

Interim Report: Feedback Survey

Following the Sustainable Health Review Interim Report feedback was sought. Open feedback provided by the organisation or individual is detailed below.

Your Personal Details	
1. Title	Mr <input type="checkbox"/> Miss <input type="checkbox"/> Mrs <input type="checkbox"/> Ms <input type="checkbox"/> Dr <input type="checkbox"/> Other <input type="checkbox"/>
2. First Name(s)	
3. Surname	
4. Contact Details	
5. Organisation	Environmental Health Directorate
6. Location	<input type="checkbox"/> Metropolitan <input type="checkbox"/> Regional WA <input type="checkbox"/> Outside WA
7. Are you providing a response on behalf of your group/organisation or as an individual? (Required)	<input checked="" type="checkbox"/> Group/organisation <input type="checkbox"/> Individual <input type="checkbox"/> Other, please specify _____
Q8. Do you consent to your feedback being published, in summaries or in the Final Report? (Required)	
<input checked="" type="checkbox"/> I consent to my feedback being published <input type="checkbox"/> I consent to my feedback being published anonymously <input type="checkbox"/> I do not consent to my feedback being published	

Sustainable Health Review Submission

Environmental Health

1. Overview

Environmental health (EH) is an important branch of public health. Broadly, it is concerned with all aspects of the natural and built environment that may impact upon an individual's health and well-being. ***Effective EH management plays a critical role in preventative health and its importance must be recognised in the Sustainable Health Review.*** Without it, disease and injury burden will significantly increase.

Fortunately, environmental risks are well managed by both state and local government agencies. As a result, the provision of clean air, safe food and water, and a hazard free environment are often taken for granted. The Environmental Health Directorate (EHD) of the Department of Health (DOH) has both a regulatory and advisory role in the management of a range of physical, chemical and biological environmental risks. Key program areas include food, water, radiation health, medical entomology, pesticide safety, toxicology, tobacco compliance, Aboriginal environmental health, public buildings and events. The EHD administers a wide range of regulations under the *Public Health Act 2016* and the *Health (Miscellaneous provisions) Act 1911* (see Appendix 1) and supports local government environmental health officers to enforce these regulations. The EHD also plays a critical role in the dissemination of information, advice and guidance to industry, government, the general public and a variety of other stakeholders regarding matters of environmental health.

2. Environmental Health in Western Australia and its impact on the health system

The role of the EHD is to ensure interventions, such as regulations, guidelines, surveillance, monitoring and public education, are in place to prevent disease and illness arising from environmental exposures. ***In the event of mismanagement, WA would experience an increase in the burden of both acute and chronic diseases and, in some instances, preventable deaths.*** Examples include vector-borne illness, foodborne and waterborne disease outbreaks, cancers, heavy metal toxicity etc. Therefore, the benefits of effective EH management are realised in health cost-savings. The following examples draw on a number of the EHD's major program areas to demonstrate the important role this Directorate plays in maintaining a safe environment.

2.1. Food:

Foodborne illness causes significant morbidity, as well as occasional mortality in Australia. The economic costs of foodborne illness are substantial and include, medical practitioner visits, antibiotic prescriptions, days of work lost each year and premature mortality. Ten years ago, foodborne infections in Australia were estimated as costing \$1.2 billion¹. As the State government agency responsible for administering food legislation, the EHD plays a key role in regulating the food industry, coordinating food surveillance and incident management, and ensuring the safety and suitability of food for human consumption. Within this role, the EHD is initiating a new foodborne illness reduction strategy, based on risk management principles. This has stemmed from the understanding that foodborne illness can have a significant impact on economic, reputational, compliance and public health outcomes. These different types of risks are intrinsically linked – reduced levels of illness can improve health, reduce health costs, increase productivity, improve the way government agencies and food businesses are viewed and demonstrate better compliance outcomes.

2.2. Mosquito-borne Disease:

The EHD runs an extensive mosquito surveillance and control program throughout WA's southwest in an effort to reduce the impact of locally acquired diseases such as Ross River

¹ Abelson P. *The cost of foodborne illness in Australia*. Australian Government Department of Health and Ageing, Canberra 2006

virus (RRV), Barmah Forest virus (BFV), West Nile virus Kunjin substrain (WNV_{KUN}) and the potentially fatal Murray Valley encephalitis (MVE) virus. Significant outbreaks of RRV occur in WA every three to five years, where the number of notified cases of disease can reach as many as 1,500 individuals. An estimate of the cost to the State of a case of RRV was calculated by the WA Department of Health (in 1995) to be \$2,173.00, equating to a current cost of \$3,645.63 (Reserve Bank of Australia, 2016). This is a conservative estimate and only considers direct costs. **Recent modelling indicates that in the absence of the EHD's vector control program, the average annual number of RRV notifications in WA's high risk southwest would rise by approximately 280%.** This would see the predicted number of RRV notifications increasing to more than 4,000 cases during an epidemic, costing the State in excess of \$15 million. This program is becoming increasingly important as urban sprawl continues to encroach upon traditional mosquito breeding sites and incidence of disease significantly increases with proximity to mosquito-breeding sites.

