



 World Health  
Organization  
REGIONAL OFFICE FOR Europe

EUROPEAN ENVIRONMENT  
AND HEALTH PROCESS  
ЕВРОПЕЙСКИЙ ПРОЦЕСС  
«ОКРУЖАЮЩАЯ СРЕДА И  
ЗДОРОВЬЕ»



 UNITED NATIONS  
ECONOMIC COMMISSION FOR EUROPE

 Всемирная организация  
здравоохранения  
Европейское региональное бюро

 ЕВРОПЕЙСКАЯ  
ЭКОНОМИЧЕСКАЯ  
КОМИССИЯ  
ОРГАНИЗАЦИЯ ОБЪЕДИНЕННЫХ НАЦИЙ

# Lessons learned and challenges: An introduction

Dimosthenis Sarigiannis and Elizabet Paunovic

Aristotle University of Thessaloniki and WHO European Centre  
for Environment and Health

28-30 April 2015 - Haifa, Israel

# Lessons learned

- Joint involvement of health and environment sectors as well as of other relevant stakeholders as the most effective way forward
- Use of positive approaches in conveying the messages (e.g. gain in life expectancy if complying with certain standards - WHO AQ Guidelines)
- Providing evidence for the economic benefits of Health & Environment interventions as the part of the policy making process.



**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic

# HEALTH 2020 framework

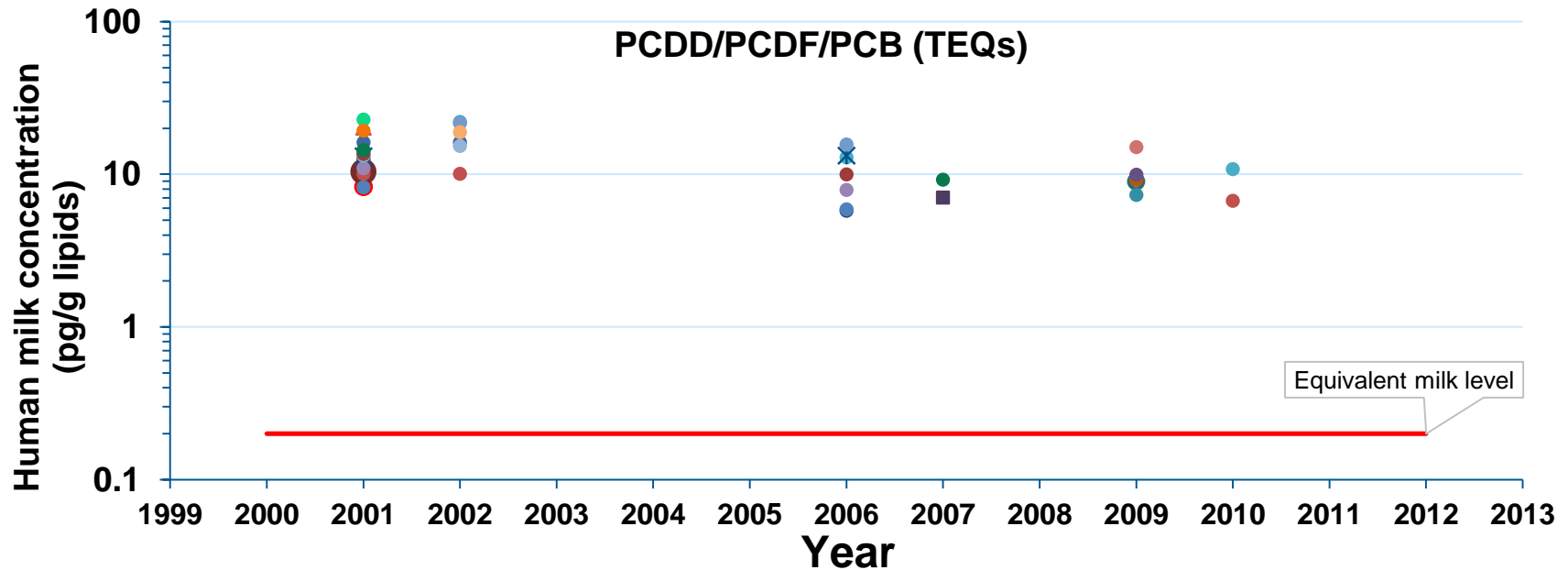
- Investing in health through a **life-course approach** and empowering people;
- Tackling the Region's non communicable and communicable disease health challenges;
- Strengthening **people-centered health systems**, public health capacity and emergency preparedness, and surveillance and response; and
- Creating **resilient communities** and supportive environments.



