

# PROMOTING POPULATION HEALTH AND EQUITY IN EUROPE

## FROM EVIDENCE TO POLICY

The EURO-HEALTHY project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 643398





# Acknowledgments

This study was developed within the scope of the investigation project EURO-HEALTHY “Shaping EUROpean policies to promote HEALTH equityY” which received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement N° 643398. The sole responsibility for the content of this report lies with the authors.

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## EURO-HEALTHY Consortium

- (UC) University of Coimbra
- (ASPB) Agència de Salut Pública de Barcelona
- (PHE) Public Health England
- (UPO) Paris Nanterre University
- (IST-UL) Instituto Superior Técnico, Universidade de Lisboa
- (UM) Maastricht University
- (UCL) University College London
- (BHT) Beuth University of Applied Sciences Berlin
- (KI) Karolinska Institute
- (UoA) National and Kapodistrian University of Athens
- (CUP) Charles University
- (CSI-Piemonte) Information System Consortium
- (EUBA) University of Economics in Bratislava
- (VUB) Vrije Universiteit Brussel
- (ASL TO3) Local Public Health Agency Torino 3





## Summary

The EURO-HEALTHY project (Shaping EUROpean policies to promote HEALTH equity) is a three-year Horizon 2020 research project launched in January 2015 aiming to advance knowledge of policies that have the highest potential to enhance health and health equity across European regions with particular focus on urban areas.

Within the EU Horizon 2020 research and innovation programme, the call “Foresight for health policy development and regulation” underpinned the need for more meaningful information, particularly on the regional health inequalities within the EU. Consequently, EURO-HEALTHY developed a comprehensive and structured framework of analysis, integrating and quantifying key factors impacting population health and health inequalities, taking the EU’s diversity into account and foreseeing the impact of policies. Following a socio-technical approach, the sound methods were built through highly participatory processes involving a large group of multidisciplinary experts and key stakeholders at different geographical levels. The methods were applied to analyse health and identify geographical health inequalities in 269 NUTS 2 regions, ten selected metropolitan areas and two city case studies.

In this publication, we present some of the main findings, conclusions and recommendations of the EURO-HEALTHY project. The booklet consists of: I) Profiles of each Work Package summarizing their work and II) Fact sheets that present an overview of evidence on thematic areas going from the relationship between health status and a wide range of determinants, to specific methodological aspects including the evaluation of health and of policies with potential to promote health and health equity.

Our desire is that the evidence shared in this informative booklet would be a starting point for policymakers and concerned stakeholders to enhance their understanding on what are the drivers of health inequalities in Europe and, thus be a trigger to an extended dialogue on what are the policies having the highest benefit in promoting more equitable and healthy environments at different levels (European, regional and local).

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### BACKGROUND

The dissemination of EURO-HEALTHY project has been aimed at academics, researchers and policy makers. UCL and other participating partners ensure, with the help of their communication teams, that research outcomes are widely and effectively disseminated to relevant actors. Partners involved in this work package have been closely collaborating with other work packages to draw on the achieved results. Internal and external dissemination to a wide range of potential users has been achieved through a combination of different communication tools.

### OBJECTIVES

The aim of Work Package 8 “Dissemination“ has been to communicate and translate the work of the EURO-HEALTHY research consortium in ways that target a wide range of audiences by fulfilling the following objectives:

- To develop a dissemination plan (Task 8.1).
- To develop a project identity (Task 8.2).
- To carry out internal dissemination of communication and research results within project partners through the following channels (Task 8.3).
- To Internal dissemination between partners from the EURO-HEALTHY project will be carried out through an intranet (Task 8.3.1).
- To carry out external dissemination through external channels (Task 8.4).
- To collaborate with institutes and decision-makers (Task 8.4.1).
- To develop a public website (Task 8.4.2).
- To establish Twitter and Facebook accounts (Task 8.4.3).
- To write and publish a periodic newsletter (Task 8.4.4).
- To disseminate videos of interviews with lead EURO-HEALTHY researchers and the two pilot studies carried out in metropolitan areas (Task 8.4.5).
- To facilitate a space on the EURO-HEALTHY website to store the WebGIS platform (Task 8.4.6).
- To carry out the dissemination of oral presentations presented in scientific conferences (Task 8.4.7.1).
- To carry out the dissemination of scientific publications carried out by EURO-HEALTHY partners (Task 8.4.8).
- To establish relationships with the media (Task 8.4.9).

## RESULTS

Project identity, including the project logo as well as templates for range of documents (such as power point or poster templates or letter heads), were developed in early months of the project. Electronic communication through emails, Twitter and Facebook were produced in the first six months of the project. Furthermore, one of the key products of WP8, the website, was developed within the first nine months. Internal communication was carried out from the first months through an internal server and via email.

