Tuesday,
February 7, 2006

Part II

Department of Education

National Institute on Disability Research Projects and Centers Program; Funding Priorities; Notice
DEPARTMENT OF EDUCATION

National Institute on Disability and Rehabilitation Research—Disability and Rehabilitation Research Projects and Centers Program; Funding Priorities

AGENCY: Office of Special Education and Rehabilitative Services, Department of Education.

ACTION: Notice of proposed priorities.

SUMMARY: The Assistant Secretary for Special Education and Rehabilitative Services proposes certain funding priorities for the Disability and Rehabilitation Research Projects and Centers Program administered by the National Institute on Disability and Rehabilitation Research (NIDRR).

Specifically, this notice proposes priorities for Disability Rehabilitation Research Projects (DRRPs), including Disability Business and Technical Assistance Centers (DBTACs); Rehabilitation Research and Training Centers (RRTCs); and Rehabilitation Engineering Research Centers (RERCs). The Assistant Secretary may use these priorities for competitions in fiscal year (FY) 2006 and later years. We take this action to focus research attention on areas of national need. We intend these priorities to improve rehabilitation services and outcomes for individuals with disabilities.

DATES: We must receive your comments on or before March 9, 2006.

ADDRESSES: Address all comments about these proposed priorities to Donna Nangle, U.S. Department of Education, 400 Maryland Avenue, SW., room 6030, Potomac Center Plaza, Washington, DC 20024–2700. If you prefer to send your comments through the Internet, use one of the following addresses:
donna.nangle@ed.gov.

You must include the term “Proposed Priorities for DRRPs, RRTCs, and RERCs” in the subject line of your electronic message.

FOR FURTHER INFORMATION CONTACT: Donna Nangle or Lynn Medley. Telephone: (202) 245–7462 (Donna Nangle) or (202) 245–7338 (Lynn Medley).

If you use a telecommunications device for the deaf (TDD), you may call the Federal Relay Service (FRS) at 1–800–877–8339.

Individuals with disabilities may obtain this document in an alternative format (e.g., Braille, large print, audiotape, or computer diskette) on request to the contact person listed under FOR FURTHER INFORMATION CONTACT.

SUPPLEMENTARY INFORMATION: This notice of proposed priorities is in concert with President George W. Bush’s New Freedom Initiative (NFI) and NIDRR’s Proposed Long-Range Plan for FY 2005–2009 (Plan). The NFI can be accessed on the Internet at the following site: http://www.whitehouse.gov/infocus/newfreedom. The Plan, which was published in the Federal Register on July 27, 2005 (70 FR 43522), can be accessed on the Internet at the following site: http://www.ed.gov/legislation/FedRegister/other/2005–3/072705d.html.

Through the implementation of the NFI and the Plan, NIDRR seeks to: (1) Improve the quality and utility of disability and rehabilitation research; (2) foster an exchange of expertise, information, and training to facilitate the advancement of knowledge and understanding of the unique needs of traditionally underserved populations; (3) determine best strategies and programs to improve rehabilitation outcomes for underserved populations; (4) identify research gaps; (5) identify mechanisms of integrating research and practice; and (6) disseminate findings.

One of the specific goals established in the Plan is for NIDRR to publish all of its proposed priorities, and following public comment, final priorities, annually, on a combined basis. Under this approach, NIDRR’s constituents can submit comments at one time rather than at different times throughout the year, and NIDRR can move toward a fixed schedule for competitions and more efficient grant-making operations. This notice, which proposes priorities NIDRR intends to use for DRRP, RRTC, and RERC competitions in FY 2006 and possibly later years, represents NIDRR’s first step toward a notice of priorities that will include its entire portfolio of research and related activities for the year. However, nothing precludes NIDRR from publishing additional priorities, if needed.

In addition to this notice, on December 13, 2005, NIDRR published a separate notice of proposed priorities for Spinal Cord Injury Model Systems (SCIMS) Centers and for SCIMS multisite research projects (70 FR 73738). NIDRR also intends to publish a separate notice of proposed priorities for an additional DRRP with the focus on Individuals Who are Blind and Visually Impaired this year. Moreover, for FY 2006 competitions using priorities that already have been established and for which publication of a notice of proposed priority is unnecessary (e.g., competitions for Field-Initiated Projects, Advanced Rehabilitation Research Training Projects, Fellowships, and Small Business Innovation Research Projects), NIDRR has published or will publish notices inviting applications. More information on these other projects and programs that NIDRR intends to fund in FY 2006 can be found on the Internet at the following site: http://ed.gov/fund/grant/apply/nidrr/priority-matrix.html.

