



Index

- ACA (Patient Protection and Affordable Care Act)
 - health insurance, 143, 147–148
- accounting costs, 5–6. *See also* economic costs
 - cash out-of-pocket, 6
 - sunk cost, 5–6
- adverse selection, health insurance, 141–151
 - avoiding the adverse selection problem, 146–147
 - market based systems, 147–149
 - public health insurance, 142
 - single payer systems, 146–149
 - uninsurable individuals, 141–143
- age, health determinant, 21
- allowed amounts/payments, medical bills, 154–156
- associational evidence, 58–61
 - latent variables, 59–60
 - omitted variables, 59–60
 - reverse causality, 60–61
- asymmetric information
 - adverse selection, health insurance, 141–151
 - markets, 85, 141–151
- bargaining power, medical bills, 155
- behavioral economics. *See also* human
 - behavior, economist's point of view
 - incentives and provider-firms, 112
- behavioral interventions, Managed Care Organizations (MCOs), 168
- Beveridge model, international comparisons, 234
- bills, medical. *See* medical bills
- Bismarck model, international comparisons, 233
- blinding, randomized experimental evidence, 63–64
- bonuses and holdbacks, Managed Care Organizations (MCOs), 172
- brain drain, healthcare labor force, 97
- capitation, Managed Care Organizations (MCOs), 171–172
- cash out-of-pocket, 6
- Centers for Disease Control and Prevention (CDC), 217
- Central Limit Theorem (CLT), 61
- CHAMPVA, 182
- chargemaster, medical bills, 153–154, 158–159
- Children's Health Insurance Program (CHIP), 182
- choice of providers to interact with, Managed Care Organizations (MCOs), 170–171
- CITI Program (Collaborative Institutional Training Initiative), ethics, 69
- Coase Theorem, externalities, 199–201
- COBRA (Consolidated Omnibus Reconciliation Act), 182
- cognitive biases, incentives and provider-firms, 112
- coinsurance, 49–51
 - effective demand, 49–51
 - effective price, 49
- Collaborative Institutional Training Initiative (CITI Program), ethics, 69
- comparisons, international. *See* international comparisons
- comparisons of health, 27–28
- compensation of injured parties, medical malpractice, 208
- competition
 - hospital competition, 122–123
 - markets, 82–84, 159
 - perfect competition, 82–84
 - prices, 159
- complements and substitutes, demand shifters, 37–39
- Consolidated Omnibus Reconciliation Act (COBRA), 182
- consumer surplus, 41–43
- copays, health insurance, 45–48
- cost differences, international comparisons, 232–233
- cost sharing, health insurance, 40–51
 - coinsurance, 49–51
 - copays, 45–48
 - indemnity insurance, 48–49

246 Index

- cost sharing manipulation, Managed Care Organizations (MCOs), 170
- cost-benefit analysis, externalities, 204–205
- costs, 5. *See also* accounting costs; economic costs
- CPI (Consumer Price Index), 13
- CPT (Current Procedure Terminology) codes, medical bills, 155
- cross-price elasticity, 38–39
- Current Procedure Terminology (CPT) codes, medical bills, 155
- deductibles, health insurance, 51–53
- demand for medical care, 29–43
 - demand for health, 30
 - demand shifters, 35–43
 - elasticity, 30–35
 - health insurance, 45–56
- demand shifters, 35–43
 - complements and substitutes, 37–39
 - cross price elasticity, 38–39
 - income, 39–41
 - shifters for demand for medical care, 35–37
- denial of payment
 - Managed Care Organizations (MCOs), 167
 - medical bills, 156, 167
- determinants of health. *See* health determinants
- Diagnosis Related Groups (DRGs), inpatient payments, 180
- diminishing marginal returns/productivity, health determinant, 16–19
- direct payments/rebates, health insurance, 55
- discomfort, 7–8
- discounting, 11
- donut hole, health insurance, 54, 177
- DRGs (Diagnosis Related Groups), inpatient payments, 180
- drug approval process, 189–192. *See also* pharmaceuticals
 - market exclusivity, 191–192
 - New Drug Application (NDA), 190
 - Phases I–III, 190
 - post-market observation, 191
 - preclinical and Phase 0 trials, 189–190
- drunk driving, 201
- economic costs, 6–9. *See also* accounting costs
 - discomfort, 7–8
 - opportunity cost, 8–9
 - social status, 8
 - time cost, 6–7
 - travel cost, 7
- economic environment, healthcare labor force, 94–95
- effective demand, coinsurance, 49–51
- effective price, coinsurance, 49
- elasticity, 30–35
 - calculating elasticities, 44–45
 - cross price elasticity, 38–39
 - elasticity described, 32–33
 - income elasticity of demand, 39–40
 - practical economist skills, 44–45
 - price elasticity of demand, 33–35
 - price sensitivity, 30–32
- Engel curves, 40–41
- environmental factors, health determinant, 22, 224
- equilibrium price, 83, 151
- ethics, human subjects research, 69–71
- evidence, medical malpractice, 214–215
- evidence evaluation, 57–68
- externalities, 196–205
 - Coase Theorem, 199–201
 - contagion, 202–204
 - contagion and severe illnesses, 203
 - correcting externality problems, 198–204
 - cost-benefit analysis, 204–205
 - drunk driving, 201
 - intervention costs and benefits, 204–205
 - markets, 85
 - negative externalities, 197
 - Pigouvian taxes/subsidies, 199
 - positive externalities, 196
 - property rights, 199–201
 - regulation, 199
 - risk externalities, 197–198
 - risky health behaviors, 201–202
 - smoking, 201, 204–205
 - social stigma as a tax, 202–203
 - taxes and subsidies, 198–199
 - vaccines, 203–204
- factors of production, typical firms, 74
- fee for service vs. salary, incentives and provider-firms, 103–104
- fee-splitting, 109–110
 - incentives and provider-firms, 109–110
- firms, provider-. *See* provider-firms
- firms, typical
 - factors of production, 74
 - production function, 74–75