The address of the public website is *www.EURO-HEALTHY.eu* and it is maintained by UCL and continuously updated in collaboration with all partners. It has several sections describing the main aims of the project, project partners and news among others.

Both Facebook and Twitter accounts for the project were set up. These social media allowed fast communication of project results to scientific and non-scientific community as well as informing partners about important documents added to the project website. Facebook was very useful for fast and dynamic posting of project activities and conferences or meetings related to EURO-HEALTHY attended by project partner researchers.

Regarding the newsletters and leaflet, these were written in collaboration with partners and published. Wide dissemination of these was performed via extensive mailing lists, and publication on Twitter, Facebook and the website. Furthermore, the EURO-HEALTHY Publications Committee and Guidelines were established.

## RECOMMENDATIONS

- To carry out successful dissemination of research findings to non-academic audiences it is important to collaborate with relevant stakeholders from the beginning of the development of research projects. Collaborating with decision-makers from the earliest stages of the research process will enable to tailor outputs which will be policy relevant and to shape research question in a way to make these useful for policy and decision making.
- Working together with decision makers will not only assist in knowledge translation for researchers but will also include decision makers in the research process making them familiar with the importance of producing evidence in a systematic and scientific way and its relevance for research, policy implementation and programme monitoring and evaluation.

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# FACT SHEETS

**2.**

1. The evolution of socioeconomic inequalities in mortality in nine metropolitan areas
2. The mortality attributable to air pollution
3. The reduced mortality due to higher exposure to green spaces
4. Healthcare access and avoidable mortality
5. Involving key stakeholders in the EURO-HEALTHY
6. The selection of indicators to evaluate European population health
7. The availability of population health indicators across the European regions
8. Using the MACBETH socio-technical methodological approach to build the EURO-HEALTHY PHI
9. The geography of the EURO-HEALTHY Population Health Index
10. Devising and testing a novel methodology for the evaluation of policies under European population health scenarios
11. Building the EURO-HEALTHY scenarios to understand which driving forces may play a role in the evolution of Population Health inequalities in Europe
12. Air quality strategies on public health and health equity in Europe
13. European Structural and Investment funds – a tool with potential to reduce health inequity in Europe?
14. Effective programmes for equity in population health in the European Union

# 1. **THE EVOLUTION OF SOCIOECONOMIC INEQUALITIES IN MORTALITY IN NINE METROPOLITAN AREAS**

## WHY IS IT IMPORTANT?

Socioeconomic inequalities in health tend to be larger in urban areas with disadvantaged and poor populations being concentrated in marginalized neighbourhoods, usually inner city areas, and having higher incidence of many diseases<sup>1</sup>. However, the evolution of intra-urban inequalities in health and specifically in mortality have been few analysed in European contexts and specially the changes that have occurred during the economic crisis that started in 2008.

## WHAT WE DID

For this reason, one of the objectives of this Work Package was to analyse the evolution of socioeconomic inequalities in mortality in nine metropolitan areas, before and after the starting of the financial crisis, which we present in this section. We performed an ecological study of trends based on three periods (2000-2003, 2004-2008 and 2009-2014). The units of analysis were the small areas of nine European cities/metropolitan areas (Athens Metropolitan Area, Barcelona, Berlin plus Brandenburg, Brussels-Capital Region, Lisbon Metropolitan Area, London, Prague, Stockholm and Turin). We calculated a composite deprivation indicator including unemployment, percentage of manual workers, percentage of people with primary education and percentage of people with university education. The mortality indicator used for the analysis was the Standardized Mortality Ratio (SMR). The SMR is dependent on population size, thus areas with low population tend to present very unstable estimates. For this reason we used Bayesian methodologies to smooth the SMR (sSMR), specifically we used the hierarchical Bayesian model proposed by Besag, York and Mollié (BYM).

## WHAT WE FOUND

The maps show that in most of the cities and for most of the causes, the distribution of the composite deprivation indicator is similar to the distribution of sSMR. As an example, Figure 1 shows for men and women, the deprivation indicator and the sSMR (all causes of death) for Lisbon, London and Barcelona in the three periods. It can be seen how the pattern is similar for the three periods. Socioeconomic inequalities in mortality are more important for men than for women and they tend to be stable through the years.

## WHAT WE FOUND

In the scientific literature review, 1,522 records were retrieved. The scope of the review included journal articles, book chapters, presentations, abstracts, and conference proceedings, among others. Preliminary results show that the aim of the retrieved articles varied, and included various types of analyses (impacts of ESIF on domestic policy, regional funding absorption, and expenditure efficiency), opinion pieces on current ESIF performance, and reflections on future challenges and recommendations regarding ESIF fund allocation. Most retrieved articles did not mention health or health impact specifically. Regarding the grey literature review, the structure ESIF fund allocation differed tremendously between member states. Where some countries only disseminated nationwide allocation intentions, many had operational programmes in place for each of their NUTS 2 regions. Further differences were seen in the structuring of operational programmes, as countries either disseminated intended fund allocation per investment theme, or per specific fund. Intended investments differed per member state in accordance with the local context. A comprehensive database of ESIF-funded projects or project evaluations was lacking and prevented a more detailed insight in ESIF project allocations.

