



# Cities and the work on health and environment



**World Health  
Organization**

REGIONAL OFFICE FOR  
**Europe**



**Organisation  
mondiale de la Santé**

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**Всемирная организация  
здравоохранения**

**Европейское** региональное бюро

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Meeting of the WHO European  
Healthy Cities Network and National  
Network Coordinators

4th April 2016, WHO Regional Office for Europe,  
Copenhagen, Denmark



# Programme Areas

- Regions for Health Network
- Small Countries Initiative
- Social Determinants of Health
- Vulnerability and Health (inc. Migration and Health)
- National and Sub-national Health Policies
- Governance for Health
- Gender, Equity and Rights
- Environment and Health
- Sustainable Development Goals (SDGs)

# Environment and health issues are most often mediated locally

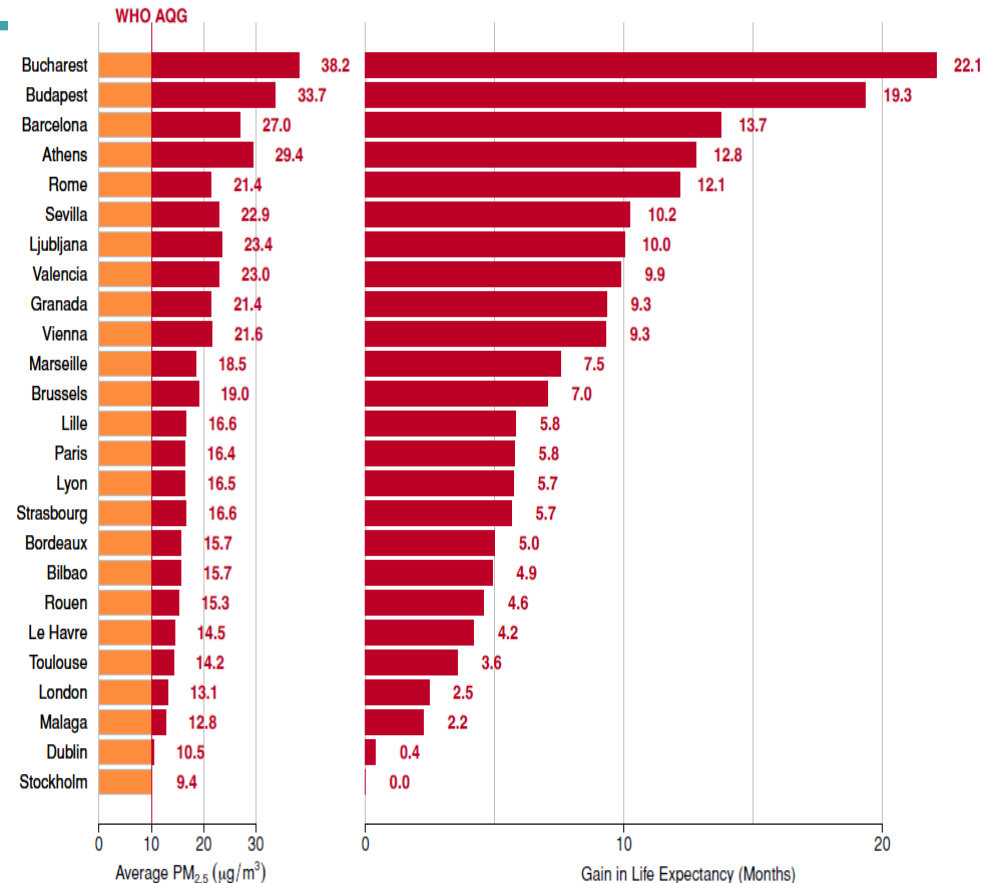


# What are the pressing EH issues in cities?

- **Air quality**
- **Water and sanitation**
- **Noise**
- **Housing**
- **Transport – active mobility**
- **Land use, zoning and green spaces**
- **Climate change mitigation and adaptation**

# Reducing air pollution in the cities is bringing gain in life expectancy

Gain in life expectancy (months) for people aged 30 years for a reduction in average annual levels of PM<sub>2.5</sub> down to the WHO AQG annual mean level of 10µg/m<sup>3</sup> in 25 European cities



# AirQ+ tool developed by ECEH

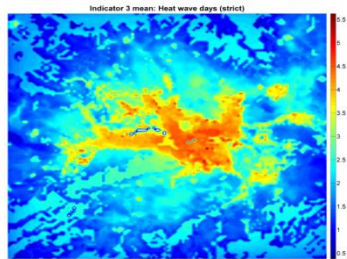
- AirQ+ tool is designed to answer to questions related to the impacts of air pollution on health
- It is free and web based and uses local AQ monitoring data
- It can support informed local policy development and interventions (heating solutions, transport urban planning etc.)

