



PHE Advisory Board Paper

Title of meeting	PHE Advisory Board
Date	Wednesday 18 July 2018
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Title of paper	Environmental Public Health

1. Purpose of the paper

- 1.1 The purpose of the paper is to update the Advisory Board on PHE's environmental public health work.

2. Recommendation

- 2.1 The Board is asked to **NOTE** the paper.

3. PHE's Vision

- 3.1 Together with our genes, our microflora, our behaviour, and our healthcare, our health is determined to a large extent by our environment, including various hazards of human and natural origin. The environment in which we spend our lives also has a great influence on our behavioural choices, for example, whether we choose to exercise, eat a healthy diet, smoke, or drink alcohol. These are complex interactions; the nature versus nurture debate goes back centuries, and our understanding of these influences is in some cases still not as comprehensive as we would like.
- 3.2 Environment is an emotive issue; we only need to look at our television screens or social media to see that issues around radiation, chemicals, climate change, agriculture etc. are areas which the public care passionately about. Government bodies and scientists are sometimes viewed with suspicion on environmental issues, where many views prevail.
- 3.3 For this reason, environmental matters are tightly regulated at a local, regional, national, and international level. A balance needs to be struck between protection of the public from known hazards and over-regulation that can impose unnecessary cost burdens, or deprive us of access to technical innovations. Our vision is to use the resources of PHE, our partners, and our external funding providers in the most effective possible way, in order to achieve the best outcomes for society – high-quality, longer lives, public confidence, prosperity, and access to the benefits of innovative technology.

4. Scope and importance of environmental public health

- 4.1 Environmental public health is defined by WHO as “Those aspects of human health and disease that are determined by factors in the environment. It also refers to the theory and practice of assessing and controlling factors in the environment that can potentially affect health”. 23% of deaths globally are linked in some way to the environment. Even in the UK, benefiting from a mature public health infrastructure and high environmental standards, environmental factors such as indoor and outdoor air pollution, exposure to chemicals, and to ionising and non-ionising radiation, are important contributors to mortality and morbidity. Despite this, there are significant gaps in our understanding of the impact of environment on health: examples include important public health issues such as diabetes, dementia, asthma, mental health, the interactions between microbial pathogens and environment, and the impact of environment on behaviour.
- 4.2 Environmental public health has rarely had a higher profile than in 2018, with the publication of the Government’s 25 Year Environment Plan, the CMO’s report focussing on pollution, the second round of the National Adaptation Programme, and a steady stream of news stories on air pollution, CBRN threats, and other environmental public health topics. Environmental public health does not exist in isolation – it is impossible to divorce public health from broader environmental considerations such as climate change and environmental sustainability.

5. Challenges and opportunities for PHE

- 5.1 The primary expectation of PHE is to keep the public safe from hazards to health, including radiation, chemicals, and other environmental hazards and emergencies including fires, floods, cold, heatwaves, and noise. We also, in collaboration with partners, have a role in global public health, where environment is a key element in determining health outcomes.
- 5.2 Modern life depends, to a large extent, on safe handling and control of radiation and hazardous chemicals. In key sectors such as healthcare, energy generation, and communications, intrinsically hazardous processes and substances are used safely, and to great benefit. Despite these benefits, the public rightly demands reassurance that these potential hazards are being managed in a safe and responsible way. PHE, as a trusted, evidence-based organisation, has a key role to play.
- 5.3 As a result of these inherent hazards the sectors in which we work tend to be tightly regulated, locally, nationally, and internationally. It is vitally important that these standards, guidelines, and regulations be based on the latest evidence. Our scientists therefore spend a great deal of time working with key international bodies in order to support and shape the European and international regulatory environment, a role that will become even more critical in a post-Brexit scenario.

6. Our response - the emerging PHE environmental public health strategy

- 6.1 Given the challenges, pressures, and opportunities above, the time is right to review our strategy for environmental public health. We considered that it was important that this strategy should be a “One PHE” strategy, which would encompass the role of the many Directorates who contribute to environmental public health, and acknowledge the fact that PHE is part of an environmental public health ecosystem consisting of local authorities, devolved administrations, other government bodies, international bodies, the private sector, and many others.

- 6.2 Development of the strategy has been based on a robust diagnostic framework, supported by PHE's Strategy Directorate, and provides a framework for decision-making and prioritisation based on clear and defined outcomes: quality-life years (QALYs), public confidence, international influence, probability of success, and cost. Seven key objectives are proposed as follows:
- a) Implementation of the Leinster Review
For the recommendations of the 2016 review of PHE environmental public health to be implemented in full.
 - b) Environment at the core of PHE
For environment to be recognised as a key determinant of public health.
 - c) Clear outcomes
For everything we do to be focused on clear societal outcomes.
 - d) Science into action
For our scientific evidence to be presented in a way that drives decisions and action.
 - e) Consistent approach and governance
For all activities relevant to environmental public health to follow a "One PHE" approach.
 - f) Alignment with the PHE mission
For everyone in PHE involved in environmental public health to feel proud to be part of the organisation.
 - g) Professional capability
For everyone involved in environmental public health to have the opportunity to grow and develop professionally.
- 6.3 Underpinning delivery of these objectives are four key cross-cutting themes, and associated action plans: financial resources, external and internal interfaces, people, and communications. The strategy is intended to be high-level, and translated into action via corporate, Directorate, and Department business plans, and personal objectives.

Bringing the strategy to life: case studies

- 6.4 Many of the topics on which we work are highly technical, and therefore may not be immediately accessible to many of our stakeholders. As important as the strategy itself, therefore, is to bring to life the work that we do in delivering that strategy, and its importance to society. For this reason, the strategy document will be supported by a series of more than thirty case studies that communicate our work in the form of real-life stories, supported by images and graphics.

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