Introduction to Public Health

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Introduction to

Public Health

third edition

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Introduction

Why is public health important?
Introduction to Public Health is about the discipline of public health, the nature and scope of public health activity, and the challenges that face public health in the twenty-first century. The book is designed as an introductory text to the principles and practice of public health. This is a complex and multifaceted area. What we have tried to do in this book is make public health easy to understand without making it simplistic. As many authors have stated, public health is essentially about the organised efforts of society to promote, protect and restore the public’s health (Brownson et al. 2011, Last 2001, Schneider 2011, Turnock 2012, Winslow 1920). It is multidisciplinary in nature, and it is influenced by genetic, physical, social, cultural, economic and political determinants of health.

How do we define public health, and what are the disciplines that contribute to public health? How has the area changed over time? Are there health issues in the twenty-first century that change the focus and activity of public health? Yes, there are! There are many challenges facing public health now and in the future, just as there have been over the course of the history of organised public health efforts, dating from around 1850 in the Western world.

Of what relevance is public health to the many health disciplines that contribute to it? How might an understanding of public health contribute to a range of health professionals who use the principles and practices of public health in their professional activities? These are the questions that this book addresses. Introduction to Public Health leads the reader on a journey of discovery that concludes with an understanding of the nature and scope of public health and the challenges facing the field into the future. In this edition we have included one new chapter, 'Public health and social policy', in order to broaden our understanding of the policy influences on public health.

The book is designed for a range of students undertaking health courses where there is a focus on advancing the health of the population. While it is imperative that people wanting to be public health professionals understand the theory and practice of public health, many other health workers contribute to effective public health practice. This book would also be relevant to a range of undergraduate students who want an introductory understanding of public health and its practice.

Public health is an innately political process. As we discuss in this book, there is a clear relationship between disease and the way in which society is structured. Income distribution, the allocation of resources to ensure sufficient infrastructure for transport, housing and education, and how much political support there is to provide adequately for these fundamental services, all impact on our health. They particularly impact on the health of certain groups within the population who do not have the financial, social and political resources to advocate for change. Why is it that we still have such disparities in health? For example, the poor health of Aboriginal and Torres Strait Islander peoples, especially with respect to risk factors and chronic disease, is clearly related to the distribution of, and inequities in, economic, political and social status (Australian Institute of Health and Welfare (AIHW) 2014). In an egalitarian society such as Australia, which prides itself on a ‘fair go for all’, should this be acceptable? In this book, we discuss the political, social and economic determinants of health, as well as the physical and environmental issues that impact on population health.
Defining and understanding ‘public health’

Defining ‘public health’ is not an easy task. This is because not everyone who works in public health agrees on a single definition. Definitions also vary from country to country. For example, the American Public Health Association (APHA) classifies public health into prevention, policy development and population health surveillance activities. It concludes:

Public health is the practice of preventing disease and promoting good health within groups of people, from small communities to entire countries. Public health professionals rely on policy and research strategies to understand issues such as infant mortality and chronic disease in particular populations. (American Public Health Association 2008)

More recently, at a forum on Innovating, Leading and Moving Public Health Forward (2013), public health practitioners, policymakers and advocates argued for a renewed commitment to placing the population at the centre of the process.

Everything about how we do our work should have, at its center, a focus around the populations we are serving (American Public Health Association 2013)

In the United Kingdom, the Public Health Association believes that public health deals with a wide range of issues, as identified below. Public health:

• is an approach that focuses on the health and wellbeing of a society and the most effective means of protecting and improving it
• encompasses the science, art and politics of preventing illness and disease and promoting health and wellbeing
• addresses the root causes of illness and disease, including the interacting social, environmental, biological and psychological dimensions, as well as the provision of effective health services
• addresses inequalities, injustices and denials of human rights, which frequently explain large variations in health locally, nationally and globally
• works effectively through partnerships that cut across professional and organisational boundaries, and seeks to eliminate avoidable distinctions
• relies upon evidence, judgement and skills and promotes the participation of the populations who are themselves the subject of policy and action. (United Kingdom Public Health Association 2011)

As pointed out above, public health is essentially about the organised efforts of society to promote, protect and restore the public’s health (Brownson et al. 2011, Last 2001, Schneider 2011, Turnock 2012, Winslow 1920). It is both a science and an art, in that it relies on evidence, skill and judgement, it examines the contribution of a range of factors to improving population health, it addresses inequalities, and it is based on partnerships. These elements of public health will be discussed throughout the book, particularly in terms of their application to public health practice. We will be asking you to think about how you might define public health within the context of your own developing professional understanding.