# Case study - Skopje

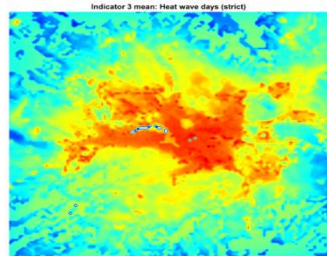
- Despite efforts towards air quality improvement, the concentrations of particulate matter (PM) in Skopje are still very high
- Inhalable particulate matter caused over 900 premature deaths, over 1,100 hospital admissions, and over 600 new cases of chronic bronchitis in Skopje in 2012
- Health outcomes carry an estimated economic cost to society of over 3% of GNP, while PM-related hospital admissions may have cost over 18 million Macedonian Denars (€300,000) in 2012
- The attainment of the European Union standards for PM can provide substantial health and economic benefits
- The attainment of WHO air quality guidelines levels can provide further benefits and should eventually constitute a policy goal

# Skopje (FYROM) under climate change scenario RCP8.5

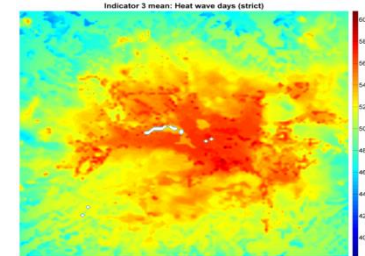
1986-2005



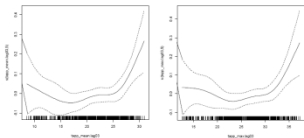
2026-2045



2081-2100



Average number of heat-wave days per year



Heat-related deaths and illnesses

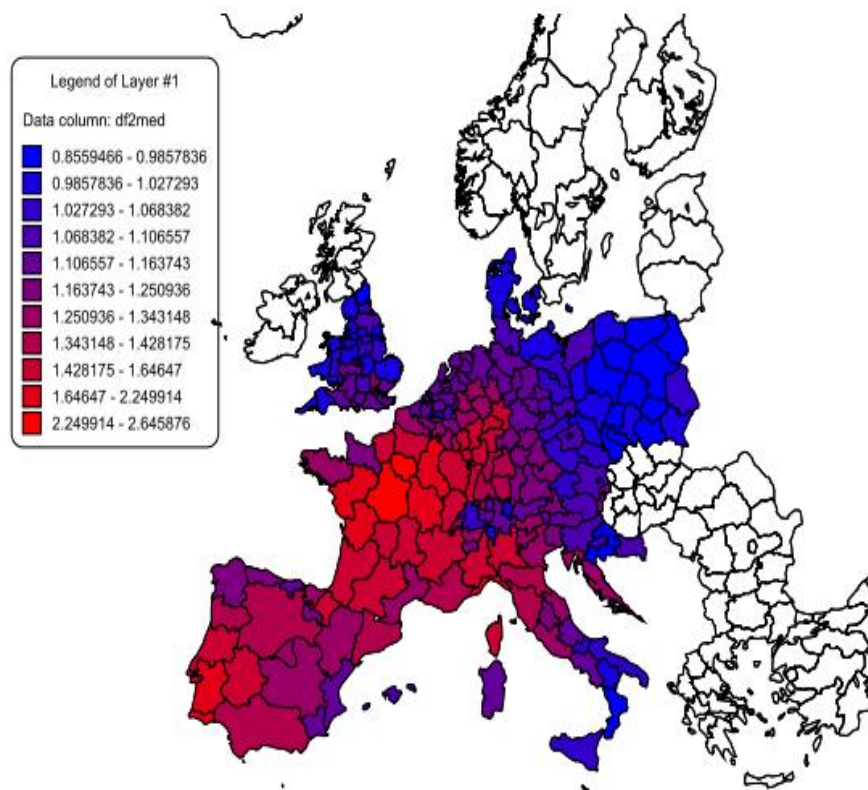


Heat-related health costs





# Heat-waves



Source: Robine JM (2007) et al. Report on excess mortality in Europe during summer 2005 (EU Community Action Programme for Public Health)

- Short-term increases in mortality range from 7.6% to 33.6% in urban areas in European Union countries
- In the European Union countries, the longer the heatwave the stronger the impact
- The elderly, but in some cities, also projected for younger adults with attributable fractions larger than 2% for the 15 to 64 years age group ( Baccini et al. 2009).
- Consequent impacts on productivity and heat exhaustion

# Green spaces

## Characteristics

- Availability
- Accessibility
- Size
- Functions
- Public safety

## Health outcomes

- Mental health
- General wellbeing
- All-cause mortality reduction
- Cardiovascular disease prevention
- Obesity reduction

