Topic 4: Settings and environmental determinants of health

Topic 4 is an exploration of settings and environments as determinants of health. By the end of this topic, you will be able to discuss the impact of settings and environments on health and identify public health interventions that seek to address setting and environmental determinants. While this topic will have a specific focus on work and workplaces as environments and settings for health, it is important that you are aware of the role of other settings and environments for health. Some of these include:

- cities
- villages
- municipalities and communities
- schools: early education and childcare settings, primary and secondary schools, TAFEs and vocational learning settings and universities
- aged care
- prisons
- markets
- homes
- hospitals
- islands.

Many of these settings and environments for health have specific World Health Organization Frameworks, and the concept of health settings and environments is embedded into the various declarations, charters and statements discussed in Week 1.

Health promoting schools [6:32 mins]

To learn more about the application of a settings-based approach to health in the school setting, watch this video from Merri Health as they discuss the work they have been undertaking with local schools to implement the Health Promoting Schools Framework.

Health promoting schools

Recommended reading

To further develop your understanding of settings and environment for health, explore the World Health Organization's healthy settings internet page. This page includes a wide range of examples where the settings and environments approach to health have been adopted to tackle public health issues in countries such as Africa, the Pacific Islands, Europe, Asia and the Americas.

- World Health Organization, *Introduction to healthy settings*, who.int

An often-overlooked aspect of our environment which has a profound impact on public health is the availability, design and cost of public infrastructure such as public transport and community facilities. This short article recently published in *The Conversation* outlines the level-crossing removals from Victoria's public transport system and the role this plays in enhancing public health and safety.

- Browne, G & Lowe, M 2021, 'Level-crossing removals: a case study in why major projects must also be investments in health'. The Conversation.

Why consider workplace health?

The International Labour Organization (ILO) estimates that two million women and men die each year as a result of occupational accidents and work-related illnesses, and WHO estimates that 160 million new cases of work-related illnesses occur every year. Thus, many people are negatively affected by adverse health outcomes attributable to work. In many cases, accidents and ill health arising from work affect not only the worker, but also their family. Employment is generally the most important means of obtaining adequate economic resources that are essential for material wellbeing and full participation in society. In addition, employment and socioeconomic status are the main drivers of social gradients in physical and mental health and mortality (Waddell & Burton 2006), so not being able to participate in work, particularly good work, can have far-reaching consequences both for those who work and those who are dependent upon workers.

As you have already seen, the determinants of health are diverse. Thus, when considering health and safety in workplaces, it is imperative all potential impacts on health are considered. Some of these determinants are clearly associated with a workplace or the tasks or job undertaken — for example, exposure to excessive levels of noise, but other determinants relate to the broader context in which work is carried out — for example, legislation that protects workers and others affected by work activities.

In this next section, you will be introduced to two widely use models to consider health and safety in workplaces. The WHO healthy workplace framework and model is a macro-level model that provides comprehensive coverage of factors affecting health including, but not confined to, work-related hazards. However, it is important to remember that many diseases and disorders have multiple determinants (e.g. cardiovascular disease, musculoskeletal disorders, mental disorders), so we will also consider workplace determinants of musculoskeletal disorders (MSDs) that are the leading contributor to disability worldwide (WHO 2021).

We will then move on to consider the workplace benefits of good health and wellbeing, including their potential role in decreasing occupational disease risk, and some of the key workplace determinants of wellbeing.

Healthy workplace framework

The WHO recognised the importance of workplaces as a setting that influences health outcomes and developed a framework and model of a healthy workplace (Burton 2010) that could be used to bring about improvements in worker and community health. The framework refers to a description of the key principles and is an interpretation of the model; whereas the model is the abstract representation of the structure, content, process and systems of the healthy workplace concept — in other words, the framework represented in a diagram.

