Index

Index

Abbott Northwestern/Sister Kenny Institute, 165-166 ABLEDATA data base, 213 Acetylcholine, 145n Activities of daily living (ADL) scale, 290-293 Administration on Aging, 314 Adult day care services, 202-203, 205, 238, 239 Aer Lingus retraining program, 351-352 Age Discrimination in Employment Act (ADEA) of 1978, 36, 336n, 337 Agitation, 224 Alarm systems, 85, 170, 171, 317-318 Alzheimer disease, 62, 63-66, 67-69	information sources, 213-214, 218, 220, 359-363 negative attitudes toward, 216 supply problems, 218-219 workplace use, 357, 358, 359-363 Audiologists, 86 Audio loop systems, 84 Audiometric testing, 78, 80 Back pain, 166 Baltimore Longitudinal Study on Aging, 100 Bathroom design, 320-323 Bathtub design, 322, 323 Bedpads, 74 Bedroom design, 320
behavior problems, 223, 224 NIA research role, 102 prevalence, 193 Alzheimer Disease and Related Disorders Association, 110	Beth Israel Hospital, 168 Biomedical research congressional support, 101-103 costs, 101-102 determinants of success, 106-107
American Association of Medical Systems and Informatics, 165 American Association of Retired Persons (AARP), 147, 214 American Cappen Society (ACS)	Federal Government role, 100-109 funding, 103 issues and options, 110-111 justifications, 103-105
American Cancer Society (ACS) dietary recommendations, 126 Reach for Recovery Program, 163 American Diabetes Association, 124	resource allocation, 105-109 Biotechnology, 105 Birth cohorts, 36-38 Blacks. See Race differences
American Heart Association, 163 American Medical Association, 147 American Telephone & Telegraph Co. (AT&T), 166, 171, 356	Board and care facilities, 199-200, 314 Bone cells, 96-97 Bone mass loss. See Osteoporosis Braille devices, 360
Annual Housing Survey (AHS), 282-285, 292 Anti-cholinergic drugs, 145 Anti-diabetic drugs, 148	Brain, 64 Breast self-examination, 126 Building design and hearing impairment, 86 Bureau of the Canada 28
Anti-inflammatory drugs, 93, 148 Anti-psychotic drugs, 145 Apartments, accessory, 306-307	Bureau of the Census, 38 Bureau of Labor Statistics, 341-344
Apple computer, 165 Appliances, self-monitoring, 317 Appropriate technology, 174n Architectural Barriers Act, 288 Area Agency on Aging (AAA), 227 Arthritis, 90, 166. See also Osteoarthritis	Calcium intake, 99-100 Canon Communicator Mark II, 362 Cancer as cause of death, 48 risk factors, 125-126 screening for, 126
Arthritis Foundation, 89, 92, 94, 110 Arthritis institute at NIH (proposed), 108-109 Artificial sphincters, 75 Asbestos, 356 Aspirin, 92, 146 Assessment measures, 208-210, 235	Cavitation concept, 263 Caregivers burnout, 291 families as, 194-195, 293 support groups for, 225 technologies to assist, 195, 220-224
Assessment technologies, 207-212 Assistive devices examples, 212-214, 359-363 funding, 214-215, 218, 220, 236	Carpeting, 316 Cartilage tissue, 90-91 Case management, 227 Catheters, 74

