

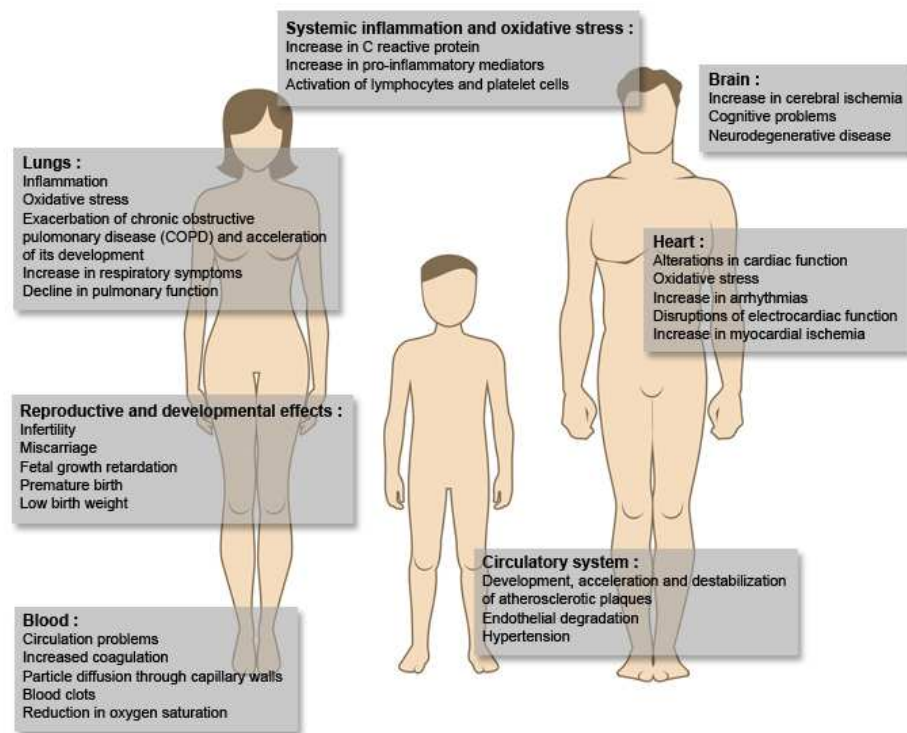
THE USE OF HIA TO SUPPORT THE PLAN FOR A CLEANER AIR

Mathilde Pascal & Sylvia Medina

Health Impact Assessment (HIA) institutionalization and multisectoral
collaboration in Europe, Marseille, 20/11/2019

BACKGROUND

- Extensive knowledge of the negative impacts of air pollution



Source : INVS, 2014

- Stakeholders have difficulties to figure out the public health burden
Health impact assessment (HIA) = make the invisible killer visible

20 YEARS OF HIA IN FRANCE



AN APPROACH DEVELOPED THROUGH EU COLLABORATIONS



- **1999: 3-country HIA**

(Austria, Switzerland, France)

- **1999: APHEIS**

=> to provide reliable, up-to-date & easy-to-use information on the health effects of AP to policy-makers, environment and health professionals, NGOs...

- **1st guidelines to perform and disseminate HIA**

=> summary reports, brochures, FAQ, content and form tailored to the needs of policy-makers

