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Introduction

Why is public health important?

An 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 (Last 2001; Lin et al. 2007; 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. An Introduction to Public Health leads the reader on a journey of discovery that concludes with not only an understanding of the nature and scope of public health but also the challenges facing the field into the future. In this edition we have included two new chapters, one on the health of Aboriginal and Torres Strait Islander Australians, and a second on emergency planning and response, two fundamentally important issues to advancing public health into the future.

The book is designed for a range of students undertaking health courses where such courses include 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. The 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? Indigenous Australians, for example, have a life expectancy some 17 years less than the non-Indigenous population (National Preventative Health Taskforce 2009). In an egalitarian society such as Australia, that 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)

It further comments that public health and the prevention strategies that it promotes form the foundation for health system reform. APHA goes on to say that delivering resources to entire communities has more positive health impacts on people than individual interventions alone. Population-based programmes address the main causes of disease, disability and health disparities for a wide range of people and can help achieve increased value for our health dollar. These programmes, in conjunction with stronger health care coverage and delivery, will lead to a true change in our nation’s health (American Public Health Association 2011).

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. (UK 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 (Last 2001; Lin et al. 2007; 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 about selecting interventions that work with the hard-to-reach and the economically and socially isolated. The National Preventative Health Taskforce (2009), titled ‘Australia: The healthiest country by 2020’, presented seven strategic directions and four targets to advance population health in Australia in the future. These targets included: halt and reverse the rise in overweight and obesity; reduce the prevalence of daily smoking to 9% or less; reduce the prevalence of harmful drinking for all Australians by 30% and contribute to the ‘Close the Gap’ targets for Aboriginal and Torres Strait Islander peoples. Each one will be a major challenge for public health and the health workforce well into the future.

The art of public health has more to do with the practice of public health and how the science is interpreted and implemented according to population needs and circumstances.

Health practitioners who work in public health also need a vision about what public health could look like in the future. As practitioners, we need to be vigilant to changing circumstances and issues. In addition, we need a set of values and ethics that underpins our practice to be brought to bear in all our public health dealings.

One final important point should be made about the differences between public health and medical care. Both have an important contribution to make to the health of the population. However, the primary focus of medical care is the individual patient and treating people who are ill, although medical practitioners do have a role in health promotion and screening directed towards the individual’s care. Public health focuses on promoting health and preventing illness in the population. The problem for public health in measuring its success is that it often takes many years to see shifts in mortality and morbidity patterns as a result of a range of public health interventions introduced over many years. Take for example the case of smoking and cardiovascular disease. We know that cigarette smoking is the single largest preventable cause of death and disease in Australia. It is a major risk factor for cardiovascular
disease, as well as a range of cancers and other disabling conditions. International evidence shows that well-funded, comprehensive tobacco control programmes can successfully reduce tobacco use. The National Preventative Health Taskforce (2009) reported on the substantial reduction in mortality in Australia from tobacco use. However, the taskforce rightly noted that these changes had taken a large number of years to reach current levels. The problem is that these improvements are not immediately evident. It is also difficult to measure the individual contributions to change made by various different interventions.

In summary, this book covers the history and contemporary elements of public health, it includes a conversation about the determinants of health and how they shape public health practice, it discusses the important role for evidence in underpinning public health practice and it looks into the future to describe the emerging epidemics and the achievements and challenges facing public health in the twenty-first century.

How this book is organised

The book is organised into five sections. The five sections, and the 16 chapters within them, are outlined on the book’s contents page. Each chapter is organised in the following way:

- a list of learning objectives
- an introduction
- the content of the chapter
- review questions.

The following outlines each section of the book and how each helps you to understand the complex relationships that make up contemporary public health.

Section 1 of the book introduces you to definitions of public health, the principles that underpin the discipline, and its multidisciplinary and multisectoral nature. We then examine the range of health professionals working in public health and why they need to comprehend the nature and scope of public health and its role in promoting, protecting and restoring the public’s health. We briefly explore the interesting history of public health over the past 160 years since the inception of organised public health efforts. We paint a picture of the historical issues that have impacted on public health over the years and how history has always been a good signpost for what public health will be like in the future. Finally, we examine the impact of public health policy on public health practice. You will have the opportunity to consider how public health policy decisions impact on Aboriginal and Torres Strait Islander people’s health, oral health and the human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS), as examples. You will come to understand the nature and function of state health departments around Australia and their relationship with the federal Department of Health and Ageing. We consider the role of not-for-profit organisations and the contribution of local government to public health.