Cellular aging, 50	Congressional Budget Office, 253
Cerebrovascular disease. See Stroke	Congressional issues and options
Chair lifts, 222-223, 316	biomedical research, 110-111
Cholesterol level, 125	drug testing, education, and labeling, 150-153
Chronic conditions, 7-10	health care services, 270
age at onset, 50, 51	housing, 325-327
community dwelling elderly, 54, 291-293	information technology, 175-178
computer-assisted home health care, 169-171	long-term care services, 235-237
control of, 50-51	risk factor amelioration, 130-132
institutionalization and, 52-53	workplace technology, 358-359
policy implications, 51	Coronary heart disease (CHD)
prevalence and severity, 54-55, 61, 169, 291-293	as cause of death, 47-48
research on. See Biomedical research	risk factors, 122-125
sel-*are, 163-164	
work disability and, 355-356	Data Resources, Inc. (DRI), 342
See also specific conditions, e.g., Dementia;	Deafness. See Hearing impairment
Hearing impairment	Death causes
Closed Circuit TV (CCTV) magnification systems,	cancer, 48, 121
361	coronary heart disease, 47-48, 121
Cochlear implant, 82	stroke, 48, 121
Cohort component method, 38	Death rates. See Mortality
Cohort data, 36-38	Degenerative joint disease. See Osteoarthritis
Colorectal cancer, 126	Dementia, 8, 62
Commodore 64 computer, 172	causes, 63-64, 66, 68
Community Development Block Grants (CDBG),	clinical changes, 64, 67
299-300	diagnosis, 65, 67-68
Community dwelling elderly	drug-induced, 145
chronic conditions, 54-55	family impact of, 64, 68
home ownership, 282-283, 301	Federal concern, 65-66
urinary incontinence, 70	genetic basis, 65, 68
Community service coordination, 227	life expectancy effect, 64
Comprehensive Assessment and Referral	prevalence, 64, 67
Evaluation (CARE), 210	research on, 65, 69
CompuServe, 170	Dental care, 256-257
Computerized axial tomography (CAT) scanning,	Dental disease, 13, 128
97	Department of Housing and Urban Development
Computers	(HUD)
access to, 171-173	Annual Housing Survey, 282-285
health programs, 165-169, 176-178	housing programs, 295-300
input and output devices, 162, 172-173, 359-362	Design Research Center, University of Wisconsin-
prices, 171-172	Stout, 321-322
talking, 359	Diabetes, 124
use by elderly, 160-173, 318-319	Diagnosis-related group (DRG)
workplace use, 339, 346	approach, 260, 261-262
Congregate housing facilities	Diet. See Nutrition
as type of long-term care, 204	Disability and impairment, 288-289, 355-356
cost, 206	See also Functional impairment
design, 312-314	Disease prevention. See Health promotion/disease
funding, 239	prevention
privately developed, 310-311	Doors
publicly sponsored, 309-310	handles, 323
See <i>also</i> Board and care facilities; Nursing homes	thresholds, 316
Congress	Dressing aids, 320
biomedical research support role, 101-103,	Drugs
107-109	as cause of dementia, 63, 66, 145
· •••	as sumber of activiting out out 110

as cause of hearing impairment, 83 Federal Government role as cause of urinary incontinence, 71 biomedical research, 100-109 clinical trials, 14-15, 148-149, 152-153 dementia, 65-66 containers, 144-145 health programs, 264-266 cost of, 138-140 hearing impairment, 88-89 development costs, 149 housing policy, 294-300 effects and metabolism, 140 urinary incontinence, 76-77 for treatment of dementia, 65-66 See also Congressional issues and options for treatment of incontinence, 73-74, 75 Federal Trade Commission (FTC), 87 for treatment of osteoarthritis, 92-93 Fertility rates, 4, 38 issues and options, 15, 150-153 Fire safety, 317 Floor surfaces, 316, 321 over-the-counter, 146 patient compliance with prescriptions, 143-145 FM amplification devices, 84 patient education, 14, 146-147, 151 Food and Drug Administration (FDA), 75 side effects and interactions, 141-142 drug approval process, 141, 148-149 testing and surveillance, 14-15, 148-149 health instructional software regulation, 177-178 use by the elderly, 13-15, 137-147 hearing aid sale regulation, 87 Task Group on Computers and Associated Dysacusis, 78 Software as Medical Devices, 177 Ear. 80 Food assistance programs, 129, 131-132 Forgetfulness, 223-224 Earnings, 340-341 Elder cottages, 307-309 Fractures, 12-13, 95, 97-98, 126-127 Elderly households, 23-24, 40, 277-278 Functional dependence characteristics, 283-285 age-specific prevalence, 190-192 homeownership, 282 definition, 120 housing expenditures, 285-286 measurement scales, 290-293 Elderly population Functional impairment aging of, 41-43 causes, 191-194 definition, 3, 35-36 chronic disease and, 190 demographic projections, 3, 38-41 denial of, 258 Electrical stimulation, 75 housing and, 288-293 Emergency response alarm systems, 85, 170, 171, long-term care funding, 235 medical diagnosis and, 189-190 317-318 mental condition and, 193-194 **Employment opportunities** displacement of workers, 339-341, 344-346 prevalence, 186, 190-191, 290-293 industry trends, 337-338, 343 technologies for caregivers, 222-224 work disability and, 355-356 nature of work, 346, 348-349 occupational trends, 338-339, 343-346 Functional independence, 120-121, 133 part-time work, 346-349 projections, 341-342 technology-related, 344-364 Gender differences See also Labor force; Workplace technology hearing impairment, 79-80 Environmental fit, 209-210 labor force participation, 337, 342 Environmental press, 289 life expectancy, 43-47, 279-280 Estrogen therapy, 98-99 living arrangements, 55, 280-281 Executive Order 12291, 147 marital status, 278-280 Exercise occupational trends, 338 as risk factor, 10-11, 122-123 osteoporosis, 95, 100 bone health and, 99 retirement income, 55 osteoarthritis and, 91, 92 General Accounting Office (GAO), 178, 194 Geriatric Assessment Units, 259 Falls, 127, 315-317 Glucose tolerance as risk factor, 124 Families as caregivers, 194-195, 293 Grab bars, 320, 321 Farmers Home Administration (FmHA) housing Granny flats, 307-309