Lessons learned and challenges:  
An introduction

Dimosthenis Sarigiannis and Elizabet Paunovic

# Temporal trends of PCDDs/PCDFs/PCBs in human milk



Lessons learned and challenges:  
An introduction

Dimosthenis Sarigiannis and Elizabet Paunovic

# Examples of stakeholders involvement – an effective way forward

- Health and Environment Alliance (HEAL), which represents almost 100 NGOs, and
- Eco Forum which, through Women in Europe for a Common Future (WECF), represents about 150 NGOs in the environmental sector.

Practical example in Belgium: National project “*Training in environmental health and medicine for Belgian health professionals*”.

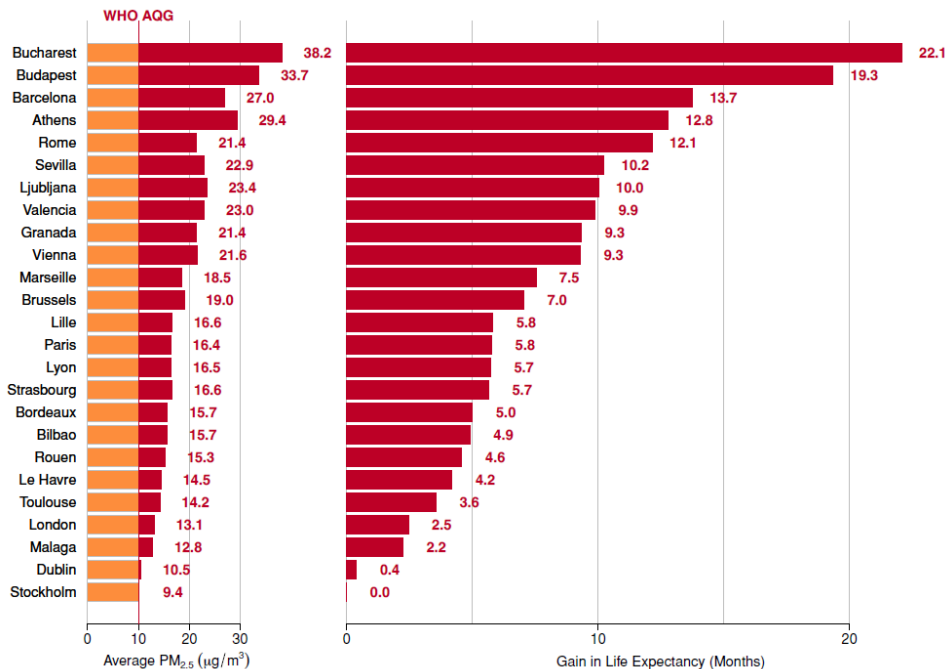


**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic

# Conveying the messages

Predicted average 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 10 µg/m<sup>3</sup> in 25 European cities participating in the APHEKOM project



Source: Medina S. Summary report of the APHEKOM project 2008–2011. Saint-Maurice Cedex, Institut de Veille Sanitaire, 2012 ([www.endseurope.com/docs/110302b.pdf](http://www.endseurope.com/docs/110302b.pdf))

**Lessons learned and challenges:**  
An introduction

Dimosthenis Sarigiannis and Elizabet Paunovic



# Providing economic evidence

- 600 000 premature deaths (2010)
- **US\$ 1.6 trillion**
- One tenth of the Gross Domestic Product (GDP) of the entire European Union in 2013



Lessons learned and challenges:  
An introduction

Dimosthenis Sarigiannis and Elizabet Paunovic

# Thessaloniki example

- Increased taxes for light heating oil
- Increased exposure to PM2.5 during the winter period (from 43.5 to 62.5  $\mu\text{g}/\text{m}^3$ )
- Translated to an additional monetary cost of approximately **150M EUR** for the area of Thessaloniki.
  
