

**POCKET CONSULTANT**  
**OCCUPATIONAL**  
**HEALTH**

KERRY GARDINER • DAVID REES • ANIL ADISESH  
DAVID ZALK • MALCOLM HARRINGTON

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# Pocket Consultant

## OCCUPATIONAL HEALTH

**Sixth Edition**

### **Professor Kerry Gardiner**

*Professor of Occupational Health, School of Public Health, University of the Witwatersrand, Johannesburg, South Africa*

### **Professor David Rees**

*Emeritus Professor, School of Public Health, University of the Witwatersrand; National Institute for Occupational Health, Johannesburg, South Africa*

### **Professor Anil Adisesh**

*Associate Professor and Division Director, Occupational Medicine, Department of Medicine, University of Toronto, Ontario, Canada; Canadian Health Solutions, Saint John, New Brunswick, Canada*

### **Professor David Zalk**

*Director of Occupational Hygiene, University of Illinois at Chicago, Chicago, Illinois; School of Public Health, Global*

*Program on Occupational Health Practice Online, San Jose,  
California, USA*

**Professor Malcolm Harrington CBE**

*Emeritus Professor of Occupational Medicine, University of  
Birmingham, UK*

**With contributions from**

**Dr Roxane Gervais (Chapter 11)**

*Director, Practical Psychology Consultancy Ltd, Hull, UK*

**Professor Joan Saary (Chapters 9.5 and 18.17)**

*Associate Professor, Department of Medicine, Division of  
Occupational Medicine, University of Toronto, Toronto,  
Ontario, Canada*

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# FOREWORD

When a text such as *Pocket Consultant: Occupational Health* has survived over six iterations, the authorship has most likely changed. This is certainly the case here: the first version was authored by Malcolm Harrington and Frank Gill - with just Malcolm Harrington remaining in this the sixth edition. What has enabled this book to be (hopefully) so comprehensive and coherent yet retain its 'pocket consultant' format is that every edition has been written by colleagues in the same academic department. However, it is with deep sadness we report that, since the fifth edition (2006) was published, both Frank Gill and Tar Ching Aw have passed away - it is to them that this book is dedicated.

With deliberate intent, it was decided to utilise the profound knowledge and experience of some of our friends and colleagues from further afield geographically to make the text less parochially British and reflect a more global perspective. In addition, there have been significant developments in various aspects of occupational health, and the structure and content of the book have been chosen to reflect this, particularly the new chapters on clinical evaluations, control banding, tertiary prevention and the legal and ethical aspects of occupational health. The chapter on special issues has also been expanded greatly.

We hope that you enjoy and learn from this text as much as we have had fun writing it - and, ultimately, that it resides as a fitting testament to Frank and Ching.

Malcolm Harrington and Kerry Gardiner 2021

# CHAPTER 1

## Introduction

[1.1 What is occupational health?](#)

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## 1.1 What is occupational health?

Occupational health is a multifaceted and multidisciplinary activity concerned with the prevention of ill health in working populations. This involves a consideration of the two-way relationship between work and health, wherein it is as much about the effects of the working environment on the health of workers as it is about the influence of the workers' state of health on their ability to perform the tasks for which they were engaged. The main aim of occupational health is to **prevent**, rather than **cure**, ill health from wherever it arises in the working environment.

Health ↔ Work

A joint International Labour Organization/World Health Organization (ILO/WHO) Committee defined the subject back in 1950 as: 'the promotion and maintenance of the highest degree of physical, mental and social wellbeing of workers in all occupations'.

The relationship between the worker and the world of work is, necessarily, complex ([Figure 1.1](#)). The worker brings to the place of work a pre-existent health status influenced by many factors - only some of which are under the worker's direct control; hence, any disease/illness/outcome that manifests in the individual has to be viewed in this context. The health outcome could be caused by work, modulated by work or completely unrelated to it. Such a view of occupational health is, however, predominantly a medical model; albeit now the situation was and has been realised to be very much more complex.