Grip devices, 362

programs, 295, 297, 298

Handles, 323	treatment, 82-86
Handrails, 316	types of, 80-81
Health and Nutrition Examination Survey (HANES),	Heart disease. See Coronary heart disease
259	Hip fractures, 95
Health care	Hip replacement, 93-94, 97-98
appropriate for older persons, 257-259	Hip surface replacement, 94
computer-assisted, 167-171	Home care
self-care, 163-164	growth in, 256
Health care costs, 21-23, 101-102, 104-105, 249-257,	information technology and, 169-171
268-270	Home care services, 200-202
age-specific, 251-252	costs, 205
containment strategies, 259-263	funding, 237, 238, 239
funding of, 251-252	Home loan programs, 298-299
growth of, 253-256	Homesharing for seniors, 303
Health Care Financing Administration (HCFA), 65,	Hormone treatments for osteoporosis, 98-99
177, 263	Hospice care, 203-204, 238, 239
Health care industry, 105	"Hospital on the wrist," 167-168
Health care providers	F ,
appropriate, 259	Hospitals
education on drugs, 145-146, 151-152	cost-containment, 261-262
house calls, 169, 170	long-term care services, 231
rehabilitation services, 217-218	utilization, 264-266, 271
supply of, 169	Households, 277-278
Health care services	nonfamily, 281
coordination, 263-266, 270-271	See also Elderly households
quality assurance, 270	House Select Committee on Aging, 137
research priorities, 269	Housing, 23-27
utilization, 254-256, 260-261	conversions, 304-307
See also Health care providers	deficiencies, 283-285, 287
Health hazard/health risk appraisals (HHA/HRA),	demographic influences, 277-281
166-167	design and technologies, 315-324
	excess space, 302
Health instruction, 164-167, 175-178 Health Interview Survey, 355	expenditures, 285-287
	functional impairment and, 288-294
Health maintenance organizations (HMOS), 263 Health promotion/disease prevention, 10-13,	issues and options, 325-327
119-133	maintenance, 301
nutritional deficiencies, 128-129	modular cottages, 307-309 ownership, 282-283, 301
research programs, 109 risk factor amelioration, 121-28	research priorities, 325
	shared, 302-303
types of prevention, 120	See <i>also</i> Board and care facilities; Congregate
workplace technologies, 356-357	
Hearing aid dealers, 86-87	housing facilities; Nursing homes Housing Act of 1937, 294, 295
Hearing aids, 83-84	Housing Act of 1957, 294, 295 Housing Act of 1954, 297
dealers, 86-87	
regulation of sale, 87	Housing Act of 1956, 294
Hearing impairment, 9, 62, 78-89	Housing Act of 1959, 296, 297
age at onset, 81-82	Housing Act of 1964, 299
causes, 81	Housing and Community Development Act of 1974
denial of, 82	288, 295, 296, 298 Housing and Urban Bural Bassyons, Act of 1082
funding for treatment, 87-88	Housing and Urban-Rural Recovery Act of 1983,
impact, 82	297
prevalence, 78-80	Housing policy, 294-300
prevention, 82-83	Housing legislation
service delivery system, 86-87	impact on elderly, 300-301
technologies to compensate for, 83-86	summary. 295-300

