

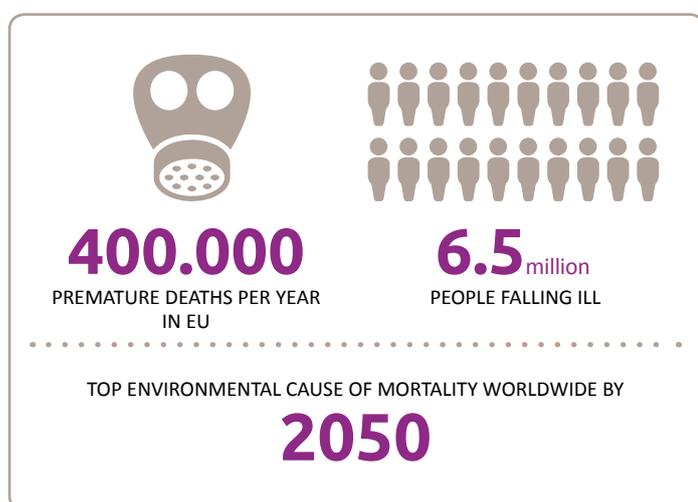
Making the link: Air Pollution and Health

POLICY
PRÉCIS

SOURCE: WORLD HEALTH ORGANISATION

Taking stock of relevant EU and international policies and programmes relating to outdoor air pollution, with a special focus on environmental inequalities. Looking at best practices and how progress can be made.

The Situation

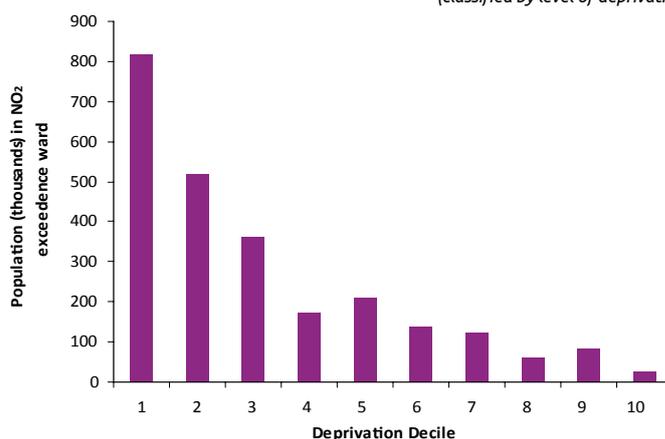


air pollution is set to become the top environmental cause of mortality worldwide by 2050⁴. The impacts of air pollution are not uniform. People with low incomes and those from disadvantaged backgrounds are more exposed to and suffer more from air pollution. People in high and very high income groups not only suffer less from air pollution, but also have a considerably higher impact on the environment.

In 2006-2010 in the EU's most socioeconomically disadvantaged regions, Particulate Matter (PM10) levels were around 30% higher and Ozone (O3) concentration was 30-40% higher than in other regions.⁵

Outdoor air pollution is the number one environmental cause of death in the EU, leading to about 400,000 premature deaths each year due to elevated levels of fine particles and ozone¹. 'Another 6.5 million people fall sick as air pollution causes diseases such as strokes, asthma and bronchitis' according to the European Environment Agency². The World Health Organisation (WHO) European Region has stated that 'exposure to particulate matter (PM) decreases the life expectancy of every person by an average of almost 1 year, mostly due to increased risk of cardiovascular and respiratory diseases, and lung cancer'³. The global outlook is not positive, with the Organisation for Economic Co-operation and Development (OECD) explaining that 'urban

NO₂ air pollution in England across different population groups (classified by level of deprivation)



'Unless more stringent policies are adopted, findings point to a significant increase in global emissions and concentrations of air pollutants, with severe impacts on human health and the environment. The market impacts of outdoor air pollution are projected to lead to significant economic costs, which are illustrated at the regional and sectoral levels, and to substantial annual global welfare costs'. - OECD (2016) *The Economic Consequences of Outdoor Air Pollution*.



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People who are socioeconomically disadvantaged are more frequently exposed to air pollution, for example from exposure to traffic fumes. Traffic fumes are the most concerning source of air pollution according to the WHO Europe survey on *Health Risks in Air Pollution* which notes that children living near roads with heavy-duty vehicle traffic have twice the risk of respiratory problems as those living near less congested streets⁶.

In addition, people from socioeconomically disadvantaged backgrounds are more vulnerable to the effects according to the Science for Environment Policy report 2016⁷.