Section 2 covers the range of factors that impact on health and, consequently, the organised efforts of public health. It lays the foundations for decisions about priorities and strategies for public health interventions. It will provide you with evidence upon which decisions are made about where to intervene, how to intervene and how to track population health changes. We give you an understanding of the fundamental principles of epidemiology, and how this discipline underpins the activities of public health. An understanding of epidemiology will enable you to make informed
decisions about patterns of mortality and morbidity, and where to intervene; and it will help you track health changes in the population and in subpopulations over time. We analyse the determinants of health – genetic, physical, social, emotional, economic and environmental. Clarity regarding the determinants of health will assist you, in turn, to understand and apply the principles of public health in your practice.

Section 3 examines the use of evidence to inform the planning and evaluation of public health activity. We begin this section by considering the ethics of public health practice. Undertaking ethical practice is essential for health professionals no matter what aspect of health they practise in. Using case study examples we provide you with a picture of how evidence can inform practice. It examines the nature of evidence being considered and it discusses the issues practitioners need to understand in order to make evidence-based decisions. The final chapter in Section 3 provides you with advice about public health planning and evaluation models and the nature and extent of their application in practice, using a range of examples in a variety of public health settings.

There are four chapters that make up Section 4. These chapters focus on a continuum of public health activity, from disease control to health protection and health promotion. One focuses on communicable and non-communicable disease control, monitoring and surveillance. Another examines the development and relevance of environmental health to public health. We trace the development and importance of environmental health and occupational health and safety to population health, and examine the contemporary notion of ecological public health. The third chapter covers issues of importance to contemporary public health – emergency planning and response. We define ‘disaster’ and examine the principles of disaster management. In this section’s final chapter, the importance of health advancement and the promotion of health are discussed. This section should give you a good understanding of the scope of public health interventions and their application in practice.

In the final section of the book, Section 5, we examine the future for public health in the twenty-first century. We consider the globalisation of health. Public health has become a global issue. With travel around the planet easy and accessible to many, health issues 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, as a chapter in its own right, because of the important role 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 future of public health and the challenges facing the population, 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 reflection piece at the end of the book gives you a chance to consider the major challenges 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.

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REFERENCES


Chapter 1
Defining health and public health

MARY LOUISE FLEMING

Learning objectives
After reading this chapter you should be able to:
- define health and public health
- discuss how the concept of ‘health’ means different things to different individuals and be able to consider the range of factors that influence these definitions
- identify and describe the principles of public health
- recognise and describe how public health is defined and how each definition has shaped the development and implementation of public health approaches
- describe the relationship between public health and other disciplines
- discuss the nature and scope of public health
- describe the varying roles of the public health workforce.

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, which is 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 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 of health, both lay and professional.

Defining health and ill-health

Complete the simple exercise below to help you to begin thinking about how you and your friends define health.

**ACTIVITY**

- Ask five of your friends, classmates or family members what health means to each of them.
- What are the common themes that emerged from each of the five definitions of health?
- What was unique about the different definitions?

**REFLECTION**

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 his or her health is sometimes different, compared with a professional’s definition of health.

Most public health workers, or educators who work in public health, see ‘health’ as central to their work, and believe that the majority of people also hold health to be an important part of their lives. We clearly know that this is not the case. Much research (Baum 2002; Blaxter 1990, 2007; Fleming & Parker 2007) has been undertaken regarding the way in which people define health within the context of their daily lives.

To understand the nature and scope of public health in our society we also need to consider the variety of ways in which the term ‘health’ is defined. The section that follows discusses lay 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 aspects (Maher 1999). 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 had as its focus diagnosing diseases. The model’s focus does not take into account the role of social factors and it also overlooks the fact that prevention of disease is not included.

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 (Bircher 2005; Waltner-Toews 2000), but it certainly moved the debate about health away from an exclusive biomedical perspective.

‘Health’ itself is difficult to measure because it is a 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 wellbeing 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.

**Lay definitions of health**

Lay 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; these include professional, alternative and lay. Contemporary scholars prefer to consider lay 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 lay definitions of health and illness, found that people define health in a variety of different ways. In her research, 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 lay definitions of health and illness discussed above?

Read on and consider how others have characterised health. The following discussion 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 ix). These issues are discussed further in Chapter 15.

