Dental Public Health
at a Glance
Dental Public Health at a Glance

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Preface

Members of the dental team are in a unique position to offer tailored and personalized advice and to thereby educate their patients on the steps that are necessary to secure oral health. However, there is only so much that can be achieved by such one-to-one, ‘downstream’ interventions. It is crucial that all members of the dental team appreciate the wider determinants of health and the impact of lifestyle and life circumstances on the health and oral health of their patients. The population has not benefited equally from the significant improvements in oral health observed over the past four decades. That one half of all diseased teeth are concentrated in just 7% of 5-year-olds serves to highlight the health inequalities that pervade our society. It is crucial that from the earliest stage of their training, the next generation of dental professionals have an appreciation that the lives of others are frequently very different from their own.

Dental students rightly spend the majority of their time learning the theoretical, practical and clinical skills necessary to practise their chosen profession. Often it is only relatively late in their course that their attention turns to the environment in which they will have to deliver dental care and earn their living. It is important to have an appreciation of the issues involved in the organization, commissioning and delivery of oral healthcare at dental practice, regional, national and international levels. The principles of evidence-based practice are of ever-increasing significance in achieving this. In its guidance Preparing for Practice, the General Dental Council has placed great emphasis on learning outcomes that fall within the remit of dental public health. All of these factors emphasize the need for an understanding of the discipline.

The intention of this book is that ‘at a glance’ dental professionals will be able to come to a basic understanding of the principles and practice that relate to the science and the art of improving oral health at both an individual and a population level. Of course, the factors influencing public health practice evolve at a pace – a change of government, new guidance and new policies affect dental public health at a greater rate than other dental specialties. For this reason, the intention of this book is to raise awareness and provide pointers and flags that can be followed up via more exhaustive information sources.

While the basic principles of the discipline are universal, a complicating factor in writing a book on dental public health in the United Kingdom is the four different – sometimes very different – models of care that have evolved in the constituent countries following devolution in 1999. Where possible, attempts have been made to illustrate differences across the United Kingdom, but at times this is limited by the constraints of space.

The primary audience for this book is undergraduate dental, dental therapy and dental hygiene students, together with those in Dental Foundation and Core training and those preparing for MDFS or MJDF examinations. The book should also prove a useful resource for those preparing for the Diploma in Dental Public Health examination or the Overseas Registration examination. While at an entry level, the book may also act as an aide mémoire for those undertaking specialty training, and may indeed be of use to any member of the dental team who has an interest in the vast range of topics now embraced within dental public health.

The concepts arising in dental public health can be challenging from an academic perspective. Twenty years teaching the subject have taught me that it is one that students tend to love or hate. It is my hope that this book might go some way to encouraging more of the former and less of the latter.

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Introduction

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What is dental public health?

Dental public health is the science and the art of preventing oral disease, promoting oral health and improving the quality of life through the organized efforts of society.

In contrast to clinical dental practice, where the focus is on looking after individual patients, in dental public health practice the focus is on populations or defined groups within a population. The definition here refers to science. Dental public health requires a sound knowledge of the factors influencing the aetiology, detection, measurement, description and prevention of oral disease and the promotion of oral health. It also refers to art. This involves advocacy, policy development and the politics of how dental care is prioritized, organized, monitored and paid for in societies.

The key components of dental public health practice and how these relate to one another are shown in Figure 1.1. The core values of public health practice are as in Table 1.1.

A comparison between clinical dental practice and dental public health practice is shown in Table 1.2.

The public health approach
The Faculty of Public Health, the professional body that is responsible for setting standards in public health practice in the UK, describes the public health approach as:

- population based
• emphasizing collective responsibility for health, its protection and disease prevention
• recognizing the key role of the state, linked to a concern for the underlying socio-economic and wider determinants of health, as well as disease
• emphasizing partnerships with all those who contribute to the health of the population.

How this applies to dental public health is shown in Table 1.3.

### Key disciplines in dental public health

In order to practise dental public health, knowledge of the following disciplines is important.

<table>
<thead>
<tr>
<th>Table 1.3 The public health approach as applied to dentistry</th>
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<tbody>
<tr>
<td><strong>Dental public health:</strong></td>
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<tr>
<td>• Is concerned with the oral health of populations</td>
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<tr>
<td>• in a city or defined geographical area</td>
</tr>
<tr>
<td>• in a particular group of the population defined by a common demographic, e.g. children, older people</td>
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<tr>
<td>• in a group of people with social circumstances in common, e.g. homeless people, people with drug and substance abuse problems</td>
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<tr>
<td>• Recognizes that responsibility for health and prevention of oral disease is shared between individual people and healthcare professionals, and that people should be empowered to look after their own health.</td>
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<tr>
<td>• Is conscious that as health is markedly linked to people's lifestyles and life circumstances, it needs to take account of how the risk of poor oral health is not equal across populations, e.g. levels of dental caries in children are closely correlated with social and economic deprivation.</td>
</tr>
<tr>
<td>• Implies that to improve health, it is necessary to work on policy development at a high level and across disciplines. As an example, legislation making the wearing of seat belts compulsory is important in preventing facial injuries in road traffic accidents; taxing tobacco sales is important in moderating smoking. In health improvement programmes in schools, dental public health practitioners need to work outside health and collaborate with school teachers and education authorities.</td>
</tr>
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### Oral epidemiology

Oral epidemiology is the study of oral health and oral disease and their determinants in populations.

### Demography

This refers to measurements and statistics that describe populations. It involves recording factors such as the age structure of the population, ethnic composition and educational attainment.

### Medical statistics

Understanding numbers and the inferences that can be drawn from them in reviewing disease trends and service provision is a key skill, as is the ability to appraise and conduct dental research.

### Health promotion and health improvement

Health promotion is the process of enabling people to increase control over their health and its determinants and thereby to improve their health. Health improvement recognizes that the determinants of health can be outside an individual's control and is designed to address so-called wider determinants of health such as education, housing and employment. It is also designed to address the gaps in health between areas of high and low social and economic provision – gaps known as 'health inequalities'.

### Sociology

Sociology is the study of the development, structure and functioning of human societies. An understanding of these factors is important in improving health and organizing healthcare services.

### Psychology

Psychology is the branch of science that deals with the human mind and its functions. In a public health context, an understanding of psychology is important in relation to behaviour change.

### Health economics

Health economics concerns the need for, demand for and supply of health and healthcare. In the context of dental public health, it relates to how resources are distributed and the effectiveness and efficiency of services. How care is commissioned and paid for is an important element of how dentistry is organized and delivered, and dental public health practitioners need a clear understanding of these issues.

### Health services management and planning

Dental services are in competition with other forms of healthcare, whether paid for by the state or by individuals. They therefore need to be organized, managed and planned. Allocation of resources within a publicly funded dental service should be done in proportion to need and likelihood of benefit. Dental public health practitioners will be called on to give advice to health service managers and finance officers on the appropriate allocation of resources and to offer guidance on how dental services are planned and delivered.

### Evidence-based practice

Evidence-based practice is designed to ensure that wherever possible, the dental care that is delivered has been shown to be that which is most efficient and effective. It is the role of dental public health practitioners to facilitate such practice. Those responsible for dental public health need to understand the theory of evidence-based dentistry to support the improvement of oral health and the delivery of effective care.
Health, oral health and their determinants

Figure 2.1 The determinants of health. Source: Adapted from Dahlgren and Whitehead (1991). Reproduced with permission from Institute for Futures Studies.

Figure 2.2 Life circumstances and lifestyle as determinants of health

Figure 2.3 Lifecourse analysis as a means of investigating the determinants of health