Conference

The First WHO Global Conference on Air Pollution and Health: Improving Air Quality, Combatting Climate Change – Saving Lives will take place in Geneva, from 30 October to 1 November, 2018. The Conference will be organized at WHO Headquarters in Geneva, in collaboration with UN Environment, World Meteorological Organization (WMO), the Secretariat of the UN Framework Convention on Climate Change (UNFCCC), the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC), the United Nations Economic Commission for Europe (UNECE) and the World Bank and will bring ministers of health, energy and development, as well as urban leaders, civil society and scientists, together to talk about this global health threat that kills some 7 million people annually and also accelerates climate change.

Pre-conference workshops

The First WHO Global Conference on Air Pollution and Health will feature a series of pre-conference workshops on 29 October, which will take place at World Health Organization (WHO) HQ and World Meteorological Organization (WMO) HQ in Geneva.

Capacity is limited, and participants must register for their workshops of interest to reserve a seat. To express interest, please contact the coordinator of the workshop you are interested in attending by 12 October. Replies will be sent by 17 October. Please be aware of start and end times, since we will have concurrent workshops. The latest updated information will be available on the pre-conference workshops webpage:

http://www.who.int/airpollution/events/conference/preconference/en/
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Harnessing the advancements in low-cost air quality sensing technologies towards human exposure assessment and health improvement

Coordinator: Sophie Gumy, WHO ambientair@who.int
Expression of Interest: https://extranet.who.int/datacol/survey.asp?survey_id=3914
Location: WMO HQ
Time: 08h30–12h30

Over the past decade the emergence of new technologies in general, and for atmospheric sensing in particular, has been much faster than could be comprehended, little alone utilized. Stationary and dynamic networks of low-cost sensors for air pollution monitoring are being established, sensors are inbuilt in mobile phones and travel on drones. New sensor technologies are commercialized in large numbers, promising a revolutionary shift in air pollution monitoring and assessment of human exposure to air pollution. With their cost significantly lower than that of standard/reference instruments, many avenues for applications have opened up. In particular, broader participation in air quality discussion and utilization of information on air pollution by communities has become possible. Some studies have concluded that, when tested appropriately and used with a full understanding of their capabilities and limitations, low-cost sensors can be an unprecedented aid in a wide range of air quality applications, including the emerging field of citizen science. However, many questions have also been asked about the actual benefits of these technologies, ranging from their performance (accuracy, precision, drift with time or robustness) to the utilization and interpretation of the vast amounts of data generated by the sensors. The proposed workshop will explore the challenges in application of mini and nano sensors for air quality and personal exposure monitoring. Further, it will discuss the likely future scenarios for how we will use these, and the new generations of sensors.
The Urban Health Initiative – UHI
Assessing the health and economic impacts of sectoral action against air pollution

Coordinator: Thiago Hérick de Sá, WHO and Patricia Ferrini, WHO urbanhealth@who.int
Expression of Interest: https://extranet.who.int/datacol/survey.asp?survey_id=3914
Location: WHO HQ
Time: 08h45–13h

The World Health Organization (WHO) Urban Health Initiative (UHI) aims for cities to have the data, tools, capacity and processes to include health in the development equation. The initiative aims are to empower the health sector to realize its potential to support scaling up policy actions to mitigate air pollutants at the urban level. The desired impacts are to reduce deaths and diseases associated with air pollutants, as well as to realize climate and other health benefits (e.g. fewer injuries, better diets, safe physical activity), associated with policies and measures to tackle air pollution. These analyses are conducted with WHO tools that are being adapted to the specific local contexts and inform model scenarios that are used to identify viable options of sector policy change. WHO and partner organizations will use this evidence to inform stakeholders and policymakers about health and other co benefits of selected interventions that mitigate air pollution.

Clean Household Energy Solutions Toolkit
WHO’s Tools & Resources to Support the Implementation of WHO guidelines for indoor air quality: household fuel combustion

Coordinator: Heather Adair-Rohani, WHO and Jessica Lewis, WHO, householdenergy@who.int
Expression of Interest: https://extranet.who.int/datacol/survey.asp?survey_id=3914
Location: WHO HQ
Time: 09h–12h30

Around 3 billion people lack access to clean household fuels and technologies, resulting in around 4 million deaths each year from exposure to household air pollution. In response to this public health crisis, in 2014, WHO published the first-ever normative guidance on what energies used in and around the home which can be considered ‘clean’ for health in the WHO Guidelines for indoor air quality: household fuel combustion. These Guidelines have been instrumental in helping governments and other key stakeholders working in health, energy, environment, etc to understand health risks from household energy use and what are the currently available interventions for public health protection.

However further work is needed to really support governments and other stakeholders to identify, implement and monitor the a “healthy” clean household energy transition. Accordingly, WHO has been developing a Clean Household Energy Solutions Toolkit (CHEST) to provide countries and implementing partners...
with the tools and resources needed to implement the WHO Guidelines and accelerate the transition to clean and sustainable household energy solutions. This half-day workshop will provide participants with an overview of the Guidelines findings and the WHO toolkit to support their implementation. It will also give participants an opportunity to hear other’s experiences with CHEST tools, a ‘hands-on’ experience using some of the available CHEST tools, as well an overview of current research efforts on the clean household energy transition that whose findings can be translated and used to inform policy decisions.