**A critical perspective**

While lay definitions of health have focused on the ways in which health is defined in the day-to-day lives of people, Baum (2008), for example, examines how health is defined by looking at the purposes that are achieved through particular ways of defining health. Table 1.1 summarises some of the ways in which a number of authors say health is defined (Baum 2008; Brown et al. 2005; Morris 2010), according to how the term might be used by different people.
As an educated person, you need to think about the ways in which health is defined and the limitations of a variety of definitions so that you 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) its focus on populations rather than on individuals and (2) efforts to promote health are organised and deliberate, 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 (Lawson & Bauman 2001; Lin et al. 2007; Schneider 2006). 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 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 organised 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.

A definition of public health that is often quoted is that of the Institute of Medicine (1988). In that definition, public health is described as what society does to assure the conditions for people to be healthy. To do this, the definition goes on to suggest, there needs to be a countering of continuing and emerging threats to the health of the public.

What are some of these emerging threats? Environmental factors such as the effects of greenhouse gases and global warming, HIV/AIDS, avian influenza, SARS (severe acute respiratory syndrome) and H1N1 (swine flu) are 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 organised 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)

This definition of public health 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.

In Australia, similar definitions are used to describe the art and the science of public health. The Public Health Association of Australia (PHAA) defines public health as ‘a combination of science, practical skills and beliefs that is directed to the maintenance and improvement of the health of all people. It is one of the efforts organised by society to protect, promote and restore the people’s health through collective or social actions’ (PHAA website). Recent debates in the literature (Goldberg...
2009; Rothstein 2009) about definitions of public health 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 (Beaglehole et al. 2004). It is worthwhile stopping here to consider the meaning of the term ‘determinant’. Determinants are discussed in Section Two (Chapters 4, 5 & 6) as both the causes of and risk factors for health events. 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 knowledge and understanding 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.

The concepts of public health should become a little clearer to you as we further discuss its vital role in our day-to-day lives. Consider the following scenario to help you think about the contribution of public health to daily life and to enable you to begin to broaden your understanding of public health (Case Study 1.1).

There are a number of activities that we take part in every day that affect our health and the public’s health collectively. Public health has developed systematic ways of thinking about health issues (Schneider 2006). This systematic approach enables public health workers to tackle a health issue in a considered and deliberate fashion. However, unless public health has a collective action domain it will lack a focus on social and economic issues that are so central to supporting and maintaining changes that enhance the public’s health.

**CASE STUDY 1.1**

**A typical morning**

You get up in the morning, woken earlier than expected by the waste-disposal truck collecting outside in your street. Having completed the morning routine (shower, toilet, teeth etc.) you dress and turn on the radio for the news report. Throughout the broadcast you hear 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 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.
If you were asked to think about how you might tackle a public health problem, you might think about it in terms of levels of prevention – primary, secondary and tertiary (see Chapter 13 for more detail on these concepts). Primary prevention focuses on maintaining health, for example, school health programmes, seat belts in motor vehicles, anti-smoking campaigns, and physical activity and nutrition programmes. Secondary prevention aims to minimise the extent of a health problem by focusing on early intervention, such as, prostate, bowel and breast screening. Tertiary intervention aims to minimise disability and provide rehabilitation services, such as cardiac rehabilitation.

Another way of dealing with a public health problem is to consider a chain of causation (see Chapter 10 for further consideration of this concept) involving an agent, a host and the environment. In this case, prevention is accomplished by interrupting the chain of causation, for example, by providing immunisation, using antibiotics or purifying water.

For you to gain a more comprehensive understanding of public health it is vital that you appreciate the underlying vision, values and core components of public health, as they provide the foundations upon which strategies are developed and implemented.

**Public health vision and values**

Having a vision of where you think public health might be placed in the next 5 to 10 years is important for the discipline and for you in your practice. There are a range of factors that impact on health and public health that will have a profound effect on the nature and scope of the discipline in the next decade. Globalisation is one of those issues (as discussed in Chapter 14); other issues include the emergence of new virulent infectious diseases, an increase in chronic disease such as diabetes, the ageing population and the ever-increasing cost and the expanding technological sophistication of health care. In Chapters 10 to 13 we examine the role of health protection and health promotion in advancing the health of the population, and in Chapter 14 we explore the notion of globalisation and its impact on health.
ACTIVITY

- Write a sentence on where you think the focus of public health will be in 10 years’ time.
- What steps did you take to arrive at that decision?
- What are the implications of your decision on resources and the workforce in public health?

REFLECTION

What factors might influence what you think public health will be focused on in 10 years’ time? You might use projected data about patterns of mortality and morbidity to begin. What other sources of data or reports from places such as the WHO or the Australian Government might there be that you could consider? Think about the health issues that might be important in 10 years’ time; how do these health issues impact on the resources needed to manage them? What might the workforce look like in 10 years’ time to meet changing public health needs?