EU Policies and Programmes

The Clean Air Policy Package for Europe, published by the European Commission in late 2013, aims to ensure full compliance with existing legislation by 2020 at the latest, and to further improve Europe's air quality by 2030 in such a way that premature deaths are reduced by more than half of the number in 2005.⁸

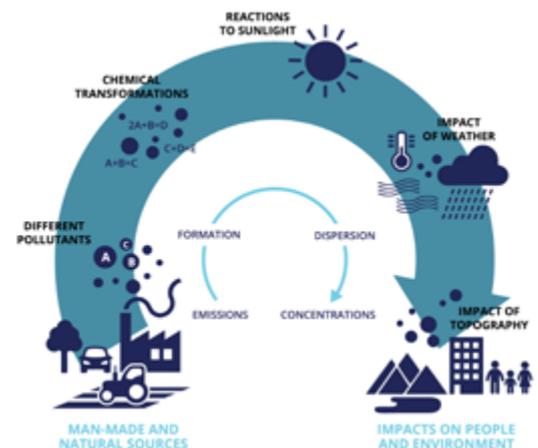
The *Clean Air Programme for Europe set targets for 2030*, and suggested measures to achieve them, including support to research and innovation, and international cooperation. The *National Emission Ceilings Directive (2001)* focuses on six main pollutants (SO₂, NOx, NMVOC, NH₃, fine particulate matter (PM_{2.5}) and methane (CH₄)) and set stricter limits on emissions. In 2016 the EU Council and Parliament agreed on a new *National Emission Ceiling Directive* which sets stricter national limits from 2020 to 2029 and from 2030 onwards. This should reduce the health impact of air pollution by about 50% in 2030 (compared to 2005).⁹

The 7th *Environmental Action Programme* of the EU which entered into force in January 2014 aims 'to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing'. It notes that 'Action is especially needed in areas, such as in cities, where people, particularly sensitive or vulnerable groups of society, and ecosystems, are exposed to high levels of pollutants' and that 'In order to ensure a healthy environment for all, local measures should be complemented with adequate policy at both national and Union level'.

The need to consider the differences in the social distribution of

Air pollution affects the health of socioeconomically disadvantaged people due to:

- Increased exposure to air pollution.
- Increased sensitivity due to underlying or associated illness, life habits or addictive behaviours
- limited access or resources to handle health problems.



Cleaner air for all infographic of the European Commission, (Source: European Commission, DG environment)

environmental quality when developing policy making has been highlighted by the European

Environmental Agency (EEA). It stresses the need for targeted research and action as 'specific population groups, such as those on low incomes, children, and the elderly, may be more exposed and vulnerable – mostly due to their health, economic and educational status, access to health care, and lifestyle factors that affect their adaptation and coping capacities'.¹⁰

Evidence-based recommendations for policy makers are available in the World Health Organisation *Air Quality Guidelines*. The WHO member states confirmed they would 'redouble the efforts to protect populations from the health risks posed by air pollution'.¹¹

The European Commission has started to describe the implementation of the SDGs in the communication *Next Steps for a Sustainable European Future*¹².

Key Initiatives and documents

- Clean Air programme for Europe (2013)
- National Emission Ceilings Directive (2001)
- 7th Environmental Action Programme of the EU (2014)
- Agreement for new National Emission Ceilings Directive (June 2016)
- WHO air quality guidelines (2005)

Policies need to be designed and implemented in a way that avoids or addresses inequitable outcomes. The concept of Environmental Justice is defined as 'good environmental quality for all and fairness in environmental policy (with respect to participation, design and implementation)'. - European Commission (2008) Addressing the social dimensions of environmental policy.

United Nations Development Agenda 2030

In the United Nations Development Agenda 2030, air pollution is addressed in the Sustainable Development Goals

Goal 3 'Ensure healthy lives and promote well-being for all at all ages'. Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

Goal 11 'Make cities inclusive, safe, resilient and sustainable'. Reducing adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

Goal 12 'Ensure sustainable consumption and production patterns' among others with the target of achieving environmentally sound management of chemicals and all wastes throughout their life cycle and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.



