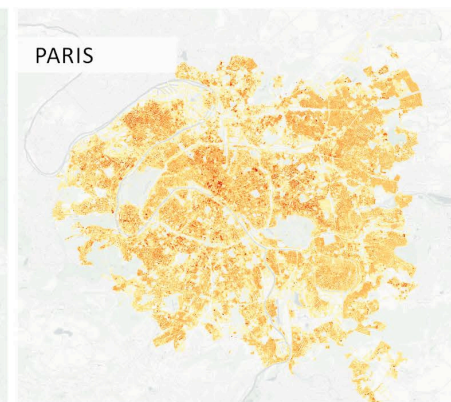
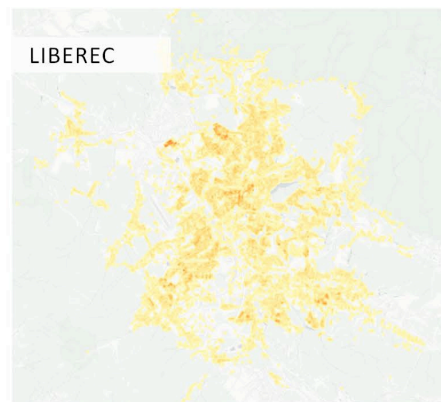
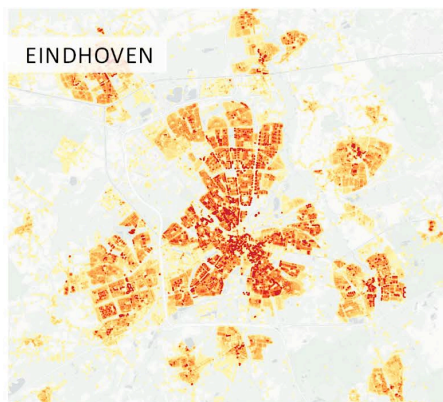
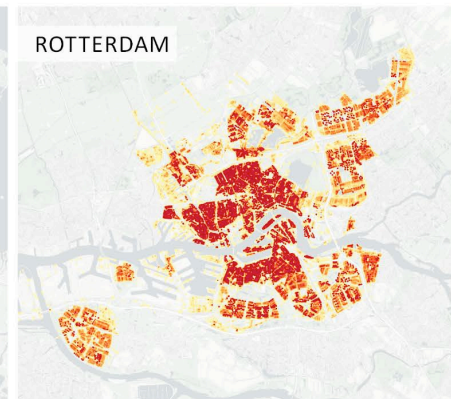
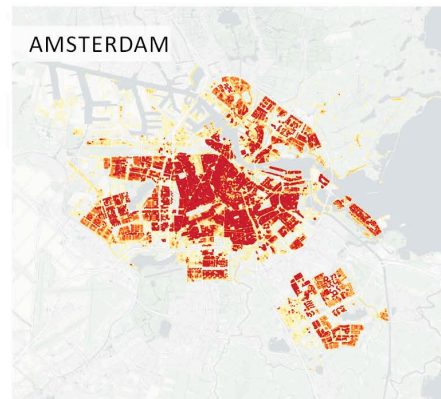
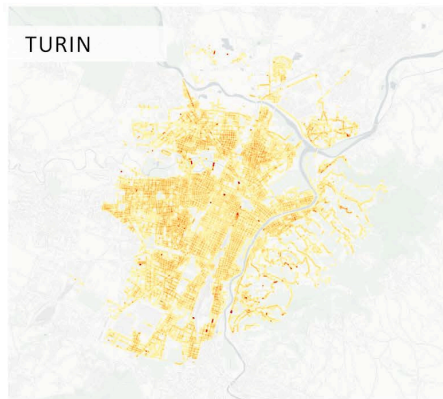
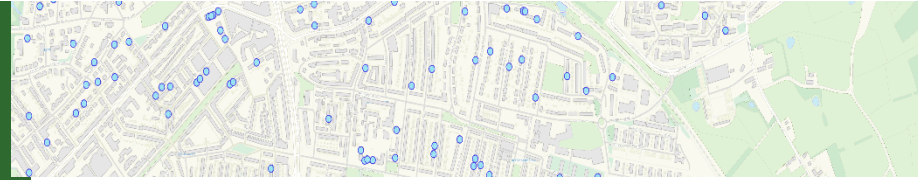
- CHANGES TO THE PHYSICAL ENVIRONMENT WOULD NEED TO BE SUBSTANTIAL TO IMPACT MENTAL WELLBEING AT THE POPULATION LEVEL
- SIMPLY ADDING MAY BE TOO SIMPLE