The WHO argues a healthy workplace framework is required because:

- It is the right thing to do in terms of ethics.
- It is the smart thing to do in terms of achieving business outcomes (decreased costs, increased productivity, increased quality of product or customer service, and avoiding fines and imprisonment).
- It is legally required. Most countries have some legislation requiring, at a minimum, that employers protect workers from hazards in the workplace that could cause injury or illness.

The WHO defines a healthy workplace as:

One in which workers and managers collaborate to use a continual improvement process to protect and promote the health, safety and well-being of workers and the sustainability of the workplace by considering the following, based on identified needs:

1. *health and safety concerns in the physical work environment;*
2. *health, safety and well-being concerns in the psychosocial work environment including organisation of work and workplace culture;*
3. *personal health resources in the workplace; and*
4. *ways of participating in the community to improve the health of workers, their families and other members of the community.*

(Burton J 2010, *WHO Healthy Workplace Framework and Model: Background and supporting literature and practices*, who.int, viewed 19 January 2021.)

Note this definition of a healthy workplace incorporates the WHO definition of health (physical, mental and social wellbeing, not just the absence of physical disease). This definition is intended chiefly to address primary prevention, that is, to prevent injuries or illnesses from happening in the first place; however, secondary and tertiary prevention may also be included by employer-provided occupational health services. In addition, it is intended to create a workplace environment that does not cause re-injury or reoccurrence of an illness when someone returns to work after being away with an injury or illness, whether work-related or not. It is also intended to mean a workplace that is supportive and accommodating of older workers, or those with chronic diseases or disabilities.

The WHO healthy workplace model is shown in the figure below.

WHO healthy workplace model

Source: World Health Organization n.d., *Five keys to healthy workplaces*, viewed 21 January 2021
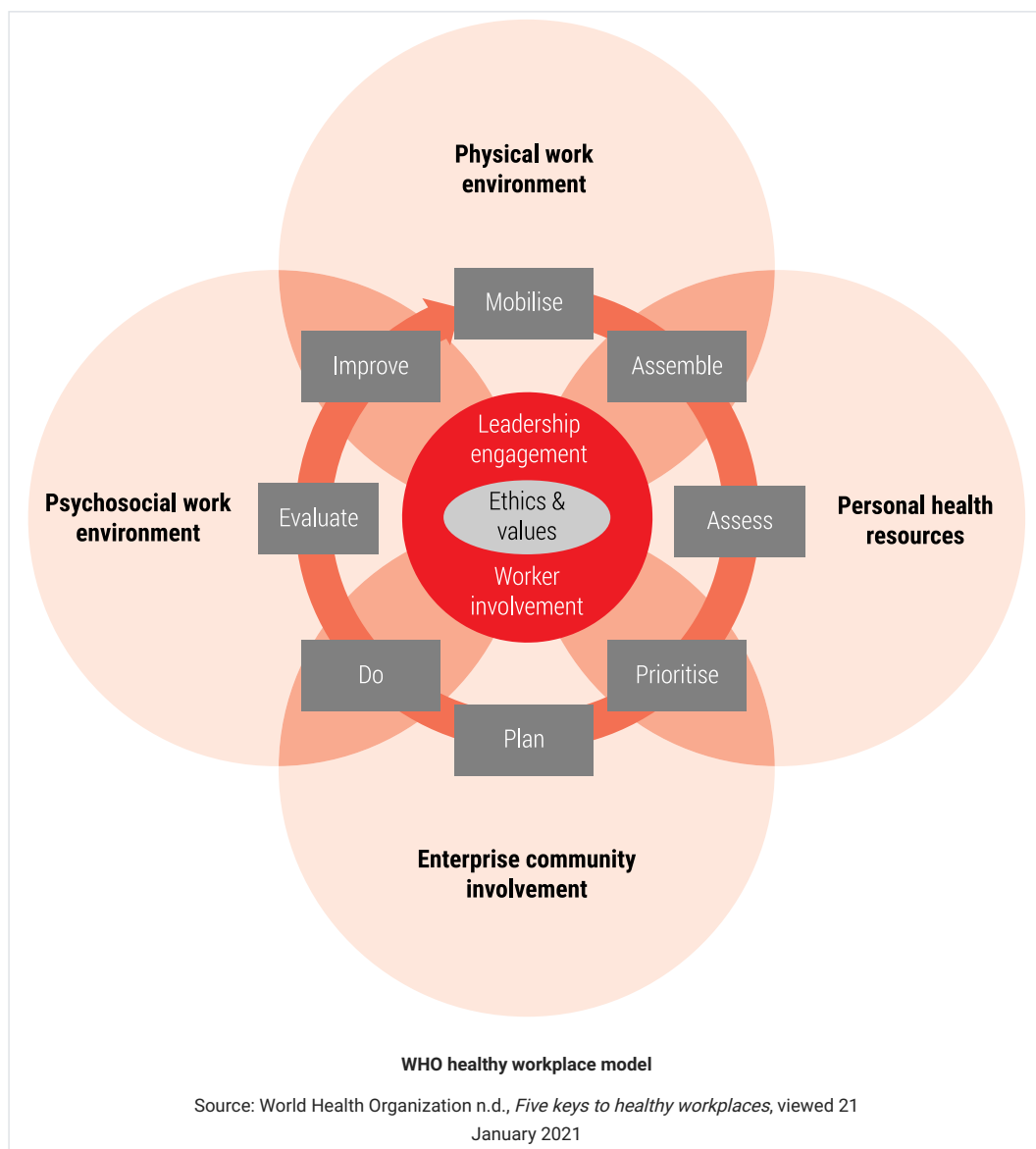
In the model you can see there are four 'avenues of influence', shown in circles. They relate to the content of a healthy workplace program and are:

1. the physical work environment
2. the psychosocial work environment
3. personal health resources in the workplace
4. enterprise community involvement.

In addition to the avenues of influence, the WHO healthy workplace model also shows a process for implementing a healthy workplace program. These steps are shown in the figure below.

Mobilise → Assemble → Assess → Prioritise ↓ Plan ← Do ← Evaluate ← Improve

Process for implementing a healthy workplace program
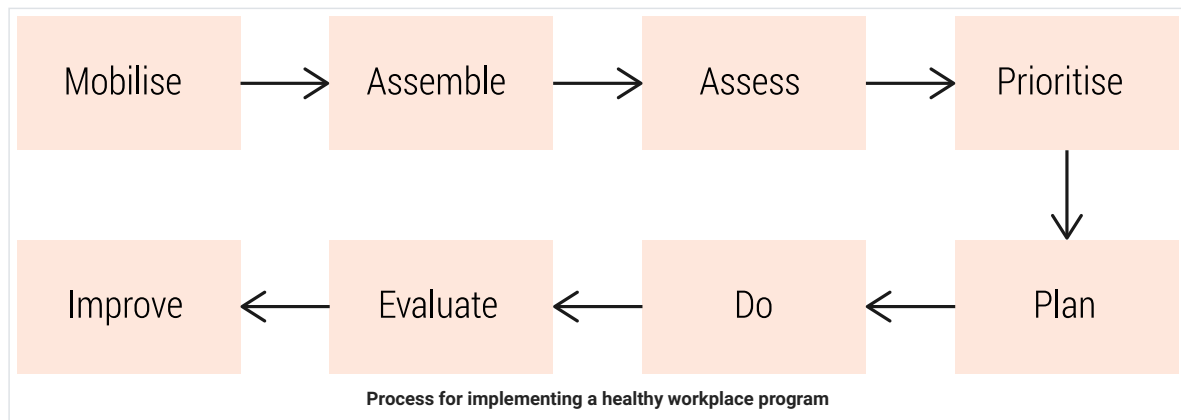
Note the process is iterative, so after making improvements, the organisation should begin again with 'mobilise'. Although this process relates specifically to implementing a healthy workplace program, many of the steps would be seen in processes for any implementation program. You can read more about the implementation steps in the reading by Burton (2010, pp. 89–97) and this is highly recommended if you are particularly interested in implementing healthy workplace programs.