Skills for addressing air pollution and health in all policies
Communication, public health campaigns and negotiation

Coordinator: Nicole Valentine, WHO and Elaine Fletcher, WHO
Expression of Interest: valentinen@who.int
Location: WHO HQ
Time: 09h – 17h

New intersectoral multilateral approaches and partnerships are needed to achieve health and wellbeing outcomes in the face of the air pollution challenges. This workshop will focus on key skills for communicating and negotiating the problem and solutions that address air pollution. Data, scenarios and case studies brought together from around the world by WHO, Vital Strategies and the World Bank, will allow participants to explore, share and build confidence to take practical steps towards solving the air quality challenges issues and improving health of the population in their contexts. The workshop will follow the WHO Health in All Policies Training Manual and, for communications and population perceptions, the BreatheLife campaign, Vital strategies and the SEFIRA project from the World Meteorological Organization.
Breathe clean air: everywhere, for everyone
Protecting workers from air pollution outdoors and indoors

Coordinator: Ivan Ivanov, WHO
Expression of Interest: IvanovI@who.int
Location: WHO HQ
Time: 09h30 – 17h30

The Universal Declaration on Human Rights proclaims that everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment. All of the 3.5 billion workers in the world have the right to breathe clean air at their workplaces, as well as at their homes, cities and villages.

Pollution of air at the workplace, being indoors in the work premises, or during work outdoors is harmful to health and can be prevented. For this reason the 13th WHO General Programme of Work (2019–2023) states that “with respect to air pollution (i.e. outdoor, household and workplace air pollution) and climate change mitigation, WHO will scale up its work with different sectors – including transport, energy, housing, waste, labour and urban planning – at the national and local level to monitor air quality, develop strategies for transitioning to healthier technologies and fuels and for ensuring that all populations breathe air that meets the standards of WHO’s air quality guidelines, and that scientific evidence will be translated into effective policies.”

The round table will be held on 29 October 2018 in WHO headquarters, prior to the Global Conference on Air Pollution and Health. It will provide opportunities for conference participants who have a stake in protection of workers’ health to have focused discussion to identify the major challenges for protecting workers from air pollution and build momentum for commitments for action at workplace, national and international levels to increase the protection of workers to air pollution.
Evaluating the short-term health effects of desert and anthropogenic dust

Coordinator: Sophie Gumy, WHO ambientair@who.int
Expression of Interest: https://extranet.who.int/datacol/survey.asp?survey_id=3914
Location: WHO HQ
Time: 13h–18h

Desert dust and sand storms might have a large impact on air quality, in particular PM10 and PM2.5, not only in areas close to the sources or regions but over areas even a few thousands of kilometres away. Several studies have assessed the direct effects of desert dust on mortality, hospital admissions and other health outcomes. The main difficulty of these studies has been separating the effect of desert dust from that of other anthropogenic pollutants and meteorological variables. The workshop will provide an updated knowledge on both the environmental and the epidemiological aspects and will allow the design and the analysis of local time-series studies.

From satellites to burdens

Coordinator: Sophie Gumy, WHO ambientair@who.int
Expression of Interest: https://extranet.who.int/datacol/survey.asp?survey_id=3914
Location: WHO HQ
Time: 13h–18h

In May 2018, the World Health Organization (WHO) released new estimates of global air quality showing that air pollution levels are dangerously high in many parts of the world. The new estimates reveal an alarming toll of 7 million deaths every year can be associated with exposure to outdoor and household air pollution, and that 90% of people worldwide breathe polluted air.

In this workshop, we will explore the process in which ground monitoring of PM2.5 fine particulate air pollution is supplemented with information from remote sensing satellites and other sources to produce high-resolution estimates of concentrations for every country. We will then show how these estimates form the basis of the calculations of country-level, regional and global, burden of disease.
Introduction to the assessment of air pollution impacts on health using AirQ+

Coordinator: Pierpaolo Mudu, WHO ambientair@who.int
Expression of Interest: https://extranet.who.int/datacol/survey.asp?survey_id=3914
Location: WHO HQ
Time: 13h–18h

The general aim of this workshop is to introduce participants to the general principles of health impact assessment (HIA) and its use to evaluate health effects of population exposure to air pollution. It will support the understanding of modelling air pollution health effects, and the use of tools to assess impacts of air pollution and of clean air policies, specifically AirQ+.

The workshop is recommended to public health or environmental and public health specialists with minimum knowledge of atmospheric modelling, statistical methods, epidemiology or GIS. Participants are invited to bring their laptops and possibly have installed AirQ+ software in their computer.