Invitation to Comment

We invite you to submit comments regarding these proposed priorities. To ensure that your comments have maximum effect in developing the notice of final priorities, we urge you to identify clearly the specific proposed priority or topic that each comment addresses.

We invite you to assist us in complying with the specific requirements of Executive Order 12866 and its overall requirement of reducing regulatory burden that might result from these proposed priorities. Please let us know of any further opportunities we should take to reduce potential costs or increase potential benefits while preserving the effective and efficient administration of the program.

During and after the comment period, you may inspect all public comments about these proposed priorities in room 6030, 550 12th Street, SW., Potomac Center Plaza, Washington, DC, between the hours of 8:30 a.m. and 4 p.m., Eastern time, Monday through Friday of each week except Federal holidays.

Assistance to Individuals With Disabilities in Reviewing the Rulemaking Record

On request, we will supply an appropriate aid, such as a reader or print magnifier, to an individual with a disability who needs assistance to review the comments or other documents in the public rulemaking record for these proposed priorities. If you want to schedule an appointment for this type of aid, please contact the person listed under FOR FURTHER INFORMATION CONTACT.

We will announce the final priorities in one or more notices in the Federal Register. We will determine the final priorities after considering responses to this notice and other information available to the Department. This notice does not preclude us from proposing or using additional priorities, subject to meeting applicable rulemaking requirements.

Note: This notice does not solicit applications. In any year in which we choose to use these proposed priorities, we invite applications through a notice in the Federal Register. When inviting applications we
designate the priorities as absolute, competitive preference, or invitational. The effect of each type of priority follows:

Absolute priority: Under an absolute priority, we consider only applications that meet the priority (34 CFR 75.105(c)(3)).

Competitive preference priority: Under a competitive preference priority, we give competitive preference to an application by either (1) awarding additional points, depending on how well or the extent to which the application meets the competitive preference priority (34 CFR 75.105(c)(2)(ii)); or (2) selecting an application that meets the competitive preference priority over an application of comparable merit that does not meet the priority (34 CFR 75.105(c)(2)(iii)).

Invitational priority: Under an invitational priority, we are particularly interested in applications that meet the invitational priority. However, we do not give an application that meets the invitational priority a competitive or absolute preference over other applications (34 CFR 75.105(c)(1)).

Priorities

In this notice, we are proposing 11 priorities for DRRPs (including 2 priorities for DBTACs), 1 priority for an RRTC, and 3 priorities for RERCs.

For DRRPs, the proposed priorities are:

- Priority 1—General DRRP Requirements.
- Priority 4—Rehabilitation of Children with Traumatic Brain Injury (TBI).
- Priority 5—Reducing Obesity and Obesity-Related Secondary Conditions in Adolescents and Adults with Disabilities.
- Priority 6—Model Systems Knowledge Translation Center (MSKTC).
- Priority 7—Assistive Technology (AT) Outcomes Research Project.
- Priority 8—Mobility Aids and Wayfinding Technologies for Individuals With Blindness and Low Vision.
- Priority 9—Improving Employment Outcomes for the Low Functioning Deaf (LFD) Population.
- Priority 10—Disability Business Technical Assistance Centers (DBTACs).
- Priority 11—Disability Business Technical Assistance Centers (DBTAC) Coordination, Outreach, and Research Center.

For the RRTC, the proposed priority is:

- Priority 12—Rehabilitation Research and Training Center on Effective Independent and Community Living Solutions and Measures.

For RERCs, the proposed priorities are:

- Priority 13—RERC for Technologies for Successful Aging.
- Priority 14—RERC for Wheelchair Transportation Safety.
- Priority 15—RERC for Wireless Technologies.

Disability and Rehabilitation Research Projects (DRRP) Program

The purpose of the DRRP program is to plan and conduct research, demonstration projects, training, and related activities to develop methods, procedures, and rehabilitation technology that maximize the full inclusion and integration into society, employment, independent living, family support, and economic and social self-sufficiency of individuals with disabilities, especially individuals with the most severe disabilities, and to improve the effectiveness of services authorized under the Rehabilitation Act of 1973, as amended. DRRP’s carry out one or more of the following types of activities, as specified and defined in 34 CFR 350.13 through 350.19: research, development, demonstration, training, dissemination, utilization, and technical assistance.