The figure of the healthy workplace model also shows management commitment and worker involvement — based on sound business ethics and values — are the key principles at the core of the process. Without these, the implementation of any healthy workplace program is unlikely to be successful.

The model and framework provide guidance on what workplaces can do to create a healthy workplace, when workers and their representatives and the employer work together in a collaborative manner. However, it is important to recognise that workplaces exist in a much broader context and are subject to many influences. For example, governments, national and regional laws and standards, civil society, market conditions and primary health care systems, to name just a few, all have a huge impact on what workplaces, and workplace parties, can achieve on their own. As you have already learned, the relationships between health determinants and health outcomes are often extremely complex, highlighting the importance of taking a broad, holistic view to the implementation of any program to address health issues.

Recommended reading

This report on the WHO Healthy Workplace Framework and Model is primarily aimed at occupational health and/or safety professionals, but it is useful for anyone involved in ensuring health. It examines the literature related to healthy workplaces and suggests a flexible, evidence-based framework for healthy workplaces. In particular, students should read chapter 9, pp. 82–89 to understand the different 'avenues of influence', including physical and psychosocial workplace hazards, and how these all contribute to health outcomes.

Please read chapter 9, pp. 82–89 as a minimum, although you might want to read up to and including p. 97.

- Burton J 2010, *WHO Healthy Workplace Framework and Model: Background and supporting literature and practices*, who.int.

Musculoskeletal disorders (MSDs) — an example of a disorder with multiple complex determinants

While some hazards at work can lead directly to an illness or injury (e.g. exposure to particular chemicals or metals can lead to contact dermatitis, exposure to electricity can leading to sustaining an electric shock), interactions between hazards, and the influence on health outcomes, are important to understand, especially as many health conditions have multiple determinants and the interactions between these are often complex. Macdonald (2012) explains how individual factors (such as age) combine with workplace factors (the physical work required, organisational factors, and the social context) to influence MSD risk. In the prescribed reading, Macdonald describes how psychosocial hazards (e.g. job insecurity), hazardous job and task demands (e.g. long hours, high emotional demands) and inadequate coping resources (e.g. poor supervisor support, lack of individual skill) combine to influence MSD risk.

Recommended reading

This reading explains that determinants of health at work are diverse and include both work-related and non−work-related determinants. After reading this chapter, you should understand the importance of considering both work-related and non−work-related determinants, and the often-complex interactions between them, on health outcomes and the implications for managing health and safety related risks in a workplace setting.

- Macdonald, W 2012, *Models of causation: Health determinants*, Safety Institute of Australia.

Recommended reflection

Having read the chapter by Macdonald, and thinking of your own workplace or a workplace you are familiar with, what hazards (physical and psychosocial) and coping resources are evident? What role do you think these have in the development of MSDs or other disorders?

Document your reflection on the following padlet.

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2023 PHE5PUH T2 Week 4, Topic 4: Workplace hazards

Reflect on your workplace or a workplace you are familiar with and what hazards (physical and psychosocial) and coping resources are evident? What role do you think these have in the development of MSDs or other disorders?

Workplace Hazards

Anonymous 8d
Workplace Hazards

As an experienced carer in an aged care facility, I have encountered several potential hazards that may be present in this type of workplace. These hazards can be classified into two categories: physical hazards and psychosocial hazards.

