

are common among these conditions; (2) determination of the comparative prevalence and incidence of specific medical conditions between persons with neurodevelopmental disabilities and the general population; (3) use of prevalence and incidence data to better understand risk factors for concomitant conditions; (4) promotion of surveillance, screening, and specific treatment protocols for health provision; (5) institution of a program of translational collaborative research related to older-age associated conditions; and (5) dissemination of information related to aging and health to providers and people affected by these conditions.

Marks, B., Sisirak, J. (2008) **Health services, health promotion, and health literacy: Report from the state of the science in aging with developmental disabilities conference.** *Disability and Health Journal*, 1(3), 136-142. [NARIC Accession Number: J55007](#). Project Number: H133B031134.

Abstract: This article summarizes the proceedings of the Health Services, Health Promotion, and Health Literacy work group that was part of the "State of the Science in Aging with Developmental Disabilities" symposium. Participants aimed to identify unmet needs related to health and health care and to determine training, research, and policy needs addressing the demands for increasing health care services and resources, end-of-life and palliative care, and health literacy. Key issues addressed included: (1) major health-related disparities for adults with intellectual and developmental disabilities (I/DD); (2) the impact of internal and external factors on health care services and resources, end-of-life and palliative care, and health literacy for adults with I/DD; and (3) frameworks that can be used for understanding and promoting health care services and resources, end-of-life and palliative care, and health literacy. Group participants identified research and practice needs related to primary care, health promotion, disease prevention, illness care, end-of-life issues, and palliative care.

Auger, C., Demers, L. (2008) **Powered mobility for middle-aged and older adults: Systematic review of outcomes and appraisal of published evidence.** *American Journal of Physical Medicine and Rehabilitation*, 87(8), 666-680. [NARIC Accession Number: J55244](#). Project Number: H133A010401; H133A060062.

Abstract: Article presents a systematic review and appraisal of studies examining the outcomes of power mobility devices for middle-aged and older adults. Articles were mapped to the Taxonomy of Assistive Technology Device Outcomes, which describes categories of impact of assistive devices in terms of effectiveness, social significance, and subjective well-being. The studies were appraised using the Grading of Recommendations, Assessment, Development, and Evaluation criteria. The review included 19 studies and identified 52 different categories of impacts of powered mobility devices. The coverage of outcome dimensions was not as extensive for adults aged 50 years and older as it was for mixed-age groups. Most of the research designs were assigned very low evidence grades. Three studies were low to moderate in quality of evidence, among with one was a randomized trial.

More seniors are going online to find health information. The National Institutes of Health Senior Health website features a trainer toolkit for information professionals to teach these senior surfers how to find quality, reliable information on their own. The free kit is available at nihseniorhealth.gov/toolkit/toolkit.html.

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NIDRR Grantees on the Cutting Edge

Rehabilitation Research and Training Center for Health and Function Across the Lifespan of Individuals with Intellectual and Developmental Disabilities

University of Illinois at Chicago (H133B080009) led by Tamar Heller, PhD, Dawn Carlson, PhD, MPH, Project Officer.

Abstract: This project provides a beneficial impact on the health and function of adults with intellectual and developmental disabilities (I/DD) and their families over their lifespan through a coordinated set of research, training, technical assistance, and dissemination activities. Project goals include: (1) improving health and function of adults with I/DD; (2) enhancing consumer-directed home and community-based long-term care; (3) reducing environmental barriers to health and community participation; and (4) developing an improved instrument to measure health and function in persons with I/DD to facilitate assessment of outcomes in health promotion interventions. Projects relating to the promotion of health and function include: (1) examination of risk factors and age-related changes in health status for adults with varying neuro-developmental conditions; (2) cohort study of health behaviors on health and function, and interventions to improve balance and prevent falls for people with I/DD; and (3) innovative approaches to community-based health promotion for people with I/DD. This RRTC enhances caregiving supports and consumer direction through research on hiring practices in consumer direction, interventions to improve consumer directed services, and family support interventions to improve the health of minority families. Additionally, this project develops and tests tools used in measuring the effectiveness and efficiency of home-based supports and in measuring the cognitive, social, and physical accessibility of environments for people with I/DD.