RESIDENTIAL DENSITY

WITHIN CITY VARIATION



Noordzij et al., submitted

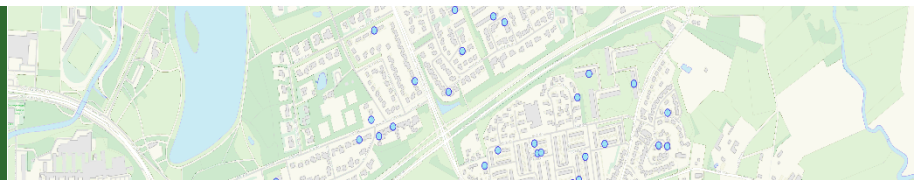


POLICY RELEVANCE



**BUILDING DENSE IS A
PROMISING STRATEGY, BUT
NOT A UNIVERSAL
RECOMMENDATION**

**EXPLORE FACTORS
SIMULTANEOUSLY: URBAN
DENSITY, GREEN, SAFETY**





POLICY RELEVANCE

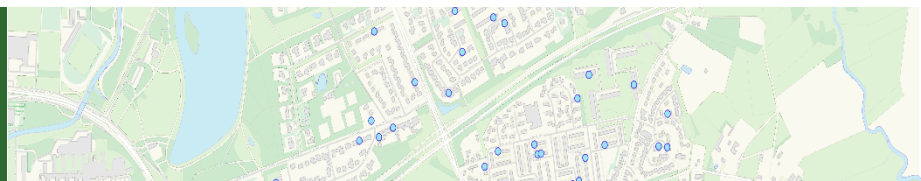
- **POLICIES THAT PROMOTE SOCIAL PARTICIPATION OFFER PROMISE TO IMPROVE THE MENTAL WELLBEING OF OLDER PEOPLE**



