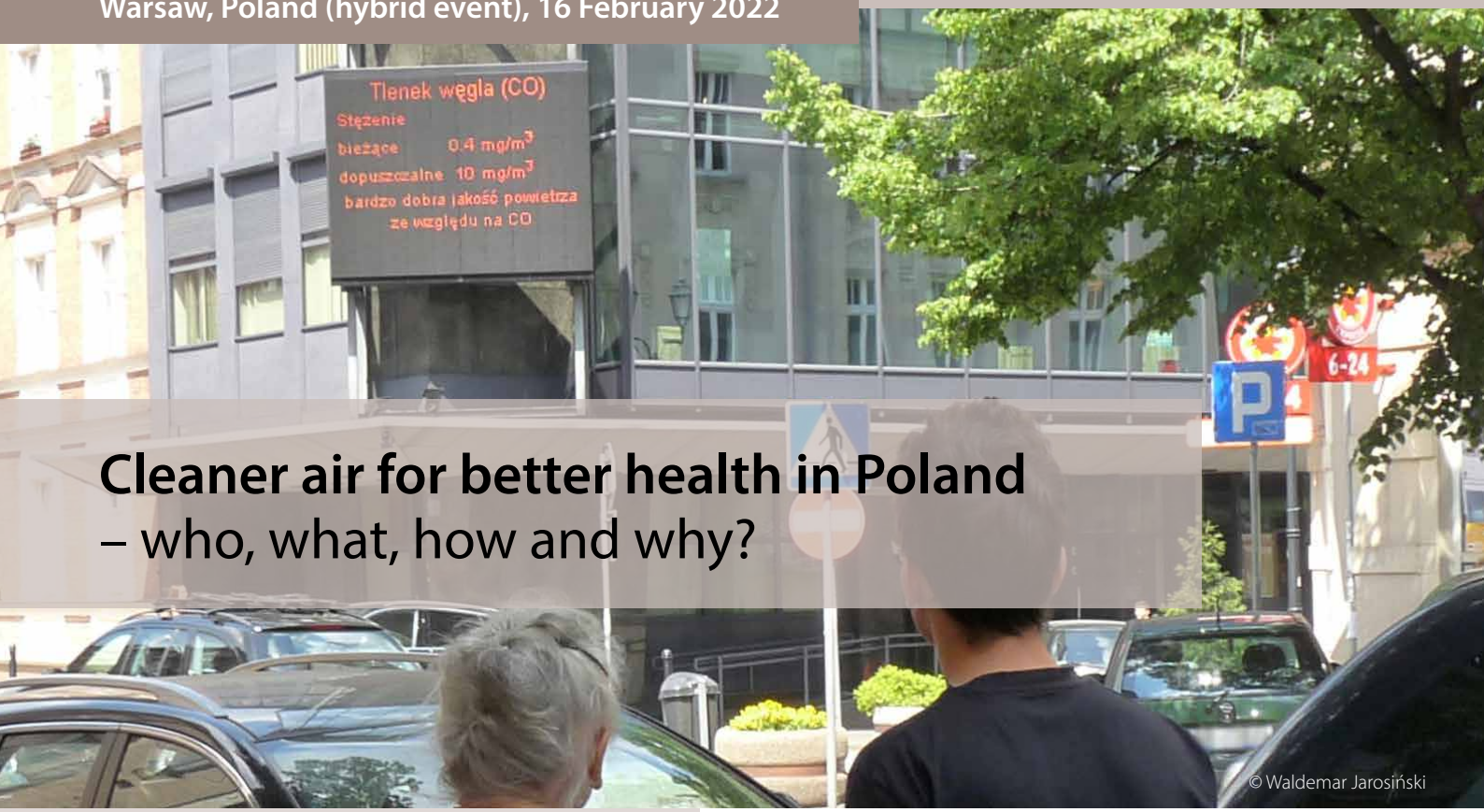
Science-policy dialogue

Air quality and health

World Health Organization
European Region

Warsaw, Poland (hybrid event), 16 February 2022



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Cleaner air for better health in Poland – who, what, how and why?

Objectives

- Create a platform to discuss the needs and actions to achieve cleaner air for better health in Poland.
- Present the *WHO global air quality guidelines* and the Polish version of AirQ+ software tool and raise awareness of the health effects of air pollution in the light of new scientific evidence.
- Explore the interlinkage between air pollution and climate change, and the potential health benefits of effective climate and clean air policies.
- Discuss the current situation regarding air quality and share experiences and actions at the national and local levels to reduce air pollution in Poland.
- Facilitate interactions between stakeholders, including policy-makers, researchers, health professionals, civil society representatives and the media.