An applicant for assistance under this program must demonstrate in its application how it will address, in whole or in part, the needs of individuals with disabilities from minority backgrounds (34 CFR 350.40(a)). The approaches an applicant may take to meet this requirement are found in 34 CFR 350.40(b).

Additional information on the DRRP program can be found at: http://www.ed.gov/rschstat/research/pubs/res-program.html#DRRP.

Proposed Priorities

Priority 1—General Disability and Rehabilitation Research Projects (DRRP) Requirements

Background

NIDRR proposes the following General DRRP Requirements priority because it believes that the effectiveness of any DRRP (including any DBTAC) depends on, among other things, how well the DRRP coordinates its research efforts with the research of other NIDRR-funded projects, involves individuals with disabilities in its activities, and identifies specific anticipated outcomes that are linked to its objectives in applying for DRRP funding. Accordingly, NIDRR intends to use proposed Priority 1—General DRRP Requirements in conjunction with each of the other DRRP priorities proposed in this notice (i.e., priorities 2 through 11).

Proposed Priority

To meet this priority, the Disability and Rehabilitation Research Projects (DRRP) must:

(a) Coordinate on research projects of mutual interest with relevant NIDRR-funded projects, as identified through consultation with the NIDRR project officer;

(b) Involve individuals with disabilities in planning and implementing the DRRP’s research, training, and dissemination activities, and in evaluating its work; and

(c) Identify anticipated outcomes (i.e., advances in knowledge or changes and improvements in policy, practice, behavior, and system capacity) that are linked to the applicant’s stated grant objectives.

Priority 2—National Data and Statistical Center for the Spinal Cord Injury (SCI) Model Systems

Background

It is estimated that the number of Americans living with traumatic spinal cord injury (SCI) ranges from 222,000 to 285,000, with an incidence of approximately 11,000 new cases each year (Spinal Cord Injury: Facts and Figures at a Glance, 2004).

NIDRR supports a variety of research projects that focus on the wide range of needs of individuals with SCI. These projects include the SCI Model Systems Centers funded through NIDRR’s Model Systems Program. The SCI Model Systems Centers establish and carry out innovative projects for the delivery, demonstration, and evaluation of comprehensive medical, vocational, and other rehabilitation services to meet the wide range of needs of individuals with SCI.

The SCI Model Systems Centers have developed a national, longitudinal database that contains information on approximately 23,000 people injured since 1973 (SCI Model Systems Database). The SCI Model Systems Database is the most extensive source of information available about the characteristics and life course of individuals with SCI. The SCI Model Systems Database contains a sample that is demographically representative of all cases that occur throughout the United States, though the sample is not population-based (DeVivo, Go, & Jackson, 2002). The SCI Model Systems Database also can be used to examine specific outcomes of SCI. NIDRR seeks to continue and build upon this important source of data by funding a National Data and Statistical Center for the SCI Model Systems (National SCI Model Systems Data Center) that will
maintain the SCI Model Systems Database and improve the quality of information that is entered into it.

The SCI Model Systems Database is a collaborative project in which all of the SCI Model Systems Centers participate. The data for the SCI Model Systems Database are collected by the SCI Model Systems Centers. The Directors of the SCI Model System Centers, in consultation with NIDRR, determine the parameters of the SCI Model Systems Database, including the number and type of variables to be examined, and the criteria for including Model Systems patients in the database.

To maximize the external validity of findings from the SCI Model Systems Database, the SCI Model Systems Centers must achieve and maintain high rates of retention and successful follow-up with database participants. Accordingly, the central role of the National SCI Model Systems Data Center will be to work with SCI Model Systems Centers to increase follow-up rates and to ensure data quality.

Since the creation of the SCI Model Systems Database more than 30 years ago, the proportion of database participants from racial and ethnic minority populations has grown steadily (Jackson, Dijkers, DeVivo & Poczatek, 2004). This growth reflects the urban location of many of the SCI Model Systems Centers, as well as the growing proportion of racial/ethnic minorities in the general population. This growth in the racial/ethnic diversity of the SCI Model Systems population creates a vital technical assistance role for the National SCI Model Systems Data Center. The National SCI Model Systems Data Center will work with the SCI Model Systems Centers to ensure that the data collected from these populations are of high quality and that the data collection procedures used reflect sufficient knowledge about the cultural backgrounds of patient populations and research participants.