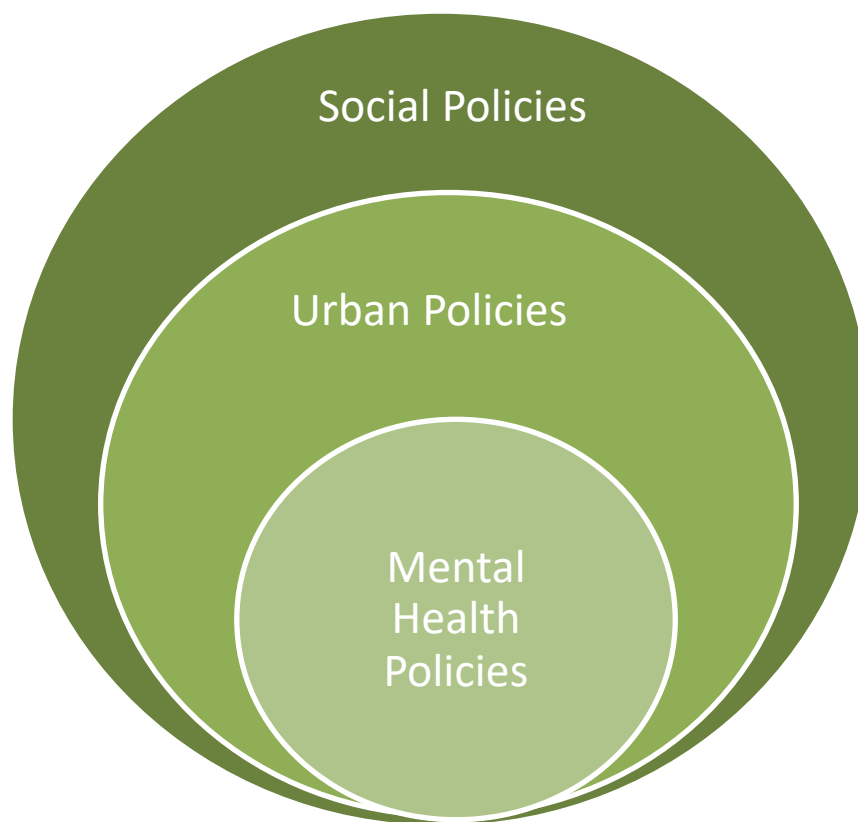


POLICY DATABASE

POLICY DOMAINS



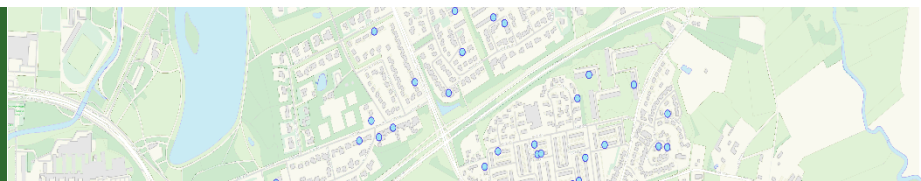
- Employment
- Participation
- Outdoor space
- Transport
- Housing



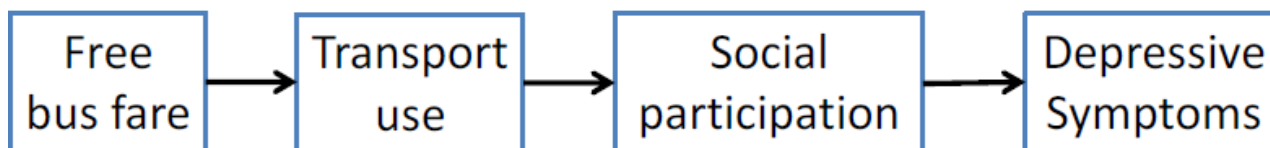


PUBLIC TRANSPORT AND DEPRESSION

RESEARCH QUESTIONS



- Did the introduction of free bus fares increase transport use among the eligible population?
- Does the increase in transport use as a result of bus fare eligibility reduce depressive symptoms

