







- To study socioeconomic inequalities in mortality (overall and by cause) in selected cities of the Spain in 1996-2003.
- To study the relationship between environmental factors and (general and by cause) mortality in large cities of Spain.

#### Medea II:

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• To analyse trends between 1996-2000 y 2001-2005

### Metodology

- There are 2 coordinated projects of more than 10 groups.
- DESIGN: Ecological study of Spanish cities
- UNITS OF ANALYSIS: Census tracts
- SOURCES OF INFORMATION:
  - Mortality registers

- Socioeconomic variables from the census
- DATA ANALYSIS: Bayesian models (Besag, York
- and Mollié). It implies 2 sources of variation:Spatial structure: shares information with
- neighbouring areas.
- Spatial heterogeneity: Independency of areas.

## Population by census tract in cities

Cities	Population	Census tract	P25	P50	P75
Alicante	284580	222	931,3	1129,0	1336,8
Barcelona	1.503.884	1491	746,0	923,0	1166,0
Bilbao	349.972	288	895,0	1188,5	1493,8
Castellón	147.667	95	1092,0	1457,0	1770,5
Córdoba	308.072	224	1053,5	1330,5	1621,3
Madrid	2.938.723	2358	952,0	1169,5	1442,0
Málaga	524.414	422	962,3	1180,5	1457,0
Sevilla	684.633	510	990,3	1253,0	1612,8
Valencia	738.441	598	862,3	1135,0	1460,5
Vigo	280.186	236	962,0	1174,0	1404,5
Zaragoza	614.905	462	1028.0	1276,5	1566.0



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## Specific protocol with all the details to collect and analyse data

- First step: To geocode the information through the address.
- Causes of death studied
- How to prepare the mortality database: they were aggregated data
- How to prepare population database
- Cartography to use (census tract change each year in Spain)

























## General objectives INEQ-cities project

- To study socioeconomic inequalities in mortality in census tracts of 14 European cities at the beginning of the 21 century, and
- To identify the social and health policies undertaken in these cities.

 $[n^n]$ ineqcities

Participants (N=15)				
PARTICIPANTS	COUNTRIES			
Agència de Salut Pública de Barcelona (ASPB). Lead partner: Carme Borrell	España			
Institut National de la Santé et de la Recherche Médicale (INSERM)	Francia			
Interface Demography Vrije Universiteit Brussel (ID VUB)	Bélgica			
Népességtudományi Kutatóintézet, (KSH NKI)	Hungría			
University College London (UCL)	Reino Unido			
Helsingin yliopisto (UH)	Finlandia			
Universitat de Girona (UDG)	España			
Azienda Sanitaria Locale TO3 (ASL TO3)	Italia			
Agencia de Formación, Investigación y Estudios Sanitarios de la Comunidad de Madrid (ALE)	España			
Universidade de Coimbra (FLUC)	Portugal			
Univerzita P. J. Safarika (UPJS)	Slovakia			
Erasmus Medical Center (EMC)	Holanda			
Karolinska Institutet (KI)	Suecia			
Universitatea Barbes-Bolyai (UBB)	Rumanía			
Univerzita Karlova v Praze (FSCUP)	República Chr			

## Methodology

Cross-sectional design.

- Areas of study: small areas (if possible, census tract).
- Indicators at small area level: Mortality data and socioeconomic deprivation.
- Methodology of analysis of inequalities in mortality: Besag, York and Mollié (BYM) models (Bayesian).















## Objective

 To transfer aspects learned during the project to Spanish stakeholders (policymakers, officers, social organizations) involved in local/health policy process

#### Main activity

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 20 Spanish (10 Catalunya; 10 rest of Spain) seminars for officers and local policymakers (municipal health and other departments, health & non-health professionals)

## Outline of the seminars (5 hours / 10-20 pax / Intersectorial background)

#### Contents:

- Main findings/conclusions of the Ineqcities project
  A general introduction to local health
- inequities and social determinants of health
- Programs and interventions evidencebased.
- Planning an intervention
- · Resources to tackle inequities
- It was a practical approach

## Other sociopolitical impact and activities

To conduct seminars with "social stakeholders":
2 main trade unions.

Occupy/ "indignados /15M" /health movements.

- Municipal associations (Catalan/Spanish federation).
- Brief meetings: with main political parties: Left wing parties committed to pass the resolution ("moción") to their municipality.
- Resolution: to be passed through city halls, local councils (via political parties):
  - Expressing general commitment on urban health inequities and supporting strategies and interventions to monitor and tackle them.

# Materials & Internet and social networks

Booklet (solid facts style, 30 pages) summarizing main findings of the project and evidence on best local practices to reduce health inequities.

Two articles in electronic journals.

Twitter account @Ineqcities\_esp

