

Index

- Acute respiratory infections (ARIs), 15-16
 bronchiolitis, 146
 bronchitis, 15
 causative agents
 adenoviruses, 146, 175
 bacteria, 89-90, 147-148
 Bordetella pertussis, 90, 148, 175, 194
 coronaviruses, 147, 175
 coxsackieviruses, 147
 echoviruses, 147
 fungi, 196
 Haemophilus influenza, 175, 176
 Mycoplasma, 147-148, 176
 respiratory syncytial virus (RSV), 146, 174
 rhinoviruses, 147, 175
 Streptococcus, 175
 viruses, 89, 145
 control, 90-91
 diagnostic techniques, 173-176
 diphtheria, 15
 immunology, 145, 146
 incidence, 89
 influenza, 15, 145, 174-176
 in the United States, 7, 22
 measles, 15, 89, 147
 natural history, 88-89
 parainfluenza, 146, 174
 pneumonia, 15, 146, 147, 148
 prevalence, 89
 serology, 176
 treatment, 90, 173, 193-196
 type of infection, 60
 vaccines, 15, 90, 145, 146, 147, 148
 whooping cough, 15, 148, 175
- Adenovirus, 146, 175
Aedes aegypti, 8, 93
Aeromonas, 192
- African sleeping sickness, 13, 67-71. See *also*
 Trypanosomiasis
 control, 70-71
 diagnosis, 165-166
 incidence, 69
 natural history, 69
 symptoms, 69
 treatment, 70, 186
 vaccine, 138-140
 variant surface glycoprotein (VSG), 138
- African trypanosomiasis, See African sleeping sickness
- Agency for International Development (AID), 17, 18
 Bureau of Science and Technology, 52
 funding by, 44-45, 52, 236
 oral dehydration therapy, 216, 217
 Program in Science and Technology Cooperation (PSTC), 44
- Agglutination assays, 156, 160
 AID. See Agency for International Development
 Allopurinol, 48, 78
Ambrosia maritima, 123
 Amebiasis, 193
 American Society for Tropical Medicine and Hygiene, 31
 American trypanosomiasis. See Chagas' disease
Ancylostoma, 85
 A. duodenale, 193
Anopheles mosquito, 12, 61, 227
 A. minimus flavirostris, 116
 A. nuneztovari, 116
 Antibiotics, 87, 181-182, 184
 Antibodies, 108-112, 129-149, 155-161, 228. see *also* Immunity; Immunology
 Antigens, 108-112, 129-149, 154, 158-161, 162, 170
 malaria, 228, 238
 Antimalarial drugs. See Drugs; Therapeutic agents, malaria
 Antimicrobial. See Antibiotics
 Antiviral drugs. See Drugs
Aotus monkey, 135, 136
 Arboviral and related infections, 16, 59, 91-95.
 causative agents, 60, 91
 Arenaviridae, 91-92
 Bunyaviridae, 91
 Togaviridae, 91
 chikungunya, 16
 dengue fever, 16, 93, 95, 149
 diagnostic techniques, 176-177
 encephalitis, 16, 59, 148-149
 hemorrhagic fever, 16, 149
 Lassa fever, 94
 natural history, 91
 Oropouche fever, 16, 93
 Rift Valley fever, 93
 symptoms, 92
 vaccine, 16
 viral encephalitides, 16
 yellow fever, 16, 59, 92-93, 100, 148
- ARIs. See Acute respiratory infections
Ascaris, 85
 A. lumbricoides (roundworm), 88
 ASTMH. See American Society for Tropical Medicine and Hygiene
- Bacillary dysentery, 144
 Bacillus Calmette-Guerin vaccine. See BCG vaccine
Bacillus sphaericus, 119

- Bacillus thuringiensis israeliensis*** (BTI), 119
 Bacteria, 15, 60, 86-87. See also Acute respiratory infections; Arboviral and related viral infections; Diarrheal and enteric diseases
 antibiotic resistant, 86-87
 infections, 172-173, 175-176
 pathogenic, 119
Balantidium coli, 193
 BCG (*Bacillus Calmette-Guerin*) vaccine, 15, 85, 141, 142, 172
 Biological insecticides, 119-120
Biomphalaria, 123
 Bionomics, 115-116
 Biotechnology. See Deoxyribonucleic acid; Hybridoma; Monoclonal antibodies