- **Overall result: reduced tax revenues to the state and urban air quality deterioration**

Source: Sarigiannis et al. Health impact and monetary cost of exposure to particulate matter emitted from biomass burning in large cities. Science of the Total Environment 524-525 (2015): 319-330

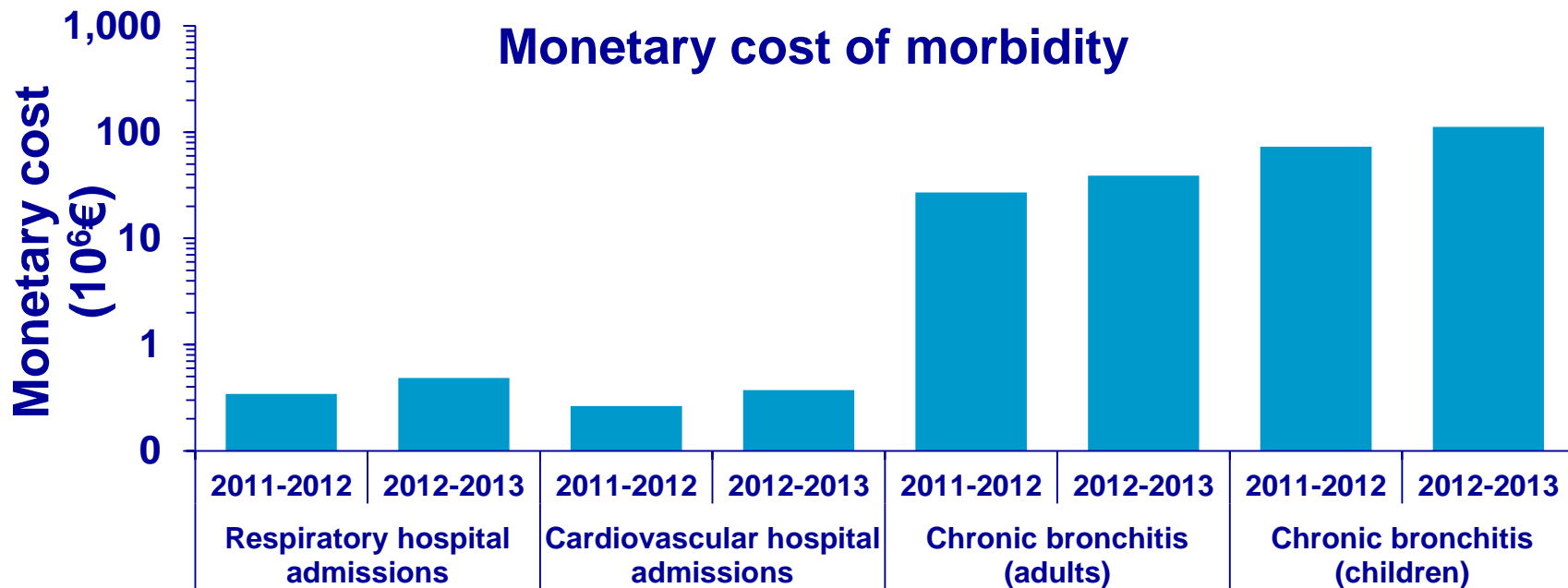


**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic



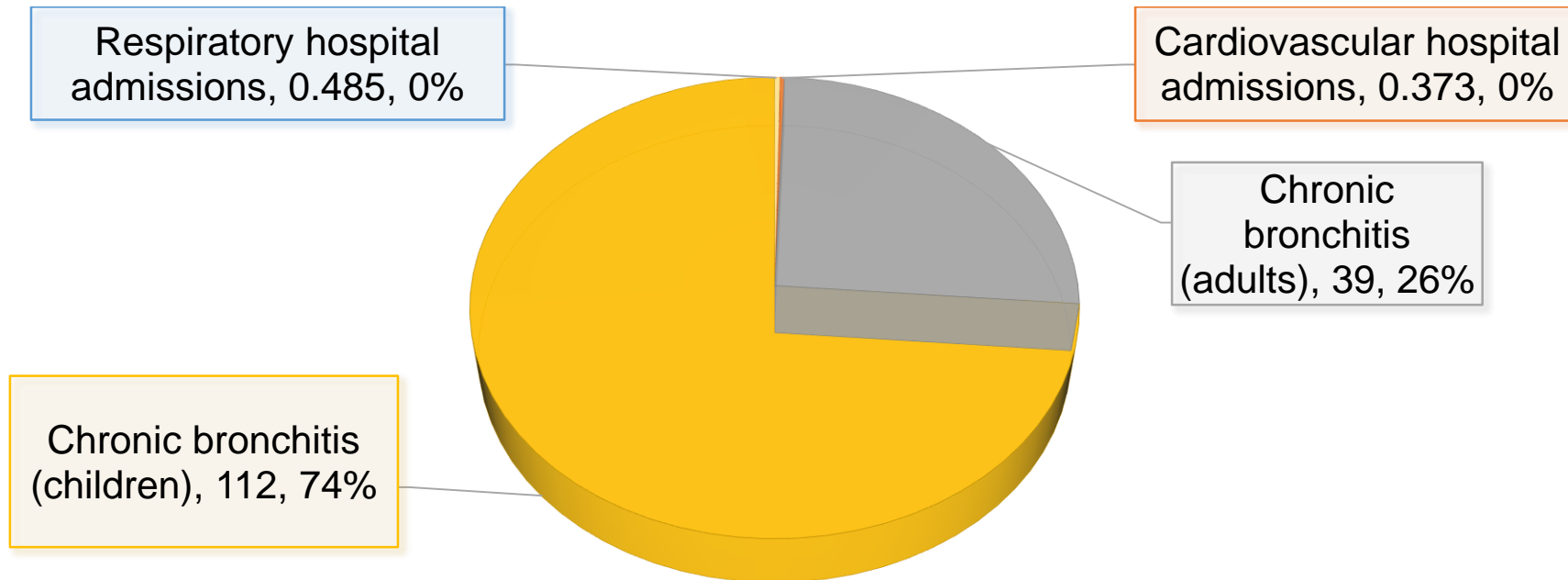
# Cost of morbidity endpoints in Thessaloniki