Engagement of partners and stakeholders

- A science-policy dialogue for air quality and health was organized jointly by the WHO European Centre for Environment and Health and the WHO Country Office for Poland in cooperation with the Ministry of Health and the National Institute of Public Health – National Institute of Hygiene, the latter of which hosted the event.
- Dr Grzegorz Juszczyk, Director of the National Institute of Public Health – National Institute of Hygiene, opened the event and welcomed participants, together with Ms Ewa Nowacka (Ministry of Health of Poland) and Dr Paloma Cuchí (WHO Country Office for Poland). WHO Regional Director for Europe, Dr Hans Henri P. Kluge, also welcomed participants, emphasizing that "clean air is a political choice and a societal responsibility".
- The event was attended by representatives from the Ministry of Health and Ministry of Environment, local governments, research institutes, academia, the European Commission, and civil society organizations such as the European Clean Air Centre and the Health and Environment Alliance.

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Key achievements

- More than 50 participants, representing policy-makers, academia and nongovernmental organizations, took part in discussions on air pollution and health based on an assessment of the current situation in Poland and actions to improve it.
- The new *WHO global air quality guidelines* were presented, including air quality guideline levels for particulate matter ($PM_{2.5}$, PM_{10}), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and carbon monoxide (CO). This was followed by a discussion of the role and application of the guidelines in shaping the European Union clean air policy.
- The Polish version of the AirQ+ software tool to quantify the health impacts of pollution was introduced, along with instructions on how to use the Polish databases and other key requirements for its application.
- National-level initiatives were presented, including the update of the National Air Protection Programme by the Ministry of Climate and Environment and the activities of the Task Force on Air Pollution and Health, the advisory body to the Ministry of Health.
- Actions taken in Poland to address air pollution and its impacts on health were presented, including an estimate of the health effects of air pollution, national and regional action plans to improve air quality, experiences of the smog alerts and antismog resolutions in cities (such as Kraków), and the role of the medical community in actions on climate and air quality.
- An inspiring example was presented of environmental action in a health care facility (pulmonary hospital in Wolica). Energy efficiency measures, improved waste management, education of health professional and patients, among others, contributed to reducing the negative impacts on the environment, while maintaining and improving the quality care for patients.

Lessons learned

- In Poland, the most important action to reduce exposure to air pollution and its health effects is a rapid and significant reduction in the emission of air pollutants. It is also necessary to systematically educate society about the sources and effects of air pollution, as well as about individual actions that may help to reduce exposure to air pollution.
- Data from the inventory of emission sources indicate that the municipal and housing sector has a predominant role in the primary emission of particulate matter and, therefore, an impact on air pollution. This is followed by the transport and industry sectors, which are responsible for 13% and 11%, respectively, of deaths attributable to air pollution. The current situation emphasizes the need for continued replacement of solid fuel heating devices, as well as to introduce traffic restrictions, especially in urban centres.
- Further efforts are needed to fill gaps in data on specific emission sources and health impacts at national level. Continued interactions among the Polish and international scientists on air pollution modelling may help to tackle these issues.
- The main objectives of the National Air Protection Programme (in operation until 2025) in Poland are to improve air quality in zones where the permissible and target levels of selected air pollutants are exceeded, protect the health and the quality of life of residents, and protect the environment.
- Regional and local air protection programmes can be affected by a lack of policy determination, insufficient regulatory support at government level, and responsibility shifts between different governance levels.
- Efforts to transform hospitals into environmentally sustainable units improve the quality of medical service provision while protecting the environment, improving energy efficiency, reducing the emission of harmful substances into the atmosphere, improving innovation, and reducing negative impacts on the environment.
- WHO successfully brought together policy-makers, scientists and civil society representatives to discuss the changes needed to improve air quality in Poland. Further events of a similar nature would be welcome, including to discuss/explore the impact of the *WHO global air quality guidelines* on the revision of the European Union's Ambient Air Quality Directives.

Additional resources[1]

WHO global air quality guidelines: particulate matter ($PM_{2.5}$ and PM_{10}), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide. Geneva: World Health Organization; 2021. License: CC BY-NC-SA 3.0 IGO.

WHO global air quality guidelines: particulate matter ($PM_{2.5}$ and PM_{10}), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide: executive summary. Geneva: World Health Organization; 2021. License: CC BY-NC-SA 3.0 IGO (also available in Polish).

AirQ+: software tool for health risk assessment of air pollution [website]. WHO Regional Office for Europe; 2023.

Health impact assessment of air pollution: introductory manual to AirQ+. Copenhagen: WHO Regional Office for Europe; 2022. License: CC BY-NC-SA 3.0 IGO (also available in Polish).

Zero regrets: scaling up action on climate change mitigation and adaptation for health in the WHO European Region. Key messages from the Working Group on Health in Climate Change. Copenhagen: WHO Regional Office for Europe; 2021. License: CC BY-NC-SA 3.0 IGO (also available in Polish).

Personal interventions and risk communication on Air Pollution. Geneva: World Health Organization; 2020. License: CC BY-NC-SA 3.0 IGO.

[1] All references were accessed on 29 January 2025.

Acknowledgements

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