Update on WHO and TFH activities

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Presentation outline

- 18th TFH meeting
- WHO activities:
  - World Health Assembly Resolution on Air Pollution and Health
  - Mid-Term review meeting of the WHO Environment and Health Process
  - Health economics and air pollution
  - Residential heating with wood and coal
  - Update of WHO Air Quality Guidelines
  - Health risk assessment of air pollution
  - Update of WHO AirQ tool

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18th TFH meeting – 14-15 April 2015

- Review of the progress in research on health impacts of particulate matter and ozone
  - including new evidence on economic evaluation of health effects of air pollution
- Update on the revision of the EU air policy
- Communication and public health messages for air pollution
- Monitoring and modeling of air pollution and its health impacts in countries of eastern Europe, the Caucasus and central Asia
- Current activities and work plan of TFH for 2016-2017
  - Including CLRTAP assessment and trends reports
  - 53 participants from 36 countries and other international organizations
World Health Assembly Resolution on air pollution and health (May 2015) (1/3)

- Among the actions outlined in the adopted Resolution, Member States are urged to:
  - Develop policy dialogue, partnerships, and strengthen multisectoral cooperation at national, regional and international levels, taking into account WHO guidelines;
  - Raise awareness in the public and among stakeholders of the impacts of air pollution on health and opportunities to reduce or avoid exposure, and encourage and promote such measures;
  - Facilitate relevant research;
  - Collect and utilize data relevant for health risk assessment and surveillance of illnesses related to air pollution;
  - Take effective steps to address and minimize air pollution from health care facilities, and identify actions by the health sector to reduce health inequities related to air pollution;
  - Meet the commitments made at the 2011 UN High level meeting on non-communicable diseases.
World Health Assembly Resolution on air pollution and health (May 2015) (2/3)

- Asks WHO to:
  - Strengthen WHO capacities in the field of air pollution and health
  - Exercise global leadership and maximize synergies
  - Work with other UN organizations
  - Raise awareness of public health risks and potential benefits of improvement of air quality
  - Strengthen links with other global health initiatives that can benefit from air pollution reduction
World Health Assembly Resolution on air pollution and health (May 2015) (3/3)

- WHO will report to the sixty-ninth World Health Assembly:
  - on the implementation of this resolution and its progress in mitigating the health effects of air pollution, and other challenges to air quality, and
  - to propose a road map for an enhanced global response to the adverse health effects of air pollution
WHO European Environment and Health Process

- High level meeting on 28-30 April 2015 in Haifa, Israel
- Mid-term review meeting to discuss progress towards commitments laid out in the Parma Declaration in 2010

Ministers of Health and Environment of the WHO European Region have committed to reduce exposure to air pollution, decrease diseases, and take advantage of the approach and provisions of the LRTAP protocols and support their revision, where necessary

- Preparation of a road map for next Environment and Health Ministerial Conference to be held in 2017
WHO/OECD Publication on health economics


- “In the WHO European Region alone a staggering US$ 1.6 trillion is the economic cost of the approximate 600 000 premature deaths and of the diseases caused by air pollution in 2010”.
WHO Publication on residential heating

- Publication available on the web now at: http://www.euro.who.int/residential-heating
- English and Russian versions available

Residential heating with wood and coal:
health impacts and policy options in Europe and North America

Geneva, Switzerland
September 2015
WHO Air Quality Guidelines

- Ambient air quality guidelines
  - Global update (2005)
  - Next revision (start in 2015)

- Indoor air quality guidelines
  - Dampness and mould (2009)
  - Selected chemical pollutants (2010)
  - Household fuel combustion (2014)
Update of the WHO Air Quality Guidelines

• Expert consultation on available evidence for future update of WHO Global Air Quality Guidelines

• Planned for 29 September – 1 October 2015 in Bonn, Germany

• Involve global experts in epidemiology, toxicology and clinical evidence, risk assessment, population exposure, atmospheric chemistry, methodology, and also policy implications, interventions and accountability measures