flat of the curve, health determinant, 19–20
 future, the, 10–11

gatekeepers, Managed Care Organizations
 (MCOs), 168–169

generic drugs, 192–194

genetics, health determinant, 21

government intervention, markets, 86

Grossman Model of Health Demand, health
 determinant, 25

health comparisons, 27–28. *See also*
 international comparisons

health determinants, 15–25

age, 21

diminishing marginal returns/productivity,
 16–19

environmental factors, 22

flat of the curve, 19–20

genetics, 21

Grossman Model of Health Demand, 25

health production function, 15–16, 22–24

illness and injury, 20

individual decision-making, 24–25

lifestyle choices, 20–21

marginal changes, 16–19

health insurance. *See also* adverse
 selection, health insurance; insurance
 companies

adverse selection, 141–151

bankruptcy as health insurance, 133

coinsurance, 49–51

copays, 45–48

cost sharing, 40–51

deductibles, 51–53

demand for medical care, 45–56

desire for insurance, 130–131, 139–141

direct payments/rebates, 55

donut hole, 54, 177

indemnity insurance, 48–49

insurance, 129–130

insurance companies, 134–137

math lessons, 133–134, 139–141

moral hazard, 137–138

NHS (National Health Service), 150–151

Patient Protection and Affordable Care Act
 (ACA), 143, 147–148

payment limits, 53

protection provided, 131–132

randomized experimental evidence, 65–67

red tape, 56

risk aversion, 130

spending triggers, 51–55

uninsurable individuals, 141–143

uninsured individuals, 157–158

US system vs. UK system, 150–151

wealth insurance, 132–134

Health Maintenance Organizations (HMOs),
 164–165

health production function, health determinant,
 15–16, 22–24

Health Savings Account (HSA), indemnity
 insurance, 48

healthcare labor force, 89–102

amenities, 96

availability of labor, 89–93

brain drain, 97

compensating wage differentials, 90–91, 96

decision to become part of the healthcare

labor force, 93–94

economic environment, 94–95

extensive margin changes: inflows, 91–92

extensive margin changes: outflows, 92

flow of labor, 92–94

inequality, 225

intensive margin changes, 90–91

labor market, 98–99

licenses, 97–98

local labor shortfalls, 96–97

location preference, 95–96

market concentration, 99–102

monopsony, 100

National Health Services Corps (NHSC), 97

orders of magnitude, 92–93

personal preferences, 95–96

physician labor, price distortion, 83–84

physician labor, provider-firms, 77–80

stock of labor, 92–93

uncertainty and risk, 95

healthcare markets. *See* markets

Herfindahl–Hirschman Index (HHI), market
 concentration, 101–102

HMOs (Health Maintenance Organizations),
 164–165

Hospital Value Based Purchasing (HVBP), 181

hospitals, 113–124

bulk purchasing, 120

contingent donations, 119–120

day-to-day operations, 114–115

diseconomies of scale, 121–122

donors, 119–120

economies of scale, 120–121

economies/diseconomies of scope, 122

fixed costs, 120

248 Index

- hospitals (cont.)
 - growing despite diseconomies?, 122
 - hospital competition, 122–123
 - hospital leadership, 115–116
 - hospital size and efficiency, 120–122
 - hospital systems, 124
 - investors, 119
 - line staff, 117
 - medical staff, 116–117
 - not-for-profit hospitals, 113–114
 - patients, 117–119
 - price competition, 122
 - for-profit hospitals, 113–114
 - quality competition, 123
 - resource allocation, 115–122
 - specialization, 121
 - strategic specialization, 123
- HSA (Health Savings Account), indemnity insurance, 48
- human behavior, economist's point of view, 3–11
 - accounting costs, 5–6
 - cash out-of-pocket, 6
 - costs, 5–9
 - discomfort, 7–8
 - economic costs, 6–9
 - the future, 10–11
 - misinformation, 9–10
 - opportunity cost, 8–9
 - optimizing, 9
 - perception and choice, 9–11
 - social status, 8
 - sunk cost, 5–6
 - things humans want, 3–5
 - time cost, 6
 - travel cost, 7
 - uncertainty and risk, 10–11
- human subjects research, ethics, 69–71
- HVBP (Hospital Value Based Purchasing), 181
- IHS (Indian Health Service), 182
- illness and injury, health determinant, 20
- incentives and provider-firms, 102–112
 - alternative payment schemes, 102–103
 - behavioral economics, 112
 - cognitive biases, 112
 - evidence on provider pay schemes, 104–105
 - fee for service vs. salary, 103–104
 - fee-splitting, 109–110
 - induced demand, 107–111
 - other payment schemes, 105
 - principal-agent problem, 107–109
 - profit-sharing, 105
 - selection into jobs, 104
 - self-referral, 110–111
 - size of the firm, 105–107
- income
 - demand shifters, 39–41
 - Engel Curves, 40–41
 - income elasticity of demand, 39–40
 - income-consumption curve, 40–41
- indemnity insurance, 48–49
- Indian Health Service (IHS), 182
- individual decision-making, health determinant, 24–25
- individual demand vs. market demand, 43
- induced demand, incentives and provider-firms, 107–111
- inequality, 217–236
 - demographics and health outcomes, 219–236
 - healthcare workforce, 225
 - intergenerational persistence, 224
 - life expectancy, 217–218
 - local environment, 224
 - medical care, 222–224
 - urban and rural differences, 225
 - veil of ignorance, 218–219
- informed consent, medical malpractice, 212
- inpatient payments, Diagnosis Related Groups (DRGs), 180
- Institutional Review Board (IRB), ethics, 69–71
- insurance companies, 134–137, 174–183. *See also* health insurance; Managed Care Organizations; public health insurance
 - correlated vs. uncorrelated risk, 136
 - denial of payment, 156, 167
 - experience rating, 137
 - group insurance, 136
 - how insurance companies make money, 135–136
 - medical bills, 154–155
- intellectual property
 - international agreements, 195–196
 - patents, 187–189, 192, 195–196
 - pharmaceuticals, 187–189, 192, 195–196
 - Trade-Related Aspects of Intellectual Property Rights (TRIPS), 195
- Internal Revenue Service (IRS) experiment, 66–67
- international comparisons, 227–236
 - Beveridge model, 234
 - Bismarck model, 233

