MINDMAP
Promoting mental well-being and healthy ageing in cities

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THE MINDMAP CONSORTIUM – PROJECT OVERVIEW
AND ITS GERIATRIC PERSPECTIVE ON PROMOTING MENTAL WELL-BEING AND HEALTHY AGING IN CITIES
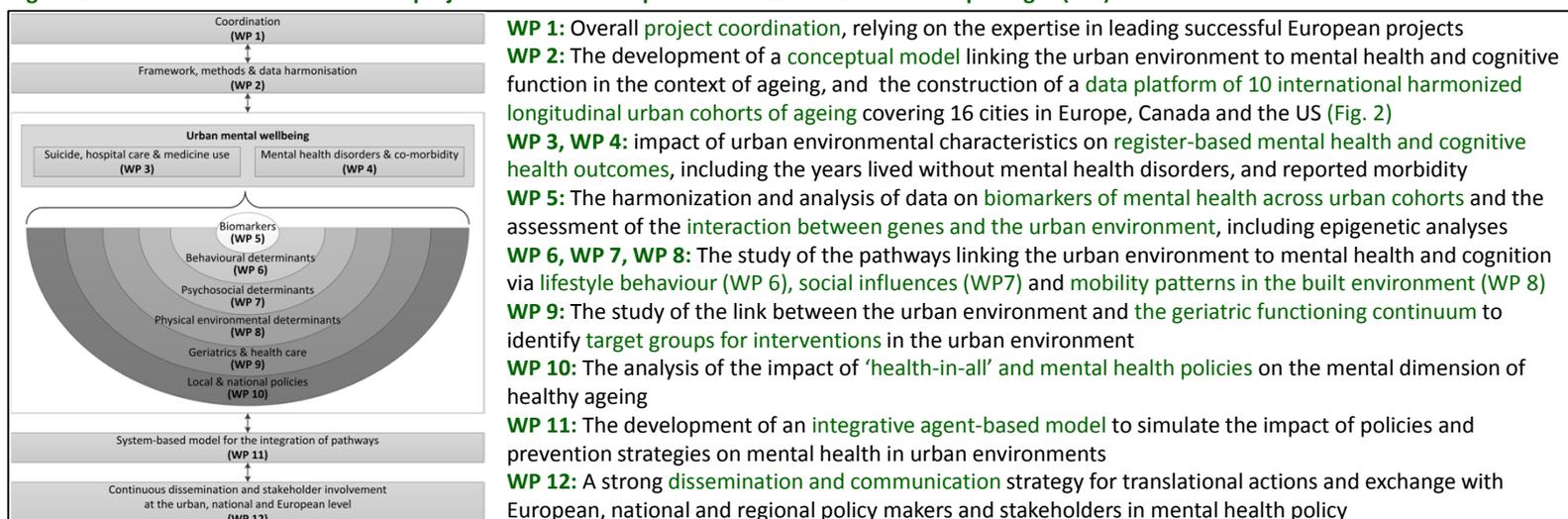
Background
Major depressive disorder, dementia, anxiety disorders, and substance abuse affect a substantial part of the European older population. Over 70% of Europeans reside in cities, and this percentage will increase in the next decades. Urbanization and ageing have enormous implications for public mental health. Cities pose major challenges for older citizens, but also offer opportunities for the design of policies, clinical and public health interventions that promote mental health.

Aim of the MINDMAP project
The overall aim of the MINDMAP project (2016 – 2019) is to identify the opportunities offered by the urban environment for the promotion of mental wellbeing and cognitive function of older individuals in Europe (**Fig. 1**). To achieve this, the project will advance understanding by **bringing together longitudinal studies across cities in Europe, the US and Canada** to unravel the causal pathways and multi-level interactions between the urban environment and the individual determinants of mental wellbeing in older age. The project will examine the causes of variation in mental well-being and disorders in old age both within as well as between cities and identify national and urban policies for the prevention and early diagnosis of mental conditions and disorders of older people. Knowledge will significantly contribute to the establishment of preventive strategies in urban settings to promote the mental dimension of healthy ageing; reduce the negative impact of mental disorders on co-morbidities; and preserve cognitive function in old age **(www.mindmap-cities.eu)**.

