

Virtual Workshop on Air Pollution and Health in Southeast Europe

June 8-9, 2021

Key Messages

The Health Effects Institute, the Medical University of Plovdiv, the International Society for Environmental Epidemiology (ISEE) and the European Respiratory Society (ERS) were pleased to organize a joint virtual meeting on air pollution and health on June 8-9, 2021.

At the meeting, over 150 participants from 30+ countries reviewed key trends and current evidence on health effects of air pollution in Southeast Europe with a focus on Serbia and Bulgaria. The group also discussed the interlinkage to policy debate and actions, as well as key steps to accelerate actions towards improving air quality in the region.



Countries in Southeast Europe continue to experience poor air quality.

Despite some progress towards cleaner air, air pollutant levels (PM_{2.5}, PM₁₀, O₃, SO₂, NO₂) are high across the region, especially during winters. A large proportion of the population in the region is exposed to high concentrations of certain air pollutants (incl., PM₁₀, PM_{2.5}, SO₂, NO₂) above the EU limit or target values. The numbers of people exposed were even higher in relation to the more stringent World Health Organization (WHO) air quality guideline values set for the protection of human health. Coal-fired thermal power plants (often using low-quality lignite coal) and household heating are key sources. Transportation, especially associated with the use of old diesel cars, is another important source in urban areas. Additional sources include heavy industry and cropland burning.

Air pollution is a major public health risk factor and economic cost in the region.

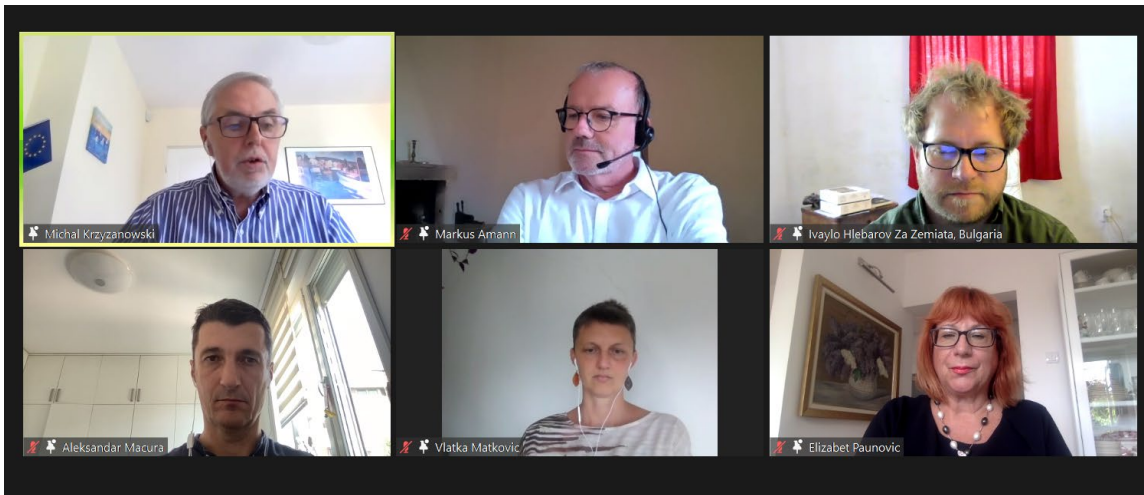
Ambient air pollution continues to be a major public health risk in the region, leading to increased hospitalizations for many diseases, reduced birth weight, and premature death. Southeast Europe experience the highest rates of mortality due to air pollution in Europe. In 2016, the WHO estimated that ambient air pollution is linked to ~8,600 premature deaths in Bulgaria and ~7,000 in Serbia (both countries with populations of ~7 million people).

There are also immense health related economic and social costs from air pollution in the region, and the effects of air pollution disproportionately impact communities with lower socio-economic status.

Bold air quality actions are needed at all levels (international, national, local) and across all sectors (e.g., transport, energy, agriculture).

The estimated health benefits outweigh by far the implementation costs of air quality mitigation actions. As there are key co-benefits between air quality and climate actions, a systemic approach which takes equity issues into account, is necessary. For e.g., energy poverty and access remain a key priority, and a lever for action. Given the high reliance on solid fuels (coal and firewood) as well as waste/plastic burning for heating, there is increasing momentum for moving away from dirtier coal in the region. Policies should ensure access to clean fuels and technologies for cooking, heating, lighting in households.

Air pollution levels in a majority of cities in Southeast Europe exceed both the WHO Air Quality Guidelines and the EU Air Quality Limit Values.



Pictured above: “Application of health impact information in policymaking” panelists, from left: Michal Krzyzanowski, Imperial College London; Markus Amann, formerly at IIASA; Ivaylo Hlebarov, Za Zemiata (*top row*); Alexander Macura, RES Foundation; Vlatka Matkovic, Health and Environment Alliance (HEAL); Elizabet Paunovic, Independent Consultant (*bottom row*). (Photo by Pallavi Pant)

More regional/national/local data are needed to enable science and policy.

To support air quality action, there is a need to expand air quality monitoring, harmonize local, national, and regional air quality programs and provide open access to air quality data. Likewise, there is a need for improvements and harmonization of health data in the region, and their linkage to air pollution data as well as residential addresses and other geographical data. Such data could provide powerful evidence on the relationship between air pollution and health, and the

effectiveness of air pollution regulations, which will be supported by efforts in building and expanding capacity in air pollution epidemiology in the region.

There is a growing impetus for cross-disciplinary, cross-institutional, and transboundary collaboration for air quality and health research. Furthermore, it is important to expand and enhance communication between public health practitioners, medical societies, and patient organizations, in order to inform citizens and policymakers.

Timeline and next steps

July-September 2021	Virtual country-specific deep dive meetings
September 2021– January 2022	Webinar series focused on air pollution and health in Southeast Europe
February 2022	Publication of Spotlight Reports focused on Southeast Europe-regional assessment and country reports on Bulgaria and Serbia
March-June 2022	(TBD) In-country workshops

For more information on the meeting, click [here](#) or contact [Eleanne van Vliet](#).

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