- comparing OECD countries, 227–236
- cost differences, 232–233
- devil is in the details, 235
- flat of the curve, 231–232
- lifestyle choices, 231
- nationalized health insurance, 234
- strict fee-for-service system, 234
- systemwide differences, 233–235
- theories that fit the facts, 231–233
- United States, 234
- you're on your own model, 234
- IRB (Institutional Review Board), ethics, 69–71
- IRS (Internal Revenue Service) experiment, 66–67
- labor force, healthcare. *See* healthcare labor force
- latent variables, associational evidence, 59–60
- Learned Hand Rule, medical malpractice, 212–215
- licenses, healthcare labor force, 97–98
- life expectancy, 217–218
- lifestyle choices
 - health determinant, 20–21
 - international comparisons, 231
- luxury goods, 40
- malpractice, medical. *See* medical malpractice
- Managed Care Organizations (MCOs), 163–173.
 - See also* insurance companies
 - behavioral interventions, 168
 - bonuses and holdbacks, 172
 - capitation, 171–172
 - choice of providers to interact with, 170–171
 - control, 172–173
 - cost sharing manipulation, 170
 - denial of payment, 156, 167
 - gatekeepers, 168–169
 - Health Maintenance Organizations (HMOs), 164–165
 - patient choices, 172–173
 - patients, 168–170
 - payment manipulation, 171
 - Point of Service (POS), 165–166
 - Preferred Provider Organizations (PPOs), 165
 - prior authorization, 167–168
 - providers, 170–172
 - second opinion programs, 169–170
 - structure, 164–166
 - tools, 166–172
- marginal changes, health determinant, 16–19
- market concentration
 - healthcare labor force, 99–102
 - Herfindahl–Hirschman Index (HHI), 101–102
 - practical economist skills, 101–102
- market demand vs. individual demand, 43
- market exclusivity, drug approval process, 191–192
- markets, 82–86. *See also* prices; provider-firms
 - asymmetric information, 85, 141–151
 - broken healthcare markets, 88–89
 - competition, 82–84, 159
 - externalities, 85
 - government intervention, 86
 - imperfect markets, 86
 - market equilibrium, 82–84
 - market power, 84–85
 - perfect competition, 82–84
 - price distortion, 83–84
 - uncertainty and risk, 84
- MCOs. *See* Managed Care Organizations
- Medicaid, 178–181
 - cover variation, 179–180
 - federal-state partnership, 178–179
 - provider-firms, 180–181
 - quality incentives, 181
- medical bills, 153–160. *See also* prices
 - allowed amounts/payments, 154–156
 - bargaining power, 155
 - chargemaster, 153–154, 158–159
 - Current Procedure Terminology (CPT) codes, 155
 - denial of payment, 156, 167
 - insurance companies, 154–155
 - lifecycle of a medical bill, 153–160
 - negotiation, 154–160
 - sample medical bill, 156–159
 - uninsured individuals, 157–158
- medical malpractice, 207–219
 - appeal, 210
 - cases anatomy, 209–211
 - cases resolved in Texas in 2012, 211–215
 - compensation of injured parties, 208
 - economic damages, 209
 - evidence, 214–215
 - example, 211–215
 - goals of the medical malpractice system, 207–209, 215–216
 - incentive for providers to practice appropriately, 208–209

250 Index