HUD. See Department of Housing and Urban Living arrangements by age and sex, 280-281 Development socioeconomic characteristics and, 55-56 Hypertension as risk factor, 10, 122 Longitudinal studies Hypertropic arthritis. See osteoarthritis bone mass loss, 100 displaced workers, 340, 345 Immigration rates, 40 Long-term care, 18-21 Impairment. See Functional impairment coordination of services, 226-231 Incontinence. See Urinary incontinence costs, 205-206, 262 Information technology, 15-18 definition, 185 ability to use, 160-162 access to. 171-173 delivery systems, 225-232, 237 Federal Government role, 186-187, 235-237 definition, 159n functional impairment and, 189-194 drug use monitoring, 142-143 funding, 186-189, 235-237, 237-240, 265-266 Federal Government role, 173-174, 175-178 need for, 185-186 health care use, 167-171 planning by individuals, 231-232 health instruction use, 164-167, 175-178 research priorities, 234 health program coordination use, 266 service-related issues, 204-207 policy formulation, 174-178 technologies, 187-188, 207-225 research needs, 174 types of services, 194-204 self-care use, 163-164 Infrared amplification devices, 84 Magnification devices, 361 Institute of Medicine (IOM) NIH organization study, 109 Malignant neoplasms. See Cancer Institutionalization Marital status, 278-280 Median age of population, 4, 36, 41 functional disability and, 290 Medical Device Amendments of 1976, 178 patterns of, 52-53, 281 Medical monitoring, 170 Insurance coverage for health care, 266-268 Medical technology, 167-171 International Workshop on Colorectal Cancer, 126 health care cost impact, 253-254 Investment in People Program, California, 354 Medicare/Medicaid system, 41 disbursements, 101 Japan, 50 funding for health devices, 172 (computers) Job opportunities. See Employment opportunities funding for hearing services and devices, 87-88 Joint Commission on the Accreditation of Hospitals funding for incontinence products, 77 (JCAH), 178 long-term care funding, 188-189, 237-239, Joint debridement, 94 Joint replacement, 93-94 264-266 prospective payment system, 261-262 reimbursement structure, 129-130, 131, 173, Kellogg Foundation, 165, 168 220-221 Kitchen design, 319-320 See also Health care costs Medicaid 2176 Waiver Program, 238-239, 262 Labor force Medication. See Drugs displacement, 339-341, 344-346 Med-Tymer, 144 industry trends, 337-339 Men. See Gender differences participation rates, 337-342 Meniere's disease, 81, 83 projections, 341-343 Mental functioning measurement, 209 Laser cash registers, 348 Mental health programs, 168-169 Life-care communities, 230, 310-311 Lifechec health risk appraisal instrument, 167 Mental impairment. See Functional impairment Meridian Health Care, 230-231 Life expectancy, 3, 36, 41, 51 Morbidity, 121 sex- and race-specific, 42, 43-47, 279-280 "Lifeline" system, 170, 171, 317 Mortality age-adjusted, 4n, 6, 43 Life span, 4, 48-51 age-specific, 38 Lifting of patients, 222-223 disease-specific, 121 Light pens, 162