2.3. Aboriginal Health:

The EHD oversees Aboriginal Environmental Health within the state. The Aboriginal Environmental Health program exists because there are significant gaps in environmental health services in the 250+ remote Aboriginal communities in WA, currently contributing to the disparity in health outcomes between Aboriginal and non-Indigenous people. Around \$7 million per annum funds 20 contractors to provide environmental health services across the state. The rate of Aboriginal employment in this program is approximately 85%. The program works with communities, population health units and medical services to determine what services are required to manage and advocate on community living conditions including housing, sanitation, rubbish, dogs, pests, water, waste water, greening and dust mitigation. **The Holman report on Indigenous program funding (2014)² identified this program as effective in remote Aboriginal communities, but considerably under-funded.** It recommended that an additional \$3 million pa of sustained funding was required.

2.4. Hazardous substances:

Reducing exposure to hazardous substances within the environment plays a key role in preventing both acute and chronic disease that may develop as a result. To support this risk management approach, the EHD enforces a number of regulations and provides guidance related to a range of hazardous substances, including lead, asbestos, illicit substance contamination, pesticides, per- and poly-fluoroalkyl substances (PFAS), skin penetration procedures, contaminated garden soil, and effluent and liquid waste.

Asbestos-related mesothelioma is a key example of the importance of preventing disease burden through appropriate management of environmental risks. Exposure to asbestos during home renovation at a time when the product was legal (pre-1987) is responsible for an increasing number of mesothelioma cases. In an effort to prevent any future cases of this fatal disease, the EHD actively administers the *Health (Asbestos) Regulations 1992* and has developed a range of guidelines to support the appropriate management of asbestos contaminated sites. However, asbestos exists in many structures throughout the State and can be disturbed or damaged by renovation, fire, flood and cyclone. With an increasing number of building products being imported from countries where rigorous quality control does not exist, this will be an ongoing risk that needs to be managed appropriately.

The above are only a few examples of the current EH management undertaken by the EHD. Many other examples can be provided from our work in water, radiation, tobacco control, public events and public buildings.

² Holman: A Promising Future: WA Aboriginal Health Programs. Department of Health. December 2014

3. Environmental Health Regulation

Current legislation and regulations administered by the EHD are listed in Appendix 1. In 2017 the new *Public Health Act (2016)* was promulgated and all existing regulations are currently under review. The Public Health Act shifts the focus from a purely regulatory to a risk based approach. The review of the regulations will determine the public health hazards that require specific regulation and those that can be managed under the General Public Health duty (Part 3). The Public Health Act provides an opportunity for the Department to be more proactive in preventing environmental health risks.

It is important to note that some relevant environmental regulation and monitoring does not belong to the Department of Health. For example, air and water quality monitoring are undertaken by the Department of Water and Environmental Regulation (DWER). Contaminated sites, waste disposal, noise and odour are also regulated by DWER. The EHD advises on these issues, as well as on major developments via the development application process (DAP).

Current limitations on EHD regulatory role

In the DAP, the EHD has an advisory role only. Yet despite the technical expertise within the EHD, guidance/advice is often not followed or sought in the first instance. On a number of occasions, this has led to situations where public health is placed at risk. Examples of this include;

- Esperance lead
- Bellevue hazardous waste fire
- Elizabeth quay water park

In instances such as those listed above, the EHD is asked to step in and provide advice to rectify the issue once a public health is identified. The EHD strongly believe that greater emphasis needs to be placed on seeking/adhering to the Directorate's advice in the first instance, which will help to prevent any potential risk to public health and avoid/minimise the high costs associated with remediation. Senate enquiries of the first two situations both found that the existing legislative provisions available to the Department of Health may not be adequate to respond appropriately to public health emergencies and recommended that there be a legislative requirement for the Department of Health to conduct a health impact assessment (HIA) as part of the Environmental Assessment Process³⁴. Public health assessments (PHA), including HIA, are now legislated under the Public Health Act, although the mechanism for initiating those are still to be determined.