 Blackflies, 80, 119
 Blood cells. See Erythrocytes; Eosinophils
 Board on Science and Technology for International Development (BOSTID), 44-45, 52, 55
Bordetella pertussis. See Whooping cough
 BOSTID. See Board on Science and Technology for International Development
 Bronchiolitis, 146
Brugia malayi, 14, 78-79, 140, 168
 BTI. See *Bacillus thuringiensis israeliensis*
- Campylobacter***, 85, 86, 88, 173, 192
Capillaria philippinensis, 193
 Card agglutination test, 165
 CATT. See Card agglutination test
 CDC. See Centers for Disease Control
 CDD. See World Health Organization, Program for Control of Diarrheal Diseases
 Cellognost test, 165
 Centers for Disease Control (CDC), 17
 funding by, 42-43, 44, 237
 Chagas' disease, 13, 71-74
 animal model, 139
 control, 72-74, 102
 diagnosis, 155-156, 166-167
 incidence, 72
 in the United States, 8
 natural history, 71
 symptoms, 71-72
 treatment, 72, 187
 vaccine, 138-140
 Childhood diseases, 89-90
Chlamydia, 60, 90
 Chloroquine, 12, 63-64
 Cholera, 144, 172, 173. See also *Vibrio cholerae*; Diarrhea] and enteric diseases
 CIE. See Counterimmunoelectrophoresis
 Circumoval precipitin test (COPT), 157
Clostridium
Cl. difficile, 192
Cl. perfringens, 192
 Coagglutination (COA) test, 160, 175
Coelomomyces, 120
 Computed tomography, 154
 Control of disease. See Disease control
 Copper sulfate, 123
 COPT. See Circumoval precipitin test
Corynebacterium diphtheria, 90, 194
 Counterimmunoelectrophoresis (CIE), 156
Cryptosporidium, 85, 88, 193
 Cuba, 27-28
Cuzicynomycetes clavorsporus, 119-120
 Cytogenetic studies, 121
- DDT (dichloro-diphenyl-trichloroethane), 10, 63, 116, 117, 121
 resistance to, 65, 117, 226
 substitutes, 117
 toxicity, 117
 Delta-toxin, 119
 Dengue fever, 8, 16, 93
 Deoxyribonucleic acid (DNA), 87, 88, 105, 106, 107-108, 132, 136, 139, 140, 141, 143, 154
 diagnostic technologies, 154, 162, 164, 166-167, 168, 171, 172, 173
 immunization technologies, 132, 136, 139, 140, 141, 143
 malaria, 231, 234-235
 Department of Defense (DOD), 17, 18
 funding, 45-46, 52, 54-55, 237
 Department of Health and Human Services (DHHS), 17, 18, 41. See also National Institute of Allergy and Infectious Diseases; National Institutes of Health; Centers for Disease Control; Fogarty International Center for Advanced Study in the Health Sciences
 Department of Health, Education, and Welfare. See Department of Health and Human Services
 DHF (dengue hemorrhagic fever). See Dengue fever
 DHHS. See Department of Health and Human Services
 Diagnostic technologies, 153-154
 acute respiratory infections (ARIs), 173-176
 antibiotics, 173, 174
 arboviral and related viral infections, 176-177
 bacterial infections, 172-173, 175-176
Bordetella pertussis, 175
 deoxyribonucleic acid (DNA), 162, 163, 164, 166-167, 168, 171, 172, 173, 226
 diarrheal and enteric diseases, 172-173
 direct examination, 155
 electron microscopy, 172

- filariasis, 168-169
- genetic tools, 161-162
- Haemophilus influenza*, 175, 176
- influenza, 174
- leishmaniasis, 167-168
- leprosy, 169-170
- malaria, 163-164
- monoclonal antibodies, 161-162, 163-164, 165, 166, 168, 169, 170, 171, 177
- Mycoplasma pneumonia*, 175
- parasites, 164, 169
- precision, 153
- predictive value, 1s3