infant, 4, 5	design, 312-314
prediction of, 38	drug use in, 145
Mortgage insurance programs, 297	entry age, 52
	funding of care, 188-189, 196, 197, 237, 238,
National Aeronautics and Space Administration	265-266
(NASA), 74-75	mortgage insurance, 298
National Cancer Institute (NCI), 102-103, 107n	population projections, 52-53, 311
National Center for Health Statistics, 355	predictors of residency, 53, 290
National Channeling Demonstration Programs, 262	residents, 196-198, 290-291, 311-312
National Commission on Employment Policy, 348	Nutrition
National Council for Patient Information and	as risk factor, 12, 124, 125, 126, 128-129
Education (NCPIE), 146	drug efficacy and, 142
National Health and Nutrition Examination Survey,	osteoporosis and, 99-100
89	•
National Health Interview Survey, 290	obesity as risk factor, 124, 126
National Hearing Aid Society (NHAS), 86-87	Occupational trends, 338-339, 343-346
National Heart, Lung, and Blood Institute (NHLBI)	ohio State University, 167
cholesterol study, 125	older Americans Act, 36, 169, 227
funding, 102-103, 107n	Title 111, 239
National Homecaring Council, 169	older Americans Resources and Services (OARS),
National Housing Act of 1949, 294	121, 133, 210
National Industrial Recovery Act, 294	older persons
National Institute of Arthritis, Diabetes, and	biological characteristics, 140
Digestive and Kidney Diseases (NIADDK), 103	drug testing and, 148-149, 150
National Institute of Handicapped Research (NIHR),	'(old-old, " 36
214, 219	On Lok agency, 229
National Institute of Mental Health (NIMH), 65	Operation Match, 302
National Institute of Neurological and	Optacon, 359
Communicative Diseases and Stroke	Organizational Structure of the National Institutes
(NINCDS), 65	of Health, 109
National Institute on Aging (NIA), 65, 77	osteoarthritis, 9, 62-63, 89-95
Alzheimer disease research, 102	assistive devices, 92
biomedical research role, 101-102	biology and anatomy, 90-91
establishment of, 105	definition, 90
funding, 102	diagnosis, 91-92
information system development, 173	prevalence, 89-90
teaching nursing home program, 199	risk factors, 91
National Institutes of Health (NIH), 93, 98	social factors, 94-95
biomedical research role, 101-103	treatment, 92-94
Consensus Conference on osteoporosis, 98, 99,	Osteoarthrosis. See osteoarthritis
100	Osteoporosis, 9, 63, 95-100
funding, 101	as risk factor, 127
organization, 108-109	biology and physiology, 96-97
worker health study, 355	diagnosis, 97
National Long-Term Care Channeling	prevalence, 95
Demonstration Program, 208, 228	prevention, 99-100
National Nursing Home Survey, 196, 290	treatment, 97-99
National older Worker Information System,	Osteotomy, 94
University of Michigan, 348	Otolaryngologists, 86
National Plan for Research on Aging, 102	Ototoxic drugs, 83
Networking, 160	-
Nursing homes	Paging devices, tactile, 85
care systems, 198-199, 220-222	Parries longitudinal study, 340, 345
cost of care, 205	Patient Appraisal and Care Evaluation (PACE), 210