The specifications of the SCI Model Systems Database as it is currently implemented can be obtained from the National SCI Statistical Center at the University of Alabama at Birmingham. The National SCI Statistical Center may be contacted on the World Wide Web at http://www.spinalcord.uab.edu/show.asp?durki=21446.

References

Proposed Priority
The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for the establishment of a National SCI Model Systems Data Center that advances medical rehabilitation by increasing the rigor and efficiency of scientific efforts to longitudinally assess the experience of individuals with SCI. To meet this priority, the National SCI Model Systems Data Center’s research and technical assistance must be designed to contribute to the following outcomes:

(a) Maintenance of a national longitudinal database for data submitted by each of the SCI Model Systems Centers (SCI Model Systems Database). This database must provide for confidentiality, quality control, and data-retrieval capabilities, using cost-effective and user-friendly technology.

(b) High-quality, reliable data in the SCI Model Systems Database. The National SCI Model Systems Data Center must contribute to this outcome by providing training and technical assistance to SCI Model Systems Centers on subject retention and data collection procedures, data entry methods, and appropriate use of study instruments, and by monitoring the quality of the data submitted by the SCI Model Systems Centers.

(c) High-quality data collected from database participants of all racial/ethnic backgrounds. The National SCI Model Systems Data Center must contribute to this outcome by providing knowledge, training, and technical assistance to the SCI Model Systems Centers on culturally appropriate methods of longitudinal data collection and participant retention.

(d) Rigorous research conducted by SCI Model Systems Centers and all investigators who are analyzing data from the SCI Model Systems Database. The National SCI Model Systems Data Center must contribute to this outcome by making statistical and other methodological consultation available for research projects that use the SCI Model Systems Database, as well as center-specific and collaborative projects of the SCI Model Systems Program.

(e) Enhanced continuity of the SCI Model Systems Database. The National SCI Model Systems Data Center must contribute to this outcome by establishing and implementing a mechanism for continued collection of follow-up data from individuals who were enrolled by SCI Model Systems Centers that no longer receive Model Systems Program funding. This mechanism must focus on continued collection of data from up to four SCI Model Systems Centers that were funded during the most recent five-year grant cycle, but that do not receive subsequent funding under the Model Systems Program.

(f) Improved quality and efficiency of the SCI Model Systems Database operations through collaboration with the National Traumatic Brain Injury Model Systems Data Center and the National Burn Model Systems Data Center.

Priority 3—National Data and Statistical Center for the Traumatic Brain Injury (TBI) Model Systems

Background
It is estimated that at least 5.3 million Americans are living with disability as a result of traumatic brain injury (TBI). Approximately 1.4 million Americans sustain a TBI each year, and 230,000 of these injuries lead to hospitalization (Traumatic Brain Injury: Facts and Figures, 2005).

NIDRR supports a variety of research projects that focus on the wide range of needs of individuals with TBI. These projects include the TBI Model Systems Centers funded through NIDRR’s Model Systems Program. The TBI Model Systems Centers establish and carry out innovative projects for the delivery, demonstration, and evaluation of comprehensive medical, vocational, and other rehabilitation services to meet the wide range of needs of individuals with TBI.

The TBI Model Systems Centers have developed a national, longitudinal database of information about the characteristics and life course of individuals with TBI. These databases also can be used to examine specific outcomes of TBI.

NIDRR seeks to continue and build upon this important source of data by funding a National Data and Statistical Center for the TBI Model Systems (National TBI Model Systems Data Center) that will maintain the TBI Model Systems Database and improve the quality of information that is entered into it.

The TBI Model Systems Database is a collaborative project in which all of the TBI Model Systems Centers participate. The data for the TBI Model Systems Database are collected by the TBI Model Systems Centers.
Systems Centers. The Directors of the TBI Model Systems Centers, in consultation with NIDRR, determine the parameters of the TBI Model Systems Database, including the number and type of variables to be examined, and the criteria for including TBI Model Systems patients in the database.

To maximize the external validity of findings from the TBI Model Systems Database, the TBI Model Systems Centers must achieve and maintain high rates of retention and successful follow-up with database participants. Accordingly, the central role of the National TBI Model Systems Data Center will be to work with TBI Model Systems Centers to increase follow-up rates and ensure data quality.