- medical malpractice (cont.)
 - informed consent, 212
 - Learned Hand Rule, 212–215
 - negligence, 212–213
 - non-economic damages, 209
 - punitive damages, 209
 - restitution, 209–211
 - settlement, 210
 - tort case, 207
 - trial, 210
- Medicare, 175–178
 - gap plans, 177
 - Medicare Supplemental Insurance, 177
 - Medigap plan, 177
 - Part A, 175–176
 - Part B, 176
 - Part C (Medicare Advantage), 176–177
 - Part D, 54–55, 177
 - provider-firms, 180–181
 - quality incentives, 181
- misinformation, 9–10
- monopsony, healthcare labor force, 100
- moral hazard, health insurance, 137–138

- National Health Service (NHS), health
 - insurance, 150–151
- National Health Services Corps (NHSC),
 - healthcare labor force, 97
- nationalized health insurance, international
 - comparisons, 234
- NDA (New Drug Application), 190
- negligence, medical malpractice, 212–213
- negotiation, medical bills, 154–160
- New Drug Application (NDA), 190
- NHS (National Health Service), health
 - insurance, 150–151
- NHSC (National Health Services Corps),
 - healthcare labor force, 97

- omitted variables, 59–60
- opportunity cost, 8–9
- optimizing, 9
- Oregon experiment, 66
- outpatient payments, Relative Value Units (RVUs), 180–181

- patents, pharmaceuticals, 187–189, 192, 195–196
- Patient Protection and Affordable Care Act (ACA), health insurance, 143, 147–148
- patients
 - cost sharing manipulation, MCOs, 170
 - gatekeepers, MCOs, 168–169
 - patient choices, MCOs, 172–173
 - second opinion programs, MCOs, 169–170
- payment (remuneration). *See* incentives and provider-firms
- payment limits, health insurance, 53
- payment manipulation, Managed Care Organizations (MCOs), 171
- perception and choice, 9–11
- perfect competition, markets, 82–84
- pharmaceuticals, 187–196. *See also* drug
 - approval process
 - advertising, 193–194
 - cost variation, 187–189
 - defensive behavior, 193–194
 - drug approval process, 189–192
 - evergreening, 193
 - generic drugs, 192–194
 - intellectual property, 187–189, 192, 195–196
 - market exclusivity, 191–192
 - patents, 187–189, 192, 195–196
 - strategic pricing, 193–194
- physician labor. *See also* healthcare labor force
 - price distortion, 83–84
 - provider-firms, 77–80
- Pigouvian taxes/subsidies, 199
- placebos, randomized experimental evidence, 62–63
- Point of Service (POS), 165–166
- PPOs (Preferred Provider Organizations), 165
- practical economist skills
 - elasticity, 44–45
 - market concentration, 101–102
- Preferred Provider Organizations (PPOs), 165
- present value, 11
- price distortion, physician labor, 83–84
- price elasticity of demand, 33–35
- price indexes, 13
- price sensitivity, 30–32
- prices, 151–162. *See also* markets; medical bills
 - competition, 159
 - equilibrium price, 83, 151
 - lifecycle of a medical bill, 153–160
 - price distortion, 83–84
 - price transparency, 160–161
 - prices felt by patients, 152–153
 - prices felt by providers, 153
 - search, 159
 - shopping based on quality, 159–160
- principal-agent problem, 107–109
 - incentives and provider-firms, 107–109