- schistosomiasis, 156, 164-165
- sensitivity, 153
- serology, 155-161, 163, 170, 172, 174, 175, 176, 177
- specificity, 153
- sporozoite diagnosis, 163-164
- Streptococcus*, 175
- trypanosomiasis, 165-167
- tuberculosis, 170-172
- viral infections, 172
- Diagnostic technologies, conventional diagnostic techniques, 153-161
 - acute respiratory infections (ARIs), 172-173, 173-174
 - arboviral infections, 176-177
 - diarrheal and enteric diseases, 172
 - filariasis, 168
 - leishmaniasis, 167
 - leprosy, 169
 - malaria, 163
 - schistosomiasis, 164
 - trypanosomiasis, 165
 - tuberculosis, 170-171
- Diagnostic technologies, tests and assays
 - agglutination assays, 156, 160
 - “Biken” gel diffusion test, 173
 - card agglutination test (CATT), 165
 - Cellognost test, 165
 - circumoval precipitin tests (COPT), 1s7
 - coagglutination (COA) test, 160, 175
 - complement fixation (CF) test, 155-156, 163, 166, 174, 175, 176
 - computed tomography, 154
 - counterimmunoelectrophoresis (CIE) test, 156, 172, 175, 176
 - cross-reactivity, 153
 - direct agglutination test, 156
 - ELISA (enzyme-linked immunosorbent assay), 157, 163, 165, 168, 170, 171, 172, 173, 174, 175, 176, 177
 - hemagglutination inhibition (HI) test, 156, 174, 176, 177
 - immunoelectrophoresis, 156
 - indirect fluorescent antibody (IFA) test, 157, 163, 170, 172, 174, 175, 176, 177
 - indirect hemagglutination (IHA) test, 156, 163, 175
 - labeled immunodiagnostic reagent assays, 156-157, 160, 163
 - Lancefield precipitation test, 175
 - latex agglutination (LA) test, 175, 176
 - lepromin (Mitsuda) test, 169
 - lymphocyte transformation test, 169-170
 - Mantoux test, 171
 - neutralization test, 156
 - nucleic acid hybridization probes, 162
 - Quellung test, 176
 - radioimmunoassay (RIA), 157, 170, 172, 175
 - reverse passive hemagglutination (RPHA), 160, 176
 - thin-layer immunoassay (TIA), 157
 - Tine test, 171
 - tuberculin skin test, 85
 - Vollmer patch test, 171
 - xenodiagnosis, 154
 - X-rays, 171
- Diarrheal and enteric diseases, 15, 59, 85-88, 142-144, 201
 - ad libitum treatment, 210-211
 - amebiasis, 193
 - bacterial infections, 143, 203
 - causes, 15, 60, 86-88, 201, 203
 - cholera, 144, 172, 173, 191, 210
 - coliform infection, 143
 - dehydration, 201, 212-213, 215
 - diagnostic techniques, 172-173
 - electrolytes (salts), 202, 207-210, 213-214, 215
 - Escherichia coli*. See *E. coli*
 - incidence, 85-86, 205
 - infant diarrhea, 201-224
 - in the United States**, 7, 205
 - malnutrition, 204
 - natural history, 85-86
 - Rotavirus, 85, 86, 143, 172, 203
 - Salmonella*, 15, 85, 87, 143, 172, 173, 192
 - shigellosis**, 191-192
 - treatment, 11, 15, 85, 190-193, 205, 215-216. See *also* **Oral dehydration therapy**
 - typhoid fever**, 144
 - vaccine**, 142-144
 - viral infections, 143, 191, 203
- Dichlorobromophenol, 123
- Dichloro-diphenyl-trichloroethane. See DDT

- DNA. See Deoxyribonucleic acid
DOD. See Department of Defense
DPT vaccine, 148
Drugs, 12, 20. See *also* **Therapeutic agents**
Duffy antigens, 228
- Echinococcus granulosus* (tapeworm), 196
Elephantiasis, 14
ELISA. See Enzyme-linked immunosorbent assay
Encephalitis, 8
Entamoeba, 85, 88, 192-193
Enteric diseases. See Diarrheal and enteric diseases
Enzyme-linked immunosorbent assay, 78, 85, 121.
