Health and the environment

Draft road map for an enhanced global response to the adverse health effects of air pollution

Report by the Secretariat

1. In resolution WHA68.8 (2015), the Director-General was requested, inter alia, to propose to the Sixty-ninth World Health Assembly a road map for an enhanced global response to the adverse health effects of air pollution. In response to this request, a draft road map has been developed and is described below. Additional detail is provided in Annex 1.

2. The initial period covered by the road map and its related actions is 2016–2019, at the end of which, the road map will be updated to incorporate results from monitoring, feedback and evaluation. In addition, it will be aligned with priorities included in the thirteenth general programme of work.¹

3. The vision, rationale and mechanisms for how the health sector can enhance the global response to the adverse health effects of air pollution is described in paragraphs 4 to 13 below, and the theory of change is summarized in Annex 2. The road map is organized into four categories:

(a) **Expanding the knowledge base:** Building and disseminating global evidence and knowledge relating to: the impacts on health of air pollution, the effectiveness (in health terms) of policies, and interventions to address air pollution and its sources that have been undertaken by different sectors. This includes identifying knowledge gaps and the promotion of innovation and research needed to address the impacts of air pollution on health.

(b) **Monitoring and reporting:** Enhancing systems, structures and processes needed to support monitoring and reporting on health trends associated with air pollution and its sources, including in the context of the post-2015 Sustainable Development Goals and related indicators.

(c) **Global leadership and coordination:** Leveraging health sector leadership and coordinated action at the global, regional, country and city levels in order to enable an appropriate and adequate response to the dimension of the task at hand.

(d) **Institutional capacity strengthening:** Building the capacity of the health sector, to analyse and influence policy and decision-making processes in support of joint action on air pollution and health, for example, to support the development of strategies and action plans to

¹ Following on from the Twelfth General Programme of Work, 2014–2019, the thirteenth general programme of work commences in 2020.
reduce overall air pollution health risks, at national level or in cities as well as to support the implementation of recommendations from WHO air quality guidelines.

4. In general terms, there is some awareness relating to the impact on health of exposure to air pollution. There is a lack of access, however, to existing evidence and there are limited assessments of health impacts from interventions in other sectors in terms of the prevention of those diseases caused by air pollution, including in specific settings, such as in the home or urban environments. There is also limited evidence, in general as well as in economic terms, about health risks and benefits of specific sector policies and of specific groups of society, and interventions to address air pollution.

5. Data that inform health trends associated with exposure to air pollution and its sources are currently being collected and reported using different methodologies and procedures. Much of it is directly relevant to the monitoring of Sustainable Development Goals indicators 3.9 (pollution risks to health), 7.1.2 (access to clean energy in homes), and 11.6 (air quality in cities). In a separate work stream, monitoring and reporting tools will be refined and further developed, building on the existing global WHO databases for indoor air pollution and household energy fuels and technologies, and ambient air quality. The framework for data harmonization, analysis, reporting and visualization being developed under WHO’s recently established global platform on air quality and health will serve as the primary mechanism for ensuring reliable, valid and accessible estimates of human exposure to air pollution globally. This global platform will continue to draw on all relevant existing sources of data worldwide. It will work to improve the quality of the data and to extend geographical coverage, in close cooperation with relevant international and national agencies and research groups working on this issue, so as to contribute to the effective monitoring of air pollution and related health risks as well as of relevant Sustainable Development Goals.

6. Prevention of diseases caused by air pollution requires effective intersectoral engagement. The road map thus includes a specific work stream focused on strengthening capacity of health actors to use public health evidence and arguments to contribute to and influence air pollution policy-making processes (including in the transport, agriculture, energy, industry and waste management sectors), so as to realize improvements in air quality and health. Similarly, health sector sources of air pollution should be addressed, such as the use of diesel generators or energy inefficient buildings and medical technologies.

7. An additional focus will be on integrating air pollution mitigation strategies into wider public health prevention and health care delivery strategies, as relevant. Some examples include linking such mitigation strategies to the prevention of noncommunicable diseases or childhood pneumonia, as well as to relevant existing health development strategies, processes and conventions (such as the WHO Framework Convention on Tobacco Control, as relevant).

8. Institutional strengthening efforts will also seek to build capacity of health care workers (including medical practitioners, nurses and community health workers) to provide recommendations on ways of avoiding exposure to air pollution to communities and individuals, among whom there are sensitive or vulnerable populations, including children, the elderly and slum dwellers. Related

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1 The sectors referred to include transport, energy, waste, agriculture, industry and urban planning. Similarly, experiences and insights about good practices are not widely accessible or used. Therefore, activities carried out in the first stream of work under the road map will focus on building relevant knowledge and evidence, and on providing wide and easy access to it, using appropriate formats and means for a range of target audiences (such as community health workers, health sector managers, civil society organizations, development partners, and the media).
activities will include developing curricula and conducting training, advocacy and outreach within relevant health forums, such as international professional medical and nursing associations.