To understand public health we also need to think about the contribution of both the ‘art’ and the ‘science’ of improving the health of the population. Throughout this book, you will see many examples of how the science is used to make evidence-based decisions that lead to improvements in the health of the population.

The science of public health is about understanding the determinants of health, what works and in what circumstances. It is about using evidence as a basis for decisions
that once might have impacted on the population in a region or country are now being transported around the world. In addition, refugee health has become an important part of contemporary public health activity, particularly in the Asia-Pacific region. We introduce the health of Aboriginal and Torres Strait Islander peoples, and discuss the important role that Indigenous and non-Indigenous health workers can play in ‘closing the gap’ for Indigenous peoples. In the final chapter of this book we think about the challenges facing public health in the future, such as global warming and environmental sustainability. We also talk about the nature and scope of the public health workforce needed to meet these challenges.

Our conversation about ‘grand challenges’ for public health at the end of the book gives you a chance to consider the major issues facing public health, where we imagine the discipline might be heading, and what the consequences are for the public’s health in the next 50 years.

References
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Learning objectives
After reading this chapter, you should be able to:

- define ‘health’ and ‘public health’
- describe why ‘health’ means different things to different individuals, and be able to consider the range of factors that influence these individual definitions
- recognise and describe how public health is defined, and how each definition has shaped the development and implementation of public health approaches
- describe the major principles underpinning public health
- describe the relationship between public health and other disciplines
- discuss the nature and scope of public health
- provide some examples of public health in practice, as applied to your discipline
- discuss the changing roles of the public health workforce, and the increasing complexity of public health work.

Introduction
What is health? How is it defined and described? What do you mean when you describe yourself as ‘healthy’? How is ‘public health’ defined? What are the fundamental principles of public health? How does public health interact with other disciplines? And how do we describe what public health workers do?

These are many of the questions that will be considered in this chapter and other chapters, which are designed to help you become familiar with the principles and practices of public health. This book is about introductory principles and concepts of
public health for students. It is also relevant for health workers from a range of disciplines whose focus ranges from clinical to population health, and who want to understand and incorporate public health principles into their work.

We begin our journey by considering a fundamental issue that underpins the notion of public health—that is, the definition of ‘health’, and we consider the range and variety of definitions, including those of the general public and professionals.

Defining health and ill health

Complete this simple exercise (Activity 1.1) to help you think about how you and other people define health.

ACTIVITY 1.1 Defining ‘health’

- Ask five of your friends, classmates or family members what ‘health’ means to each of them.
- What common themes have emerged from each of the five definitions of health?
- What was unique about the definitions?
- Do you think they might change over time, and why might this be the case?

REFLECTION 1.1

Keep these five definitions in mind as you read and compare them with other ways of defining health. How do you think of the term ‘health’? Does it mean an absence of illness, or an ability to do all the things you want or have to do every day? Does it have more of a religious, cultural or social significance? The term ‘health’ is difficult to define. How an individual defines it or her health is sometimes different, compared with a professional’s definition of health.

Most health workers use ‘health’ as central to their work, and believe that the majority of people also hold health to be an important part of their lives. However, we know that this is not the case, as a number of authors (Blaxter 2007, Fleming & Parker 2005, Hanlon et al. 2012a, Huber et al. 2011) have examined the way in which people define health within the context of their daily lives.

Considering the variety of ways in which the term ‘health’ is defined also enables us to understand the nature and scope of public health in our society. The section that follows discusses general public and professional definitions of ‘health’ and ‘illness’.

Health and illness

Illness is primarily about how an individual experiences disease, and disease itself represents a set of signs and symptoms and medically diagnosed pathological abnormalities.

