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PREAMBLE

Public Health Medicine Environment and Health Group

The Public Health Medicine Environment and Health Group (PHMEHG) represents the statutory health protection service i.e. (Medical Officers of Health) and is recognised as a significant group within the Health Service Executive (HSE) for working to promote and protect the health and well-being of all in the Irish state on matters pertaining to Environment and Health. The PHMEHG works to ensure that the public's health is improved and protected through co-ordinated sustained and determined efforts of its members.

The efforts of the PHMEHG are enhanced by our vision for a healthy Ireland and by engaging with like-minded stakeholders in order to build coalitions of interest that influence public opinion, the media, and governments.

Health is a human right, a vital resource for everyday life, and key factor in sustainability. Health equity and inequity do not exist in isolation from the conditions that underpin people's health. The health status of all people is impacted by the social, cultural, political, environmental and economic determinants of health. Specific focus on these determinants is necessary to reduce the unfair and unjust effects of conditions of living that cause poor health and disease. These determinants underpin the strategic direction of the PHMEHG.



INTRODUCTION

PHMEHG welcomes the opportunity to provide input to the Draft Clean Air Strategy Public Consultation. This draft includes a comprehensive suite of key strategic priorities and actions. The PHMEHG support this wide-ranging approach. In particular the proposed action for improving communication and management air quality information: ‘establish cross-government Air Quality Implementation Group’; ‘establish Clean Air Research Forum’; ‘establish Air Quality Enforcement Regional Support Structures’; and ‘establish Clean air Communication Strategy Group’. PHMEHG notes and supports the alignment of these with the Healthy Ireland framework, which includes a central goal to:

“Protect the public from threats to health and wellbeing”¹

This submission from PHMEHG concerns the wider policy context surrounding air quality in Ireland, and with references made to specifics from the Draft Clean Air Strategy Public Consultation.

¹ Department of Health (DoH) 2022. Healthy Ireland Policies. Available URL: <https://www.gov.ie/en/policy-information/706608-healthy-ireland-policies/> (Date accessed: 15th April 2022).



PHMEHG Response to Draft Clean Air Strategy Public Consultation

Question 1

Do you agree with the five strategic priorities outlined in the draft strategy?

The PHMEHG supports the strategic priorities outlined in the draft strategy.

Recommendation

The best value action from the realisation of the strategic priorities will be the reduction of air pollutants as much as possible across all sectors. It is therefore vital that the following be considered:

- It is recommended that measures aimed at preventing or reducing ambient air pollution (i.e. emission reduction) activities are prioritised over those that reduce ambient air pollution once it has occurred (i.e. concentration reduction) or rely on avoiding existing pollution (i.e. exposure reduction).
- It is recommended that if this strategy is adopted, then any new expansion or proposal for change to existing developments will intend to deliver an overall benefit to Ireland's public health. In effect, this means that any new development should be clean by design.
- It is recommended that evaluation also be embedded in the design and costing of all future interventions, from their outset, to systematically gather evidence to inform best practice in the future.

Question 2

Do you feel there are additional strategic priorities which should be included?

The PHMEHG does not have specific comments to make on this question.

Question 3

How can pollutant emissions data be better used to inform actions at local and national levels?

The PHMEHG strongly supports the desire to better use pollutant emissions data to protect health and influence policy development. Acute air pollution incidents identified by real-time ambient pollutant emissions data should result in actions to protect those exposed, towards reducing emissions, and towards reducing exposure. Policy makers must promote clean ambient air quality, and ensure regulatory and monitoring mechanisms exist to mitigate impacts on population health.

Air pollution is an important determinant of health and convincing evidence links air pollutants with the risk of disease, including premature death even at relatively low pollutant concentrations. Quantitative estimates of air pollution health impacts have become an increasingly critical input to policy decisions. Several large projects have recently estimated the burden of disease of exposure to air pollution in various populations and for a variety of



policy scenarios of different spatial and temporal scales. Currently, there is no such capacity available in Ireland for such granular analysis to be undertaken.

Recommendation

There is an increasing number of health risk assessments (HRA) of air pollution being developed for a variety of policy scenarios, using different methodologies, spatial and temporal scales. There is a need to:

- Use real-time ambient air pollution data to protect health through coordinated actions locally/nationally to reduce emissions and exposure to the population;
- Consider available evidence in the fields of exposure quantification, risk characterisation and methodologies for disease burden estimation which will contribute to a more comprehensive and consistent HRA of air pollution; and
- Identify general principles for applying HRA methods at a local, national and international level.

Question 4

What do you feel are the most important current and emerging air quality issues in Ireland that require further research?

The PHMEHG believes that in addition to the most intensively studied ambient air pollutants, such as particulate matter (PM), ground level ozone (O₃), and nitrogen oxides (NO_x), other air pollutants are emerging in importance as threats to ambient air quality and human health. This is occurring because of evolving technologies, economic growth, and controls on the direct emissions of established air pollutants. Approaches need to be put in place to:

- Evaluate human exposures to these pollutants and the risks they pose to human health;
- Extend existing ambient air monitoring networks to measure new pollutants; and
- Review advances in measurement techniques based on remote sensing and/or in-situ sensors that can substantively improve the spatial and temporal coverage for monitoring pollutants.