9. The need to communicate effectively with the public and with decision-makers about health risks associated with air pollution, and in particular the substantial health benefits expected from actions to mitigate air pollution, cannot be overemphasized. A broad communication strategy will be developed to raise global awareness and stimulate demand for policies that reduce air pollution, prevent diseases and improve health and well-being. The strategy will be designed to build on relevant existing efforts, such as the partnership between WHO and the Climate and Clean Air Coalition; of particular relevance is the Breathe Life campaign. The communications strategy will cater for the needs of different groups, communication mechanisms and opportunities available in different parts of the world.

10. Institutional strengthening will also include a focus on country implementation. In this context, good practice examples and models will be developed and tested in cooperation with countries, for example, plans to clean indoor air through better access to clean fuels and technologies in the home of rural and poor populations. Support will be provided to urban stakeholders to engage and make use of untapped opportunities to promote urban policies that prevent air pollution diseases and promote well-being. Such actions will help generate support for health, promoting air pollution reduction actions and behaviours at the subnational level. In so doing, it will increase overall demand for compliance and enforcement of related national measures.

11. Once the road map has been adopted, the possibility is envisaged of a global high-level and intergovernmental conference on air quality and health in, for example, two years’ time. The objectives of such a conference would be to review progress, including in the context of the implementation of the Sustainable Development Goals and other relevant global policy priorities. An additional objective would be that it provides an opportunity to discuss and agree on further action required in order to ensure an effective and appropriate response to address the health impacts of air pollution, including action related to monitoring, reporting, capacity building, reduction measures and financing.

12. Regular evaluations of progress on activities related to the road map will be undertaken. Feedback will be used to make necessary adjustments and improvements. Regular reports will also be prepared on implementation of the road map, which will focus on activities, on any revisions required, on resources available to support the implementation of the resolution, and on progress towards achieving the overall goals and objectives of the resolution. Important sources of information will be the relevant databases and related mechanisms, such as those strengthened by the implementation of the resolution.

13. An additional focus will be on supporting the country-level implementation of relevant WHO guidelines on air quality, including the new guidelines on household fuel combustion. The latter will be supported, for example, by the provision of technical advice and capacity building aimed at facilitating the development of national action plans on indoor air quality.

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14. Within the work stream on institutional capacity strengthening, reference is made to the need to build up WHO’s internal technical and operational capacity to support this work, in view of current limits in staff and resources, including at regional and country levels. Additional technical staff will be needed in the regions, in some country offices, and at headquarters. For the latter, this will include specialist expertise in epidemiology, statistics/modelling, health economics and knowledge management. As part of the implementation of this road map, options for ensuring adequate resources and a budget ceiling will need to be agreed.

15. A report on the implementation of resolution WHA68.8 (2015) will be provided at the Sixty-ninth World Health Assembly, making reference to early achievements since the adoption of this resolution, for example: monitoring and evaluation of human exposure to air pollution and related health impacts; support for action in countries to implement the WHO indoor air quality guidelines; strengthening capacity in cities to address the health impacts of air pollution; and in the context of health communications.

**ACTION BY THE EXECUTIVE BOARD**

16. The Executive Board is requested to provide guidance to the Secretariat on revising and elaborating the draft road map, in preparation for its presentation to the Sixty-ninth World Health Assembly in May 2016. The road map will include a proposed monitoring and reporting framework with indicators and objectives to track progress, as well as detailed costing.
The proposed road map for the period 2016–2019 is represented in the figures below, which depict the sequence of activities and achievements – or milestones – of the road map. Figures 1–4 focus, respectively, on expanding the knowledge base, monitoring and reporting, global leadership and coordination, and institutional capacity strengthening.

Figure 1. Expanding the knowledge base

**Current state:**

- Some evidence on health impacts of air pollution, health risks and benefits of specific sector policies, and on effectiveness of interventions. There are significant knowledge gaps.

- Establishment of a framework for the public health information tool, in collaboration with relevant stakeholders.

- Development of the public health information tool as a repository of existing knowledge and evidence.

- Synthesize evidence of health impacts from air pollution and of effective interventions including through development of WHO guidelines.