Illness can be culturally specific, and may also be influenced by social, spiritual, supernatural and psychological factors (Hanlon et al. 2012a). An individual lifestyle perspective has also been seen as an important dimension of health. Introduced initially by the document A new perspective on the health of Canadians (Lalonde 1974), the individual lifestyle perspective had as its focus individual behaviours, The World Health Organization (WHO) (defined later in this chapter) subsequently redefined ‘lifestyle’ to mean behavioural choices made from alternatives that are available to people according to their socioeconomic circumstances (Kickbusch 1986). A social view of health considers issues such as the impact of social and economic factors on health, but these dimensions have often been overshadowed by the biomedical view of health. A biomedical model of health predominately has diagnosing diseases as its focus; it does not take into account the role of social factors, and overlooks the notion of disease prevention. In the 1940s, the WHO defined health as ‘a state of complete physical, social and emotional wellbeing and not merely the absence of disease or infirmity’ (WHO 1948). Some authors have argued that a state of health delineated by this definition is too difficult to achieve or does not relate to the current context of globalisation (Bircher 2005, Huber et al. 2011, Waltner-Toews 2000), but it certainly moved the debate about health away from an exclusively biomedical perspective.

‘Health’ is difficult to measure because it is a dynamic concept rather than something that is always the same. ‘[H]ealth cannot be defined without being dynamic concept rather than something that is always the same. ‘[H]ealth cannot be defined without
reference to some goals' (Waltner-Toews 2000 p. 657), and it is a 'dynamic state of well-being characterised by a physical, mental and social potential' (Bircher 2005 p. 335). It is much easier to measure disease or an absence of disease than it is to measure health or wellbeing. Recently, Shilton et al. (2011) proposed a definition of health that included qualities of adaptation and self-management, a human right protected by entitlements, and a 'resource for life that is affected by social, political, economic, and environmental factors' (Shilton et al. 2011 p. 5359).

**General public definitions of ‘health’**

General public concepts of health and illness have been extensively researched and discussed. Blaxter (2007), quoting Kleinman, describes three ways in which health and illness have been discussed: professional, alternative and general public. Contemporary scholars prefer to consider public beliefs about health and illness to be defined as ‘commonsense understandings and personal experience, imbued with professional rationalization’ (Blaxter 2007 p. 26). In a seminal study in 1990, Blaxter, while exploring general public definitions of health and illness, found that people define health in a variety of different ways. She suggests that health is defined by people as not being ill or diseased, or as being a reserve against illness. Others define health as a ‘healthy life’, as physical fitness or as having energy or vitality. Still others take health to mean social relationships; that is, relationships with other people or as a function of the ability to do things. For others, health has meaning as psychosocial wellbeing.

Think back to your earlier activity. How do the definitions of health collected from the five people you have spoken with fit in with the different general public definitions of health and illness discussed above?

The following information introduces you to other dimensions of health that may assist you to understand how complex defining health can be, and how difficult it is to hold a single definition of health that fits with everyone’s idea of the dimensions of health.

Collectively, health can be seen to represent the social, cultural and economic context of people’s lives—a status, socially recognised and admired. Others believe their health is dominated by religious or supernatural forces (Durie 2004). For some, the centrality of people’s relationships to the land, family and community are the central foci for health and wellbeing (Durie 2004, Thompson & Gifford 2000). For Aboriginal and Torres Strait Islander Australians, ‘health’ is about the totality of their environment. ‘‘Health’ to Aboriginal peoples is a matter of determining all aspects of their life, including control over their physical environment, of dignity, of community self-esteem, and of justice. It is not merely a matter of the provision of doctors, hospitals, medicines or the absence of disease and incapacity’ (National Aboriginal Health Strategy Working Party 1989 p.x, National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003–2013). These issues are discussed further in Chapter 16.

**A critical perspective**

While general public definitions of health have focused on the ways in which health is defined in the day-to-day lives of people, other researchers have examined different contemporary ways of defining health. Table 1.1 summarises some of the ways in which health is defined (Baum 2008, Brown et al. 2005, Hanlon et al. 2012b, Morris 2010, Shilton et al. 2011).

In this chapter we ask you to think about how health is defined, and the limitations of the definitions presented here, so that you can reach your own definition on the basis of your reading of the literature. Health as a term can then be considered in a variety
of different ways, and can be challenged, because sometimes definitions avoid the wide-ranging social, economic and political factors that have a real and sustained impact on the health of the population, as we see in some of the definitions above.

We now turn our attention to consider definitions of ‘public health.’ The two distinguishing features of almost all definitions of public health are (1) a focus on populations rather than on individuals, and (2) organised and deliberate efforts to promote health, with a focus on collective action.

