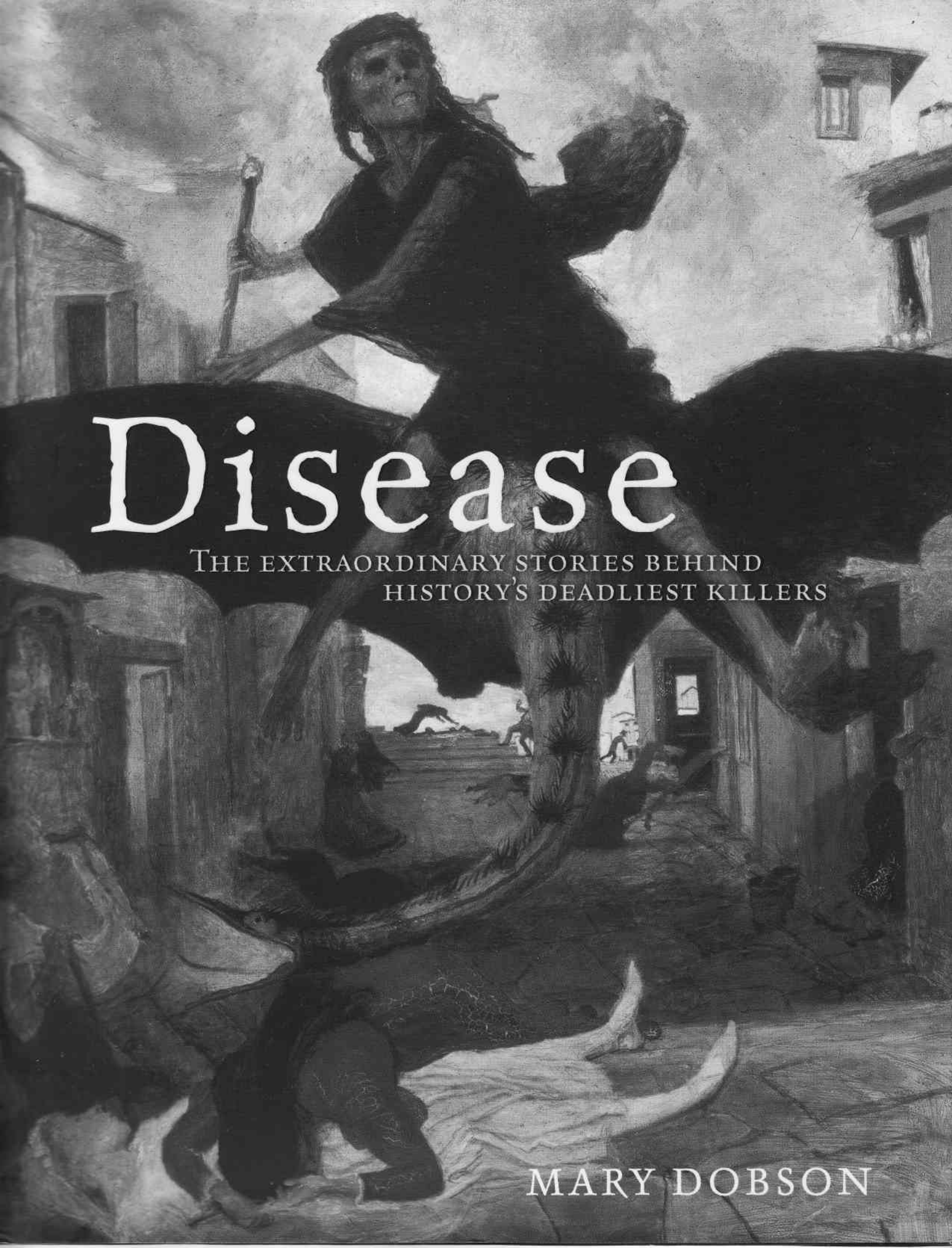

# Disease

THE EXTRAORDINARY STORIES BEHIND HISTORY'S DEADLIEST KILLERS

MARY DOBSON

# Disease

The compelling and sometimes frightening stories of 30 deadly diseases – and of humanity's efforts to combat them

BACTERIAL DISEASES:

Plague
Leprosy
Syphilis
Typhus
Cholera
Typhoid
Tuberculosis
Puerperal fever
Encephalitis lethargica

PARASITIC DISEASES:

Malaria
African trypanosomiasis
Chagas' disease
Lymphatic filariasis
Schistosomiasis
Hookworm
Onchocerciasis

VIRAL DISEASES:

Smallpox
Measles
Yellow fever
Dengue fever
Rabies
Polio
Influenza
Ebola
AIDS
SARS

LIFESTYLE DISEASES:

Scurvy
Kuru & CJD
Cancer
Heart disease

Quercus History
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# Contents



A 17th-century physician wearing a traditional plague-preventive costume.



*Syphilis*, painted in 1910 by the artist Richard Cooper.

## Viral Diseases



The body louse, carrier of typhus.

A depiction of the 1832 cholera epidemic in Paris.