The TBI Model Systems Database contains a disproportional number of participants from minority backgrounds, relative to the general population (Burnett et al. 2003). The disproportional representation of racial/ethnic minorities reflects the urban location of many of the TBI Model Systems Centers. The racial/ethnic diversity of the TBI Model Systems population creates a vital technical assistance role for the National TBI Model Systems Data Center. The National TBI Model Systems Data Center will work with the TBI Model Systems Centers to ensure that the data collected from these populations are of high quality and that the data collection procedures used reflect sufficient knowledge about the cultural backgrounds of patient populations and research participants.

The specifications of the TBI Model Systems Database as it is currently implemented can be obtained from the TBI National Data Center at the Kessler Medical Rehabilitation Research and Education Corporation (see http://www.tbindc.org). References


Proposed Priority

The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for the establishment of a National TBI Model Systems Data Center that advances medical rehabilitation by increasing the rigor and efficiency of scientific efforts to longitudinally assess the experience of individuals with TBI. To meet this priority, the National TBI Model Systems Data Center’s research and technical assistance must be designed to contribute to the following outcomes:

(a) Maintenance of a national longitudinal database for data submitted by each of the TBI Model Systems Centers (TBI Model Systems Database). This database must provide for confidentiality, quality control, and data-retrieval capabilities, using cost-effective and user-friendly technology.

(b) High-quality, reliable data in the TBI Model Systems Database. The National TBI Model Systems Data Center must contribute to this outcome by providing training and technical assistance to TBI Model Systems Centers on subject retention and data collection procedures, data entry methods, and appropriate use of study instruments, and by monitoring the quality of the data submitted by the TBI Model Systems Centers.

(c) High-quality data collected from database participants of all racial/ethnic backgrounds. The National TBI Model Systems Data Center must contribute to this outcome by providing knowledge, training, and technical assistance to the TBI Model Systems Centers on culturally appropriate methods of longitudinal data collection and participant retention.

(d) Rigorous research conducted by TBI Model Systems Centers and all investigators who are analyzing data from the TBI Model Systems Database. The National TBI Model Systems Data Center must contribute to this outcome by making statistical and other methodological consultation available for research projects that use the TBI Model Systems Database, as well as center-specific and collaborative projects of the TBI Model Systems program.

(e) Enhanced continuity of the TBI Model Systems Database. The National TBI Model Systems Data Center must contribute to this outcome by establishing and implementing a mechanism for continued collection of follow-up data from individuals who were enrolled by TBI Model Systems Centers that no longer receive Model Systems Program funding. This mechanism must focus on continued collection of data from up to four TBI Model Systems Centers that were funded during the most recent five-year grant cycle, but that do not receive subsequent funding under the Model Systems Program.

(f) Improved quality and efficiency of the TBI Model Systems Database operations through collaboration with the National Spinal Cord Injury Model Systems Data Center and the National Burn Model Systems Data Center.

Priority 4—Rehabilitation of Children with Traumatic Brain Injury (TBI)

Background

The Department’s regulations implementing the Individuals with Disabilities Education Act (IDEA) define traumatic brain injury as ‘‘* * * an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child’s educational performance’’ (34 CFR 300.7(c)(12)). The Centers for Disease Control and Prevention report that among children up to 14 years of age, TBI results annually in an estimated 2,685 deaths, 37,000 hospitalizations, and 435,000 emergency department visits (Lan glois, Rutland-Brown, & Thomas, 2004). These estimates do not include children who sustained a TBI and did not seek medical care or were seen only in private doctors’ offices. Because most survivors of moderate to severe TBI experience chronic, life-long disabilities with varying degrees of dependence, the costs of these disabilities in terms of individual suffering, family burden, and financial burden to society are quite significant (Carney, Maynard, Davis-O’Reilly, Zimmer-Gembeck, Krages, & Helfand, 1999).

The effects of TBI can be pervasive, but researchers who have begun to document the functional outcomes in children with TBI have encountered several obstacles. For example, assessments of injury characteristics have rarely included measures of the location, depth, or severity of brain insult; environmental, family, and child characteristics (including pre-injury functioning) have received insufficient attention; and follow-up assessments have largely included outcomes of TBI at only a single point in time several years after injury (Taylor, 2004). These and other limitations must be addressed in order to better understand and improve outcomes for children with TBI.