**Defining ‘public health’: an art and a science?**

Public health is based on scientific principles, and it uses a range of disciplines such as epidemiology, biostatistics, biology and biomedical sciences in its analysis of public
health problems (Hanlon et al. 2012a; Lin et al. 2014). Public health relies heavily on environmental sciences and the social and behavioural sciences. Public health is also an art, in that it involves applying this scientific knowledge to a range of practical settings that require attention to issues such as selecting intervention strategies and approaches that communities agree to and need. Furthermore, public health deals with social, cultural, political and economic issues, as well as health issues.

Winslow (1920), an American public health leader in the early twentieth century, defined public health as a science and an art:

... of preventing disease, prolonging life, and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health.

(Winslow 1920 p 24)

In its time, this definition was very forward-thinking, because it identified a number of public health elements that are still considered important. For example, it refers to ‘organised efforts’, it considers environmental issues and infectious diseases, personal wellbeing, early diagnosis and prevention, and the social dimensions of health. Little did Winslow know that many of the issues that the public health community had controlled or eliminated have re-emerged in the twenty-first century as major challenges.

More recently, the Institute of Medicine (2011) has refined its definition of ‘public health’ by stressing that population health improvement depends on effectively addressing the multiple determinants of health. The Institute states that large proportions of the US disease burden are preventable, and that the failure of the health system (which includes medical care and public health) to develop and deliver effective preventive strategies is taking a large and growing toll not only on health, but on the nation’s economy.

What are some of these emerging threats? They include environmental factors, such as the effects of greenhouse gases and global warming, and HIV/AIDS. Numerous deaths have occurred worldwide from H5N1 avian influenza since the virus first emerged in 2003, and in 2013 a H7N9 strain of avian influenza in poultry emerged which caused human deaths in China. SARS (severe acute respiratory syndrome) and H1N1 (swine flu) remain significant public health issues (McMichael & Butler 2007, US Department of Health and Human Services website 2011). These twenty-first-century challenges require public health to return to its roots to control infectious diseases, as well as be a part of a global effort to sustain the planet and its environment for generations to come (Gostin 2010, McMichael & Butler 2007).

Public health today is recognised as being integral to promoting and sustaining the health of the population. The following definition of public health by Last (2001) supports this approach:

... the efforts organized by society to protect, promote, and restore the people’s health. It is the combination of sciences, skills and beliefs that is directed to the maintenance and improvement of the health of all the people through collective or social actions. (Last 2001 p 145)

Although dated, this definition provides us with a framework from which we can gain a better understanding of the role of public health in our society. It dispels the notion that health is only concerned with curing illness and disease.

Public health is about preventing disease, illness and injury, together with promoting the quality of life of human populations. This is a very complex process, and requires
the committed skills and expertise of many different professional disciplines using a range of health approaches from prevention activities to clinical care.

In Australia, similar definitions are used to describe the art and the science of public health. The Public Health Association of Australia (PHAA) discusses public health in terms of going ‘beyond the treatment of individuals to encompass health promotion, prevention of disease and disability, recovery and rehabilitation, and disability support. This framework, together with attention to the social, economic and environmental determinants of health, provides particular relevance and informs the Association’s role (PHAA website 2014).

Debates in the literature (Goldberg 2009, Kelly 2011, Rothstein 2009) have focused on how broad and all-encompassing, or narrow, definitions of public health should be. What is common about most of these definitions is the notion that there is an organised desire to improve the health of the population as a whole, a sense of general public interest, and a focus on the broader determinants of health as both risk and protective factors (Beaglehole et al. 2004). It is worthwhile stopping here to consider the meaning of the term ‘determinant’. Determinants are discussed in Section Two (Chapters 5, 6 and 7) as both the causes of, and the risk factors for, health events. This requires the elaboration of a causal pathway that begins with the socioeconomic, geopolitical and meteorological determinants, and plotting them to individual and collective health outcomes. It means transcending disciplines as diverse as climatology and sociology, through economics and politics to psychology and biomedicine (Kelly 2011). A wide range of determinants, including physiological, psychosocial, behavioural and risk conditions, ‘can work together to influence quality of life, wellbeing, illness and disability. However, the ways in which these determinants manifest themselves in each society would depend on history, culture and politics’ (Lin et al. 2007 p 76).

As health workers, your knowledge and understanding of the art and science of public health will be an important element of your professional development. This will enable you to first identify the trends in the health of the population, and, second, demonstrate the skills to appropriately respond to these in restoring, promoting and maintaining the health of the population.

Consider the following scenario to help you think about the contribution of public health to daily life and broaden your understanding of public health (see Case Study 1.1).