Physical hazards include the risks associated with lifting and transferring residents, which can cause
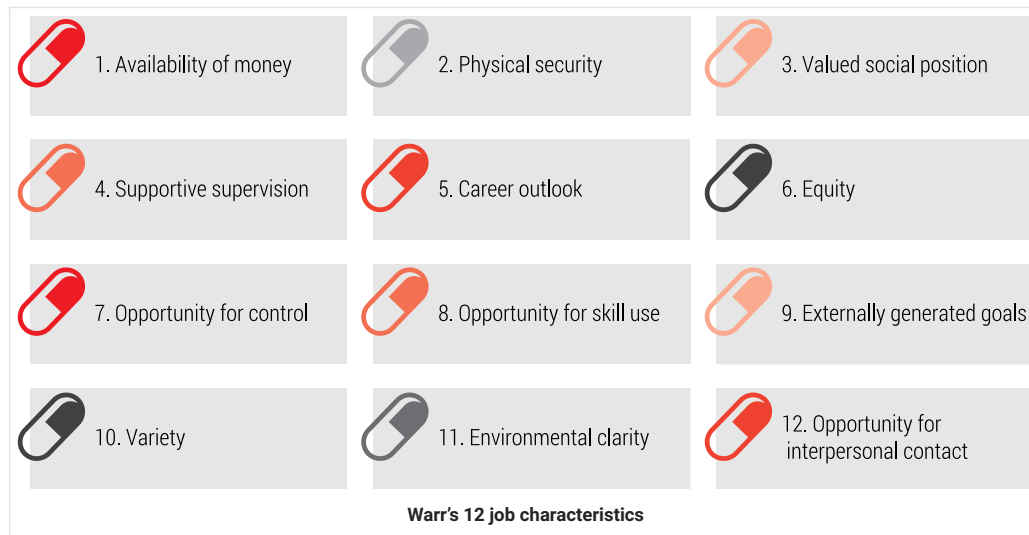
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The benefits of positive workplace wellbeing

We know health is about more than simply the absence of disease and Macdonald (2012) discusses the role of wellbeing in promoting health. Many people around the world are engaged in work, and as already stated, we know that good work is good for workers and others. Macdonald (2012) discusses some of the evidence that indicates positive affect at work — that is, being satisfied with your job and feeling good about work— is associated with good health.

There are many models of occupational wellbeing. The focus for this topic will be on Warr (1987). In this model, Warr identified 12 job characteristics that influence job-related mental health.

1. Availability of money	2. Physical security	3. Valued social position
4. Supportive supervision	5. Career outlook	6. Equity
7. Opportunity for control	8. Opportunity for skill use	9. Externally generated goals
10. Variety	11. Environmental clarity	12. Opportunity for interpersonal contact

Warr's 12 job characteristics

Warr likens these to vitamins, because, he argues, some of these must not be too low (numbers 1–6 in the list above), but others (7–12 in the list above) must also not be too high, or else they will have a negative impact on mental health.

Recommended reading

Chapter 3 of this book, which is available via the La Trobe Library, describes the features of well-designed work as described in a number of classic models of job design. As a minimum, you should read section 3.4 that explains Warr's Vitamin Model. After reading the section, you should understand some of the key processes through which well-designed work contributes to employee health, how models of job design can be applied in practice and some of the limitations of the models.

- Daniels, K, Le Blanc, P & Davis, M 2014, 'The models that made job design', in MCW Peeters, J de Jonge & TW Taris (eds.), _An introduction to contemporary work psychology_, John Wiley and Sons, Chichester, (pp. 63–88).

Recommended reflection

Think of a job you are familiar with, and taking each of Warr's job characteristics in turn, are they too low, about right, or too high? How does this relate to your (or the job holder's) job satisfaction? You might find there have been changes over time since the job holder has been doing the job, as job requirements and resources (both organisational and individual) change.

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2023 PHE5PUH T2 Week 4, Topic 4: Warr's job characteristics

Reflect on a job you are familiar with, and taking each of Warr's job characteristics in turn, are they too low, about right, or too high? How does this relate to your (or the job holder's) job satisfaction? You might find there have been changes over time since the job holder has been doing the job, as job requirements and resources (both organisational and individual) change.

⋮

Warr's job characteristics-Politician/Councillor

Christopher Fagg 15d
Warr's job characteristics-Politician/Councillor

When looking over the job satisfaction, I reminisce about a family members of mine experience on our local council. They ended up having to resign because of bullying and poor mental health as a

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