**Actively disseminate existing and new knowledge and evidence on air pollution and health through the public health information tool.**

**Research capacities and capacities for use of analytical tools enhanced through training, exchange and technical support, particularly in low- and middle-income countries at both the national and subnational levels.**

**Global analysis undertaken of linkages between air pollution and global health priorities, including noncommunicable diseases, maternal and child health, and health systems strengthening/universal health coverage.**

**Global analysis of health risks and benefits associated with interventions to reduce air pollution, including technology-based interventions in at least four priority sectors, and related findings disseminated in relevant multi-stakeholder forums.**

**Desired state:**

- Evidence is enhanced and widely accessible on health impacts of air pollution, health risks and benefits of specific sector policies, and on the effectiveness of interventions. Institutional capacity exists at the national and subnational levels to conduct such analysis and communicate results.

- Synthesize evidence of health impacts from air pollution and of effective interventions including through development of WHO guidelines.

- Establishment of a framework for the public health information tool, in collaboration with relevant stakeholders.

- Development of the public health information tool as a repository of existing knowledge and evidence.

- Tools to support research and analysis developed/enhanced, e.g. to assess health impacts of air pollution, identify health risks and benefits of sector policies (e.g. health impact assessment), conduct cost–benefit analyses, etc., in population groups like children and women, and at the subnational level (in cities and in homes).

- Global analysis of health risks and benefits associated with interventions to reduce air pollution, including technology-based interventions in at least four priority sectors, and related findings disseminated in relevant multi-stakeholder forums.

- Focused research initiated in countries to address knowledge and evidence gaps, in line with a global research agenda on this topic.
### Current state:

Some global monitoring and reporting on health trends associated with exposure to air pollution is being carried out by a few actors. There are large gaps in parts of the world and a need for harmonization of data instruments and for more and improved data collection at the national and subnational levels, including in cities and in homes.

**Framework and supporting tools**
- Developed for harmonizing local, country, regional and global data collection and monitoring activities.

**Methods and tools**
- Used to estimate human exposure to air pollution and related burden of disease are refined for identifying the contribution of specific sectors (e.g. transport, energy) and in specific settings (e.g. cities, homes).

**Tools developed and technical support**
- Provided to strengthen capacity for harmonization of country level monitoring, data collection and analysis on air quality and health, including in cities and in homes.

**Existing global databases and monitoring and reporting systems**
- Updated and enhanced, e.g. on urban air quality in cities and on household energy fuels, and technologies and indoor air pollution.

**Global and regional networks**
- Established to support monitoring and reporting on health impacts of air pollution. Close cooperation with agencies engaged in air quality monitoring is maintained/enhanced (e.g. WMO, UNEP, LRTAP Convention, and the European Environmental Agency).

**Public information tool**
- Enhanced to allow for reporting, visualization and dissemination of evidence and data on air pollution and health, including through WHO’s Global Health Observatory.

**Capacity of national and subnational institutions**
- Enhanced for the use of harmonized tools for collection and/or analysis of data on air quality and health.

**Country-level monitoring data**
- Systematically fed into regional and global monitoring efforts.

**Country-level monitoring data**
- Used to influence national and subnational policy-making processes related to air pollution.

### Desired state:

Global, regional, country and local monitoring and reporting are enhanced on health trends associated with exposure to air pollution and its sources, including in the context of the post-2015 Agenda for Sustainable Development and contribution to reporting of related indicators (e.g. SDGs for health, energy and cities). This is informed by national and subnational (e.g. city-level) monitoring efforts.

**Tools developed and technical support**
- Strengthened for harmonization of air pollution monitoring and reporting activities.

**Public information tool**
- Enhanced to allow for reporting, visualization and dissemination of evidence and data on air pollution and health, including through WHO’s Global Health Observatory.

**Global burden of disease attributed to air pollution**
- Estimated and trends reported.

**Global burden of disease**
- Associated with urban air quality in cities and on household energy fuels, and technologies and indoor air pollution.

**Global, regional, country and local monitoring and reporting**
- Enhanced on health trends associated with exposure to air pollution and its sources, including in the context of the post-2015 Agenda for Sustainable Development and contribution to reporting of related indicators (e.g. SDGs for health, energy and cities). This is informed by national and subnational (e.g. city-level) monitoring efforts.

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Figure 3. Global leadership and coordination

**Current state:**
Global awareness of the public health importance of tackling air pollution is growing. However, understanding how to address it remains a challenge. Cooperation across health and other sectors to reduce air pollution is still under-used. Air pollution reduction is missing from public health strategies e.g. to prevent noncommunicable diseases.