CASE STUDY 1.1

A typical morning

You get up in the morning, woken earlier than expected by the waste-disposal truck collecting rubbish outside in your street. Having completed your morning routine (shower, toilet, teeth, etc.), you dress and have a quick look at Facebook. One of your friends has mentioned that it is Breast Cancer Awareness Week. Having realised that you are running late for the first lecture at university, you quickly rush out the door and into the car. Seat belt on, and out into the usual traffic chaos. As you drive past McDonald’s, the sign is too enticing, and, remembering you didn’t have breakfast at home, you drive through and pick up a muffin and a coffee. Across the road in the local state school you notice the ambulance service has two ambulances on the oval, and school students are climbing in and out of them. Finally arriving at university, you park your car as near as possible to the lecture theatre and walk the short distance to your lecture.
Reflecting on the content covered so far, you should now be feeling confident about your understanding of what public health is, and its role and value in today's society. The complexity of public health processes should also be obvious. For public health to be effective, it cannot be undertaken on an 'ad hoc' basis, but must adopt a multidisciplinary approach across a range of professions. Collaborative efforts should engage a number of organisations, both government and non-government. It is also important to include ethics at the forefront of our practice. Chapter 8 examines ethics in public health practice in more detail.

The World Health Organization agenda for public health

We now turn our attention to public health developments that have occurred at an international level. These developments have influenced the public health agenda and given direction to initiatives that have been implemented in Australia.

The WHO has played a significant role in promoting public health, particularly the concept of 'health for all,' which has been embraced by countries throughout the world, underpinning their respective health policies. The organisation has a six-point action plan that assists in shaping activity and focus (see Box 1.2).

**Activity 1.4 What do you think public health workers do?**

- How would you describe the public health workforce? Would your description be broad and encompassing, or narrow and restrictive? Think back to our discussion of definitions of public health.
- Make a list of the range and scope of activity for the public health worker.
- Select a public health worker—this might be an environmental health officer, a community health nurse, a diabetes educator, or a health promotion practitioner working in the community. Write down what you think a typical day might be for such a worker. Make a list of the roles and responsibilities they might have.
- How does this list relate back to the competencies we discussed earlier in the chapter?
The future for public health?

There are a number of emerging challenges that public health faces in the twenty-first century. These challenges include the emergence of ‘new’ infectious diseases, the ongoing presence of HIV/AIDS (particularly in developing countries) and the impact that overweight and obesity have on a range of health issues that influence the population’s health. Add to these issues the influence of global climate change and ecological sustainability, and you have a public health system stretched to capacity across a range of fronts.

Throughout the book, we continually return to these themes and issues as we explore the nature and scope of public health.

A final word

In this chapter, we have covered a broad range of issues that are reflective of elements of public health. We have examined definitions of health, both lay and professional; we have considered the definition, vision and values of public health; and the role of a wide range of health workers who play an important role in public health.

We have discussed the role of the WHO in setting a global agenda for public health, and the specific role of governments at three levels in Australia, from federal to state/territory and local government. We introduced you to the range of other associations, community organisations and advocacy groups, who all play important roles in improving the health of the population.

In conclusion, we briefly discussed public health issues emerging in the twenty-first century, and the challenges that face professionals working in the public health field if they are to deal with these issues. We return to these issues in the last chapter of the book.

In the chapter that follows, we look at the history of public health, and see how history provides a good window to the future.

REVIEW QUESTIONS

1. What do you understand by the terms ‘health’, ‘illness’, ‘disease’ and ‘public health’?
2. Why should public health have a vision, and what values should public health workers espouse and practise?
3. Write down the core tasks of public health, and think about how these might differ in the future.
4. Who is the public health practitioner, and what do you believe to be the core functions of a public health worker?
5. Make up a table of the three levels of government in Australia, and in each column describe their public health roles and responsibilities.
6. What role do NGOs play in public health?
7. List and briefly comment on the issues you believe will be facing public health in the twenty-first century.
8. How have varying political agendas at state and federal level impacted on public health funding and activity?
Useful websites

- World Health Organization: http://www.who.int/en/

References


Learning objectives

After reading this chapter, you should be able to:

- identify and describe the grand challenges facing public health in the twenty-first century
- critique the relationship between grand challenges for public health and the capacity of the workforce to meet these challenges
- analyse the importance of ecological sustainability to the survival of the planet, and its impact on public health activity in the future
- discuss the varying roles of the public health worker in the future in the light of emerging infectious diseases and the development of a range of chronic illnesses
- consider the important place of politics in decision-making about public health resources, infrastructure and strategies, and learn about effective advocacy at various levels of government for public health
- critique the issues that have influenced the globalisation of health and the impact of this development on public health in Australia.