The traditional values of public health are described by Lawson and Bauman (2001) as ‘consistent public health principles.’ The authors refer to three major principles:
- using scientific evidence as a basis for action
- focusing on the health of all sections of the population
- emphasising a collective action dimension (Lawson & Bauman 2001 p 5).

Addressing health issues across population subgroups is also very important to public health. It affirms the principle of equity, which is central to public health activity. Achieving the public’s health in some subpopulations is a very difficult task that constantly challenges the skills and expertise of health workers. This is because people’s lives are complex and their focus on affordable housing, transport and access to food may mean that health is not a priority.

A ‘collective action’ dimension tends to be contextualised differently according to the social and cultural aspects of the society in which we live. For example, in the United States there is still a very strong emphasis on individual rights and freedom; in contrast, in Australia, there is a notion of the collective good. Applied to public health, this means that the community accepts laws and regulations that limit the individual’s freedom, if it means that the health of the population is protected.

Core functions of public health

There are a number of different ways in which the core functions or the focus of public health have been described and defined. For example, Lawson and Bauman (2001) describe four major task categories that include health promotion and disease prevention; traditional public health functions; monitoring and surveillance; and public health policy. By contrast, Turnock (2001) describes seven key principles of public health practice that involve social justice; equity of access and equity in health outcomes; links with government; an expanding and evolving agenda; a preventive focus; a balance between science and societal needs; and an appreciation of the politics of public health.

A similar perspective is taken by Beaglehole et al. (2004), who talk about the five key themes of modern public health theory and practice. These themes include leadership of the health system; collaborative action across sectors; multidisciplinary approaches to all determinants of health; political engagement in the development of public health policy; and partnerships with the populations served.
Beaglehole et al. (2004) suggest that in order to strengthen public health these main themes should be acknowledged and acted on. A supportive framework for public health requires strong and responsive government leadership and adequate resources for personnel and infrastructure, completed by public health research, teaching and services that use the full range of public health sciences (Beaglehole et al. 2004 p 2086). Other authors have presented a different focus. For example, Griffiths et al. (2005) discuss three key domains of public health. In the three key domains of health improvement, health protection, health service delivery and quality there is an intersecting and overlapping of activity. Health improvement includes a focus on reducing inequalities and working with partners outside the health sector. Health protection encompasses preventing and controlling infectious diseases, responding to emergencies and protecting from and dealing with environmental health hazards. Health service delivery and quality focuses on service delivery, evidence-based practice, planning and prioritising and appropriate research, audit and evaluation activities (Griffiths et al. 2005).

Gostin et al. (2004 pp 98–103) discuss three effective core strategies of public health. The authors provide examples of how each strategy can be implemented. They talk about strengthening ‘the governmental public health infrastructure’, engaging ‘non-governmental actors in partnerships for public health’ and transforming national health policy so that traditional dominant investments in personal health care and biomedical research are balanced against investments in the ‘multiple determinants of societal health’.

For at least the last 10 years, efforts to define core public health competencies have occurred around the world. In the USA, the UK and Australia, professional bodies and government instrumentalities have attempted to define the roles and responsibilities of public health workers. In 2000, the National Public Health Partnership (NPHP) (2000) defined core public health functions in Australia.

The Public Health and Education Research Program (2007), funded by the Australian Government Department of Health and Ageing, defined public health practice as involving five areas. These are: health monitoring and surveillance; disease prevention and control; health protection; health promotion; and health policy, planning and management. The application of research methods and professional practice form the two underpinning competency groups.

More recently, the then Australian Network of Academic Public Health Institutions (ANAPHI) produced ‘Foundation Competencies for Master of Public Health Graduates in Australia’ (Genat et al. 2009). The foundation competencies were designed around six areas of practice including health monitoring and surveillance; disease prevention and control; health protection; health promotion; health policy, planning and management and evidence-based professional population health practice.

There is a set of common themes that go to the heart of public health practice. These include collaborative action across sectors, multidisciplinary approaches, establishing partnerships, reducing inequality, and enhancing political support for public health policy. Public health professionals need to work with many other professionals outside as well as inside the health sector and to approach public health issues from a multisector perspective. What we mean by multisector in the public health context is that, for example, public health needs to work with government education, housing and transport departments to ensure that these services are available to the whole population in an equitable manner.
What do public health practitioners do?