See *also* Diagnostic technologies, tests and assays, ELISA
Eosinophils, 137-138
Equine encephalitis, 8
Erythrocytes, 61, 65, 136, 233-235
Escherichia
E. coli, 85, 86, 87, 136, 143, 148, 172-173, 192, 195, 203
E. histolytica, 88
Expanded Program on Immunization (EPI), 16, 105
- FDA. See Food and Drug Administration
Fertility rate, 204
FIC. See Fogarty International Center for Advanced Study in the Health Sciences
Filaria
Brugia malayi, 78-80, 140, 168, 188
Loa loa, 188
Onchocerca volvulus, 78, 140, 168, 169, 188
Wuchereria bancrofti, 14, 78-80, 116, 140, 168, 187
Filariasis, 14
African eyeworm disease, 188
blackflies, 80, 119
causative agent, 60, 78, 80
diagnostic techniques, 168-169
incidence, 80, 81
natural history, 78
prevalence, 80
symptoms, 80
treatment, 188
Fogarty International Center for Advanced Study in the Health Sciences (FIC), 43-44
Food and Drug Administration (FDA), 21
Foundations, 46-47
Edna McConnell Clark Foundation, 46-47, 54, 165
MacArthur Foundation, 47
Rockefeller Foundation, 47, 49, 54, 101-102, 237
Funding, 37-ss. See *also* Research distribution, 52-54
recipients of, 52, 53-55
sources, 37-49, 236-238
types of research, 49-51
Fungi, 119-120, 196
- Gambusia, 120*
Gastroenteritis. See Diarrheal and enteric diseases
Giardia, 85, 88, 192-193
Giardiasis. See *Giardia*
Glossina. See Tsetse flies,
Gorgas Memorial Institute of Tropical and Preventive Medicine (GMI), 43
Growth hormones, 120
- Haemophilus influenza, 90, 148, 175, 176, 194, 195**
Hansen's disease. See Leprosy
Helminths, 29, 60, 193, 196
Hemagglutination inhibition (HI) test, 156
Hookworm, 193
Hybridoma, 109-111, 139, 233
Hypernatremia, 212-213, 214
Hyponatremia, 212-213, 214
- IHA. See Indirect hemagglutination test.
ILRAD. See International Laboratory for Research on Animal Diseases
Immunity, 129-131, 228-230
Immunization, 52, 103-105, 131. See *also* Expanded Program on Immunization
Immunization technologies, 129-149
acute respiratory infections (ARIs), 144-148
arboviral and related infections, 148-149
diarrheal and enteric diseases, 142-144
filariasis, 140
influenza, 145
leishmaniasis, 140
leprosy, 140-141
malaria, 134-137
schistosomiasis, 137-138
trypanosomiasis, 138-140
tuberculosis, 142
vaccines, 131-149
Immuno-electrophoresis, 156
Immunoglobulins, 155
Immunology, 137, 145, 155-161, 228-230. see *also* Immunization; Immunization technologies
Indirect hemagglutination (IHA) test, 156
Infant mortality, 6, 7, 201-205
Influenza, 174
Insecticides, 13, 117-120. See *also* DDT, resistance to
International Health Research Act of 1960 (Public Law 86-610), 23, 30-31

- International Laboratory for Research on Animal Diseases (ILRAD), 138
- 1PM. See Vector control, integrated pest management
- Isoopora belli*, 193
- Kala azar. See Leishmaniasis**
- Kebsiella pneumoniae*, 90, 195
- LA. See Latex agglutination test
- Labeled immunodiagnostic reagent **assays**, 156, 160
- Latex agglutination (LA) test, 160, 175, 176
- Leishmania*, 14, 74, 140
- L. braziliensis*, 74, 167, 187
- L. donovani*, 167, 187
- L. mexicana*, 74, 167, 187
- L. tropica*, 74, 167, 187
- life cycle, 76
- Leishmaniasis, 14, 74-78
- causative agent, 60
- control, 78
- cutaneous leishmaniasis, 187
- diagnostic techniques, 167-168
- immunology, 78, 140
- incidence, 75, 77-78
- kala azar, 14, 74, 167, 187
- mucocutaneous leishmaniasis, 167, 187
- natural history, 74, 76
- symptoms, 74, 140