Introduction

What is the future for public health in the twenty-first century? Can we glean an idea about the future of public health from its past? As Winston Churchill once said: ‘The further backward you look, the further forward you can see.’ What can we see in the history of public health that gives us an idea of where public health might be headed in the future? (Gruszin et al. 2012).
In the twentieth century there was substantial progress in public health in Australia. These improvements were brought about through a number of factors. In part, improvements were due to increasing knowledge about the natural history of disease and its treatment. Added to this knowledge was a shifting focus from legislative measures for protecting health to the emergence of improved promotion and prevention strategies, and a general improvement in social and economic conditions for people living in countries such as Australia. Gruszin et al. (2012) consider the range of social and economic reforms of the twentieth century as the most important determinants of the public’s health at the start of the twenty-first century (Gruszin et al. 2012 p 201). The same could not, however, be said for second or third world countries, many of which have the most fundamental of sanitary and health protection issues still to deal with. For example, in sub-Saharan Africa and in Russia the decline in life expectancy can be said to be related to a range of interconnected factors. In Russia, issues such as alcoholism, violence, suicide, accidents and cardiovascular disease could be contributing to the falling life expectancy (McMichael & Butler 2007). In sub-Saharan Africa, a range of factors, such as HIV/AIDS, poverty, malaria, tuberculosis, undernutrition, totally inadequate infrastructure, gender inequality, conflict and violence, political taboos and a complete lack of political will, have all contributed to a dramatic drop in life expectancy (McMichael & Butler 2007).

Within Australia, subpopulations still suffer adverse health effects. For Aboriginal and Torres Strait Islander peoples, mortality rates are higher for almost all causes of death. The major risk factors for poor health in this population include low birth weight, obesity, poor nutrition, high levels of alcohol and other drug use, substandard housing and living conditions, and inadequate access to healthcare (Australian Bureau of Statistics 2013a). These issues have been canvassed extensively in Section 2 of the book and, in particular, in Chapter 16.

The multidisciplinary nature of contemporary public health is evident in the range of developments that have advanced public health during the twentieth century. Biomedical scientists identified many of the disease-causing organisms and developed methods to manage them. Epidemiologists identified the determinants that underpin many chronic diseases, enabling this information to be used to reduce people’s risk of illness. Efforts to provide clean air and water have resulted in some successes when compared with the situation 50 years ago (Schneider 2011).

Improvements such as these have advanced the health of Australians and meant that life expectancy has also increased substantially; to some degree, improvements have been attributed to public health interventions. The 10 great American public health achievements in the twentieth century are listed in Box 17.1. It is interesting to note that none of these achievements had a focus on the ecosystem or ecological sustainability. However, these latter issues are now firmly on the world stage, and on the public health agenda, for action in the twenty-first century.

We can clearly see the re-emergence of infectious diseases as a major challenge for public health in the twenty-first century. The challenge of HIV/AIDS has been with the community for 30 years, but newer diseases such as swine flu, severe acute respiratory syndrome (SARS), avian influenza (‘bird flu’), Australian bat lyssavirus (ABLV) and Hendra virus have also emerged as major diseases that may affect the
CHAPTER 17 GRAND CHALLENGES FOR PUBLIC HEALTH

public’s health in the future. All of these diseases underscore the importance of surveillance and monitoring strategies in public health. In the late 1990s, the National Public Health Partnership (National Public Health Partnership (NPHP) 1998) produced an overview of the public health system and its activities. In that document, a section outlined recent key achievements for public health. Many of these achievements are similar to those of the United States listed in Box 17.1. Countries such as Australia and the United States have a similar set of public health successes, in which they have demonstrated improvements in mortality and morbidity over the past century. Others on the Australian list have a more contemporary flavour, as shown in Box 17.2.