Question 5

How can we better increase awareness of the health impacts of air pollution?

The PHMEHG acknowledges that accurate, timely information can be a powerful tool to mitigate the harmful effects of air pollution. While national and international guidelines for environmental risk communication (based on risk and crisis communication principles) exist, little is known how these are operationalized, nor about the effectiveness of existing communication efforts. In addition, there is growing evidence in the literature on environmental health literacy, which suggests that communication about environmental risks must move beyond individual behaviour education to empower communities to mobilise to reduce environmental threats.

Recommendation



To overcome these issues, the PHMEHG suggests focussing and strengthening on the following:

- Information sources: alleviating lack of clarity about responsibility for communicating about air quality;
- Information quality: developing existing air quality communication strategies to reduce lack of critical information including risk mitigation behaviours and long-term health impacts; and
- Information reach: extending existing air quality communication to reach vulnerable populations.

Question 6

What issues might a national clean air awareness campaign encompass and how could its impact be measured?

Awareness-raising or educational initiatives are pivotal behaviour interventions. But it must also be appreciated that raising awareness alone is not enough to effect change. The PHMEHG would therefore suggest achieving the highest potential of improving ambient air quality, there should be combination of behavioural interventions with other policy or infrastructure based interventions. In this way, behavioural interventions can be used in parallel with other interventions and maximise their potential effectiveness. And therefore these tandem interventions can be used as surrogate measures.

It must be highlighted that measuring the impact of awareness-raising campaigns is a major challenge. For instance, there is little evidence identified of behavioural interventions that promote alternative methods of transport as having direct impact on ambient air pollution or health outcomes. However, these should not be discounted, as there is an abundance of evidence showing that removing vehicles from the road reduces emissions.

Question 7

What particular metrics or benchmarks do you think should be considered in tracking the progress of a Clean Air Strategy?

The PHMEHG advocates for introduction of strong enforcement standards, and establish an attainment timetable to be negotiated with all the relevant stakeholders.

Question 8

Are there any other comments you have in relation to the draft national Clean Air Strategy?

The PHMEHG acknowledges several important policy themes in this Draft Clean Air Strategy Public Consultation.

Climate change

The PHMEHG welcomes and strongly supports the recognition of the role of climate change in driving air quality in Ireland; this is fundamental for identifying pathways to improving



ambient air quality to protect human health. Co-beneficial cross-governmental policy actions should be prioritised including:

- Safe active travel – reduces air pollution and greenhouse gas emissions as well as increase opportunities for aerobic exercise, which can improve physical, mental, and social health;
- Afforestation including urban green infrastructure – through carbon sink and air filtration, as well as providing shade in heatwaves, and green spaces all can improve physical, mental, and social health; and
- Redirection to sustainable clean energy in housing including district heating – to reduce ambient air pollution and greenhouse gas emissions as well as increasing energy security, and reducing fuel poverty and health inequalities.

Data

From the data provided, it is apparent that emissions from burning of solid fuels and transport are tapering off. The PHMEHG are concerned that there is limited community engagement around this evidence, and suggest that this be progressed and should also include impact on ambient air quality from building and infrastructure development, land use, energy production.

Goals and targets

Given the narrative that the air quality data in the Draft Clean Air Strategy presents, there is a key omission around meeting goals and targets. The comprehensive list of strategies presented is weakened by omitting goals and targets for each. At the very least, the PHMEHG recommends that an exposure reduction framework be detailed as a core part of the strategy. Ideally exposure reduction means measures to reduce pollution from the existing level, regardless of national standards. Meaningful penalties for exceeding standards and mechanisms to encourage cleaner production must form part of that framework; with the new World Health Organization (WHO) guidelines recently published, this will be even more relevant going forward.

Assessments and planning process

The PHMEHG is concerned that there is no reference to the environmental assessment process under the Draft Clean Air Strategy. The PHMEHG recommends that the Draft Clean Air Strategy needs to outline a more strategic approach to planning and appraisal that is in line with international best practice. Air quality ought to be a fundamental target to include at each of these points in investment, planning and appraisal decisions, including trade-offs between costs and benefits of proceeding with particular projects. As it currently stands, the principle process for assessing projects, the environmental assessment, is weighted towards approving development rather than a balanced assessment of the need or value or risk of development of types of locality or region.

There is also a risk that due to the nature of population level exposure response evidence, these impact assessments only recognise air pollution as a problem when there is a suitably



large population exposed. It is vital to remember that from a health perspective, there is no safe level of exposure to air pollution. A continual exposure reduction approach better recognises that areas with high exposures but smaller populations still need to reduce exposure to improve and protect human health.