## Lifestyle Diseases

# PREFACE

'I hope that Lord Grey and you are well; no easy thing seeing that there are about fifteen hundred diseases to which man is subject.'

SYDNEY SMITH TO LADY GREY, FEBRUARY 1836

The diseases that are encompassed within this book have affected human history in a multitude of ways over the past few millennia. Choosing 30 diseases out of the '1500' or so suggested by the English clergyman Sydney Smith (1771–1845) has been both stimulating and challenging. The final decision was based on the idea of including a varied selection of some of the world's most important diseases and covering a range of those that have had, and continue to have, a major impact in many parts of the world. While this book is essentially written from a historical perspective, I have chosen a number of diseases that now seriously affect some of the poorest countries (where, in the 21st century, life expectancy can be less than 50 years compared to over 80 years in the wealthiest nations), and have included a selection of the more unusual and mysterious diseases which have afflicted humans over the ages.

Some of those selected, such as malaria and schistosomiasis, are 'ancient' diseases – possibly first emerging as human diseases approximately 7000 years ago when people and domestic animals began to live in close proximity. Infections, like smallpox and measles, which are easily transmitted from person to person, may have accompanied the rise of early urban settlements from around 3000 BC. The opening up of overland and ocean trade routes, especially with the circumnavigations of the globe from the late 15th century onwards, accelerated the spread of many diseases from place to place and continent to continent. Others, notably AIDS, are 'new' to human society, emerging and spreading rapidly only in the past 50 or so years. A few have seemingly come and gone. SARS – the first serious and easily transmissible new disease to emerge in the 21st century – spread around the globe over a short period of time in 2003, disappeared and has, so far, not re-appeared.

Some of the diseases in this book, such as kuru in Papua New Guinea, have had a serious but largely local impact. Several, especially those like malaria and African trypanosomiasis (sleeping sickness) which are transmitted by insect vectors, continue to have a devastating effect on tropical and sub-tropical regions. Others, such as the Black Death of the mid-14th century, smallpox and measles from the early 16th century, the cholera pandemics in the 19th century, the Spanish influenza pandemic of 1918–19 and the current AIDS pandemic, have been catastrophes on a global scale with far-reaching consequences for societies and individuals the world over. The recent outbreak of bird flu (H5N1 influenza) presents a global threat that we hope will never happen. And one major disease covered in this book has been effectively eradicated by human intervention. In 1979, the World Health Organization announced that smallpox, one of the worst scourges of humanity, had been eradicated from the globe by a vaccine developed nearly 200 years before. We can only hope that there will further success stories and that the global burden of disease will be reduced significantly in the coming years.

The 30 diseases eventually chosen have been grouped into four categories and arranged, at least very approximately, within the groups chronologically according to their first recorded serious impact on the world. The first three groups comprise infectious diseases: bacterial diseases (from plague to encephalitis lethargica), parasitic diseases (from malaria to schistosomiasis) and viral diseases (from smallpox to SARS). The fourth group of diseases (from scurvy to heart disease) do not conform to the models of bacterial, parasitic and viral maladies and are loosely labelled 'lifestyle diseases', since factors such as diet, smoking, physical exercise and occupation play a key (though not the only) role in their causation. Indeed, for each of the diseases selected – whether primarily infectious or non-infectious – there is always a complex set of inter-related biological, genetic, environmental and social factors meaning that some people succumb, while others survive or remain untouched by the circulating pathogen or potentially fatal disorder.

In each of the chapters the aim has been to give a broad overview and chronology of the history of each disease, its impact on human societies, and estimates of numbers affected both past and present. I have also tried to include some of the key scientific and medical discoveries associated with each disease and to highlight the often remarkable human endeavours and sometimes extraordinary achievements in identifying, preventing or treating each disease. The accompanying quotes and illustrations aim to convey something of the suffering, pain, misery and bewilderment experienced by people in times of sickness over the centuries, as well as the commitment and determination of men and women in their search for solutions. In some chapters I have touched on a few of the many mysteries that have perplexed scholars, scientists, physicians and patients in their quest to understand the origins, nature and cause of disease and its effect on human societies and individuals across the globe.

The history of medicine is a rich and expanding field of wide interest. Each new scholarly or scientific study brings with it further facts, findings and figures. The application of novel techniques, such as the use of DNA probes, should make it easier in the future to identify some of the puzzling pathogens of the past and, perhaps, solve a number of historical debates. With the sequencing of the human and microbial genomes and advances in such fields as molecular medicine, we are also now in a stronger position in the 21st century than ever before to understand more clearly human predisposition and susceptibility to disease, to discover the mysterious ways of microbes, animal and insect vectors and to bring to future generations the promise of new diagnostics, vaccines and therapies. Reducing poverty and hunger and improving sanitation, hygiene and education also still remain some of the most fundamental factors of importance for ensuring the future health and happiness of people in many parts of the world.

My sincerest thanks go to all those who have made this book possible – my acknowledgements and suggestions for further readings are given on pages 253–4.

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