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**‘The Captain of All These Men of Death’
Aspects of the Medical History of Tuberculosis**

A thesis presented in partial fulfilment of the requirements for the degree of

Master of Public Health

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Figure 1.

The Sick Child by Edvard Munch



Edvard Munch, *The Sick Child*, 1885-86, oil on canvas, (Oslo, Norway: The National Gallery)

This painting is said to reflect the death of Munch's sister, Sophie, who died in 1877 at the age of 15 from tuberculosis. The mother is based on Munch's aunt, Karen Bjølstad. Munch's own mother had died in 1868 also from tuberculosis.

Abstract

Current evidence suggests that some time in pre-history the ancestor of the modern tubercle bacillus evolved from a soil organism into a human pathogen. Since that time it has caused death and misery to millions of human beings by causing the infectious disease we now call tuberculosis.

This dissertation examines some of the aspects of the history of tuberculosis and specifically how it has affected humans from early times not only medically but socially. It looks at mankind's struggle to overcome the disease, those who introduced scientific methods in attempts to halt and defeat the organism and its associated infectious disease. There are descriptions of the effects of the disease on prominent people and how the disease often cut short their productive lives. Stress is placed also on the organism's ability to adapt and survive in a latent form and to develop virulence factors as and when necessary for its own survival. The advent of the co-infection with HIV/AIDS has caused a major setback in control methods and our attempts to halt the progress of the disease and these are factors in the resultant worldwide epidemic of tuberculosis.

Particular importance is placed on the public health measures used in the past and the importance of continued and improved control measures at the community level now and in the future.

The implementation of the knowledge gained about the disease and the organism to date, the avoidance of the errors made in the past, is emphasised if we are to make progress in the future. To totally defeat the organism remains the major goal of public health agencies, medical researchers and social scientists so we can say that, at last, tuberculosis is no longer the 'Captain of all these Men of Death'.

Acknowledgements

No Man is an Island, entire of itself.

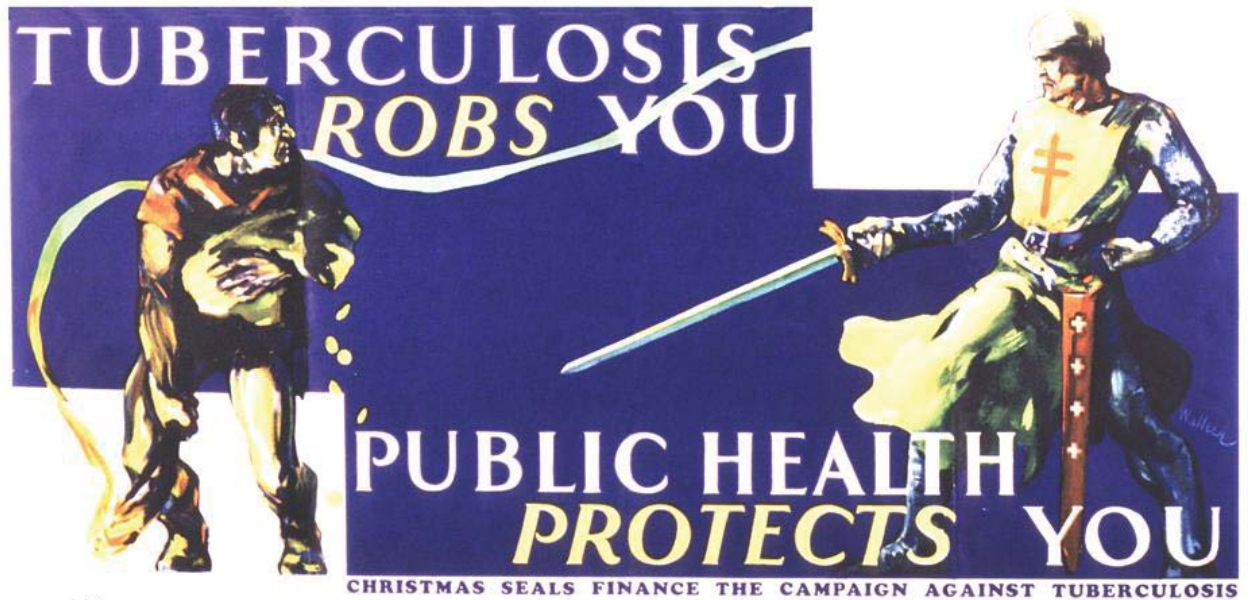
John Donne (1571-1631)

My wife, Mairi, a registered nurse, has been a major supporter in the production of this thesis. Not only has she acted as a proof reader but a constant source of encouragement, stimulus and common sense. I am, as ever, grateful to her and acknowledge her contribution with thanks.

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Preface



Tuberculosis Robs You, Public Health Protects You: ca. 1935
American Lung Association, 2003.

‘Pasteur worked to protect individuals through immunization, Koch worked to protect communities through better hygiene and Public Health’

Blevins and Bronze (2016)

‘The Captain of all these Men of death’. ‘Under Captain Consumption, he rots away, and dies in sinful security’.

John Bunyan (1680). *The Life and Death of Mr. Badman*. (Chapter XVIII)

Abbreviations

1. HIV: Human Immunodeficiency virus
2. AIDS: Acquired immunodeficiency syndrome
3. TB: Tuberculosis
4. MDRTB: Multiple drug resistant tuberculosis
5. XDRTB: Extensively drug resistant tuberculosis
6. XXDRTB: Extremely drug resistant tuberculosis
7. WHO: World Health Organisation
8. MTB: Mycobacterium tuberculosis
9. DNA: Deoxyribonucleic acid
10. PCR: Polymerase chain reaction
11. USA: United States of America
12. UK: United Kingdom
13. AAFB: acid and alkali fast bacteria
14. BCG: Bacille Calmette-Guérin
15. PAS: p-aminosalicylic acid
16. MMR: mass miniature radiography
17. IUAT: International Union Against Tuberculosis
18. IUATLD: International Union Against Tuberculosis and Lung Disease
19. bTB: Bovine tuberculosis
20. DOTS: Directly observed treatment – short term
21. WW2: World War Two
22. ART: Anti-retroviral treatment
23. IGRT: Interferon gamma release test
24. ARV: antiretroviral drugs

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