**Communications strategies to raise awareness and simulate demand for policies to tackle air pollution, prevent diseases and improve well-being are developed at global, country and local levels led by the WHO, building upon collaborative efforts such as the joint WHO–CCAC Breathe Life campaign.**

**Advocacy and outreach conducted key high-level forums (such as in the context post-2015 sustainable development agenda, CCAC, 1 SE4ALL, 2 HABITAT III, 3 UNFCCC) so as to stimulate increased demand for concerted action on air pollution and health.**

**Governments, including Ministries of Health and Environment come together in a first global conference on air pollution and health and agree a global framework for enhanced action.**

**Air pollution reduction is included in global public health programmes and strategies, e.g. to prevent noncommunicable diseases.**

**Action to address air pollution and health is integrated into relevant global and regional processes on health, environment and sustainable development. Regional strategies or frameworks for action developed as appropriate.**

**Global and regional networks, such as the WHO Collaborating Centre networks, professional medical and public health associations, and relevant civil society organizations (e.g. NCD Alliance) aligned around global framework for action.**

**Global, interagency group on air pollution and health established with operational linkages with existing United Nations and other multistakeholder initiatives, including CCAC and SE4All.**

**Desired state:**
Stakeholders at global, regional and country levels engaged in coordinated action, to prevent diseases caused by air pollution and to obtain the full range of health benefits from mitigation activities.

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1 CCAC refers to Climate and Clean Air Coalition.
2 SE4ALL refers to Sustainable Energy for All Initiative, see http://www.se4all.org/ (accessed 12 November 2015).
4 UNFCCC refers to the United Nations Framework Convention on Climate Change.
Figure 4. Institutional capacity strengthening

Current state:
Overall capacity among health actors and agencies (including WHO) is uneven, particularly with respect to capacity needed to achieve effective intersectoral engagement for health.

Tools and guidance are developed to support implementation of WHO air quality guidelines as relevant, and for the development of national and subnational action plans on air pollution and health. Tools are piloted in a few countries and cities and updated accordingly.

Institutional capacity at the regional and global levels, including within WHO, is enhanced and related programmes and technical capacities are strengthened.

Training materials are developed and technical support provided to build health sector capacity for communications, e.g. with the public, on addressing the health effects of air pollution.

Training and technical support provided on the use of intersectoral approaches such as health-in-all policies, at both the national and subnational levels as relevant.

Leveraging technical support, as relevant, from global and regional networks, institutional capacity to develop air pollution and health action plans is enhanced particularly within the health sector, including at the national and subnational (e.g. city) levels or for specific issues, such as household air pollution.

Desired state:
Health sector capacity for addressing adverse effects of air pollution on health enhanced at the global, regional and country levels, including in the context of other sector policy processes, including at the WHO. National and/or subnational strategies developed to support such action.

Models and tools for influencing other sector policy processes to take into account linkages between air pollution and health (e.g. in cities, in household energy) documented and disseminated as examples of good practice.
ANNEX 2
An enhanced global response to the adverse effects of air pollution on health – a theory of change

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<thead>
<tr>
<th>Trajectory of adverse effects of air pollution on health is changed</th>
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<tr>
<td>Action on air pollution reduction increases at global, regional, national and city levels.</td>
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<td><strong>Policy process:</strong> Decision-makers have an increased incentive to adopt policies that address air pollution because of the benefits to health, cost savings, and the demand from constituents and global interest groups.</td>
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<td>Demand for action to reduce air pollution in different sectors increases.</td>
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**Global, regional, national, and local/urban constituents** call for action on air pollution in recognition of associated benefits for health, in particular for vulnerable population groups.

**The health community** reframes action on air pollution as a public health issue, and mainstreams supporting functions in global, regional, national and local health policy and planning processes, including for example the NCD Global Policy Dialogue.

**The environment and development communities** use supplemental arguments of health benefits to further promote shared agendas, e.g. indicators for SDGs, including on health (SDG 3), energy (SDG 7) and cities (SDG 11).

**A clear, compelling and shared vision regarding desired health benefits and reduced air pollution is articulated.**

**Engagement process:** Health evidence and messaging and increased health competency facilitates constructive engagement with other sectors and relevant stakeholder groups on the prevention of adverse health effects from air pollution.

**I. Health evidence:** makes clear the societal, health care, and environmental costs of inaction on air pollution and in so doing makes clear the urgency for action. Optimal policy scenarios identified, providing clarity on a possible way forward.

**II. Health competency:** All key constituencies, including health, environment and other sector actors (e.g. in transport and energy) as well as from civil society become more aware of and able to build health arguments in the context of action on air pollution. Engagement between sectors, industry/the private sector and with key stakeholders in academia, civil society, and the general public increases and results in the establishment/strengthening of initiatives in support of this agenda.

**III. Health communications:** Advocacy and communications conducted through the Breathe Life campaign raise awareness and catalyse increased global, regional and local interest and engagement for action on air pollution and health.