- treatment, 48, 78, 187
- type of infection, 60
- vaccination, 140
- visceral leishmaniasis, 14, 74, 167, 187
- Leprosy (Hansen's disease), 14, 80-84, 140
- causative agent, 60, 80
- diagnostic techniques, 169-170
- immunology, 80, 82, 84, 140-141
- incidence, 82
- lepromatous leprosy, 80, 140, 170, 188
- lepromin test, 169
- Mitsuda test, 169
- Mycobacterium leprae*, 80, 170, 188. *See also*
- Mycobacterium*
- symptoms, 80, 140
- treatment, 83, 188-189
- tuberculoid leprosy, 80, 170, 188
- vaccine, 140-141
- Lower respiratory tract infections (LRTIs), 89-90, 194
- Lymphocyte transformation test, 169-170
- MAbs. *See* Monoclonal antibodies
- Malaria, 12. *See also Plasmodium*
- antibody, 229-230
- antigens, 229-230, 233, 234
- antimalarial, 183-185
- causative agent, 60, 116, 225, 226-227
- control, 10, 61-64, 115-116, 118-119, 120, 226
- diagnostic techniques, 163-164
- immunology, 64, 134-137, 228-230
- incidence, 61, 63-64
- in the United States, 8
- Malaria Eradication Campaign, 118-119
- mosquitoes, 10, 115-116, 120, 226, 227
- natural history, 59-62, 225, 227, 233, 234, 235, 236
- prevalence, 61
- research, 22, 48, 65, 134-137, 225, 230-233
- symptoms, 226
- treatment, 48, 182-185
- tropical splenomegaly syndrome (TSS), 137
- vaccine, 4, 11, 20, 65, 121, 134-137, 225-245
- Malnutrition, 7
- Marisa cornuarietis*, 123
- Medication. *See* Drugs; Therapeutic agents
- Melioidosis, 195
- Metarhizium anisopliae*, 120
- Molluscicides, 122-123
- Monoclonal antibodies (MAbs)
- diagnostic technologies, 154, 155, 163, 165, 166, 168, 171
- disease control, 106-112, 121
- immunization technologies, 131, 132, 136, 138, 139, 140, 142, 149
- malaria, 226, 232-233, 234, 235
- Mosquitoes, 10, 16, 115-116, 120, 227
- Mycobacterium*
- M. avium-intracellulare*, 171
- M. leprae*, 14, 80, 141, 169, 170, 171, 188
- M. smegmatis*, 172
- M. tuberculosis*, 15, 84, 171, 189
- Mycoplasma*, 15, 60, 90, 175, 195
- M. pneumoniae*, 148, 176
- Nagana, 138
- NAS. *See* National Academy of Sciences
- National Academy of Sciences (NAS), 31-33
- National Institute of Allergy and Infectious Diseases (NIAID), 17, 18
- funding, 41-42, 52-54, 236-237
- National Institutes of Health (NIH), 17. *See also*
- Fogarty International Center for Advanced Study in the Health Sciences
- National Research Council (NRC), 31
- Neutralization test, 156
- NIAID. *See* National Institute of Allergy and Infectious Diseases
- Niclosamide, 123
- NIH. *See* National Institutes of Health
- NRC. *See* National Research Council

- Onchocerca volvulus***, 14, 60, 78, 140, 168, 169
Oncomelania, 123
- Oral dehydration therapy (ORT), 3-4, 11-12, 15, 85, 190-191, 201-224. See also Diarrheal and enteric diseases
- advantages, 207
 - clinical aspects of treatment, 211-213
 - composition of solutions, 213-216
 - dehydration, prevention of, 215
 - economy, 218
 - effectiveness, 216, 217-218
 - limitations, 213
 - vomiting, 212
- Organotin compounds, 123
- Orphan Drug Act of 1983 (Public Law 97-414), 20-21
- ORT. See Oral dehydration therapy
- PAHO. See Pan American Health Organization
- Pan American Health Organization (PAHO), 216-217
- Paragonimus westermani* (fluke), 196
- Pertussis**. See Whooping cough
- Pharmaceutical Manufacturers' Association (PMA), 47
- Phytolacca dodecandra*, 123
- Plague. See *Yersinia pestis*
- Plasmodium*, 226-227. See also Malaria
- antimalarial, 183-185, 225-245
 - culture, 135