## KEY MESSAGES

- ESIF offer opportunities to reduce inequalities among EU regions thus indirectly contributing to health equity.
- While ESIF contribute to reduce health inequalities in Europe it is difficult to assess the actual impact as health implications are not in the focus of most of the studies analysing ESIF funds.
- As health interventions within the ESIF are not always labelled as health, policy makers should draw to adopt the health in all policies approach.
- The potential of ESIF for improving health equity in EU needs further understanding by national, regional and local decision makers.
- Data on the use of structural funds is not comprehensively collected at EU or member state level. A comprehensive data base on ESIF projects would be beneficial for analysing distribution patterns and help with transparency of funding allocation.

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# 14. **EFFECTIVE PROGRAMMES FOR EQUITY IN POPULATION HEALTH IN THE EUROPEAN UNION**

## WHY IS IT IMPORTANT?

Health equity is caused by different life experiences such as area of residence, socioeconomic position, the built and physical environment and service provision, among others<sup>1,2</sup>. Adverse circumstances and context may affect lifestyles and health behaviours causing negative health outcomes<sup>3</sup>. These may be addressed by providing a portfolio of evidence-based policies, interventions and delivery system<sup>4</sup>. Providing a synthesis of examples of population health programmes taking into account the multidimensional nature of factors which influence health can be a useful tool for policy and decision makers and implementers<sup>5</sup>. The review focuses on examples of implementation of strategies to increase the body of evidence of effective actions. The aim of the review was to collate and assess the evidence on the effects of programmes and policies with potential to improve population health in European countries.

## WHAT WE DID

The following review question guided the research: a) which policies and programmes aiming at improving population health in Europe are effective, b) which dimensions of population health are targeted by programmes on population health?

A literature search was performed in the databases of 'PubMed', 'The International Bibliography of the Social Sciences (IBSS)' and 'Science Direct'. Search terms were based on the eight dimensions of the population health index (Economic and Social Environment, Demographic Change, Lifestyle and Health Behaviours, Physical Environment, Built Environment, Health Services, Health Outcomes). Articles were accepted or rejected based on the preselected inclusion and exclusion criteria. The review was restricted to scientific articles with English language abstracts, published between February 1992 and June 2017. Only articles reporting evidence-based good practice interventions delivered within the EU member states and with assessed and positive effects on health were included.

## WHAT WE FOUND

The search identified selected programmes from 16 EU member countries. Employed study designs included randomised control trials, quasi-experiments, and mixed methods assessments. Programmes were grouped following the dimensions of the EURO-HEALTHY Population Health Index. In the order of frequency, programmes were predominantly aimed on Lifestyle and Health Behaviours, Economic and Social Environment, the Built Environment, Health Services, and Demographic Change. The vast majority of articles hence aimed at improving healthy lifestyles and healthy behaviours. They focused on increasing physical activity, reducing sedentary behaviours or improving nutrition.

Further, most interventions were successful in terms of improving health behaviour, skills and health knowledge among participants. This was mostly achieved through educational programmes focussing directly on lifestyles and health behaviours. Lifestyle and health behaviour- related educational programmes were further effective in reducing health risk factors, and achieving improvements in well-being and depressive symptoms. Policies targeting the economic and social environment providing financial transfers to deprived regions had positive long-term health effects, and interventions aimed at the built environment (for instance through urban renewal) had some effect on physical and mental health.

## KEY MESSAGES

- This review suggests that programmes targeting different dimensions of population health in schools, the workplace and communities have improved health knowledge, skills and behaviours and contributed to reduce health risk factors.
- Most articles assessed programmes promoting healthy lifestyles and healthy behaviours, reducing sedentary behaviours and improving nutrition, physical and mental health by developing participants' skills and health knowledge.
- Fewer studies evaluated programmes that were focussed on the built environment, health services or on issues related to demographic change.
- Tailored programmes with extensive baseline assessments were more effective in changing behaviours, reducing health risk factors, improving mental health and having long term impact.

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TITLE  
Promoting Population Health and Equity  
in Europe: from Evidence to Policy

COORDINATION  
Paula Santana

EDITION  
Coimbra University Press

DESIGN  
Non-verbal Club

DATA DEVELOPER  
hubris.xyz

PRINTERS  
Gráfica Maiadouro

ISBN  
978-989-20-8021-5

eISBN  
978-989-26-1500-4

DOI  
[https://  
doi.org/10.14195/978-989-26-1500-4](https://doi.org/10.14195/978-989-26-1500-4)

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