- prior authorization, Managed Care
 - Organizations (MCOs), 167–168
- production function, typical firms, 74–75
- profit
 - not-for-profit hospitals, 113–114
 - for-profit hospitals, 113–114
 - typical firms, 73–75
- profit-sharing, 105
 - incentives and provider-firms, 105
- property rights, externalities, 199–201
- provider-firms, 73–83. *See also* incentives
 - and provider-firms; Managed Care Organizations; markets
 - Diagnosis Related Groups (DRGs), 180
 - factor substitution for physician labor, 79–80
 - features, 75–76
 - Hospital Value Based Purchasing (HVBP), 181
 - inpatient payments (DRGs), 180
 - inputs, 76–78
 - learning by doing, 78
 - Medicaid, 180–181
 - Medicare, 180–181
 - outpatient payments (RVUs), 180–181
 - physician labor, 77–80
 - production efficiency, 77–78
 - Relative Value Units (RVUs), 180–181
 - specialization, 78–80
 - supply, 80–82
 - task switching, 79
 - typical firms, 73–75
- public health, quantitative evidence, 67
- public health insurance, 174–183
 - adverse selection, 142
 - CHAMPVA, 182
 - Children's Health Insurance Program (CHIP), 182
 - Consolidated Omnibus Reconciliation Act (COBRA), 182
 - Indian Health Service (IHS), 182
 - Medicaid, 178–181
 - Medicare, 175–178, 180–181
 - size of sector, 174–175
 - TRICARE, 182
 - Veteran's Affairs (VA), 181–182
- quantitative evidence, 57–68
 - associational evidence, 58–61
 - public health, 67
 - quasi-experimental evidence, 67–68
 - randomized experimental evidence, 61–67
 - quasi-experimental evidence, 67–68
- RAND experiment, 65
- randomized experimental evidence, 61–67
 - blinding, 63–64
 - external validity, 64–65
 - health insurance, 65–67
 - Internal Revenue Service (IRS) experiment, 66–67
 - Oregon experiment, 66
 - placebos, 62–63
 - problems, 62–65
 - RAND experiment, 65
 - sample size, 64
- red tape, health insurance, 56
- Relative Value Units (RVUs), outpatient
 - payments, 180–181
- remuneration. *See* incentives and provider-firms
- reverse causality, associational evidence, 60–61
- risk aversion. *See also* uncertainty and risk
 - health insurance, 130
- risky health behaviors, 201–202
- RVUs (Relative Value Units), outpatient
 - payments, 180–181
- sample size, randomized experimental evidence, 64
- second opinion programs, Managed Care Organizations (MCOs), 169–170
- self-referral, incentives and provider-firms, 110–111
- smoking, 201, 204–205
- social status, 8
- social stigma as a tax, 202–203
- spending triggers, health insurance, 51–55
 - deductibles, 51–53
 - Medicare Part D, 54–55
 - payment limits, 53
 - timing, 53–54
- substitutes and complements, demand shifters, 37–39
- sunk cost, 5–6
- systemwide differences, international
 - comparisons, 233–235
- taxes and subsidies, 198–199
 - social stigma as a tax, 202–203
- time cost, 6–7
- tort case, medical malpractice, 207
- Trade-Related Aspects of Intellectual Property Rights (TRIPS), 195
- travel cost, 7

252 Index

TRICARE, 182	uninsurable individuals, adverse selection
TRIPS (Trade-Related Aspects of Intellectual Property Rights), 195	health insurance, 141–143
	uninsured individuals, medical bills, 157–158
uncertainty and risk	VA (Veteran’s Affairs), 181–182
healthcare labor force, 95	vaccines, 203–204
human behavior, economist’s point of view, 10–11	Veteran’s Affairs (VA), 181–182
markets, 84	wealth insurance, 132–134