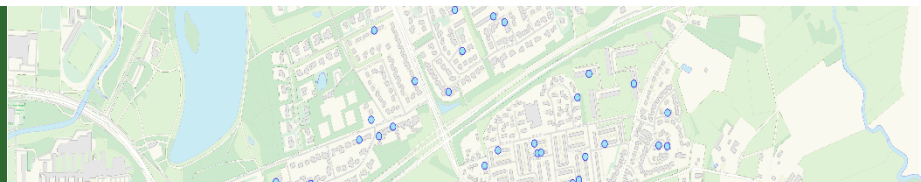


Reinhard et al., JECH 2018; 72 (5): 361-368



HOME-CARE AND DEPRESSION

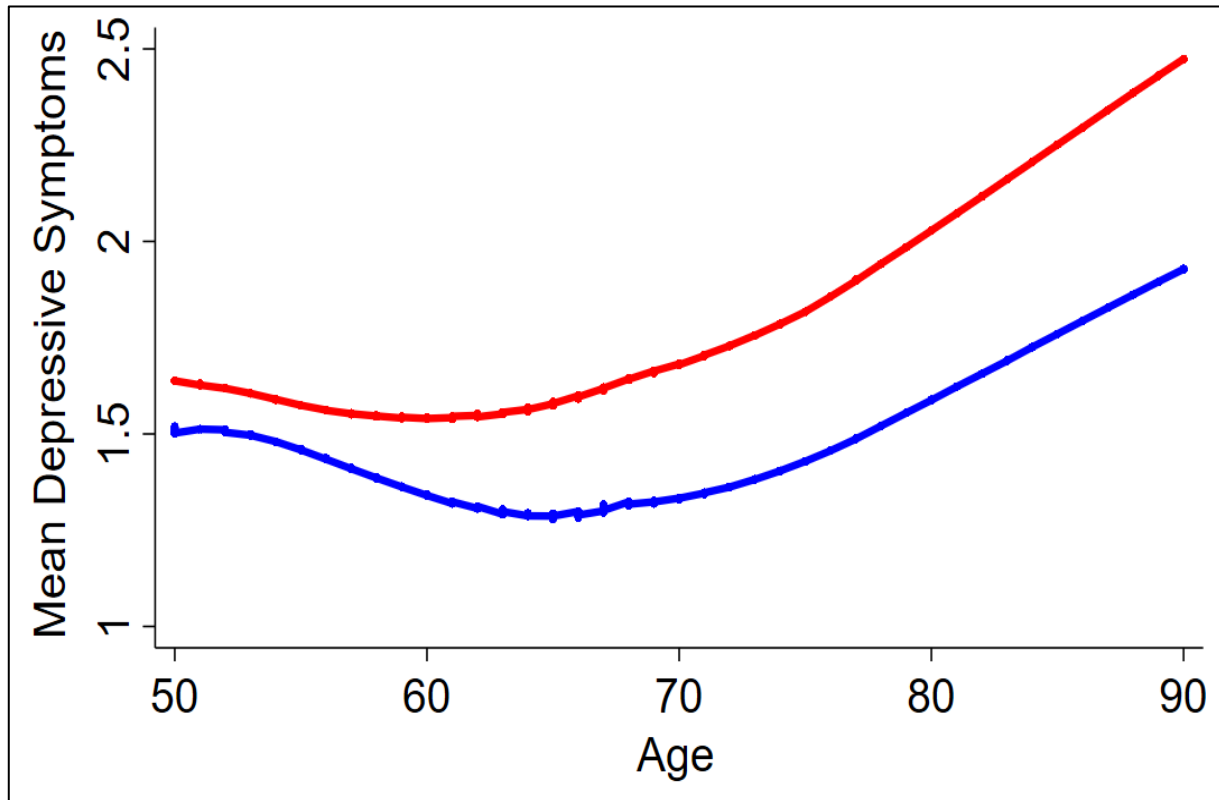
RESEARCH QUESTION



- **What are the welfare outcomes of home-LTC use for older people in Europe?**
- **Does the increase in care use as a result of eligibility to public programmes reduce depressive symptoms?**



MEAN DEPRESSIVE SYMPTOM (CESD) SCORE BY AGE



Non-users of
public transport

Public transport
users



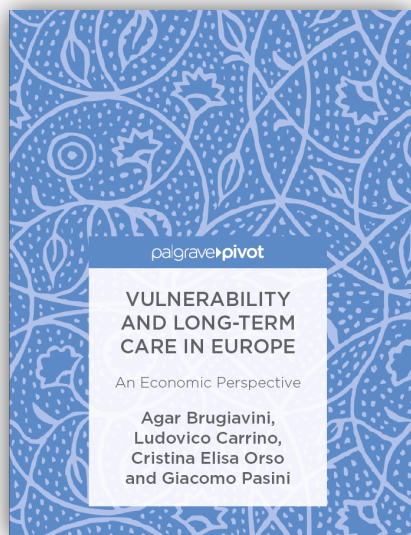
INCREASED TRANSPORT USE AS A RESULT OF THE BUS PASS REDUCES DEPRESSION AND IMPROVES COGNITION

	Effect Estimate
Depression scores	-0.952 (-1.712, -0.192)*
Total Cognitive Function	0.346 (0.017,0.674)*