## 1.2 Who is involved in occupational health?

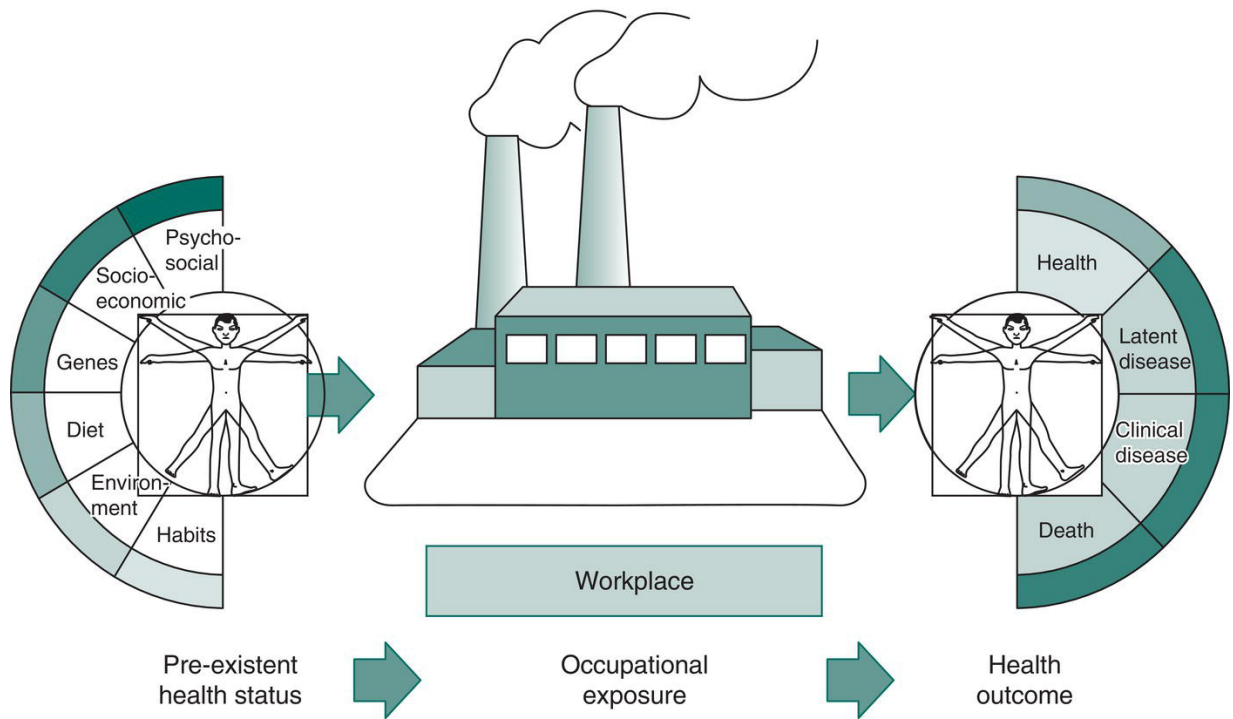
Historically, occupational health has been viewed as a clinical subject, implying that the dominant roles in prevention should be played by the physician and the nurse. The ILO/WHO definition from 70 years ago is explicit that a broader and fully integrated perspective is essential.

Thus, the list of professionals involved is extensive and includes:

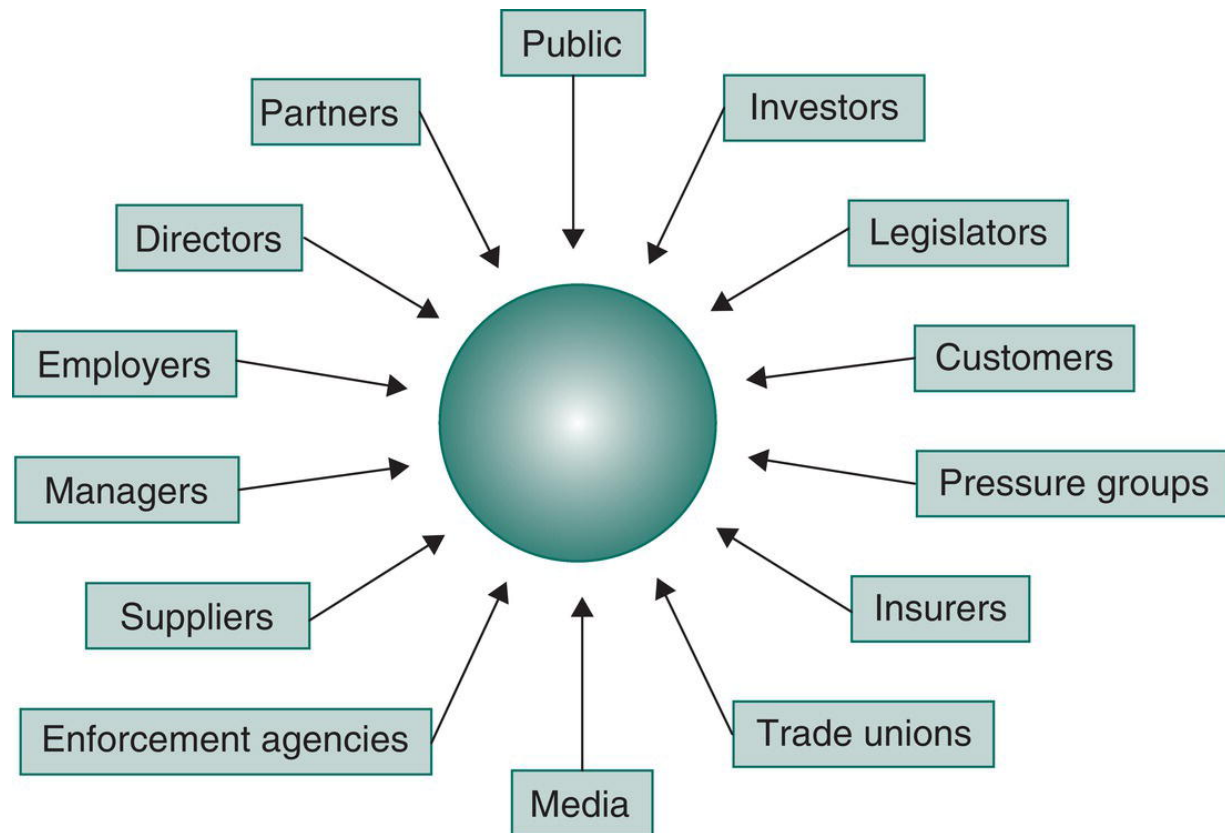
- occupational/industrial hygienists
- physicians
- nurses
- sociologists
- toxicologists

- psychologists
- health physicists
- microbiologists
- epidemiologists
- ergonomists
- engineers (including ventilation)
- safety practitioners and safety engineers
- work organisation specialists
- acousticians
- lawyers.

Yet, the ultimate responsibility for maintaining the health of the workforce rests with the employer and, to a lesser extent, with the employee. This is the way most health and safety law is formulated. On the basis of this model, one can begin to view those involved as an even broader group. The 'stakeholders' would thus include a number of groups who, although they may not be professionally responsible for ensuring the wellbeing of the workers, do have a crucial interest in the outcome ([Figure 1.2](#)).



**FIGURE 1.1** The problems facing the occupational health practitioner attempting to establish a link between work and health. The new employee brings a legacy of genetic, social, dietary and environmental factors affecting health to the new workplace, which may influence their response to workplace hazards.