**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic

# Cost of morbidity endpoints in Thessaloniki



Lessons learned and challenges:  
An introduction

Dimosthenis Sarigiannis and Elizabet Paunovic

# What counts? The case of multiple opportunities in reducing GHG emissions for different audiences

City planners
Improved air quality
More physical activity
Better road safety
Less noise
Less time in congestion
Fuel savings

Health system managers
Reduced costs
Access to health care, technology and medication
Less hospital admissions from reduced EH
More resilient infrastructure

Occupants of buildings
Improved indoor air quality
Less indoor heat and cold
Money savings
More time
Less pollution
Electricity, heating and clean water



**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic

# Challenges

- Is it everything that simple with monetary cost?
- Properly accounting for monetary cost of benefits from mitigating environmental exposure, could be an interesting option against the cost of implementing the technological options required for a better environment



**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic

# Challenges

- Burden of disease
- Low-level signals are usually lost in the overall noise
- Advances in human exposome studies move towards this direction
- We do need always to look for phenotypes of disease. Early biological responses that predispose individuals to disease should be sufficient to trigger policy action
- Precautionary principle in policy development
- Unfinished business

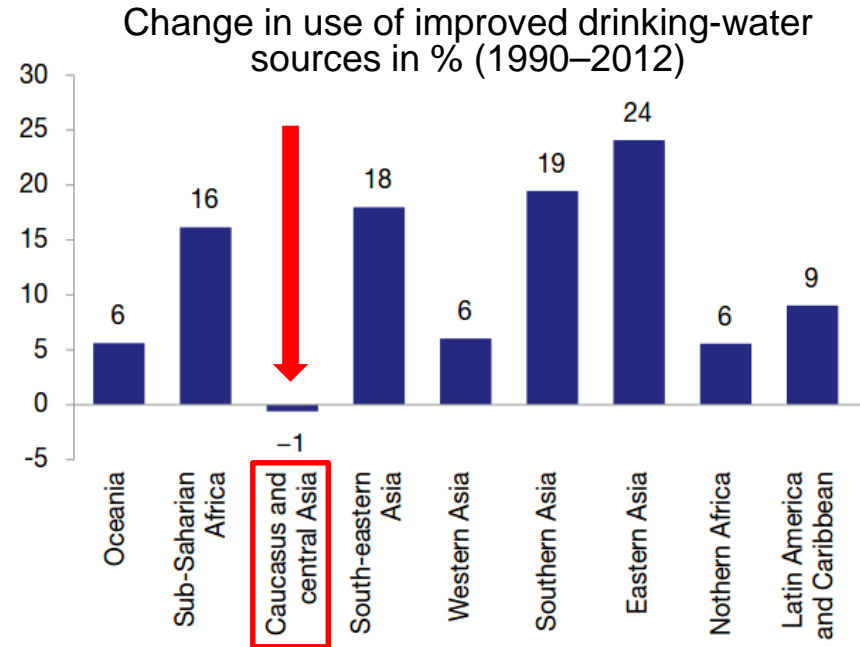


**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic

# Unfinished business: water and sanitation

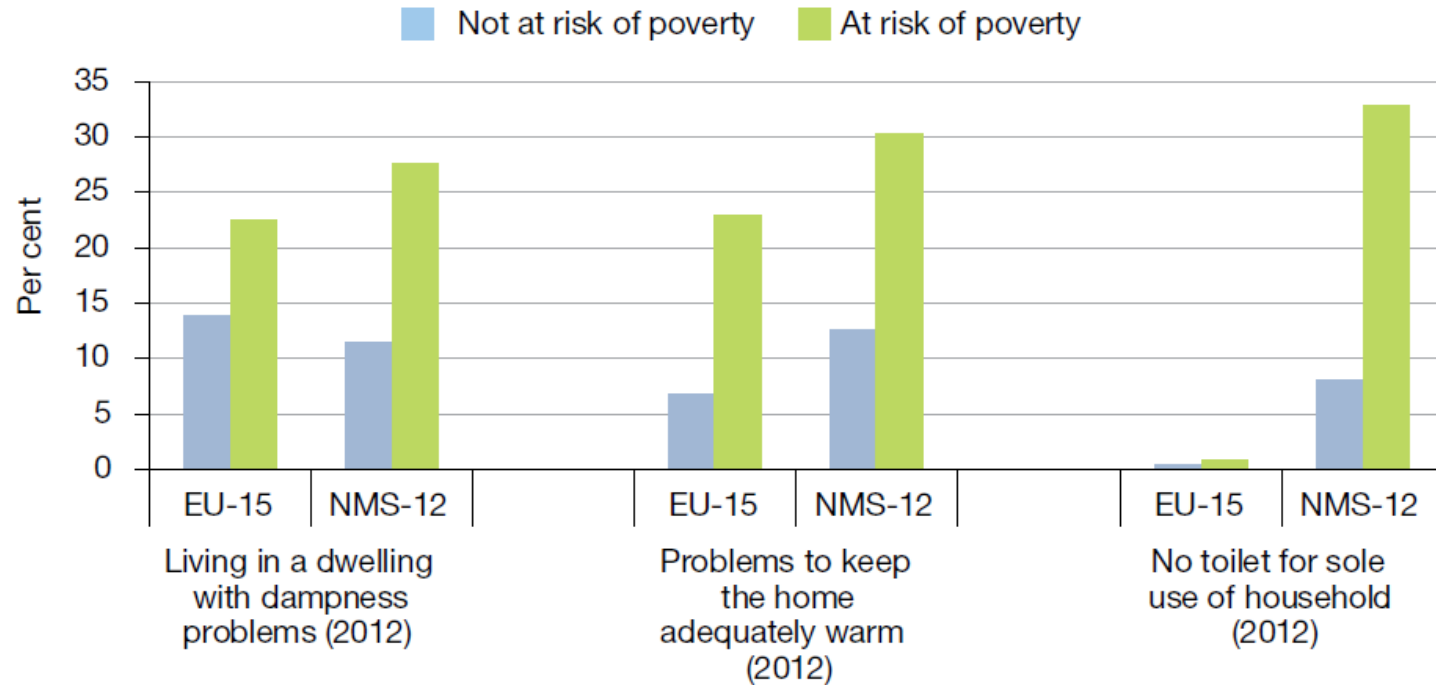
- **Complacency:** overall high access figures mask setbacks
- **Universal access not reached:** closing wealth & ethnicity gaps
- **Attention to child settings:** turn WASH policies into action
- **Beyond access:** focus on safe management



Lessons learned and challenges:  
An introduction

Dimosthenis Sarigiannis and Elizabet Paunovic

# Environmental inequalities



Source: EU-SILC (2014). Eurostat: income and living conditions (2014);

**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic



# Challenges

- Emerging risks:
  - nanoparticles
  - endocrine disruptors
- Work focused primarily on pre-identified risks – difficult to catch up with technological progress
- Need to operate and make decisions under large uncertainty
- Need for preventive course of action – Set up observatory function for emerging risks (OFFER)



**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic



# Challenges

- Maintain relevance of EEHP to MS irrespectively of their level of socio-economic development and the consequently diversified priorities
- Ensure appropriate, sustainable resources for the implementation of Parma commitments



**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic

# Thank you for your kind attention



**Lessons learned and challenges:  
An introduction**

Dimosthenis Sarigiannis and Elizabet Paunovic