• Discuss and identify latest health evidence on air pollutants and interventions to reduce air pollution

• Meeting conclusions will serve as a basis for further planning of the work for the update
Pollutants covered by previous WHO air quality guidelines

<table>
<thead>
<tr>
<th>Organic pollutants</th>
<th>Inorganic pollutants</th>
<th>Classical pollutants</th>
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<tbody>
<tr>
<td>2. Benzene</td>
<td>2. Asbestos</td>
<td>2. Ozone and other photochemical oxidants</td>
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<td>5. Carbon monoxide</td>
<td>5. Fluoride</td>
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<td>6. 1,2-Dichloroethane</td>
<td>6. Hydrogen sulphide</td>
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<td>7. Dichloromethane</td>
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<td>8. Formaldehyde</td>
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<td>9. PAHs</td>
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<td>10. PCBs</td>
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<td>11. PCDDs and PCDFs (Dioxins and furans)</td>
<td>11. Platinum</td>
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<td>12. Vanadium</td>
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<td>12. Styrene</td>
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<td>13. Tetrachloroethylene</td>
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<td>14. Toluene</td>
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<td>15. Trichloroethylene</td>
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<td>16. Vinyl chloride</td>
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Pollutants covered by previous WHO air quality guidelines (continued)

- Some of concern for indoor environments but not necessarily outdoors
- Many have been assessed by IARC for their potential to cause cancer
- Most been fully assessed last by WHO in 2000
  - PM, O3, SO2, NO2 in 2005 (global update)
  - IAQG (selected pollutants) in 2010
- New air pollutants potentially relevant now that were not considered in previous guidelines
  - Black / elemental carbon?
  - Others?
WHO AQG: where should they go and what is their role?

- Implication of recent scientific evidence for WHO air quality guidelines?
- Recommendation of targets values (such as in the WHO 2005 global update)?
- Local, national, regional, global context?
- Consideration of strategies and best practices for improving air quality:
  a) Effectiveness of interventions/methods to reach the AQGs and evidence of health benefits
  b) Guidance on implementation of air quality management plans to decrease air pollution levels and improve health
Health risk assessment of air pollution

- Preparation of a WHO publication on “Health risk assessment of air pollution – general principles for policy makers”
- As a follow-up to a WHO Expert meeting held in May 2014 on “Methods and tools for assessing the health risks of air pollution at local, national and international level”
- Anticipated publication by end of 2015
- Target audience:
  - community of policy makers
  - health risk assessment practitioners at local, national and international level
  - end users from various sectors in international agencies, research and advocacy groups
WHO AirQ+ tool

- WHO tool for quantification of the health impacts of air pollution
- Update of already existing tool (AirQ)
- Plan for the development of an up-to-date software tool, ongoing throughout 2015
- Follow-up to meeting held in May 2014 on “Methods and tools for assessing the health risks of air pollution at local, national and international level”
Pollutants handled by AirQ+

- $\text{PM}_{2.5}$
- $\text{PM}_{10}$
- $\text{NO}_2$
- ozone
- black carbon
AirQ+: Principles of design (1)

- Transparent in methodologies and algorithms;
- Presenting a user-friendly interface
- Algorithms for outdoor and indoor air pollution
- Effects attributable to short-term and long-term exposure
- Guiding the user in HIA for the most important and best recognized effects of air pollution
- Estimates for BoD due to current and changing levels of pollution (both decreases and increases)
AirQ+: Principles of design (2)

- Concentration–response functions (CRFs) based on HRAPIE recommendations (WHO/Europe, 2013) or from most recent scientific studies;
- Whenever possible, using data for morbidity and mortality from WHO databases, but also options for user data entry;
- Results: attributable fraction (AF), Years of Life Lost (YLLs), Burden of Disease (BoD);
- Additional documents on algorithms and methods used.