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Summary report on the

Expert consultation on establishing an early warning system and communicating health messages during air pollution episodes

Amman, Jordan
24–25 February 2019



REGIONAL OFFICE FOR THE

World Health
Organization

Eastern Mediterranean

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1. Introduction

A regional expert consultation on establishing an early warning system and communicating health messages during air pollution episodes was organized by the World Health Organization (WHO) Regional Centre for Environmental Health Action, in collaboration with the Department of Health Protection and Promotion of the WHO Regional Office for the Eastern Mediterranean, on 24–25 February 2019 in Amman, Jordan.

The objectives of the meeting were to:

- review the experience of 10 Eastern Mediterranean Region countries and four non-Eastern Mediterranean Region countries in existing systems for air quality monitoring and communication, the use of the Air Pollution Index (API) or Air Quality Index (AQI), and the limitations of current approaches to communicating the status of air quality and the health risks;
- review the evidence on the impact of air pollution on communicable and noncommunicable diseases, with a special focus on dust; and
- discuss and finalize a framework for a model communication system to transmit public health messages on air pollution and health, with a special focus on pollution episodes.

The consultation was attended by over 30 regional and international experts from different disciplines, including air pollution, environmental management, public health, health promotion, noncommunicable diseases, and communication, as well as staff from the WHO Regional Office, WHO country offices, the United Nations Environment Programme (UNEP), and the Eastern Mediterranean Public Health Network (EMPHNET) .

In his opening address, Dr Ahmad Al-Mandhari, WHO Regional Director for the Eastern Mediterranean, said that the regional framework for a model communication system to transmit public health messages on air pollution and health would serve as part of the regional plan of action for implementation of the road map for an enhanced global response to the adverse health effects of air pollution, addressing the urgent public health need to respond to the negative impacts of air pollution and climate change.

2. Summary of discussions

Systems for air quality monitoring and communication

Global and regional experiences in systems for air quality monitoring and communication were discussed. Research from Jordan and Lebanon on the perceptions and opinions of health and environment professionals on communicating the risks of air pollution to the public was presented, and the experiences of participating countries in air quality monitoring and communicating health messages to different audiences was reviewed.

The consultation also reviewed the evidence on the impact of air pollution on the health of people with communicable and noncommunicable diseases, with a special focus on sand and dust in the Region.

The meeting explored how best to inform policy-makers and the general public of the extent of population exposure to the negative health impacts of poor air quality. Ways to strengthen the health sector response through alerts, tools to facilitate engagement with other sectors to respond to air pollution episodes, and raising the awareness of stakeholders on the long-term health effects of air pollution were discussed.

A questionnaire to assess the availability of communication strategies and public health messages for ambient air pollution episodes was also discussed.

Framework for a model communication system to transmit public health messages on air pollution and health

A regional framework for a model communication system for transmitting public health information messages on air pollution and health was discussed. The experts considered how best to communicate health risk messages to the public and the health sector during air pollution episodes. The framework consists of guidance and a set of recommendations on:

- the need for a system to communicate messages on air pollutants and their health impacts;
- the main health outcomes that need to be addressed by the system;
- the targets audience that should be addressed by the system;
- the types of information to be disseminated;
- how to communicate air pollution health risks and messages to different audiences;
- the health messages a country needs to communicate for the target audience;
- the parties/groups that should be involved in the system;
- assessing the impact of the disseminated information and communication activities; and
- anticipated challenges and obstacles.

Challenges

Challenges in the Region include weak air quality monitoring systems and ensuring the reliability of data. Although most of the experts

believed in the value of communicating air pollution information to the public, there were concerns that this may cause panic.

Other regional challenges identified include a lack of collaboration and coordination between the health, environment and other sectors, and a lack of trust between the different stakeholders and between governments and the public. There is also a paucity of financial and qualified human resources.

3. Conclusions

- The most effective and efficient approach to protecting public health from the adverse effects of outdoor air pollution is to reduce ambient concentrations through emission control strategies to meet WHO air quality guidelines. However, emission control strategies should be guided by the evaluation of the source contribution for specific locations. One of the most significant pollutants, PM_{2.5}, originates from a wide range of sources spread over several hundreds of kilometres around any given site.
- Complex obstacles exist in the Region that are deeply rooted and will be challenging to remedy. A major obstacle is the absence of political will to set standards and enforce laws.
- Different countries have different levels of air quality monitoring and reporting, ranging from internal reports between stakeholders to the provision of monitoring information to the public through websites and smart phone applications. However, access by the public to this information is not measured and there is a lack of communication regarding air quality data and related health messages.
- Risk communication is one component in reducing the impact of air pollution in the Region. It is a collective effort that requires the involvement of everyone. The public can place significant pressure on governments to enforce bans and impose stricter air

quality standards, especially given the poor air quality indices in most countries in the Region. Although the first step is to establish an effective air monitoring system, better outcomes will be ensured by preparing key messages for communication in advance and identifying potential obstacles. In addition, learning from the examples of systems applied in different countries across the world, and taking into account the obstacles and issues they faced, will assist in the communication process.

- Bringing the issue of air pollution to the forefront of public interest is a challenging task that requires significant effort. This global long-term health-related issue is not attractive to politicians driven by short-term interests, since positive results do not appear immediately. It is therefore imperative to develop effective training for scientists that incorporates evidence-based behavioural, social and empirical knowledge to support the translation of scientific evidence into practice.
- Scientists need to be able to effectively, professionally and persuasively communicate the risks of air pollution and gain attention. However, although they may be good in their field, many are not trained to communicate their work with the public or policy-makers, and may be ineffective in communicating the risks to others. Furthermore, they need to be able to address mistaken beliefs regarding the inevitability of exposure to air pollution and difficulties in finding effective solutions. The complexity of air pollution involves social and economic factors that scientists need to be able to convey simply. They also need to be able to increase understanding on the relationship between exposure and impact, and justify the need to change policies.
- Providing relevant air quality information to the public can theoretically reduce the adverse impact of outdoor air pollution through individual behaviour modification to reduce exposure, while public authorities try to ensure a reduction in emissions. The

effectiveness of these interventions depends on whether individuals have information that is applicable, reliable and understandable, and if the related action is feasible for the targeted population.

- Air pollution is a global problem, requiring collective and collaborative efforts to address. Solutions will be applicable to all countries suffering from air pollution, so countries in the Region can benefit by learning from successful efforts in other parts of the world to achieve reductions in exposure to air pollution through communication, and can reproduce such efforts.

4. Recommendations

To WHO

1. Provide technical support to pilot the draft regional framework on communicating health messages during air pollution episodes in two countries of the Region prior to its finalization.
2. In collaboration with UNEP's Regional Office for West Asia (ROWA), develop a smart phone application for communicating air quality and health information to different target audiences, and pilot its application in 2–3 countries of the Eastern Mediterranean Region
3. In collaboration with UNEP/ROWA, train experts from the health and environment sectors on health risk assessment for air pollution and communicating health messages on air pollution.
4. Expand the assessment of expert perceptions and opinions on communicating the risks of air pollution to the public to cover an additional 3–4 countries of the Region.
5. Assess the availability of communication strategies and public health messages for ambient air pollution episodes in the Region, using the questionnaire developed.



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