 - life cycle, 61, 134, 182, 183, 227
 - P. berghei*, 134, 135, 136, 227
 - P. chabaudi*, 135, 136, 227
 - P. falciparum*, 61, 63, 134, 135, 136, 137, 164, 182, 183-184, 225, 226, 227, 228, 234, 238
 - P. gallinaceum*, 226-227
 - P. knowlesi*, 134, 135, 136, 227, 234
 - P. lophurae*, 227
 - P. malariae*, 61, 134, 182, 184, 226, 227
 - P. ovale*, 61, 134, 182, 184, 227
 - P. vinckei*, 227
 - P. vivax*, 8, 59, 134, 136, 182, 184, 226, 227, 228, 238
 - P. yoelli*, 134, 135, 227, 234
- Pleisiomonas*, 192
- PMA. See Pharmaceutical Manufacturers' Association
- Pneumococci*, 175. See also ***Streptococcus***
- Pneumocystis carinii***, 195
- Pneumonia, 90, 146, 148, 194, 195
- Praziquantel, 12, 13. See also Schistosomiasis
- Presbytis*
- P. cristata*, 140
 - P. melalophos*, 140
- Program in Science and Technology Cooperation (PSTC). See Agency for International Development
- Protozoa, 13, 14, 15, 29, 59, 60, 85, 192-193, 195-196
- Pseudomonas pseudomallei*, 90, 195
- PSTC. See Agency for International Development, Program in Science and Technology Cooperation
- Public Health Service Act, 30
- Radioimmunoassay (RIA), 121, 157
- Reduviid bug (kissing bug), 8, 121
- Respiratory infections. See Acute respiratory infections
- Respiratory syncytial virus (RSV), 146, 174
- Reverse passive hemagglutination (RPHA) test, 160
- Rhinovirus, 147, 175
- RIA. See Radioimmunoassay
- Ribavirin, 12
- Rifampicin, 85
- Rotavirus, 85, 86, 143, 172, 203
- RPHA. See Reverse passive hemagglutination test
- RSV. See Respiratory syncytial virus
- Salmonella*, 15, 85, 87, 143, 172, 173
- S. typhi*, 87, 144, 172, 192
- Sandflies, 14, 16, 75
- Sarcocystis*, 193
- Schelia*, 102
- Schistosoma*, 12-13, 65
- S. haematobium*, 65, 68, 137, 164, 186
 - S. japonicum*, 65, 68, 137, 164, 186, 196
 - S. mansoni*, 65, 68, 101, 137, 138, 164, 186, 196
 - S. mekongi*, 65
- Schistosomiasis, 12-13, 101-102
- causative agent, 60, 65
 - control, 67, 101-102, 122-123
 - diagnostic techniques, 156, 164-165
 - incidence, 67-68
 - life cycle, 65-67, 137
 - natural history, 65
 - St. Lucia experiment, 101-102
 - treatment, 185-186
 - vaccine, 138
- Serology, 154, 158-161, 170, 172, 174. see also Diagnostic technologies, tests, and assays
- Shigella*, 15, 85, 86, 87, 142, 143, 144, 172
- S. dysenteriae*, 87, 144
 - S. flexneri*, 87, 144
 - S. sonnei*, 87, 144
- Shigellosis, 144
- Simulium*. See Blackflies
- Skin tests, 154

- Smallpox**, 29, 100
- Snails**, 101-102, 122-123
- Special Program for Research and Training in Tropical Diseases (TDR)**, 17, 18, 22, 37-38, 169
- funding, 42, 44, 45-46, 50-51, 52, 237
- research and development, 39
- Sporozoite diagnosis, 163
- Staphylococcus*, 192
- S. aureus*, 90, 160, 194, 195
- Streptococcus*
- S. pneumoniae*, 90, 111, 147-148, 175, 194-195
- S. pyogenes*, 90, 148, 175, 194, 195
- Strongyloides stercoralis* (threadworms), 193
- Taeniorhynchus*, 120
- TDR. See Special Program for Research and Training in Tropical Diseases
- Tests. See Diagnostic technologies
- Therapy. See Oral dehydration therapy; Therapeutic technologies
- Therapeutic technologies
- acute respiratory infections (ARIs), 193-196
- antibiotics, 181-182, 184
- arboviral and related viral infections, 196
- diarrheal and enteric diseases, 191-193
- filariasis, 188
- leishmaniasis, 187-188
- leprosy, 188-189
- malaria, 182-185
- resistance to, 182, 183, 190, 191-192
- schistosomiasis, 185-186