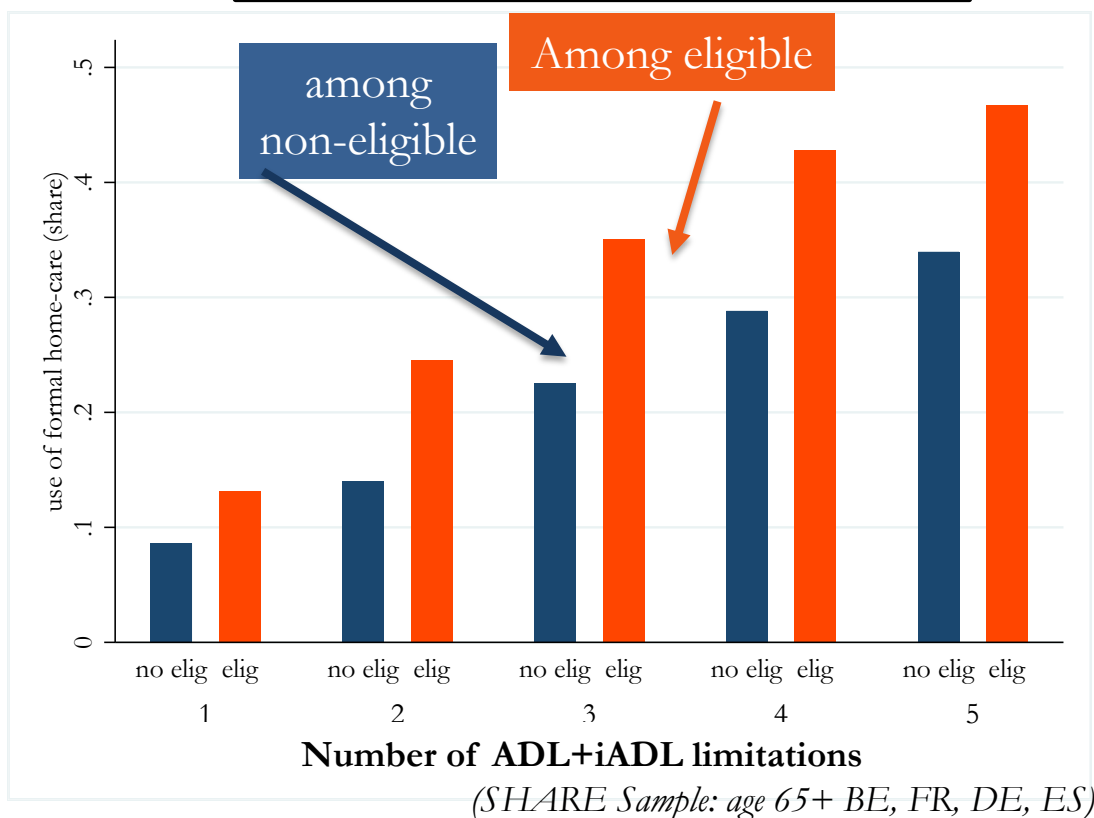


ELIGIBILITY TO HOME-CARE AS CRUCIAL DETERMINANT OF CARE USE

- Rules vary largely across Europe



Probability of formal home-LTC use



- eligibility → higher probability of formal-care use
 - Even among people with similar functional limitations