This is an interesting question that we will consider in two parts. First we will discuss who makes up the public health workforce. Second, we will consider the role of the public health worker, now and in the future.

Who is the public health workforce? Is it anyone from a health discipline who is involved in some form of public health activity, or is it much narrower, such as a community primary care worker or a public health specialist? Rotem et al. (1995) conducted a study of the public health workforce and described this workforce as:

> [p]eople who are involved in protecting, promoting and/or restoring the collective health of whole or specific populations (as distinct from activities directed to the care of individuals). (Rotem et al. 1995 p 437)

They found that personnel come from a wide range of professional and occupational backgrounds and that characteristically they are described as having a high degree of versatility and flexibility (Rotem et al. 1995). The study suggested that the workforce is made up of mature, highly qualified, multiskilled individuals from a variety of backgrounds, who have multiple functions to perform that are not always related to their primary training or occupation.

In a NSW state-wide consultation by Madden and Salmon (1999) the authors included a third category of health worker as one with public health components included in their professional practice, such as general practitioners and community health nurses who need an understanding of population health.

Public health will increasingly become the focus of a range of different health workers as the notion of an expanding scope of practice becomes articulated further. In rural and remote areas where it is difficult to attract health workers the potential inclusion of a primary health care role for nurses and paramedics will involve a focus on prevention and promotion.

Chapters 10, 11, 12 and 13 look at the application of many of the principles discussed above in a range of settings using a variety of different public health strategies.

What does the public health worker do? This is the second question. The role of the public health practitioner according to van der Maesen and Nijhuis (2000 p 136) involves three important elements:
1. improving social conditions that stimulate health
2. preventing social conditions that threaten health
3. neutralising existing social conditions that cause ill health.

How do you think the three elements listed above relate to the questions in the activity that follows?

**ACTIVITY**

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

- How would you define the public health workforce? Would your definition 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 for the National Heart Foundation (NHF). 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?
BOX 1.1 ROLES AND FUNCTIONS FOR THE PUBLIC HEALTH WORKFORCE

- Understanding the context for public health activity and its role and functions
- Clarity around political impacts on public health
- Ability to apply a range of methodological approaches to understand data
- A theoretical understanding of the disciplines that underpin public health and their contribution to strategy selection
- Understanding a range of skills around surveillance, prevention, promotion and restoration of the population's health
- Developing and analysing policy
- Planning, implementation and evaluation
- Evidence-based practice
- Advocacy, communication and negotiation skills
- Working intersectorally and with multidisciplinary groups
- Ethical practice

While there are core functions for public health workers, the diversity of public health practice is still enormous. The organisation that employs you, the nature of the position, the organisational philosophy, the governance structure of the organisation, whether it is for profit or not-for-profit, state-based or non-government, all impact on the nature and scope of the public health work you might be asked to do.

Even though the public health worker may have different roles and functions according to the setting in which he or she works, there are common aspects of practice that all workers need to be able to perform and to understand. These functions are outlined in Box 1.1.

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 and must adopt a multidisciplinary approach across a range of professions. Collaborative efforts should engage a number of organisations, both government and non-government, in attempts to strive towards positive health outcomes throughout the population. It is also important to include ethics at the forefront of our practice. Chapter 7 examines the issue of 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 and events that have occurred at an international level. These, to a large extent, have influenced the public health agenda and given direction to initiatives that have been implemented in Australia with the aims of achieving the goals of public health.

The WHO has played a significant role in articulating and promoting public health, particularly in promoting the concept of ‘health for all’, which has been
embraced by countries throughout the world, underpinning their respective health policies. For the WHO, the extent of public health action has become more difficult to define and has merged with other sectors that influence health opportunities and outcomes. Consequently, the WHO (2008) has a six-point action plan for health that assists in shaping activity and focus. This six-point plan is outlined in Box 1.2.

Since the 1970s the WHO and other substantial international players have had a focus on primary health care, prevention and promotion. This has been evident in policy that supports the advancement of promotion and prevention. For example, the WHO Alma Ata Declaration stressed the importance of a slogan that said ‘Health for all by the year 2000’. This primary health care philosophy spoke about the principles of equity, social justice, intersectoral collaboration, community participation and empowerment. It had as its focus the important role of health promotion and disease prevention (See Chapter 13 for a detailed analysis of the nature and scope of health promotion.).

In the 1980s the lifestyle phase became prominent. At this stage of public health development, Canada was at the forefront of initiatives to focus on the lifestyles of individuals but also to stress the importance of a contribution to people's health that included social issues. Issues considered important included lifestyle, environment, socioeconomic factors and health care system reform.