New health challenges require a changing set of strategies for public health action into the future. This is an ambitious agenda of growing urgency, with daunting challenges. Since the 1986 Ottawa Charter for Health Promotion (World Health Organization (WHO) 1986), globalisation, new patterns of consumption and communication, urbanisation, environmental changes and public health emergencies, along with accelerating social and demographic changes to work, learning, family and community life, have become critical factors influencing health (Kawachi et al. 2013). Baum (2008) argues for public health strategies in the future that have the development of supportive societies and communities as their central plank (Baum 2008). She goes on to state:

Social support, high self-esteem and a sense of personal control are important determinants of health, best achieved in societies and communities that are relatively equal and that have reasonable levels of social solidarity. (Baum 2008 p 576)
preventing them, have meant that more resources have been expended on medical care and treatment. And, as that type of care has become more sophisticated, the costs have also increased.

In 2012, the Institute of Medicine (IOM), in their report titled *For the public’s health: investing in a healthier future*, noted that the United States spends extensively on clinical care, but meagrely on other types of population-based actions that influence health more profoundly than medical services. The health system’s failure to develop and deliver effective preventive strategies continues to take a growing toll on the economy and society (IOM 2012).

A health system for the future needs to shift its attention from funding high-tech infrastructure that supports a small percentage of the population to a continuum of care that enhances health promotion; and to comprehensive primary healthcare strategies that recognise the major contributions of social, economic and cultural factors outside of the individual, and the provision of health services, to health outcomes (Baum et al. 2013 p 503).

### Twenty-first-century solutions

Several authors (Hanlon et al. 2012, Kelly 2011) have begun to argue that public health requires new and more appropriate strategies to deal with a complex present and an unknown future. Table 17.1 summarises some of the issues presented by a range of authors in the past decade (Beaglehole & Bonita 2004, Hancock 2007, Hanlon et al. 2012, Kelly 2011, McMichael 2006, McMichael & Butler 2007), who articulate future developments that will impact on public health. It is amazing how similar the lists from many different authors are. The focus is clearly on the big social, environmental and economic issues that have both a direct and an indirect effect on the health of the population. Consider the range of issues presented and the implications for public health, and complete Activity 17.1 and Reflection 17.1.

Gostin (2010) argues for a global plan for justice for the world’s least healthy people based on three core components: essential vaccines and medicines; basic survival needs; and adaption to climate change. Similarly, Friel and Marmot (2011) discuss the need to reduce inequities in health through attention to the unfair distribution of power, money and resources, and the influences of everyday life. Others have argued for more recognition of the important role of population in environmental impact (Butler...)

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**ACTIVITY 17.1 Health challenges for the twenty-first century**

- Consider the health issues raised in Table 17.1. What do you think are the three major challenges for public health in the twenty-first century?
- How prepared do you think the public health workforce needs to be, and what skills would you identify as important for a public health worker in the twenty-first century?
- Can you, as a health professional in Australia, have an impact on these global issues? What impact do you think you can have in your environment, in your country, and/or globally? Why do you think that? Try to justify your answer.

**REFLECTION 17.1**

You might like to consider: the impact of globalisation on health; the issues of social and economic inequalities and their impact on health; or the advances in science and technology that might lead health systems further down the pathway of specialised technologies that are enormously expensive with limited population health returns. Possibly your impact can be at a local level, which in turn impacts with others at a national level, which may impact beyond a national level to a more global strategy for change. Read on further as we start to add additional issues for your consideration in dealing with twenty-first-century public health problems.

We have discussed the public health workforce and its development in Section 1, as well as in this chapter. Reflect back on what you have read, and think about the skills that a public health worker might need to meet the challenges of the twenty-first century.