# Indicator and tool on accessibility of green spaces

Percentage of urban population living within linear distance of 300m from green spaces of minimum 1 hectare”

Additional indicators: (a) total greenness within city (NDVI); (b) green space usage (if available)

## Pilot testing

- Utrecht
- Malmo
- Keune

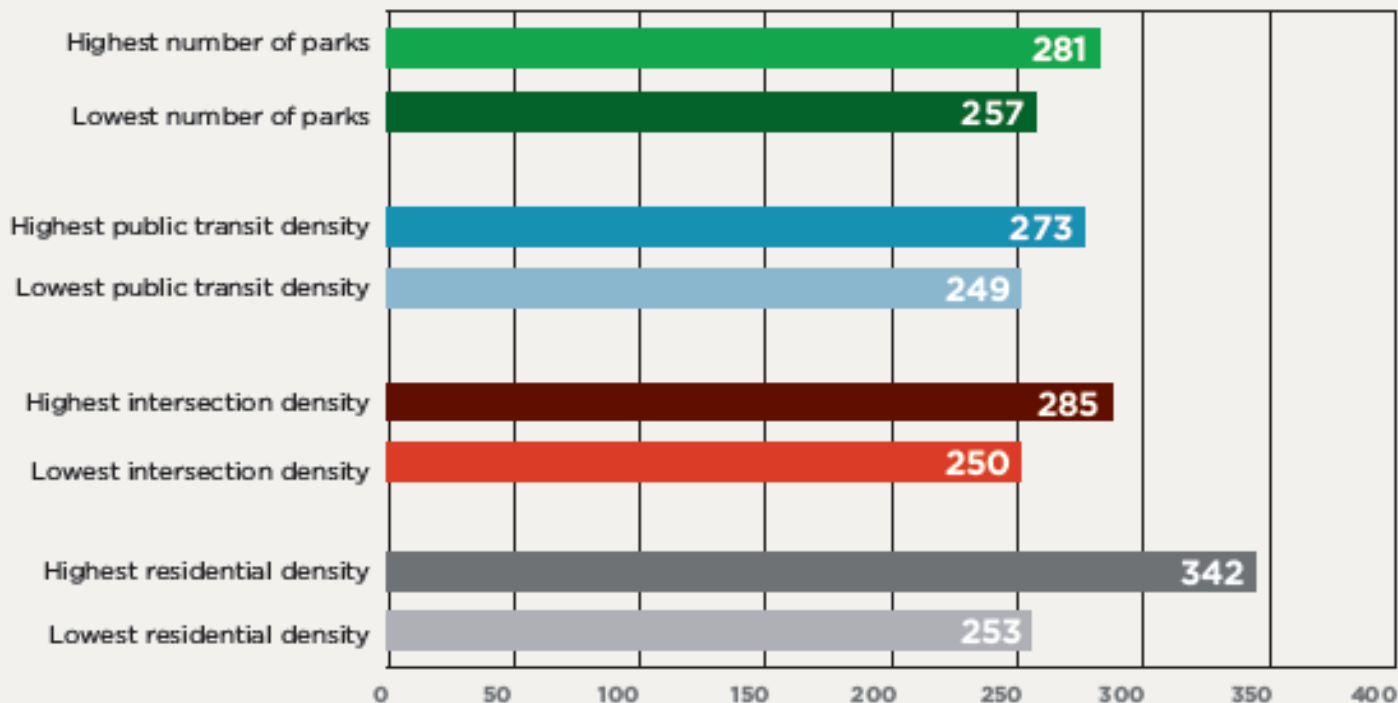
# Equity benefits of green spaces

- Free of charge
- Evidence suggest more benefits for disadvantaged groups
- Co-benefits on social cohesion and stress reduction especially in areas with stressors



# Physical activity in urban areas – 14 cities' study by IPEN network, Lancet, 2016

Weekly minutes of moderate-to-vigorous physical activity by neighborhood characteristics



Based on the calculation of the average city value using geographic information systems

# Noise

1 in 5 Europeans is regularly exposed to sound levels at night that could significantly damage health

Revised WHO  
Environmental Noise  
Guidelines for the European  
Region to be completed in  
2016



# European Environment and Health Process

- A platform for technical networks and policy collaboration, involving stakeholders beyond national governments
- Addressing complex problems requiring tough choices by governments across sectors at different levels
- Implementing sustainable development agenda, in particular SDG 11 “Make cities and human settlements inclusive, safe, resilient and sustainable”

# Next milestone

- Sixth European Ministerial Conference on environment and health, June 2017
- Cities and urban health and environment as one of the identified top priorities for the conference
- Preparatory process to include city networks including the HCN