THE LANCET

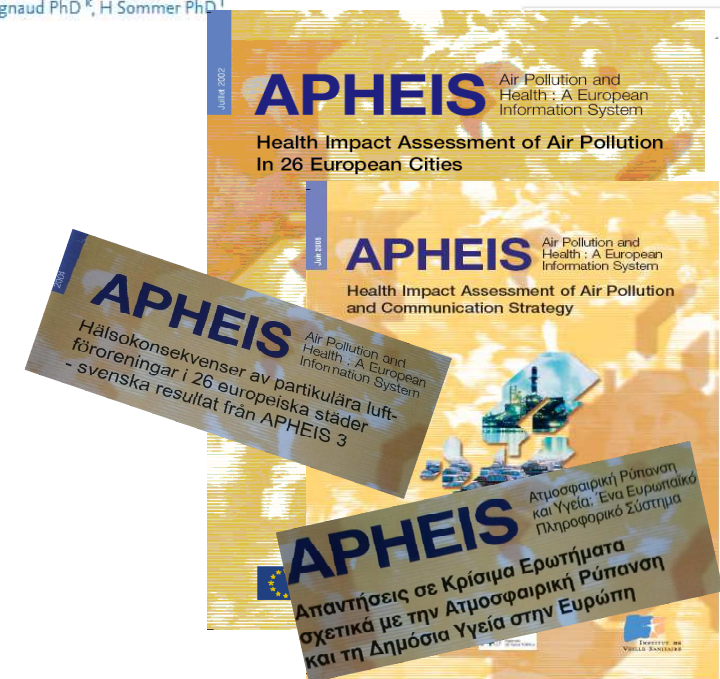
Volume 356, Issue 9232, 2 September 2000, Pages 795-801



Articles

Public-health impact of outdoor and traffic-related air pollution: a European assessment

N Künzli MD^a, R Kaiser MD^b, S Medina MD^b, M Studnicka MD^c, O Chanel MD^d, P Filliger PhD^e, M Herry PhD^f, F Horak Jr MD^g, V Puybonnieux-Texier MSc^h, P Quénel MD^b, J Schneider PhDⁱ, R Seethaler MEc^j, J-C Vergnaud PhD^k, H Sommer PhD^l



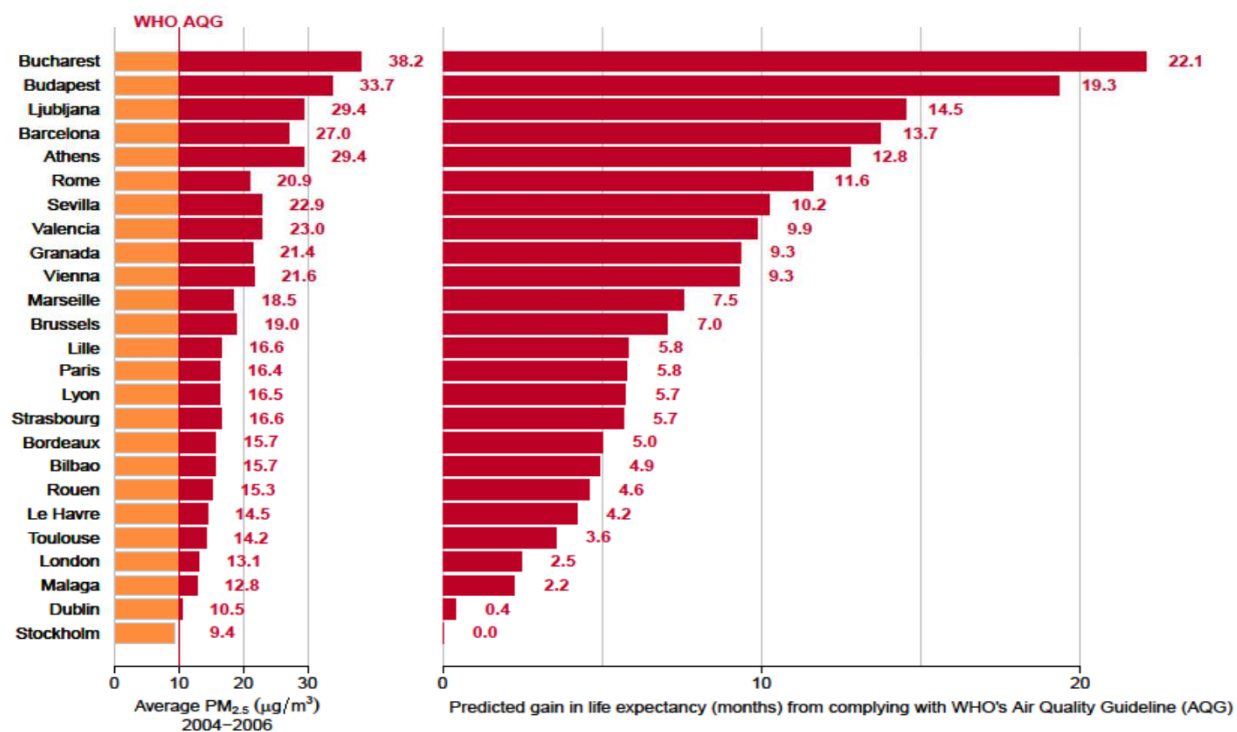
AN APPROACH DEVELOPED THROUGH EU COLLABORATIONS

