

Contents

1 Introduction to the Economic, Financial, Political and Legal Implications of Global Pandemics.....	1
1.1 The Threat of Global Pandemics.....	1
1.2 The Origins of the HIV Virus.....	6
1.3 The Nature of HIV/AIDS.....	7
1.4 HIV/AIDS Strategies in Developed and Developing Countries.....	9
1.5 Insurance, Mortality, Treatment Costs and the Business Impact of HIV/AIDS.....	11
1.6 The Economics of HIV/AIDS.....	13
1.7 The Political Economy of Patents and Global Health Threats.....	15
1.8 Global Diseases, Global Patents and Developing Countries in WTO Law.....	17
1.9 Bilateral and Multilateral Financing of HIV/AIDS Programs.....	19
1.10 The Successes and Failures of Global Health Organizations.....	20
1.11 Prevention, Treatment and Human Rights.....	21
1.12 Increasing the Effectiveness of Global Disease Management.....	23
References.....	24
2 HIV/AIDS Prevention and Treatment Strategies in Developed and Developing Countries.....	25
2.1 The Global Statistics.....	26
2.2 The African Epidemic: HIV/AIDS Becomes a Security Issue.....	30
2.3 South Africa: International Politics and Lack of Political Leadership....	31
2.4 AIDS Strategy in Brazil: Integrating Prevention, Treatment and Human Rights.....	36
2.5 Thailand: Successful Prevention in the Sex Trade.....	46
2.6 Japan: The Xenophobic Denial Strategy.....	52
2.7 Australia: Nondiscriminatory Education and Prevention.....	55
2.8 Implications for Other Global Diseases.....	57
References.....	59
Appendix.....	63
3 Insurance, Mortality, Treatment Costs and the Business Impact of HIV/AIDS in Developed and Developing Countries.....	67
3.1 HIV/AIDS in Developed Countries.....	67
3.1.1 The Insurance Industry and HIV/AIDS in Developed Countries.....	68
3.1.2 Problems of Mortality Projections and Insurance.....	68
3.1.3 Problems for Insurance Companies in Pricing Risks.....	70

3.1.4 Comparing HIV/AIDS with Diabetes.....	70
3.1.5 The Advent of Effective Treatment.....	71
3.1.6 The Impact of Drugs on Survivability.....	73
3.1.7 Estimating the Cost of HIV/AIDS Treatment in the Developed World.....	79
3.2 HIV/AIDS in Developing Countries.....	80
3.2.1 Errors in Measuring the Prevalence of HIV/AIDS in India.....	81
3.2.2 Problems with Estimating Prevalence Using Antenatal Clinic Data.....	83
3.2.3 Insurance Companies' Problem with HIV/AIDS.....	85
3.2.4 The South African Life Insurance Business and HIV/AIDS.....	86
3.3 Public and Private Sector Health Care Strategies in Developing Countries.....	90
3.3.1 The Cost of Treatment in a Middle Income Country: Mexico	91
3.3.2 Viatical Settlements: A Financial Byproduct of HIV/AIDS.....	93
3.3.3 Economic Incentives for Companies to Pay for Prevention and Treatment.....	99
3.3.4 Business Strategies in High Prevalence Countries.....	103
3.4 Implications for Other Global Diseases.....	106
References.....	107
4 The Economics of HIV/AIDS.....	111
4.1 Sexually Transmitted Infections and HIV/AIDS.....	111
4.2 Social Capital and HIV/AIDS.....	112
4.3 Relationships Between HIV/AIDS and Poverty, Inequality and Social Capital Using Global Data.....	113
4.4 The Economic Impact of HIV/AIDS in a Macroeconomic Growth Model.....	115
4.5 Macroeconomic Models: HIV/AIDS and Economic Growth.....	116
4.5.1 The Impact of HIV/AIDS on Per Capita Income.....	117
4.5.2 The Role of Human Capital.....	117
4.5.3 The Transmission of Human Capital.....	121
4.5.4 Fertility, HIV/AIDS and Economic Growth.....	123
4.5.5 Fertility and Human Capital Accumulation.....	124
4.5.6 Summary of Reviewed Literature on Fertility and Human Capital.....	127
4.6 Microeconomic and Epidemiological Models of Behavior.....	128
4.6.1 Do Ugandans Behave Differently?.....	128
4.6.2 An Epidemiological Interpretation of the Ugandan Results.....	132
4.6.3 Do Africans Behave Differently?.....	134
4.6.4 An Economic Explanation of Why Ugandan Results Differ.....	136
4.7 The Cost of Scaling Up Prevention and Treatment in Developing Countries.....	140