Public health workers will probably need to specialise more as public health practice becomes more complex. What other health professionals have moved in this direction? The catch-cry of ‘think global, act local’ is already in our vocabulary, but what does that really mean for health workers? Does it mean that, no matter how small your actions, you can have an impact if others in the profession are working in similar ways to you? Describe some local actions that might have a greater impact on the community.
<table>
<thead>
<tr>
<th>Future issues</th>
<th>Implications for public health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influence of globalisation (markets, technology and communications)</td>
<td>Epidemics, terrorism and environmental concerns have expanded to have international as well as domestic implications for population health.</td>
</tr>
<tr>
<td>Global issues—poverty, urbanisation, globalisation, and social and economic inequalities</td>
<td>Obstacles to sustainability impact on the level and equity of population health.</td>
</tr>
<tr>
<td>Global environmental changes</td>
<td>Depletion and degradation of natural capital is not sustainable; need to focus on dependence on maintaining Earth’s life support system; population wellbeing and health are the real bottom line of sustainability.</td>
</tr>
<tr>
<td>Risk management—necessary to predict, influence and minimise risks in major systems on which society depends</td>
<td>Protect and improve population health through mitigation and management of risk.</td>
</tr>
<tr>
<td>Social factors—values, demography, education, housing, mobility, migration, social inequality, literacy, health status</td>
<td>Social determinants influence patterns of health, access to health, understanding of health issues and healthcare.</td>
</tr>
<tr>
<td>Technological factors—developments in information technology and telecommunications, and medical technology</td>
<td>Information technology developments enhance knowledge and analysis of health patterns to enable health management and care; costs, however, mean that society will not be able to support the increasing technological sophistication.</td>
</tr>
<tr>
<td>Economic factors—employment, income, inflation, consumer spending on health resources, demand and supply issues</td>
<td>Socioeconomic gradients and health, unemployment and associated health consequences, social isolation, increasing costs for consumers and sophistication of healthcare.</td>
</tr>
</tbody>
</table>
Regardless of the health issue under consideration, one of the salient themes in public health in the twenty-first century is the notion of global impacts and global responses. This leads us into one of our first contemporary public health challenges: a global perspective on health and its inequitable distribution.

**Globalisation and health**

A global agenda for public health is a major challenge for health practitioners, public health advocacy groups, and governments, both nationally and internationally. Issues such as free trade, modern economic theory (which asserts ‘that increased per capita income will offset the non-costed losses’), mobility of capital, and the deregulation of labour conditions all contribute to social and economic inequalities and environmental risk (McMichael & Butler 2007 pp 21–22). There needs to be a focus on creating sustainable environments and social conditions that result in equitable and enduring improvements in population health. How might public health actions make a difference to sustainable environments, equity and population health improvements?

As discussed in Chapter 15, there are a number of international organisations involved in global health advances. Sometimes, however, these roles overlap and there is a serious lack of coordination between agencies and their activities.

The World Bank acknowledges that inequalities are a substantial barrier to prosperity and growth, and that there is a need for strong government leadership, an active trade union movement, and greater equality in poor countries. However, these messages are not always consistent. Similarly, the influence and success of the WHO has varied considerably. Pressures from vested interests, such as the tobacco industry, and more recently the food industry in the United States, have always had an impact on the policies and actions of international agencies such as the WHO, by pressuring them to modify their positions on contentious issues (Magnusson 2009).

Balancing the important global public health challenges against the needs of member countries and the pressure from vested interest groups will always be a struggle for the WHO. Strong and consistent leadership will be required for the WHO in the twenty-first century.

The UN is working with governments, civil society and other partners to build on the momentum generated by the Millennium Development Goals (MDGs) and to carry on with an ambitious post-2015 sustainable development agenda that is expected to be adopted by UN member states at a summit in September 2015 (United Nations 2014).

Public health will have to be global to be effective, and take on a strong advocacy role in order to deal with global inequalities, and inequities within countries. In particular, Friel and Marmot (2011) argue that chronic disease and its social determinants should be at the forefront of global action to improve health (see Chapter 11). A number of factors have contributed to the increase in chronic diseases, including population ageing, reasonable success in controlling infectious diseases, and the globalisation of chronic disease risk factors (Gostin 2010, Magnusson 2009). Tackling the global burden of chronic disease constitutes one of the major challenges for twenty-first-century development.

**Dietary imbalance, physical inactivity and sedentary behaviour**

In the past two decades there has been a striking increase in the prevalence of obesity observed in many countries. Decreasing levels of physical activity and a high intake of...
a result of reading this book you have a fundamental understanding of the nature and scope of public health, the factors that provide the evidence that underpins public health activity, the range and scope of public health interventions, and the emerging issues that will challenge public health into the twenty-first century and beyond. In the face of developments that are outside the current scope of public health, but that impact on the wellbeing of the population, we wish you luck as you travel your professional journeys.

**REVIEW QUESTIONS**

1. Draw up a chart that displays developments that have advanced the health of the Australian population in the twentieth century, and then the beginnings of this century.

2. What are the major challenges? For example, is over-consumption a problem across the world?

3. How do these challenges differ for wealthy countries compared with poor countries?

4. What part has globalisation played in the emerging patterns of mortality and morbidity?

5. How important is ecological sustainability and, if it is important, for what reasons is it important?

6. What is translational research, and how might it provide evidence of success for public health activity?

7. What skills and expertise do the health workforce of the twenty-first century need that might not have been as important in the previous century?

**References**