In more recent times, the global concern for ecosystem sustainability, known in public health circles as ecological public health, has emerged as the predominant theme for public health action in the twenty-first century. The Jakarta Declaration (1997) went some way towards a focus on sustainability and globalisation. However, in 2005 the Bangkok Charter for Health Promotion identified globalisation as a central issue for health promotion endeavours. Participants at the Sixth Global Conference on Health Promotion, co-hosted by the WHO and Thailand's Ministry of Public Health, adopted the charter. It identifies major challenges, actions and commitments needed to address the determinants of health in a globalised world by engaging the many actors and stakeholders critical to achieving health for all (See Chapter 13 for a more comprehensive account of the Ottawa Charter, the Jakarta Declaration and the Bangkok Declaration in the evolution of health promotion policy and practice.).

‘Health for all by the year 2000’ has not been achieved. The WHO reforecast its endeavours in this regard with the production of ‘Health for all by 2010’, although some regional areas have targets dated to 2020. The emphasis in public health in this revised focus includes sustainable development, collaboration, protection, prevention, resilience, adaptation, the emergence of chronic diseases and the re-emergence of infectious diseases.

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**BOX 1.2 WHO’S SIX-POINT ACTION PLAN**

1. Promoting development
2. Fostering health security
3. Strengthening health systems
4. Harnessing research, information and evidence
5. Enhancing partnerships
6. Improving performance

(Source: WHO 2008)
In 2000, United Nations member states agreed on eight Millennium Development Goals (MDGs) with targets to be achieved by 2015. Four of these goals relate to health outcomes: eradicating extreme poverty and hunger; improving maternal health; reducing child mortality; and dealing with HIV/AIDS, malaria and other infectious diseases (McMichael & Butler 2007). To achieve any one of these four goals within the designated timeframe seems almost impossible in the context of the overwhelming range of issues impacting on population health.

In March 2005, the WHO created the Commission on Social Determinants of Health (CSDH (WHO 2005)). The commission operated until May 2008. The components of the CSDH included the commissioners, partner countries, evidence-gathering knowledge networks, civil society organisations and global institutions (Irwin et al. 2006 p 0749). The CSDH developed five action areas as outlined in Box 1.3.

Three years later the WHO focused on a global strategy for the prevention and management of non-communicable diseases (WHO 2008). This strategy is a partnership for action to control four diseases – cardiovascular disease, diabetes, cancers and chronic respiratory diseases, and four shared risk factors – tobacco use, physical inactivity, unhealthy diets and alcohol misuse.

These developments on the international stage are now clearly focused on health inequalities and ecological sustainability. This recognises that inequalities in health are seeded in the structures of society – economically, politically and culturally – and it will take collaborative efforts across sectors to bring good health within the reach of everyone. Chapter 14 covers many of these issues in more detail. Ecological sustainability is considered in Chapters 11 and 16.

You will see the term ‘intersectoral approach’ used often in this book. It is very relevant in developing healthy public policies as it recognises the need for cooperation between governments, government departments, the private sector and non-government organisations (NGOs), if policies are going to be effective in achieving the maximum positive impact on the health of the population.

In concluding this section of the chapter, it is important to remember that ecological sustainability recognises all components of people’s lives and takes into account the impact that these factors have on the health of populations or subgroups of populations. For example, individuals alone are not totally responsible for their health status. Although they need to adopt positive behaviours in regard to their health,

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**BOX 1.3** FIVE KEY ACTION AREAS FOR THE CSDH

1. Improving living and learning conditions in early childhood
2. Strengthening social programmes to provide fairer employment conditions and access to labour markets, particularly for vulnerable social groups
3. Policies and interventions to protect people in informal employment – that is, those who work without formal contracts or social protections, often in sectors outside government regulation, such as subsistence farming, household-based enterprises, and street vending
4. Policies across sectors to improve living conditions in urban slums
5. Programmes to address key determinants of women’s health, such as access to education and economic opportunities

(Source: Irwin et al. 2006, p 0750)
factors such as the environment in which they live, their economic status, and their culture are some of the things which, although they have little or no control over them, can have a significant impact on their health. Ecological public health, with its focus on sustainable environments for health, has evolved as the main focus of public health in the twenty-first century.

Public health in the Australian context

In Australia, managing public health activity is multilayered and is influenced by the prevailing political thinking. In this chapter, we introduce you to the systems and organisational arrangements for public health activity. In Chapter 3 we provide you with more specific information about the health care system and its relationship to public health and the range of policy initiatives supporting public health.