Figure 1: The structure of the MINDMAP project and brief description of the 12 MINDMAP work packages (WP)

WP 1: Overall project coordination, relying on the expertise in leading successful European projects
WP 2: The development of a conceptual model linking the urban environment to mental health and cognitive function in the context of ageing, and the construction of a data platform of 10 international harmonized longitudinal urban cohorts of ageing covering 16 cities in Europe, Canada and the US (Fig. 2)
WP 3, WP 4: impact of urban environmental characteristics on register-based mental health and cognitive health outcomes, including the years lived without mental health disorders, and reported morbidity
WP 5: The harmonization and analysis of data on biomarkers of mental health across urban cohorts and the assessment of the interaction between genes and the urban environment, including epigenetic analyses
WP 6, WP 7, WP 8: The study of the pathways linking the urban environment to mental health and cognition via lifestyle behaviour (WP 6), social influences (WP7) and mobility patterns in the built environment (WP 8)
WP 9: The study of the link between the urban environment and the geriatric functioning continuum to identify target groups for interventions in the urban environment
WP 10: The analysis of the impact of 'health-in-all' and mental health policies on the mental dimension of healthy ageing
WP 11: The development of an integrative agent-based model to simulate the impact of policies and prevention strategies on mental health in urban environments
WP 12: A strong dissemination and communication strategy for translational actions and exchange with European, national and regional policy makers and stakeholders in mental health policy

WP 9: The geriatric perspective on mental health and frailty within LUCAS

MINDMAP partner Albertinen-Haus Centre for Geriatrics and Gerontology Hamburg, Germany will adopt the geriatric perspective by acknowledging mental health and cognitive functioning as essential elements of the dynamic process of frailty. An understanding of the mental dimension of ageing requires incorporating the reciprocal relationships between mental and physical frailty. Early disturbances in mental and cognitive functioning can influence physical function and mobility, a major prerequisite of independence; at the same time, physical frailty predicts the onset and course of late-life depression. These findings highlight the importance of preventing mental health disorders as a strategy to reduce frailty in older age. MINDMAP stresses the importance of early detection of pre-clinical stages of frailty, including mental aspects, as a core component of functional competence among older persons. We will apply **the LUCAS Functional Ability Index [1]**, an innovative conceptual approach and screening tool to identify individuals in the geriatric functioning continuum, thereby considering both resources and risk factors. This index was developed in the **Longitudinal Urban Cohort Ageing Study, LUCAS (Fig. 2)** and will enable the identification of target groups (within the heterogeneous population of older individuals) for early identification and targeted prevention, and for personalized clinical interventions, within networks of mental health care-service provision [2].

Figure 2: The MINDMAP Cohorts and Cities
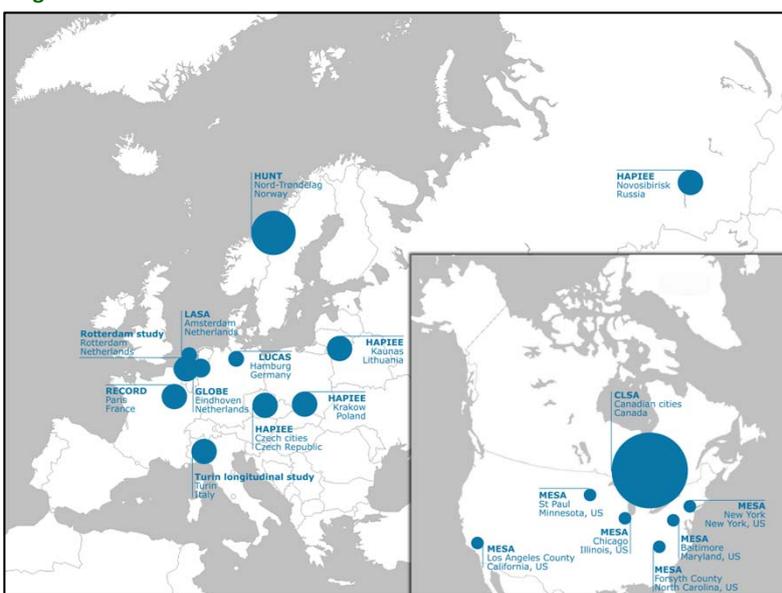
References:
[1] Dapp U, Minder C, et al. Long-term prediction of changes in health status, frailty, nursing care and mortality in community-dwelling senior citizens - results from the LUCAS study. BMC Geriatrics 2014; 14:141. http://www.biomedcentral.com/1471-2318/14/141
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