There also is little high quality evidence regarding the effectiveness of rehabilitation interventions for children with TBI (Carney, Maynard, Davis-O’Reilly, Zimmer-Gembeck, Krages, & Helfand, 1999; Chen, Heinemann, Bode, Granger, & Mallinson, 2004). When children who have sustained a TBI are discharged from emergency and acute care facilities, they may continue to receive treatment, including medical
services; physical, occupational, and speech therapy; cognitive rehabilitation; social and behavioral interventions; and educational and family interventions. These interventions, however, have largely not been validated through experimental design or in carefully controlled observational studies. Further, there is a well-documented and unmet need for intensive, ongoing services and supports for families and school staff as children with TBI transition from medical and rehabilitation systems to community and school systems (Ylvisaker et al., 2005). In addition to the lack of interventions research and limited availability of family and school support services, there is insufficient information available to ensure the appropriate identification of children with TBI who are in need of special education and related services. Many children who have sustained a TBI and reenter the school system fail to receive the services that they need and that are mandated by IDEA, in part, because they fail to be identified or their needs are not associated with the injury. In fact, the number of children reported by States to be receiving special education and related services under the TBI label is much lower than would be expected based on the numbers of children who sustain a TBI each year (Langlois & Rutland-Brown, 2005). All of these problems faced by children with TBI, their families, and service providers demonstrate the need for further studies and research.

References

Proposed Priority
The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for a Disability Rehabilitation Research Project (DRRP) on the Rehabilitation of Children with Traumatic Brain Injury (TBI). Under this priority, the DRRP must be designed to contribute to the following outcomes:
(a) Improved physical, cognitive, social/behavioral, family, educational, or employment outcomes for children with TBI by development or testing of rehabilitation interventions.
(b) Improved transition of children from health care facilities to school and community by development or testing of effective transition strategies.
(c) Improved TBI screening and special education services for children by development or testing of methods and procedures for use in school settings.

Priority 5—Reducing Obesity and Obesity-Related Secondary Conditions in Adolescents and Adults With Disabilities
Background
Approximately two out of three adults in the United States are classified as overweight or obese, and obesity is now the second leading cause of mortality in this country (Flegal et al., 2002). As disturbing as the obesity prevalence is for the general U.S. population, rates of obesity among adolescents and adults with pre-existing disabilities are even more alarming. A recent study based on pooled self-report data from the 1994–1995 National Health Interview Survey (NHIS), the 1994–1995 Disability Supplement (NHIS-D), and the 1995 Healthy People 2000 Supplement reports a 66 percent higher rate of obesity among people with disabilities compared to the general population (Weil et al., 2002). Similarly, a recent regional study, based on actual measurements of height and weight, reported that extreme obesity (a body mass index (BMI) of 40 or larger) was approximately four times higher among persons with disabilities compared to the general population (Rimmer & Wang, 2005).

Obesity has a profoundly negative effect on the overall health status and quality of life of individuals with disabilities. First, like the population at large, for whom obesity is typically a primary health condition, obesity among individuals with disabilities leads to higher-risks for cardiovascular disease, type 2 diabetes, hypertension, osteoarthritis, and certain cancers. Second, for people with pre-existing disabilities, obesity constitutes a significant secondary condition leading to new physical impairments and increased mobility limitations, which in turn further undermine an individual’s functional abilities and negatively impact opportunities for employment and participation in the community (Kinne, Patrick, & Doyle, 2004). There also is growing evidence that many of these chronic health problems and functional impairments occur earlier and with more severity among people with existing disabilities than in the general adult population (Campbell, Sheets, & Strong, 1999). Notwithstanding this information, there remains a lack of knowledge about both the antecedents to obesity in adults and adolescents with disabilities and the rehabilitation interventions that could be successful in treating or preventing this condition.

Lack of routine and timely screening for obesity by medical providers also contributes to the magnitude of the obesity epidemic in this country, particularly among adults with disabilities who face well-documented barriers to accessing primary health care services (Iezzoni, McCarthy, Davis, & Siebens, 2001). To address this problem, the U.S. Preventive Services Task Force (USPSTF) recently published guidelines recommending that clinicians screen all adult patients for obesity based on BMI and offer appropriate behavioral interventions and intensive counseling to promote sustained weight loss for those who are obese (“Screening for Obesity in Adults: Recommendations and Rationale,” November 2003). Further information, however, is needed to assess the effectiveness of screening and diagnostic procedures and the interventions that medical providers are recommending.