4.8	Economic Tradeoffs.....	142
4.8.1	The Zambian Dilemma.....	142
4.8.2	The Tradeoff Among Competing Needs.....	143
4.9	The Economics of SARS.....	144
4.10	Implications for Other Global Diseases.....	147
	References.....	149
5	The Political Economy of Patents and Global Health Threats.....	153
5.1	The Political Economy of Compulsory Licensing.....	154
5.1.1	The Case of Anthrax.....	154
5.1.2	The WTO Declaration on the TRIPS Agreement and Public Health.....	156
5.1.3	The Problem Identified in Paragraph 6 of the TRIPS Declaration.....	157
5.1.4	Abbott in Thailand.....	161
5.1.5	Foreign Aid, Foreign AIDS and Regulatory Capture.....	162
5.1.6	Undermining TRIPS in Free Trade Agreements.....	165
5.2	Regulatory Capture of the Patent System.....	166
5.2.1	Regulatory Capture of National Patent Law.....	167
5.2.2	Regulatory Capture of International Patent Law.....	168
5.3	The New Economics of Patents.....	170
5.3.1	Two Centuries of Patent Protection in Europe and the United States.....	171
5.3.2	Innovation and Patents.....	172
5.4	Implications for Other Global Diseases.....	182
	References.....	183
6	Global Diseases, Global Patents and Developing Countries in WTO Law.....	187
6.1	Key TRIPS Exceptions Relating to Patents.....	188
6.1.1	TRIPS Article 30.....	189
6.1.2	TRIPS Article 31.....	191
6.1.3	The Paragraph 6 Decision.....	192
6.1.4	Implementation and Use of the Paragraph 6 Decision by WTO Members.....	194
6.2	Special and Differential Treatment in WTO Law.....	196
6.3	The Economic Impact of Patents and their Effect on Development Needs.....	202
6.3.1	Are Global Patents Necessary to Provide Research Incentives for Neglected Diseases?.....	203
6.3.2	Are Global Patents Necessary to Provide Research Incentives for Global Diseases?.....	204

6.4	Making Patents Effective in Achieving Economic and Development Objectives.....	205
6.4.1	Solving the Problem Through Interpretation or Amendment.....	206
6.4.2	Eligibility for Exemption from Patent Obligations.....	207
6.5	Implications for Other Global Diseases.....	213
	References.....	215
7	Bilateral and Multilateral Financing of HIV/AIDS Programs: The World Bank, the International Monetary Fund, the Global Fund, Bilateral Donors and the Private Sector.....	217
7.1	Overview of HIV/AIDS Funding.....	217
7.2	The World Bank: A Development Institution.....	226
7.2.1	Nature of World Bank Operations Related to HIV/AIDS.....	226
7.2.2	Scope of World Bank Operations.....	229
7.2.3	The Effectiveness of the World Bank.....	233
7.3	The International Monetary Fund (IMF): A Multilateral Financial Institution.....	235
7.3.1	Nature of IMF Operations.....	236
7.3.2	Scope of IMF Operations.....	237
7.3.3	Effectiveness of the IMF.....	237
7.4	The Global Fund: A Fundraising and Financing Institution.....	239
7.4.1	Nature of Global Fund Operations.....	239
7.4.2	Scope of Global Fund Operations.....	241
7.4.3	Effectiveness of the Global Fund.....	242
7.5	Bilateral Donors.....	247
7.6	The Role of the Private Sector in Funding Prevention and Treatment.....	249
7.6.1	Incentives for Companies to Invest in HIV/AIDS Programs.....	249
7.6.2	Market-Based Initiatives to Increase Private Sector Funding.....	252
7.6.3	Funding from Private Charitable Foundations.....	255
7.7	Implications for Other Global Diseases.....	257
	References.....	259
8	The Successes and Failures of Global Health Organizations: The World Health Organization, UNAIDS, Médecins sans Frontières and PEPFAR.....	265
8.1	The World Health Organization: A Multilateral Health Institution.....	265
8.1.1	Nature of WHO Operations Related to HIV/AIDS.....	267
8.1.2	Scope of WHO Operations Related to HIV/AIDS.....	267
8.1.3	The 2005 WHO International Health Regulations.....	273
8.1.4	The Effectiveness of the WHO.....	279

8.2	UNAIDS: A Specialized Multilateral Agency.....	281
8.2.1	Scope of UNAIDS Operations.....	282
8.2.2	Effectiveness of UNAIDS.....	284
8.3	Doctors Without Borders (Médecins sans Frontières).....	285
8.3.1	Operations Related to HIV/AIDS.....	286
8.3.2	Effectiveness of MSF Operations.....	286
8.4	US President's Emergency Plan for AIDS Relief (PEPFAR)	287
8.5	US Centers for Disease Control and Prevention (CDC).....	292
8.6	Implications for Other Global Diseases.....	295
	References.....	296
9	The Way Forward: Prevention, Treatment and Human Rights.....	301
9.1	The Importance of HIV/AIDS Prevention.....	301
9.1.1	HIV/AIDS Prevention Strategies.....	304
9.1.2	Barriers to Increasing HIV Prevention.....	313
9.2	The Future of HIV Treatment.....	314
9.2.1	Obstacles to Increasing the Number of People Receiving Treatment.....	316
9.2.2	Second-Line Treatment.....	322
9.2.3	Vaccines for HIV/AIDS.....	323
9.3	Public Health and Human Rights.....	326
9.3.1	Laws that Discriminate Against Vulnerable Groups.....	327
9.3.2	Laws that Discriminate Against HIV-Positive People.....	332
9.3.3	Laws that Prohibit Discrimination Against Vulnerable Groups.....	341
9.3.4	Risk Management: The Tradeoff between Human Rights and HIV Prevention.....	346
9.4	The Future of HIV/AIDS.....	347
	References.....	348
	Index	353
	About the Authors	391