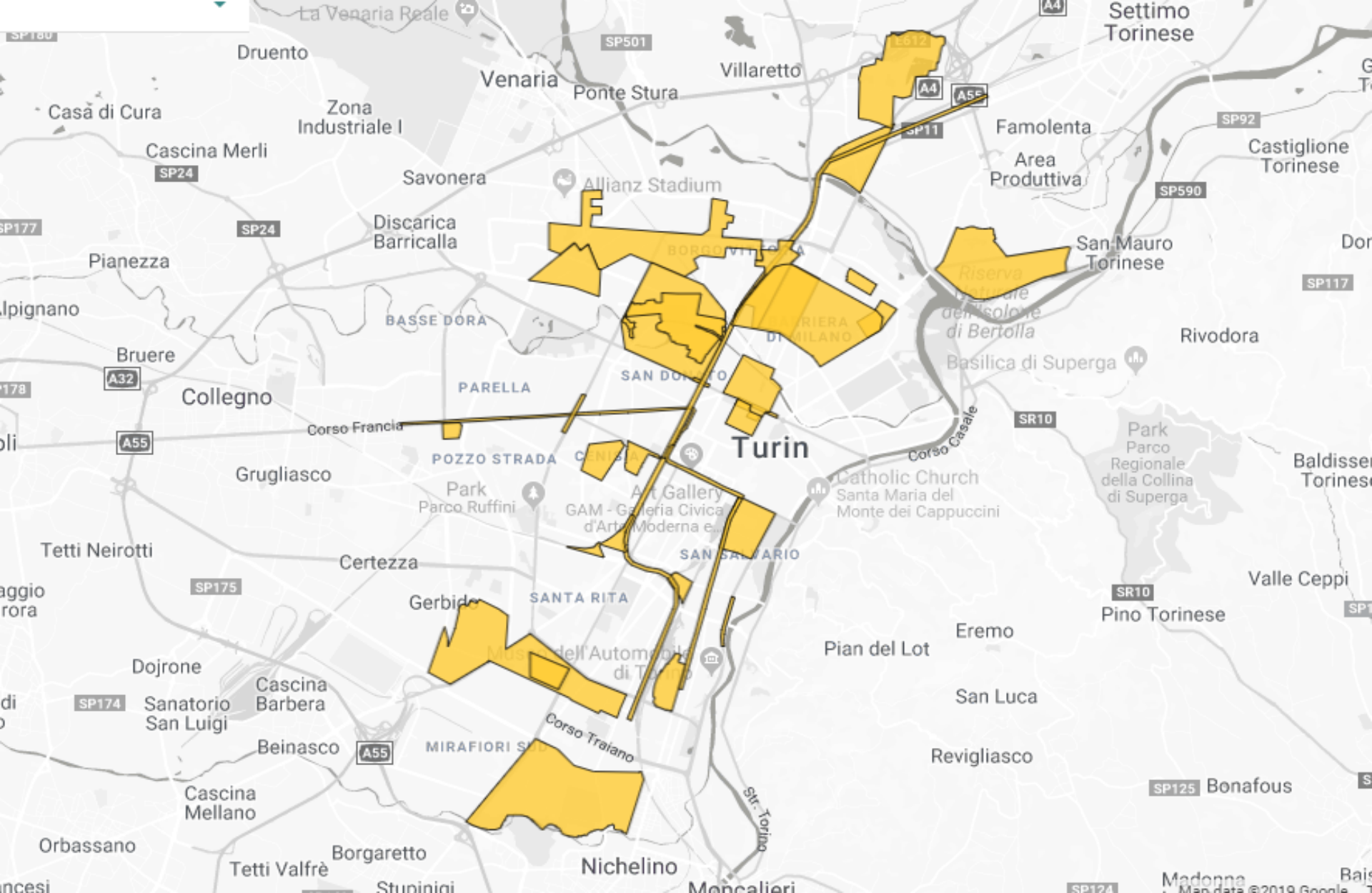