Find out more at: www.rrtcadd.org

Rehabilitation Research and Training Center on Aging with a Physical Disability: Reducing Secondary Conditions and Enhancing Health and Participation, Including Employment *University of Washington* (H133B080024) led by Mark P. Jensen, PhD; Ivan Molton, PhD, Margaret Campbell, PhD, Project Officer.

Abstract: The goal of this center is to foster a better understanding the challenges faced by those aging with a physical disability. The project focuses on four populations of persons with disabilities: persons with spinal cord injury (SCI), multiple sclerosis (MS), post-polio syndrome (PPS), and muscular dystrophy (MD). The project: (1) enhances understanding of the natural course of aging with these disabilities through a series of longitudinal surveys to examine the effects of aging in the development of secondary conditions; (2) develops and evaluates measures of key outcome domains for use with individuals aging with SCI, MS, PPS, and MD utilizing cross-population and cross-measure analyses to evaluate the

According to US Census projections "[in] 2030, when all of the baby boomers will be 65 and older, nearly one in five U.S. residents is expected to be 65 and older. This age group is projected to increase to 88.5 million in 2050, more than doubling the number in 2008 (38.7 million). Similarly, the 85 and older population is expected to more than triple, from 5.4 million to 19 million between 2008 and 2050." Source: census.gov

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Aging research supports improved health and function and increased employment and participation in the community.

psychometric properties of instruments used in disability research, as well as to develop better measures of depression, fatigue, participation, and pain; (3) tests the efficacy of two innovative interventions that enhance the health and participation in these populations, using remote monitoring of activity levels and a pilot intervention featuring remote prompting to enhance self-management of activity patterns; (4) enhances understanding of the experiences of individuals aging with SCI, MS, PPS, and MD in the workplace and with vocational rehabilitation and employment services through secondary data analysis and qualitative interviews; and (5) disseminates the findings from the research projects in an effective and efficient manner to individuals with disabilities, their family members, and their health care providers. Find out more at: agerrtc.washington.edu/

Rehabilitation Engineering Research Center for Successful Aging with Disability: Optimizing Participation Through Technology (OPTT-RERC) *University of Southern California* (H133E080024) led by Carolee J. Winstein, PhD, PT (USC); Philip Requejo, PhD (Rancho Los Amigos). Margaret Campbell, PhD, Project Officer.

Abstract: The goal of this project is to enhance the lives of individuals aging with and into disability through: (1) development and delivery of cutting-edge technologies for identification, evaluation, and rehabilitation of motor processes that facilitate or impede functional performance, employment, and community participation for the intended beneficiaries; (2) employment of state-of-the-art data management, dissemination, and performance evaluation techniques to ensure that the knowledge and products emergent from the RERC are accessible for all intended beneficiaries; (3) assembly of a multidisciplinary team of experts in clinical rehabilitation, engineering, and gerontology, along with a select group of technology partners, and disability advocates to ensure that OPTT-RERC's short- and long-term outcome goals are successfully implemented; and (4) alignment of the clinical and technological strengths of several area programs into an integrated infrastructure to provide training opportunities for future rehabilitation researchers. The Dexterous Manipulation with the Fingertips Project evaluates a clinically useful metric and rehabilitation strategy for dynamic multifinger dexterity develops a home-use gaming system to promote retention and improvement of dexterous manipulation via immersion technologies. The Virtual Reality (VR) and Gaming for Home-Based Motor Assessment and Training Project develops low cost, home-based VR toolkits (VRT) for motor assessment and rehabilitation and investigates the efficacy of the VRT games for use in both the clinic setting and the home for individuals aging with and into disability. The Optimizing Mobility in the Home and Community for Manual Wheelchair Users Project identifies optimal transfer and lifting mechanics to preserve the shoulder complex and uses VRT games for targeted and progressive shoulder exercise while sitting in a wheelchair. The Neuromuscular Electrical Stimulation for Mobility uses implantable wireless micro-stimulators to prevent recurrences of debilitating pressure ulcers in the middle age and older individuals with disability. Find out more at: www.isi.edu/research/lerc

Current Literature - Selections from REHABDATA

Vogel, C. (2008) **The live well collaborative: A new model for universities and companies to work together to meet the needs of 50+ consumers.** *Topics in Stroke Rehabilitation*, 15(2), 103-108. NARIC Accession Number: J54325. Project Number: H133B031127.