References
A wealth of publicly available, the Model Systems Programs has led to TBI, and Burn. Research sponsored by participation, employment, and overall help optimize levels of community improvement and policy in the fields of SCI, TBI, and Burn. The usefulness of NIDRR-funded SCI, TBI, and Burn research and development findings and products depends on how well potential users can assess the strength and relevance of these findings and products, as applied to their particular needs. End-users with limited scientific training, in particular, may need assistance in order to understand competing research claims or determine the relevance of particular findings to their individual situations. In addition, given the nature of scientific study, practical information often is based on cumulative knowledge, not upon the results of any one study. The following proposed priority for an MSKTC is intended to ensure that information and products developed and identified through NIDRR-funded SCI, TBI, and Burn research are of high quality, are based on scientifically rigorous research and development, and are disseminated effectively. To this end, the proposed priority embraces a new concept, knowledge translation (KT), to shape the effective dissemination and utilization of disability and rehabilitation research results critical to achieving NIDRR’s mission. KT encompasses the exchange, synthesis, and ethically sound application of knowledge within a complex system of relationships among researchers and users. See, for example, the Knowledge Translation Overview of Canadian Institutes of Health Research Web site at: http://www.cihr-irsc.gc.ca/e/7518.html. Acting as a centralized resource center, the proposed MSKTC would establish coordinated, collaborative relationships among the three Model Systems Programs (i.e., SCI, TBI, and Burn Model Systems Programs) to identify effective dissemination strategies and to help other Federal agencies and national organizations use new information and discoveries emanating from NIDRR-funded SCI, TBI, and Burn research.

References


Proposed Priority

The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for a Disability Rehabilitation Research Project to serve as the Model Systems Knowledge Translation Center (MSKTC). Under this priority, the MSKTC must be designed to contribute to the following outcomes:

(a) Enhanced understanding of the quality and relevance of NIDRR’s Spinal Cord Injury (SCI), Traumatic Brain Injury (TBI), and Burn Injury (Burn) Model Systems Programs’ findings. The MSKTC must contribute to this outcome by identifying and applying appropriate standards and methods for conducting research syntheses. This will allow the Model Systems Programs to bridge gaps in evidence-based practice and research.

(b) Enhanced knowledge of advances in SCI, TBI, and Burn research among consumers, clinicians, and other end users of such information. The MSKTC must contribute to this outcome by (1) identifying effective strategies for, and guiding targeted dissemination of, SCI, TBI, and Burn Model Systems Programs’ findings about available services and interventions for individuals with SCI, TBI, and Burn; and (2) developing partnerships and collaborating with key constituencies and groups conducting similar work.

(c) Centralization of SCI, TBI, and Burn Model Systems resources for effective and uniform dissemination and technical assistance. The MSKTC must contribute to this outcome by serving as a centralized resource for the SCI, TBI, and Burn Model Systems Centers.

Priority 7—Assistive Technology (AT) Outcomes Research Project

Background

The Assistive Technology Act of 1998, as amended (29 U.S.C. 3001 et seq.), defines an assistive technology (AT) device as “any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities” (29 U.S.C. 3001(3)(4)). AT serves a broad and diverse range of functional needs among people with an extensive range of disabling conditions. AT devices and AT services are provided in many contexts,
including rehabilitation programs, schools, employment programs, and residential and independent living programs.

Current NIDRR-sponsored AT Outcomes Research Projects are creating and classifying new outcomes measures to help determine and describe the impact that various AT devices and services have on the lives of people with disabilities (Jutai, Fuhrer, Demers, Scherer, & DeRuyter, 2005). While the ability to measure potential outcomes of AT use is maturing through this NIDRR-sponsored research, the ability to measure key characteristics of AT interventions is still in its infancy.

To advance AT outcomes research beyond a collection of ad hoc evaluations of specific products, it is necessary to develop a commonly shared means of classifying all aspects of AT interventions. Standardization of intervention measurement would promote the replicability of AT interventions that are shown by rigorous research to be associated with positive outcomes. A valid classification of AT interventions would capture key characteristics of the device or device-type being provided, as well as information about key characteristics of AT provision, including setting, assessment, fit/customization, user training, and device maintenance (Fuhrer, 2001; Edyburn, 2003).