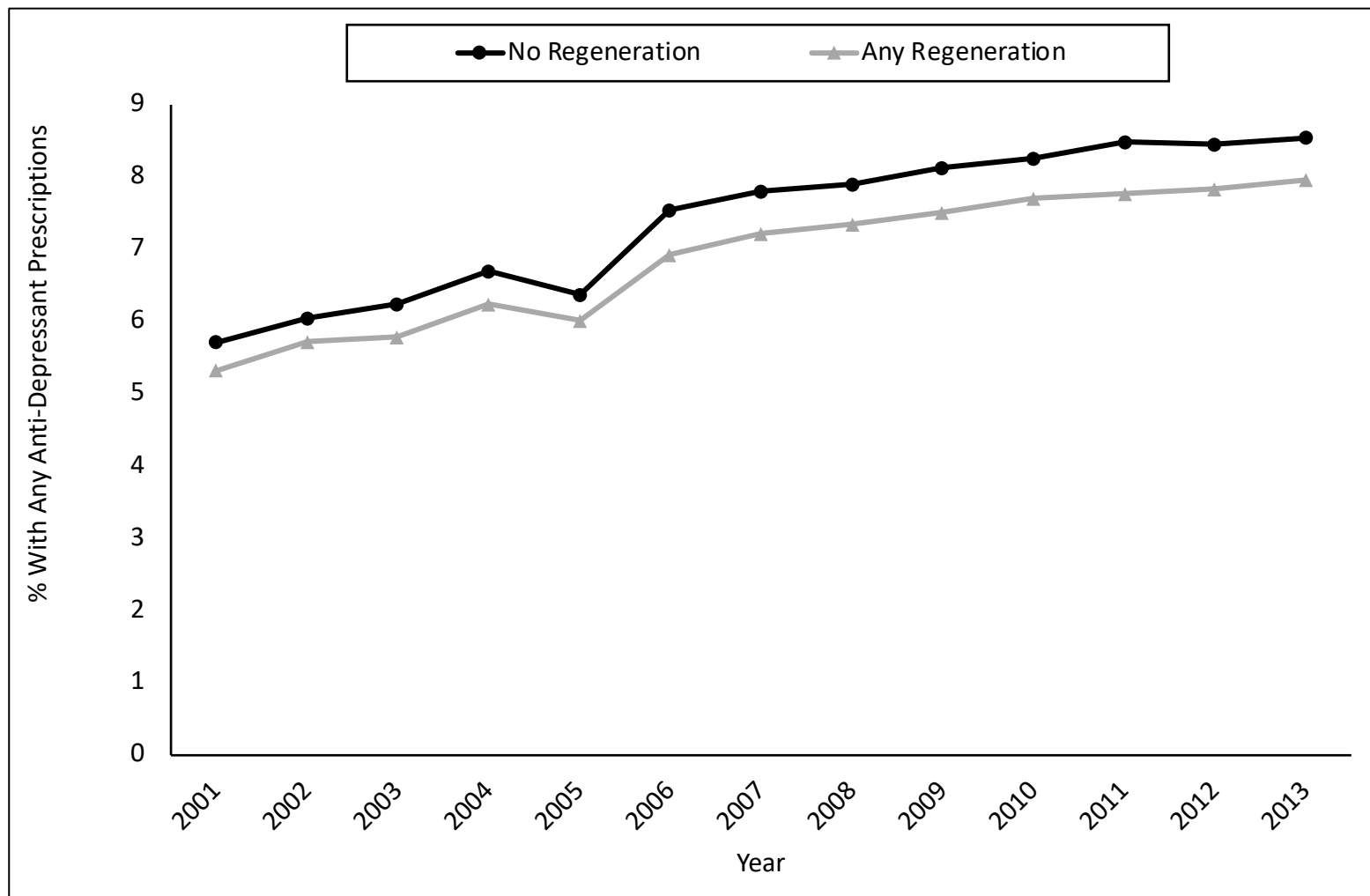


