

Contents

Introduction	5
Defining Zoonoses	7
Causes of Zoonoses.....	8
Disease Reservoirs	14
From One Species to Another: Host Specificity, Species Jumps, Barriers, Filters, and Other Concerns	17
From Exposure to Infection	22
Diagnosis and Screening.....	26
Course of Infection	29
History and Dynamics of Zoonoses	35
Historical Forces Behind Zoonoses	35
Transmission of Zoonoses	44
Major Zoonoses by Host Taxon	59
Some examples of zoonoses	73
Bacterial Zoonoses and Antimicrobial Resistance.....	73
Zoonotic Protozoa and Worms	85
Viral Zoonoses	89
Prion Zoonoses	105
Preventing and Living with Zoonoses	109
Prevention and Treatment at the Individual Scale.....	109
Promoting Veterinary Public Health at the Collective Scale.....	116
Limiting Zoonosis Emergence: a Collective Global Responsibility	141
Lessons from the Anthropocene	141
Defining Zoonosis Emergence	142
Interfaces.....	143
Detecting New Zoonoses	144
Are Zoonoses Becoming More Frequent?	148
Role of Biodiversity	151
Role of Farm Animals and Pets.....	155
Land Use Change.....	158
Climate Change	160

Conclusions: What Comes Next?	163
Learn More	166
Online resources.....	166
Suggestions of reports and books	167
By the same authors	168
Acknowledgements	168