Period data, 36-37 Risk factors, 121-122, 129-130 Pharmaceuticals. See Drugs cancer, 125-126 coronary heart disease, 122-125 Photon absorptiometry Physical functioning measurement, 208-209 dental disease, 128 Physical impairment. See Functional impairment fractures, 126-127 issues and options, 130-132 **Physicians** sensory loss, 127-128 cost of services, 263 stroke, 122-125 See also Health care providers Picturephone device, 85 Robert Wood Johnson Foundation teaching Population aging, 36, 40-43 nursing home program, 199 Population pyramids, 45-47 Robotics International, 345 Presbycusis, 81 Robots Prescription records, 168, 319 home use, 324, 339 Preventive measures. See Health promotion/disease worker displacement by, 340, 344-345, 347 prevention Project Match, 303 Public Health Service Safety features, 315-324 Office of Disease Prevention and Health Section 8 program, 295-296, 305, 309 Promotion, 165, 173 Section 202 program, 296-297, 300, 309, 310 Public housing, 295 Section 236 program, 296 Section 221(d)(3) program, 297 Quackery in arthritis treatment, 94 Section 231 program, 297, 305 Section 232 program, 298 Race differences Section 312 program, 299 hearing impairment, 80 Section 502 program, 298 housing deficiencies, 284-285 Section 504 program, 298 labor force participation, 342-343 Section 515 program, 298 osteoarthritis, 89 Self-care education, 163-164 Reading devices, 359, 361 Self-help groups, 163-164 Recommended Dietary Allowances (RDAs), 128, Senate Special Committee on Aging, 137 Sensaphone, 318 Rehabilitation Act of 1973, 84, 217 Sensory loss as risk factor, 127-128 Sex-based differences. See Gender differences 1978 amendments, 288 Rehabilitation after stroke, 125 Sickness Impact Profile (SIP), 210 Rehabilitation, Comprehensive Services, and Signaling systems, 85, 170, 171, 317-318 Developmental Disabilities Amendment of Sleeping pills, 141 1978, 218, 220 Small Business Innovation Development Act, 173 Rehabilitation Research and Training Centers in Smoking as risk factor, 10, 122, 125 Aging, 214, 219 Social changes, 23-27 Rehabilitation services Social functioning measurement, 209-210 aural. 85-86 Social/Health Maintenance Organizations (S/HMOs), dissemination initiatives, 219-220 229. 263 Federal Government role, 214-215, 236 Social Security Act, 169 Title XVIII, 237-238 funding, 236 problems limiting use of, 215-218 Title XIX, 238-239 Rehabilitation technologies. See Assistive devices; Title XX. 239 Rehabilitation services Social Security Administration (SSA) population Rental subsidies, 295-297 projections, 38 Research. See Biomedical research Sodium fluoride, 98 Residential care complexes, 230, 310-311 Speech amplifiers, 362 Respite care, 204 Speech recognition systems, 85 Retirement History Survey, 355 Splints, 362 Retirement income, 341 Stairs, 292, 316 Rhode Island Department of Health, 167 Stress as risk factor, 11, 123-124

Stroke	devices to control, 73, 74-75
as cause of death, 48	prevalence, 70
rehabilitation, 125	treatment, 72-76
risk factors, 122-125	types, 71-72
Suburban elderly, 301-302	
Supplemental Security Income (SSI), 239	Versabraille, 360
Surgery for incontinence, 73, 75	Vertebral fractures, 95
Survival curves, 49	"very old, " 36
	Veterans Administration (VA)
Talking machines, 359-360, 361	listening device program, 89
Tax Equity Financing Reform Act (TEFRA), 256	long-term care services, 229, 240
Technology	rehabilitation services, 214-215, 219
applications, 34	Viewdata system, 85
definition, 7, 137n	Viewscan, 361
forms of, 33	Vistaphone device, 85
See also Appropriate technology; Assessment	Vitamin D, 98
technologies; Biotechnology; Housing, design	Voice-activated systems, 162
and technologies; Workplace technology	·
Telecommunications devices , 318-319	Walkers, 316
Telecommunications devices for the deaf (TDDs),	Wandering, 224
361-362	White House Conference on Aging, 185, 300
Telecommunications for the Disabled Act of 1982,	Whites. See Race differences
85	Women. See Gender differences
Telephone use, 84-85, 362	Worker training and retraining programs
Teletex system, 85	attitudes toward, 352-353
Teletypewriters (TTYs), 85	benefits, 350, 354
Tinnitus, 81	costs, 350-351
Tissue sensitivity, 141	examples, 353-354
Toilet design, 320-321, 322	methods, 351-352, 364
Touch-sensitive terminals, 162	older worker participation, 349-350, 352-353
Training procedures for incontinence, 74, 75-76	Workplace technology
Training programs. See Worker training and	employment opportunities and, 335-349
retraining programs	health and, 355-357
Truck devices, 362-363	issues and options, 358-359
Tub chairs, 320	research needed, 357-358
	Work-related changes, 27-29
Undergarments, 74	World Health Organization, 120
Unemployment, 340-341	Wrist fractures, 95
United Auto Workers Union, 349	Wrist injuries, 356
Urinary incontinence, 8, 62, 66, 70, 77-78	•
causes, 70-71	"young-old," 36
costs of, 76-78	
definition, 70	zinc deficiency, 99