The division of responsibility for public health includes the Australian Government Department of Health and Ageing, state and territory health departments, local government departments, non-government organisations, professional associations and a range of advocacy groups. In addition, individuals, such as general practitioners and health workers in community health centres, also undertake health protection and health promotion roles and responsibilities.

A number of other organisations also play a role. The National Health and Medical Research Council (NHMRC) fund public health research and make policy statements on health issues; the Australian Institute of Health and Welfare (AIHW) and the Australian Bureau of Statistics (ABS) monitor and report on health data; and universities educate public health, allied health, medical and nursing professionals, and undertake research and consultancy activity in public health. Divisions of general practice also play an important role in advancing population health.

Australian Government Department of Health and Ageing

The Population Health Division (DOHA 2011) and the Office for Aboriginal and Torres Strait Islander Health, within the Australian Government Department of Health and Ageing, both play a national leadership role in public health matters, such as communicable diseases, immunisation, nutrition and obesity, physical activity, food policy, smoking, and alcohol and drug abuse. In addition, the Office of Health Protection and the Mental Health and Chronic Disease Division play an important role in prevention. The division identifies itself as playing a number of roles in creating and supporting national endeavours in public health. These activities are listed in Box 1.4.

The division has identified a number of broad priorities for public health that focus on identifying and responding to emerging threats and health emergencies, and a focus on prevention, particularly in areas such as nutrition, physical activity, overweight and obesity (see the DoHA, Population Health Division website for a review of current program involvement). The Division has an emphasis on responding to health issues throughout the lifecourse. In 1996, it established the National Public Health Partnership (NPHP), creating a framework for public health leadership and to strengthen collaboration between stakeholders. The NPHP was disbanded in 2006. More recently, the Population Health Division has been involved in the National Preventative Health Strategy, the National Partnership Agreement on Preventive
Health, the Australian Health Survey, and the establishment of the Australian National Preventive Health Agency, all important steps forward in prevention and public health in Australia. The Population Health Division has links to advisory bodies supported by the Population Health Strategy Unit, including the Preventative Health Taskforce (National Preventative Health Taskforce Website 2011) and the Australian Population Health Development Principal Committee (APHDPC).

In 2010, the Rudd Labor Government proposed sweeping reforms to the Health and Hospital System in Australia. However, in early 2011, the Gillard Labor Government substantially modified this proposal and recommended a Federal, States and Territories system, where money will be pooled and paid directly to hospitals. These initiatives are still to be worked through at the time of writing (see Chapter 3 for more details).

There are a number of federally supported organisations and legislation that protect and enhance the health of the population. These include the Therapeutic Goods Administration, Food Standards Australia New Zealand, Australian Radiation Protection and Nuclear Safety Agency, and the Australian Safety and Compensation Council.

To build a prevention agenda in a health system that currently expends the majority of its funds on treatment is an ongoing challenge. As the costs of treatment continue to rise, and health technology becomes more sophisticated and expensive, a focus on prevention has gained greater traction in the health system. In addition, the emergence of chronic diseases, such as diabetes, means that people will be living a large part of their lives managing such conditions. The Australian Government is attempting to make prevention a fundamental pillar of the health system. This will be a difficult task, given the strength of some health interest groups that have managed to lobby effectively with a succession of governments around their own focus and needs.

Another very important aspect of the leadership role at the federal level is to have in place information systems that can alert us to emerging health issues. Australia
INTRODUCTION TO PUBLIC HEALTH

ACTIVITY
Advancing public health – the Australian perspective

- In the past 10 years, what have been the major foci of national developments in public health in Australia?
- What factors may have influenced national developments? For example, change in political party, health crises, changing patterns of health.
- What role can non-government organisations play in public health?
- What role do you think the ecological public health movement has had in advancing the activities of public health in the public mind?
- How do we balance health care needs with population health needs in order to be able to fund the health system in the future?

REFLECTION

The federal government, in the past 20 or so years, has played a policy and strategic role in advancing population health. This strategic role has meant an emphasis on the policy and the identification of major areas for national development, the detail of which is often translated at state/territory and local government levels. For example, the Population Health Division has set a national agenda for healthy eating and increased physical activity. At the state/territory level that national agenda has been translated into actions that more clearly meet the needs of the population. Do you think that non-government agencies such as the Cancer Fund or the National Heart Foundation (NHF) have been included in policy initiatives at the federal level? How might you determine if they have been given a role? How is ecological public health defined? Ask five of your friends if they understand what ecological public health is all about. In Chapter 3 there will be more detail about funding for public health in a health care system where the majority of current funds are expended on care and treatment. Can you think of any health professionals who might want funding levels to remain as they are?