- **2008-2011: APHEKOM**

=> updated guidelines and training

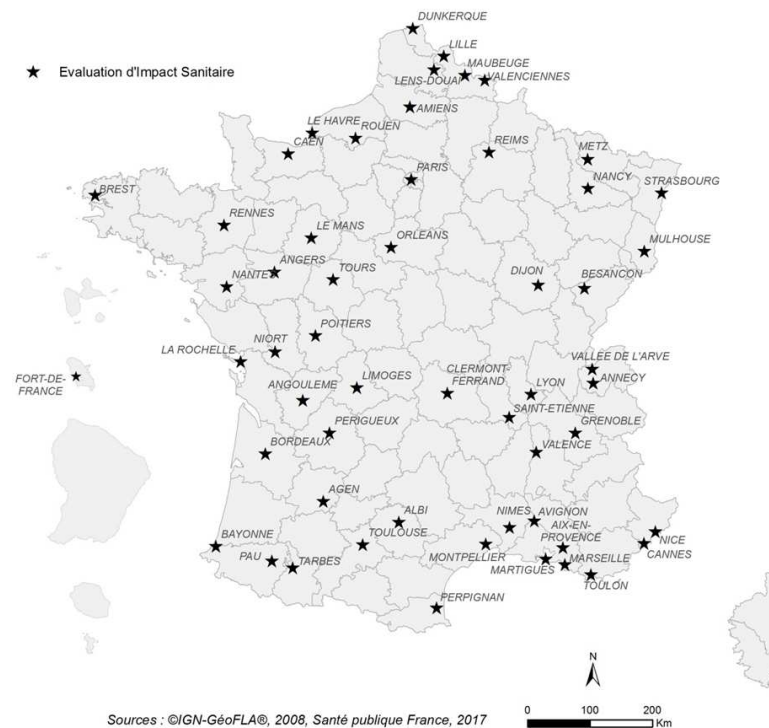
- **Economic valuation**

$PM_{2,5} > 10 \mu\text{g}/\text{m}^3 = 19\,000$ deaths per year = 31,5 billions € per year



CITY-LEVEL HIA

- ~ 120 HIA produced between 1999 & 2017
- Based on regularly updated guidelines and Excel tools
=> used to promote local actions and planifications

