**Key messages**

» National health workforces must be equipped to deal with the impacts of air pollution on the health of the populations they serve, and to inform policy-makers to undertake preventive action to reduce the air pollution-related disease burden.

» There are currently few training programmes on air pollution and its health effects, and a dearth of related information in public health education.

» Air pollution is an important entry point in many settings for the Health in All Policies approach.
Introduction

Although air pollution is increasingly understood to be one of the leading causes of ill health and premature death, national health workforces are not yet well equipped to deal with its impacts, nor to advocate for policy changes to address the drivers of human exposure to air pollution.

In 2017, the UN High-level Commission on Health Employment and Economic Growth (2017) emphasized the need to transform the health workforce in order to achieve the Sustainable Development Goals (SDGs), stating: “The health workforce should be geared towards the social determinants of health, health promotion, disease prevention, primary care and people-centred, community-based services.”

However, currently, health workforces generally lack the skills and capacity needed to adequately address the health crisis posed by air pollution through enhanced preventive care, communication and collective action. Stronger efforts must be made to build their capacity through more comprehensive education and focused training on ways to reduce exposures and how to engage with policymakers to cut the disease burden from air pollution.

The discussion around equipping national health workforces to deal with air pollution at WHO’s First Global Conference on Air Pollution and Health aims to bring more attention to several important issues. These include:

• evaluating the existing competencies of national health workforces;

• aligning with education for the Sustainable Development Agenda;

• accelerating the development of skills and competencies that are needed for addressing air pollution and the broader Health in All Policies agenda.

Challenges and gaps

Healthcare professionals need relevant training to deal with the major risk factors in the populations they serve. The drivers and health impacts of air pollution exposure are a major gap in most healthcare workers’ education.

They must have access to the latest information related to the health effects of air pollution exposure, and more guidance on prevention strategies and treatment approaches for people affected by air pollution. Their training should prepare them to engage with decision-makers and to advocate for policies to protect their patients from the adverse health effects of air pollution. At the population level, the practical public health strategies that focus on determinants of the health of populations beyond medical care – for example, the Health in All Policies and the OneHealth approaches – need to be incorporated into relevant guidance and training materials.
A 2017–18 scoping study of existing education training programmes for healthcare professionals performed by the WHO Urban Health Initiative found only 11 programmes dealing with air pollution. These were mostly focused on ambient air pollution and were based in North America. They failed to provide standard learning materials, tended not to use interactive and participatory learning approaches, and evaluation was limited.

There is still a dearth of information and training materials focused on public health education, in line with the undervaluing of the public health workforce that is observed in many reporting systems.

The way forward

Air pollution is an important entry point in many settings for the Health in All Policies approach. The importance of having well-trained environment and public health workers meeting specified competency levels needs to be emphasized more strongly. Standards and best practices for competency frameworks used in education need to be further developed. This applies to not just tertiary settings but also to preparation of the future workforce in the primary and secondary levels of education, as well as in lifelong professional learning.

The medical curriculum should include not only biomedical analyses of causation, but more evidence of pathways from determinants of health to diseases. This is particularly relevant now in the context of air pollution, where exposures have wide-ranging health impacts for children, pregnant women, elderly, in different occupations and across the life course.

What WHO is doing

WHO provides training resources focused specifically on educating paediatricians and other health practitioners working with children. These are available at: http://www.who.int/ceh/capacity/trainpackage/en/

WHO has also developed a Health in All Policies Training Manual (2011–2014) and supported a related Trainers’ Network (2015–2017), working with 1700 government health practitioners, civil society and academics, to cover new skills for health leadership. More work needs to be done to mainstream these types of programmes into formal public health education and training.
URBAN HEALTH INITIATIVE

An enhanced global response to the adverse health effects of air pollution