4. Future challenges and plans

The future holds many challenges that need to be identified and managed. Climate change, pollution of the air, water and soil, and shifts in land use will each have an escalating impact on our health and well-being. The EHD needs to anticipate these potential future challenges and have the capacity to respond and adequately manage them. Whilst not an exhaustive list, key emerging environmental health issues that need to be considered include:

4.1. Climate change:

Climate change has the potential to have a negative impact on public health in WA and may generate very large costs to the State if current strategies for healthcare are inadequate. Climate change can lead to increased heat and heat-waves, climate-related catastrophes (floods, cyclones, heat waves, storms, bush fires), and air pollution (ozone, particulate matter). Furthermore, warming temperatures and changes in precipitation associated with

³ Legislative Assembly, Economics and Industry Standing Committee, *Bellevue Hazardous Waste Fire Inquiry - Report No. 2*, 2002, Recommendation 8

⁴ Legislative Assembly, Education and Health Standing Committee, *Inquiry into the Cause and Extent of Lead Pollution in the Esperance Area - Report No. 8*, 2007, Recommendation 10

climate change are also changing vector distribution, life cycles and feeding behaviours, increasing the risks of vector-borne disease. It will be important to formulate new policies and practices within the public health sector to adequately address the direct and indirect impacts of climate change. An integrated approach that encourages collaboration between a variety of sectors, including health, water, agriculture and planning, will be essential.

4.2. Population growth:

Perth is one of the fastest growing cities in Australia and although growth slowed at the end of the mining boom, it continues to increase by 3 to 5% each year. This growth is putting significant pressure on our natural resources, including our water supply. Appropriate regulation and oversight of new water sources (eg. water desalination and effluent reuse) will be critical to ensure the ongoing provision of safe drinking water. The EHD has already played an important role in the assessment of recycled water and needs to be able to continue to assess risks from all new, and existing, water sources.

Many current EH issues are the result of urban design, such as sprawl (encroachment upon wildlife habitat and traditional mosquito breeding grounds), traffic (air pollution, active transport, noise), green space and heat islands. As discussed above, the advice of the EHD is rarely sought or adhered to when making planning decisions. As pressure on the environment will only escalate in the future, it is becoming increasingly important for the EHD to have an opportunity to provide input into planning decisions and for this advice to be heeded. This will ensure potential health impacts related to environmental risks can be prevented.

4.3. Energy sources:

New energy sources are being explored in WA. Two sources that have been contentious due to public health concerns are fracking and wind farms. Neither of these are conducted on a large scale in WA at present, but may be in the future. Indeed there is currently a moratorium on fracking pending a scientific review. A review of the guidelines for wind farm development is also being undertaken. As technical experts in this field, the EHD will make submissions to these reviews and must have the ongoing capacity to contribute to these processes.

4.4. Hazardous substances:

The health effects of many emerging toxic substances and hazardous wastes are not yet fully understood. For example, poly-fluoroalkyl substances (PFAS), found in a number of consumer and industrial products such as firefighting foams, have recently emerged as an organic pollutant of concern. In 2016, a number of sites in WA had detected PFAS in groundwater and soil. As little is known of the long term impact of these substances, the EHD introduced provisional health guidelines for use in the assessment and management of contaminated sites. Potentially hazardous substances, either from existing or new technologies, will continue to emerge in the future. The EHD will play a critical role in assessing the risk to public health and putting in place appropriate measures to reduce or prevent potential negative impacts.

5. Recommendations

Recommendation 1: Recognise the significant role EH plays in preventative health and achieving a sustainable healthcare system

The provision of safe food, clean air and water, and a hazard-free (both natural and anthropogenic) environment are at the cornerstone of preventative health, yet are often taken for granted by the general public and government policy makers. This is largely the result of having a well-managed system which means the impact of risks related to the environment on public health is generally minimal. Therefore, the critical role that EH plays in

preventative health must be recognised and understood at the highest level, across all government agencies and relevant industries. This will ensure consideration is given to the potential impact of government policies and political decisions on the capacity to adequately manage existing and future EH risks.

Recommendation 2: Maintain the capacity to manage existing EH issues

To ensure WA's future healthcare system is sustainable into the future, the EHD must retain the capacity to adequately manage environmental health risks with the potential to impact on public health. Without this ability, the burden of disease and injury will increase, as will hospital admissions and the cost to the healthcare system.

Recommendation 3: Ensure resources to predict and prepare for emerging issues

Whilst the EHD has an understanding of current environmental health concerns and strategies in place to mitigate any associated risk, it is important to recognise that this is a dynamic and evolving field. Creating and maintaining a healthy environment is a complex task and relies on continuing understanding of emerging risks and how to control or adapt to these. It is critical that we reposition the health sector to act more effectively on preventative health policies that address the environmental causes of disease burden and injury. The EHD must maintain the capacity to research, analyse and track emerging threats to public health that are not yet fully understood.

Recommendation 4: The Department of Health needs a stronger advisory/regulatory role in minimising health impacts of policy, programs and projects.

Currently the Department of Health has a purely advisory role in the Developmental Application Process. There are currently no legislative requirements to seek Departmental advice or act on advice provided, despite the technical expertise being available. In some instances (see above) this has led to situations where public health is placed at risk. One mechanism for the Department to have greater influence on managing the health risks of proposals is via the public health assessment process (Part 7 of *Public Health Act 2016*).