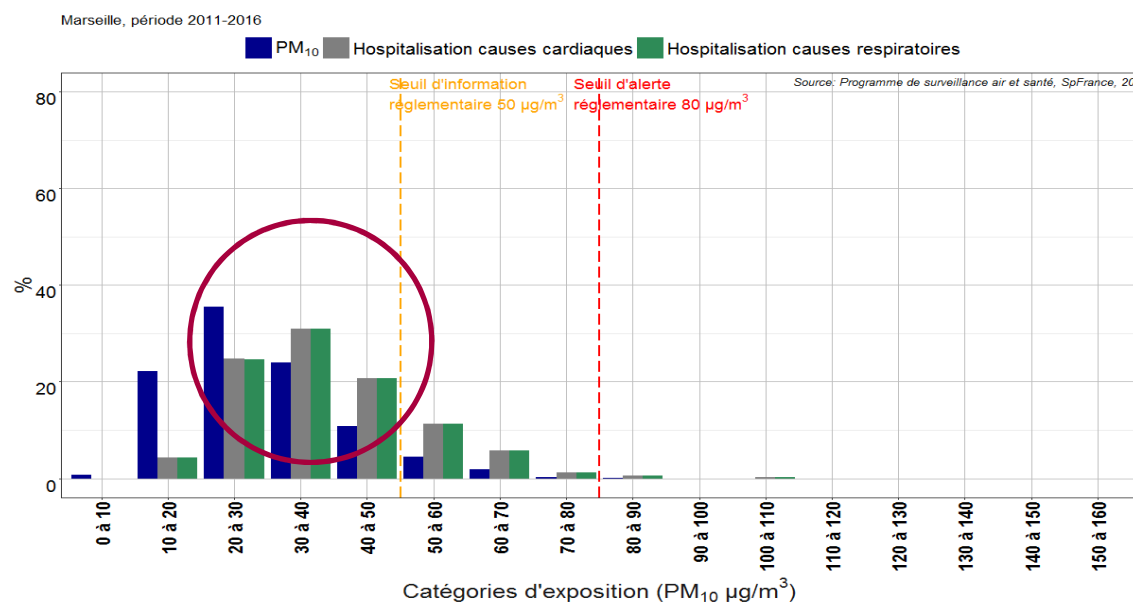


55 urban areas, 21 millions inhabitants

- Acute air pollution episodes

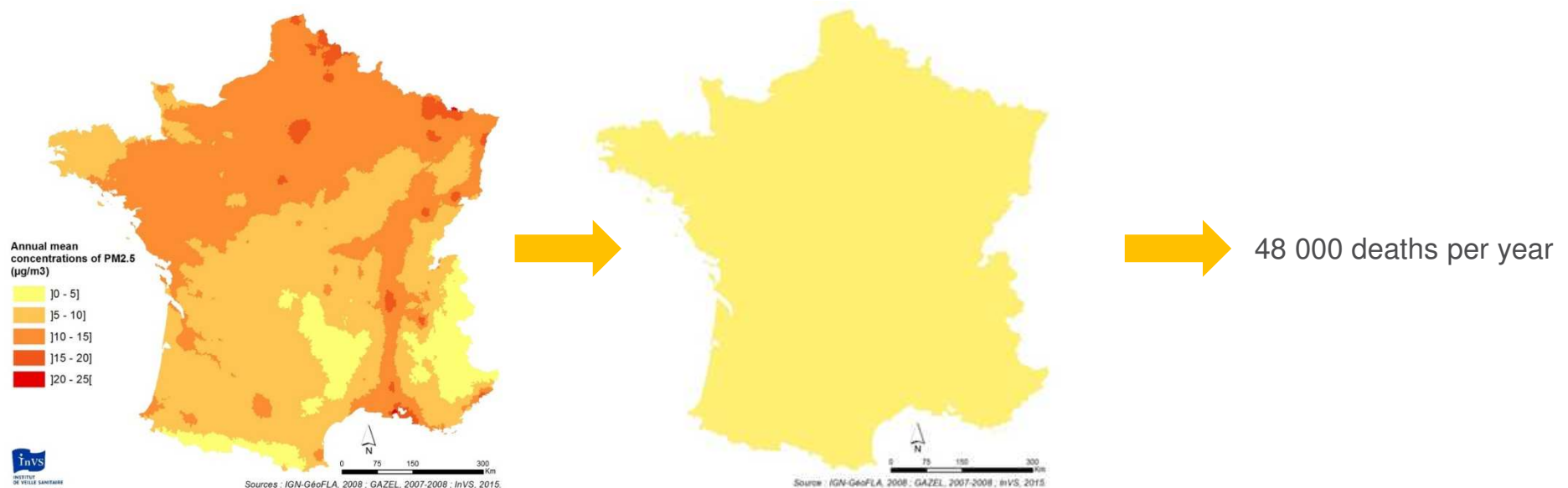
=> HIA useful to illustrate that actions targeting acute episodes have a limited public health impact

Hospitalisations for cardiac and resp causes by PM₁₀ levels



NATION-WIDE HIA

- The literature provides various estimates for France -> highly confusing for decision-makers
- HIA for each of the continental municipalities
 - summary reports by region
 - Results freely available on geodes.santepubliquefrance.fr