**FIGURE 1.2** The occupational health stakeholders.

## 1.3 The world of work

The changing patterns of employment in the ‘world of work’ will have important and significant implications for the future make-up and expertise of occupational health, as well as for the competence needed to deliver the goods. Across the world, the days of full-time long-term employment in one industry for a worker with one set of skills are rapidly disappearing. The main features for the future seem to be:

- fragmented industry (with materials sourced globally) hybrid working - work and home
- smaller workforces
- more mobile employees

- waning influence of ‘organised labour’
- multiskilled workers
- greater use of subcontracted tasks
- less job stability
- less job security
- more part-time work
- more flexible hours of work (zero hours contracts)
- more mechanised (and therefore possibly more dehumanised) workplaces.

## **1.4 The world of people at work**

Today, certainly in high-income and some middle-income countries, occupational physicians see more illness but less disease. Although musculoskeletal disorders and stress-related complaints dominate the scene, they too are interrelated, and both are subject to ‘somatising tendencies’ (presenting as physical symptoms related to different target organ systems). Thus, the new ‘age of existentialism’ is dominated by such conditions as:

- stress-related disorders
- non-specific effect modifiers
- post-traumatic stress disorder
- chronic fatigue syndrome
- chronic somatising disorders
- multiple chemical sensitivity
- diffuse pain syndromes
- a combination of psychological, neurological and immunological issues.

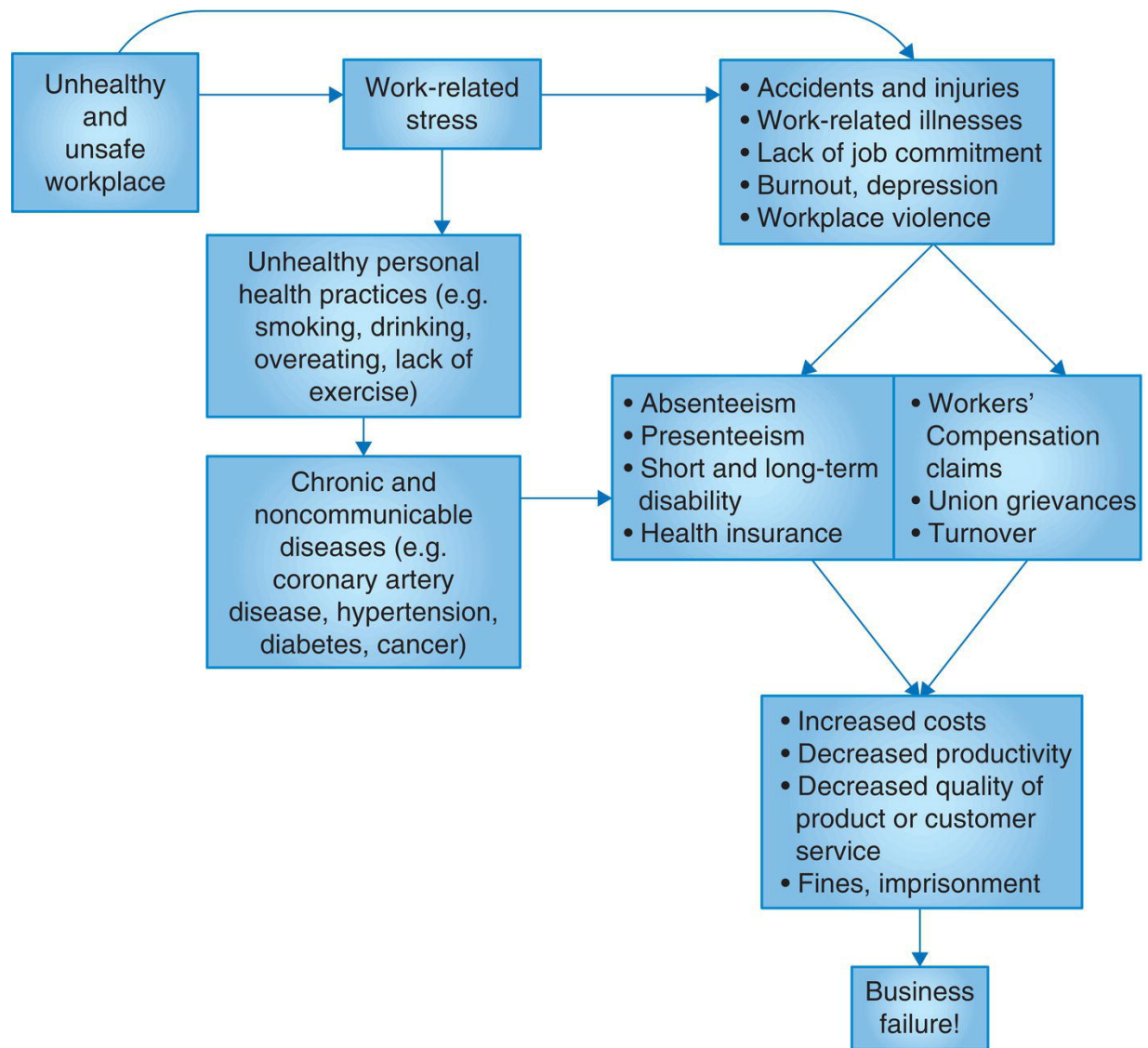
## 1.5 The roles of the occupational health professional