Energy, health and cities

Improving air quality, and reducing health risks in urban areas through improving energy access, energy efficiency and renewables

Coordinator: Heather Adair-Rohani, WHO householdenergy@who.int
Expression of Interest: https://extranet.who.int/datacol/survey.asp?survey_id=3914
Location: WHO HQ
Time: 14h–15h30

Cities are growing at a rapid rate. Sixty percent of people are expected to live in cities by 2030. Mayors and city governments are uniquely positioned to take swift and concerted action to address air pollution. This panel discussion will identify energy interventions for key air pollution sources in cities and discuss how the health and energy communities at the city-level can work together to clean the air and protect public health. The session will include a brief overview of health, air pollution and energy linkages in cities, some of the WHO resources available for choosing ‘health-wise’ energy interventions for transport, waste, and energy access, as well as include lessons from experiences on the ground working in cities.
Using LEAP-IBC to create integrated assessments of the benefits of emission reductions to human health, agriculture and climate

Enhancing the capacity of national and urban-scale policy-makers to evaluate the benefits of taking action

Coordinator: Johan Kuylenstierna, Stockholm Environment Institute/CCAC
Expression of Interest: johan.kuylenstierna@york.ac.uk
Location: WMO HQ
Time: 14h–18h

Planners and practitioners in many countries of Asia, Africa and Latin America often lack the ability to undertake quantitative assessments of air pollutants, short-lived climate pollutants (SLCPs) and greenhouse gases (GHGs), and the impacts that they are likely to have on human health, agriculture and climate change. At the Stockholm Environment Institute, we have been collaborating with the U.S. Environmental Protection Agency (EPA) and others on the development of a tool that can enable users in these countries estimate the impacts of different emissions scenarios on premature mortality, crop yields and global temperature change.

This new tool is known as IBC: the Integrated Benefits Calculator. It is an application linked to SEI’s well-established Long-range Energy Alternatives Planning system (LEAP) which has already been widely used by energy and climate planners in developing countries for the past two decades, including by more than 40 countries that used LEAP to develop their INDC communications to the UNFCCC’s 2015 Paris Climate Conference. A key aspect of LEAP’s design philosophy is that analyses will be much more influential if the policy-makers in countries have undertaken the analyses themselves. Therefore, LEAP-IBC is designed to be open, transparent and relatively straightforward to use. The resulting enhanced tool, LEAP-IBC is currently being used to support integrated national planning of air pollution, SLCPs and climate change in 30 countries engaged in the Climate and Clean Air Coalition (CCAC), which has also supported the development of the IBC.

In this session, we will explain how LEAP-IBC allows users to i. estimate emissions of air pollutants, short-lived climate pollutants and GHGS, ii. develop baseline and mitigation scenarios at the national scale, iii. estimate the population-weighted concentrations of PM2.5 in a country, iii. estimate the concentrations of ground-level ozone using metrics relevant for human health and crop yields, iv. Estimate impacts of PM2.5 and ozone on premature mortality, v. estimate crop-yield reductions for four staple crops and vi. estimate the impact of emission scenarios on global temperature change.

We will also describe how the tool has been applied to date around the world, and also discuss the use of LEAP-IBC to implement a new conceptual framework being developed by the CCAC, which promotes an integrated approach to addressing air pollution and climate change to increase policy coherence, increase ambition to reduce emissions and maximize the benefits to human health, climate change and agricultural production.
Universal Clean Energy Access for Women’s Health, Sustainable Development, and Wellbeing of Women and Children

Coordinator: Heather Adair-Rohani, WHO and Jessica Lewis, WHO householdenergy@who.int
Expression of Interest: https://extranet.who.int/datacol/survey.asp?survey_id=3914
Location: WHO HQ
Time: 16h–17h30

There is a global consensus and ever-growing body of evidence that expanding access to clean household energy for cooking, heating and lighting is key to achieving a range of global priorities, such as improving health, gender equality, equitable economic development and environmental protection.

Universal access to clean and modern cooking (Sustainable Development Goal 7) is integral to reducing poverty and advancing human dignity. The co-benefits of clean cooking can help achieve 10 of the 17 global goals. Moreover, clean cooking is particularly relevant to fulfilling the SDG commitment to “leave no one behind”, since the harmful consequence of traditional, inefficient cooking disproportionately affect the world’s most vulnerable citizens – women, girls, and infants, as well as those living in extreme poverty and displaced populations.

Air pollution exposure from inefficient cooking with biomass fuels can cause non-communicable cardiovascular and respiratory diseases in adults and pneumonia in children. In addition to these illnesses, polluting and unsafe fuels pose substantial risks for burns and injuries. Fuel collection over long distances with heavy loads can result in personal safety risks and injury as well. The process of traditional cooking places additional burdens on women and girls, who typically spend hours each day caring for their families and performing routine, unpaid household chores such as cooking, cleaning, collecting water and firewood. This problem is tragically widespread – about half of the world’s people cook their meals and heat and light their homes using dangerously polluting fuels and devices with tragic consequences. Breathing in smoke from inefficient cooking fires is estimate to cause four million deaths each year – most of which are women and children. These deaths are preventable by moving to clean fuels and technologies for household energy. Universal clean energy access would also prevent the loss of countless hours spent gathering wood, and the significant contribution made to atmospheric warming from household combustion sources.