Figure 1: Location of urban regeneration interventions in Turin, 1985-2013

<http://www.urbantoolbox.it/>



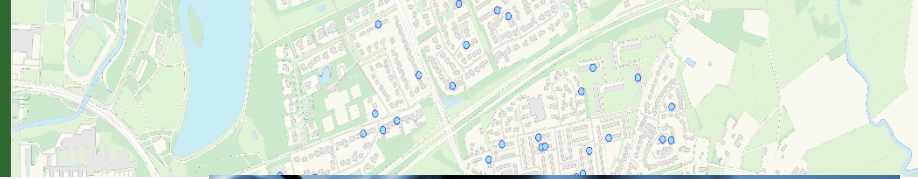
URBAN REGENERATION AND ANTIDEPRESSANT USE IN TURIN, ITALY





POLICY RELEVANCE

SYSTEMS APPROACH



■ Adopt a systems approach

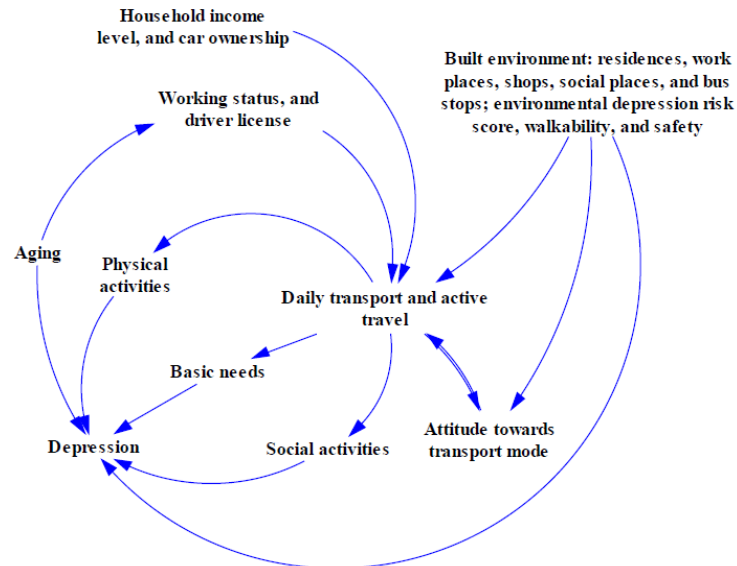
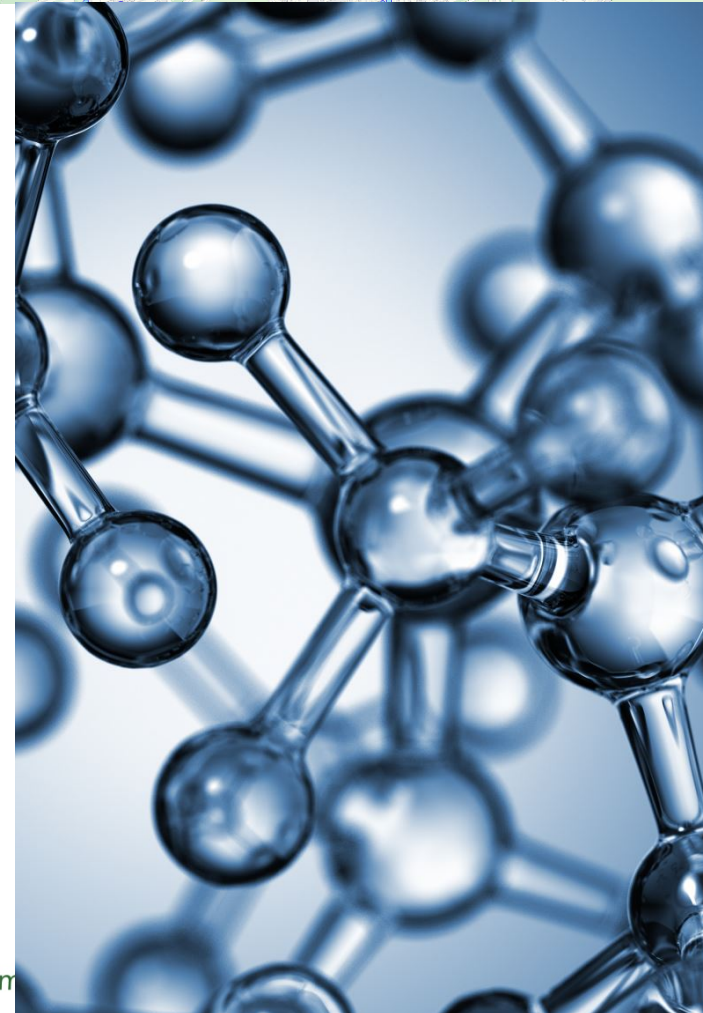


Figure 1. Framework for an agent-based model of daily transport and depression among older adults.





URBAN ENVIRONMENTS, AGEING AND MENTAL WELLBEING

- Physical changes threaten mental well being older residents (segregation, less green..)
- COVID provides an opportunity to emphasize the importance of healthy urban environments
- Important entry point via the social environment
- Systems approaches allow answering policy relevant questions



FURTHER INFORMATION

www.mindmap-cities.eu

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