In high-income and some upper middle-income countries, many of the 'classic' occupational diseases have been controlled or, at least, the means for controlling them are known. In fact, for many, the industries themselves have been closed and hence the incident cases have stopped – proof, if ever it were needed, of the relationship between exposure and disease. In such settings, the delivery of an effective occupational health service to employed people will become more complex and more difficult in the future; although, with greater emphasis on control, there should be less to do in dealing with the injured or sick. These, by definition, represent the 'failings' of an effective preventive programme.

Moreover, the influences of the stakeholder and the complexities of the employment scene have shifted the traditional emphasis away from the structure of 'see the health effect, diagnose the illness, find the cause' to the more proactive stance of 'control the exposure and monitor the effects'. In this model, the roles of the occupational/industrial hygienist become central and should sit as the primary or at least equal lead to the clinical aspects rather than being secondary to them. One further aspect of occupational health services is worth mentioning: in the market economies, there has been a shift towards demonstrating to employers the economic value to them of such a service ([Figure 1.3](#)).

To exemplify how the European perspective of the more clinical aspects of occupational health have changed, a brochure produced by the UK's Faculty of Occupational Medicine listed the ways in which occupational physicians

can help employers to 'meet their obligations' under European health and safety legislation. These included:



**FIGURE 1.3** The business case in a nutshell.

Source: Joan Burton, *WHO Healthy Workplace Framework and Model: Background and Supporting Literature and Practices*.

[https://www.who.int/occupational\\_health/healthy\\_workplace:framework.pdf](https://www.who.int/occupational_health/healthy_workplace:framework.pdf).

- helping with company compliance with the law
- advising on health and safety policy
- assisting in the control of sickness absence

- reviewing the fitness of employees following sickness absence
- managing rehabilitation
- advising on fitness to work
- managing access to first aid services
- organising health promotion initiatives
- designing and managing substance abuse programmes at work
- advising on the management and alleviation of stress
- advising employees about overseas travel on company business
- assessing employees' eligibility for long-term disability benefits or retirement on health grounds
- advising on work accommodation of employees with chronic illnesses; this is a prominent role, especially in countries with ageing workforces.

The order of these functions is probably not random, and many might dispute the contents of this list and certainly the order. Nevertheless, it demonstrates the move towards delivering an economically attractive package to the employer. Whether this is what the employee **needs** is another matter. Indeed, one can dispute whether this medical model has any real validity for the twenty-first century.

In low-income and some middle-income countries, an occupational health service often starts with the provision of medical care for the workforce (akin to a general practice at the worksite, and often with provision for the workers' dependants) (see [Chapter 2](#)).