Evaluation of Air Pollution: Rationale, Development, Outcomes, and Impact

Lamia Benbrahim-Tallaa on behalf of the IARC Monographs Programme

Introduction

- Air pollution is a major environmental risk to health.
- Exposure to air pollution has increased significantly in recent years in some parts of the world, particularly in rapidly industrializing countries with large populations.
- Air pollutants have been linked to many adverse health effects, including respiratory infections, heart disease, and lung cancer. More than half of the global burden of disease attributable to air pollution is borne by people in developing countries.
- Ambient air pollution causes an estimated 15% of lung cancer deaths worldwide in 2010.
- Ambient air pollution was responsible for about 223,000 deaths from lung cancer worldwide.

Some Non-heterocyclic Polycyclic Aromatic Hydrocarbons and Related Exposures

- Overall evaluation of occupational exposures to PAH mixtures
  - Carcinogenic to humans, Group 1
  - Probable carcinogenic to humans, Group 2A
  - Probable carcinogenic to humans, Group 2B
  - Not classifiable, Group 3
- Overall evaluation of some PAHs
  - Not classifiable, Group 3
- Outdoor air pollution
  - Carcinogenic to humans, Group 1
  - Not classifiable, Group 3
- Some Non-heterocyclic PAHs
  - Not classifiable, Group 3

Six Monographs on Air Pollution

- Diesel and Gasoline Engine Exhausts and Some Nitroarenes
- Carbon Black, Titanium Dioxide, and Talc
- Household Use of Solid Fuels and High-Temperature Firing
- Some Non-heterocyclic Polycyclic Aromatic Hydrocarbons and Some Related Exposures
- Bitumens, Bitumen Emissions and Some PAHs

Dissemination and Impact

- Press releases including a link to the summary report in The Lancet Oncology and additional information is provided on the IARC website.
- Highlighted in documentaries on television and other media on the scientific evaluation of cancer hazards in general, or on specific topics.
- Advised National and International Agencies (e.g., French Ministry of Health...).
- Follow up publication to the 2006 Advisory Group meeting on air pollution.
- Presentation of regular requests from journalists when certain topics of general interest emerge.