Abstract: Article discusses how consumers aged 50 years and older are affecting the process of designing and marketing new technology. The "baby boomers" lifestyle has created new opportunities for universities and companies to work together to meet the needs of aging consumers. The author proposes the development of a consortium that



Area Agencies on Aging provide a range of services to older residents and their families. They can include caregiver and adult day programs, community resources, home health aids, financial counseling, home repair or modification, nutrition services, legal support, and more. To find your local office visit www.eldercare.gov or call **800/677-1116**.

Where Can I Find More?

A quick keyword search is all you need to connect to a wealth of disability and rehabilitation research. NARIC's databases hold more than 80,000 resources. Visit www.naric.com/research to search for literature, current and past research projects, and organizations and agencies in the US and abroad.

National Institute on Aging

The National Institute on Aging sponsors a Database of Longitudinal Studies. This database includes longitudinal studies, data sets, and repositories. It spans all age groups. The database is fully searchable at www.nia.nih.gov/ResearchInformation/ScientificResources/LongitudinalStudies.htm

will coordinate university resources in design, engineering, business, and medical research with corporate research and development and marketing and design.

Mann, W., Johnson, J. (2008) **Changes in impairment level, functional status, and use of assistive devices by older people with depressive symptoms.** *American Journal of Occupational Therapy (AJOT)*, 62(1), 9-17. NARIC Accession Number: J54492. Project Number: H133E010106.

Abstract: Study examined how functional status, impairment level, and use of assistive devices changed over 3 years for 73 older adults with depressive symptoms. During the study period, participants experienced increased physical disability, a decline in severity of depressive symptoms, and an increase in the total number of assistive devices owned. The findings suggest that a significant number of older adults experience a reduction in depressive symptoms, despite an increase in physical disability. In addition, older adults with depressive symptoms acquire more assistive devices as they age.

Breed, S., Sacks, A. (2008) **Cognitive functioning among individuals with traumatic brain injury, Alzheimer's disease, and no cognitive impairments.** *Journal of Head Trauma Rehabilitation*, 23(3), 149-157. NARIC Accession Number: J54519. Project Number: H133A020501; H133P050004.

Abstract: Study compared cognitive functioning in older adults with traumatic brain injury (TBI), Alzheimer's disease (AD), and no neurological disorder. Cognitive performance was assessed by a battery of neuropsychological tests including measures of memory, executive function, attention, and verbal ability. Results showed that older adults with AD and TBI had lower scores in most areas of cognitive functioning examined than did those with no neurological disorder. Individuals with TBI were better able to learn and retain new information than were individuals with AD.

Janicki, M., Henderson, C. (2008) **Neurodevelopmental conditions and aging: Report on the Atlanta study group charette on neurodevelopmental conditions and aging.** *Disability and Health Journal*, 1(2), 116-124. NARIC Accession Number: J55004. Project Number: H133B031134.

Abstract: Article provides a summary of the proceedings of the Neurodevelopmental Conditions Study Group charrette held on May 21-22, 2007, in Atlanta, Georgia. The aim of the charrette was to examine the existing knowledge on aging-related long-term effects and interactions of a number of neurodevelopmental conditions, including autism, cerebral palsy, Down syndrome, fragile X syndrome, Prader-Willi syndrome, spina bifida, and Williams syndrome. Participants noted that although there is some published information regarding lifespan changes with these disorders, especially cerebral palsy and Down syndrome, there is a lack of confirming evidence for most of these conditions. It was concluded that additional evidence-based research and investigatory clinical work are needed to better understand the long-term effects of maturation and aging on adults with these conditions. Primary recommendations included: (1) a call for more work toward the identification and description of the presentations and courses of age-related medical disorders that