PM_{2.5} 2007-2008 annual concentrations

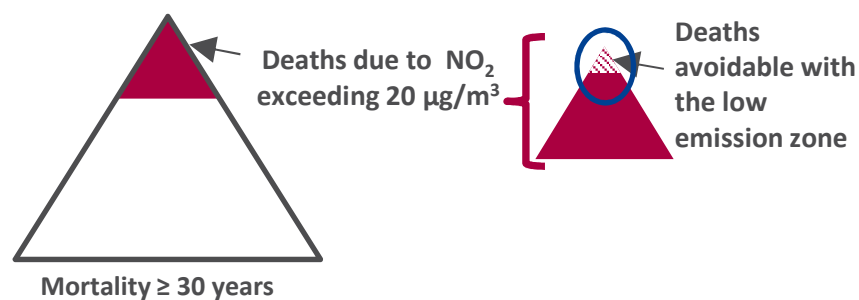
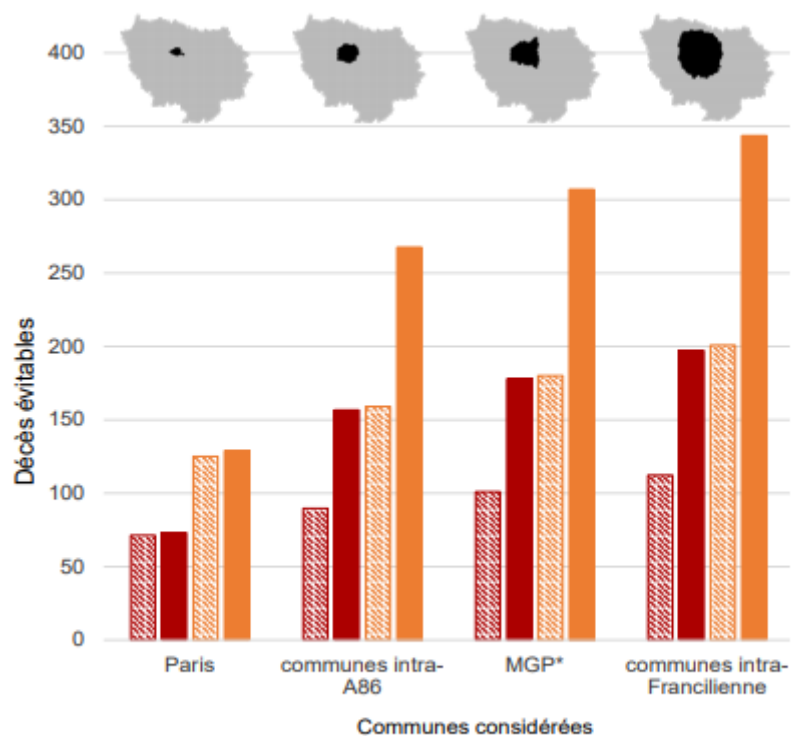
NATION-WIDE HIA



SCENARIO	PM _{2.5}	% OF THE POPULATION	N DEATHS PER YEAR
EU 2020	20 µg/m ³		10
Grenelle	15 µg/m ³		3 000
WHO AQG	10 µg/m ³		17 700
Less polluted urban areas of equivalent size	Levels observed in the less polluted municipalities		34 500

LOW EMISSION ZONE

- HIA of NO₂ associated with a low emission zone in the Paris region



■ ZFE3 ■ ZFEélargie3 ■ ZFE4 ■ ZFEélargie4

N of deaths avoidable depending on the size of the ZFE

CONDITIONS FOR MEANINGFUL HIA FOR STAKEHOLDERS

- **An HIA can be useful to structure and share scientific knowledge**
- **25% of the time = technical aspects, 75% = interface with stakeholders**
 - be transparent on the methods and uncertainties, explain them to decision-makers and to their technical advisors
 - dissemination of results through summary reports, FAQ, presentations...
- **Ways forward**
 - Empowerment of local stakeholders (e.g. municipalities, NGOs...): publications of 3 updated guidelines to support HIA + translation of AIRQ+ in French