- symptomatic treatment, 181
- trypanosomiasis, 186-187
- tuberculosis, 189-190
- Thin-layer immunoassay (TIA), 157, 159
- Treatment. See Therapeutic technologies
- Trematode, 12, 186. See also *Schistosoma*
- Trichuris trichura* (whipworms), 193
- Tropical splenomegaly syndrome (TSS), 137
- Trypanosoma*, 13, 67
- T. brucei*, 13, 67, 69, 139, 166
- T. brucei gambiense*, 13, 69-70, 138, 165, 166, 186
- T. brucei rhodesiense*, 13, 69-70, 111, 138, 165, 166, 186
- T. cruzi*, 13, 67, 71-74, 102, 138, 139, 166, 187
- Trypanosomiasis, 13, 67-71. See also African sleeping sickness; Chagas' disease
- causative agent, 60, 67
- control, 71-72, 102
- diagnostic techniques, 165-167
- incidence, 69, 71
- in the United States, 8
- natural history, 69, 71
- symptoms, 69, 71-72
- treatment, 13, 70, 74, 186-187
- vaccine, 138-140
- Tsetse flies, 13, 69, 121-122
- TSS. See Tropical splenomegaly syndrome
- Tuberculosis, 15, 84-85
- control, 84, 142
- diagnostic techniques, 170-172
- incidence, 84
- in the United States, 7-8
- Mycobacterium tuberculosis*, 84, 142, 189. See also *Mycobacterium*
- natural history, 84
- symptoms, 84
- treatment, 84, 189-190
- tubercle bacilli, 170, 171
- tuberculin skin test, 85
- vaccine (BCG vaccine), 85, 142, 172
- Typhoid fever, 144, 172
- UNICEF. See U.N. International Children's Emergency Fund
- U.N. International Children's Emergency Fund (UNICEF), 216, 217
- Upper respiratory tract infections (URTIS), 89-90, 194
- Vaccination, 10-11, 52
- Vaccines, 103-105, 131-149
- acute respiratory infections, 90, 144-148
- arboviral infections, 59, 148-149
- development, 20, 104, 136-137
- diarrheal and enteric diseases, 142-144
- filariasis, 140
- leishmaniasis, 140
- leprosy, 141
- malaria, 65, 134-137, 225-245
- schistosomiasis, 138
- trypanosomiasis, 138-140
- tuberculosis, 15, 85, 140, 142, 172
- Variant surface glycoprotein (VSG), 69, 71, 72, 138
- Vector control, 10, 63, 70, 103
- arthropods, 117-121
- biological control methods, 120, 123
- biometrics, 115-116, 124
- filariasis, 14
- fungi, 119-120
- growth hormones, 120
- identification of disease organisms, 121
- insecticides, 13, 117-120
- integrated pest management (IPM), 123, 125
- leishmaniasis, 14

- malaria, 12
- molluscicides, 122
- mosquitoes, 10, 16, 115-116, 120, 227
- predators, 120
- reduviid bugs, 122
- research needs, 124
- schistosomiasis, 12-13
- snails, 122-123
- species complexes, 120
- trypanosomiasis, 13
- tsetse flies, 121-122
- Venezuelan equine encephalitis. See Equine encephalitis
- Vibrio cholerae*, 86, 87-88, 143, 144, 172, 173, 191
- Virus, 15, 60, 86, 89, 172, 194. see also Acute respiratory infections; Arboviral and related viral infections; Diarrheal and enteric diseases
- VSG. See Variant surface glycoprotein
- WHO. See World Health Organization
- Whooping cough (pertussis), 90, 148, 175, 194
- World Health Organization (WHO), 18-19, 28, 38, 40
 - funding by, 38, 40, 50, 52, 237 See also Expanded Program on Immunization (EPI)
 - Malaria Eradication Campaign, 118-119, 236
 - Program for Control of Diarrheal Diseases (CDD), 38, 40, 52, 216
 - Program in Acute Respiratory Infections, 38
 - research, 22
- Wuchereria bancrofti*, 14, 78-80, 116, 140, 168
- Xenodiagnosis, 154
- X-rays, 154, 171
- Yellow fever, 16, 59, 92-93
- Yersinia pestis*, 85, 88, 192, 195

LIBRARY
OFFICE OF TECHNOLOGY ASSESSMENT
CONGRESS OF THE UNITED STATES
WASHINGTON, D. C. 20510