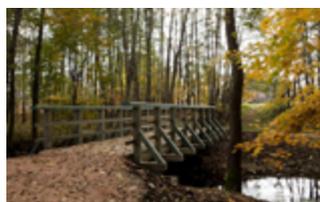
Sustainable Development Goals 3, 11 and 12
(Source: sustainabledevelopment.un.org/sdgs)

Making It Happen

Members and partners of EuroHealthNet are taking action. A few examples:

Latvia – Riga City

A Green Bicycle path has been built to improve the city's physical environment and encourage citizens to follow a healthier lifestyle. The initiative reduces air pollution from traffic which in turn reduces the potential impact of climate change. This project also seeks to innovate through the use of natural, environmental-friendly materials in the construction of the bicycle path, such as gravel or wooden bridges. More information is available at www.ld.riga.lv/lv/.



Green Bicycle Path in Riga, Latvia.
(Photo credits: Lauma Kalniņa)

United Kingdom- Wales

Public Health Wales is leading research to enhance the Local Air Quality Management (LAQM) regime in order to maximise public health integration, collaboration and impact. This research aims to add to the policies and practices in the broader perspective of the Wellbeing of Future Generations (Wales) Act 2015. The first two phases of the project found weaknesses with current LAQM arrangements and demonstrated the importance of considering air pollution in a broader public health context to address the in-

teraction between air pollution, socioeconomic determinants, and health. In the current phase, Public Health Wales is collaborating with many partner agencies to build evidence to define the role of public health in LAQM and identify opportunities, barriers and solutions. Further information on this study can be found at www.wales.nhs.uk/sitesplus/888/news/42903.

Sweden – Västra Götaland

In order to reduce the CO₂ and greenhouse gas emissions to the atmosphere, the region of Västra Götaland in Sweden is one of the leading regions in the development and purification of biogas for use as vehicle fuel. The regional authority is a driving force in the development, offering the region's biogas stakeholders a platform for exchanging experiences, knowledge and collaboration in order to develop the production and use of biogas as a vehicle fuel through the Biogas Väst (West) program. Biogas is a climate friendly and renewable, locally produced fuel which results from the anaerobic digestion of waste and manure. The goal is that both the production and use of biogas will reach 2.4 TWh in Västra Götaland by the year 2020. For further information visit www.vgregion.se/en/Vastra-Gotalandsregionen/Home/Environment/From-ideas-to-results/Biogas-West/.



Pathways To Progress

EuroHealthNet's mission is to help build healthier communities and tackle health inequalities within and between European States. Supporting evidence-based policy recommendations to address outdoor air pollution and its negative impacts on people's health and well-being across the social gradient is crucial for achieving a healthy and environmental sustainable society for all. Intensification of implementation is needed at EU, national, regional and local level.

Good practice pathways should become systematic

- Better assess the air pollution effects and impact on environments, biodiversity and human health and wellbeing across the social gradient.
- Implement whole of society and whole of government measures to address air pollution emissions from local to global level, with emphasis on all citizens' needs and wellbeing.
- More complementary use of available EU funds for multi-sectoral action and integrated approaches, including all relevant sectors and concentrating action at community level, especially on the most deprived and affected communities.

Make cities inclusive, safe, resilient and sustainable

- Use of EU funds and programmes to tackle impacts of urban air pollution through more integrated and multi-sectoral approaches, focusing actions at neighbourhood and community levels, especially with most deprived or vulnerable communities.
- EuroHealthNet collaborates with the EC and with WHO to implement action programmes for better health and



Inherit is a flagship European project identifying ways of living, moving and consuming that protect the environment and promote health and health equity. It aims to stimulate policies, practices, and innovations which address key environmental stressors. It is coordinated by EuroHealthNet. For more information visit www.inherit.eu

wellbeing, including on social, economic and environmental factors. That includes links with THE-PEP, a joint initiative of WHO/Europe and the United Nations Economic Commission for Europe (UNECE), which streamlines and consolidates activities on transport, environment and health, which helps countries and cities to apply and share policy and practice models.¹³

Ensure sustainable consumption and production patterns

- The EU SPREAD studies have been published on sustainable-lifestyles.eu which is packed with guidance and options for policies and practices, including on industrial and manufacturing processes, and housing and transport policies, which will significantly cut emissions and air pollution.
- The participation of all EU citizens is needed in the design and implementation of policies affecting their lives, including people from all socioeconomic, ethnic, age and gender groups to help empower people to make informed decisions, for example on vehicle purchasing options, creating safe and healthy public spaces or reducing food transport miles.

For further information or to join us, visit www.eurohealthnet.eu

FOOTNOTES

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