State and territory governments

At the state/territory level of public health activity, responsibilities have included: managing public hospitals and community health services; leadership and planning of public health; health surveillance; local government regulation and health promotion, including working with non-government and other organisations (Baum 2008). A summary of these functions is provided in Box 1.5.

Other roles and responsibilities include that of the chief health officer, under whose authority many health activities are located and who exercises statutory responsibilities. These include environmental protection, occupational health and safety, road and traffic authority, sport and recreation, and consumer affairs. Education departments in each state have a major role to play in promotion and prevention through the health curriculum, health promoting in schools and a range of other activities including Sun Smart, Healthy Tuckshops, drug and alcohol programmes such as PROMAS (Promoting Adjustment in Schools) and driver education. Emergency services departments in
each state also play a role in promotion and prevention. For example, with the changing scope of practice, health workers such as ambulance officers play an important role in providing information and education to the general public, and in rural and remote communities – as primary health care workers.

In Queensland, like many other states, a whole-of-government approach is taken where public health and many other services form part of a more integrated approach to promotion and prevention, and the multisectoral nature of public health is recognised and supported. The success of such approaches of course depends upon political will, interdepartmental collaboration and positive interaction between all tiers of government.

**Local government**

Local government has a critical role to play in public health, especially in the area of legislation and creating healthy communities. Local governments’ roles in public health activity vary across Australia, but more often than not still include such functions as well baby clinics, immunisation, food safety, environmental protection, a strong role in cultural and recreational activities and community development, and, importantly, local economic development.

**Non-government organisations, community organisations, professional associations and public health advocacy groups**

There is a broad range of organisations and associations that support public health endeavours in Australia. That support comes in a variety of different ways. For example, large well-funded non-government organisations (NGOs) such as the cancer councils, the National Heart Foundation and Diabetes Australia have a range of roles, including information and education, fundraising, advocacy, lobbying and research, in the promotion of health and the detection and treatment of specific health issues.

Other organisations, such as professional associations, play an important role in lobbying, advocacy and policy development as well as workforce education through conferences and professional development activities. These associations include the Public Health Association of Australia, the Australian Health Promotion Association, the Australasian Epidemiology Association and the Australian Institute of Environmental Health.

**BOX 1.5 STATE/TERRITORY GOVERNMENT FUNCTIONS**

- **Health protection** – such as environmental health, drugs and poisons
- **Disease prevention** – examples include surveillance, health education, immunisation, STI (sexually transmitted infection) and cancer screening
- **Health promotion** – including a focus on physical activity, nutrition, maternal and child health, tobacco, drugs and alcohol and injury prevention
- **Policy and programme support** – epidemiology, evaluation, research, workforce development, policy development within and outside the sector impacting on health, and clinical service guidelines

(Adapted from Lin et al. 2007)
ACTIVITY

Health in the public arena

• On a regular basis, the media will report on public health issues, initiatives, developments, etc. The newspaper is an effective communication vehicle by which the public’s awareness may be raised about an issue or an event that directly, or indirectly, impacts on the public’s health. What are examples of recent newspaper articles that you can find that deal with a public health issue?

Public health issues in the daily press

Identify and source two articles that comment or report on a current public health issue. Write a brief review of each newspaper article. Use the following questions to frame your comments:

• Why is it a public health issue? Think about our discussion of definitions of public health.
• Use evidence to decide if this is an important public health issue. Where should this evidence come from?
• What population or subpopulation is involved?
• What strategies, if any, are being implemented to address the issue or concern?
• What component or components of the public health system would take responsibility, for example, the state health department or a non-government organisation?
• What are the future ramifications if the issue or concern is not addressed?

A third group of organisations are those focused on advocacy and lobbying, including the Women’s Health Network, the Consumer Health Forum and the National Association of Aboriginal Community-Controlled Health Organisations (Baum 2008).

Health promotion foundations are variously integrated into state health departments or have been set up to stand independently of a departmental structure. They have an important role in funding research activities and their application and, in some jurisdictions, an advocacy and lobbying role.

To the above list, Baum (2008) adds primary health care providers, and universities and research institutions. Primary health care providers include general practitioners, who play a role in screening, immunisation and the health education of patients. Universities and research institutes both have an education and research function.

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 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 introduced you to 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 is 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 the 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.

**REFERENCES**