In addition to the creation and classification of new outcomes measures, current AT Outcomes Research Project grantees have developed conceptual frameworks to guide future AT outcomes research (Fuhrer, Jutai, Scherer, & DeRuyter, 2003). These grantees have designed sophisticated data-collection interfaces to bring new efficiencies to the collection of data on AT interventions, key contextual factors, and outcomes. To facilitate the development of rigorous evidence-based knowledge in the AT field, these conceptual frameworks and data collection technologies must be applied more broadly and systematically. More systematic application of these tools would allow the AT field to move beyond a series of limited ad hoc evaluations of single AT products, towards a scientific body of knowledge regarding expected outcomes associated with the delivery of a wide variety of AT interventions.

References


Proposed Priority

The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for a Disability Rehabilitation Research Project (DRRP) for an Assistive Technology (AT) Outcomes Research Project. Under this priority, the DRRP is designed to contribute to the following outcomes:

(a) Improvement of the AT field’s ability to measure the impact of AT on the lives of people with disabilities by continuing to develop AT outcomes measures and measurement systems.

(b) Improvement of the AT field’s ability to measure the impact of AT on the lives of people with disabilities by developing validated methods for measuring and classifying AT interventions, including key characteristics of both the AT device and AT provision (e.g., setting, assessment, fit/customization, user-training, and device maintenance).

(c) Enhanced understanding of the impact of AT on the lives of people with disabilities by conducting at least one research project that systematically applies state-of-the-science measures of AT interventions, outcomes, and data collections mechanisms.

(d) Collaboration with the relevant NIDRR-sponsored projects, such as the Rehabilitation Research Training Center on Measuring Rehabilitation Outcomes and relevant projects within the Rehabilitation Engineering Research Center program, as identified through consultation with the NIDRR project officer.

Priority 8—Mobility Aids and Wayfinding Technologies for Individuals With Blindness and Low Vision

Background

Three of the most challenging and dangerous problems faced by individuals with blindness and low vision are travel related: (1) Negotiating complex transit stations; (2) locating bus and metro train stops; and (3) crossing light-controlled intersections safely and efficiently (Crandall, Bentzen, Myers, & Brabyn, 2001). To address these challenges, the Transportation Equity Act for the 21st Century requires that transportation plans and projects include, where appropriate, consideration of pedestrian safety issues, including installation of audible traffic signals and signs at street crossings (23 U.S.C. 217(g)(c)). Our knowledge about the effectiveness of the range of technology solutions developed in response to this law and other intervention strategies for safety, travel, location, and mobility issues is limited, particularly with regard to subpopulations within the blind and visually impaired community.

Navigation and travel related challenges are most often addressed by two primary approaches, orientation and mobility (O&M) and wayfinding technology solutions. O&M is the conventional approach designed to provide instruction and experience in independent travel in the community, including the use of public transportation. Orientation refers to an individual’s ability to monitor his or her position in relation to the environment, and mobility refers to an individual’s ability to travel safely, detecting and avoiding obstacles and other potential hazards. Advanced technologies designed to assist individuals with blindness and low vision in attaining the body of knowledge relative to the location of spaces through which they travel is known as wayfinding or “environmental literacy.” Whereas many O&M tools, such as white canes, are designed to address a traveler’s mobility safety concerns, wayfinding or environmental literacy tools, such as talking signs located at street crossings, are designed to provide a traveler with orientation information. Some O&M aids are worn on the body and often are designed to detect and identify obstacle features. Wayfinding or environmental systems are technologies that are typically embedded in the texture of spaces and that provide “location-based” information (access to some kind of “knowledge sharing network” or “geographic data base”)—for example, manually activated audible pedestrian signals embedded in intersection traffic lights (Baldwin, D., 2005).

Although O&M and wayfinding techniques are widely used by individuals with vision loss, there is ongoing controversy about whether newly developed wayfinding technologies should supplement rather than supplant already accepted O&M aids such as white canes and guide dogs. Currently, no empirically based studies examining or comparing differences between outcomes for O&M
users and outcomes for wayfinding technology users exist.

There is a paucity of sound scientific studies examining the effectiveness of both O&M and wayfinding solutions and intervention approaches in varied situations, conditions, and functional capacities, but the literature that is available identifies specific problems with existing technology and supports the need for better wayfinding and O&M solutions. For example, bird-call type signals do not provide unambiguous information about which crosswalk has the walk interval. Signals comprised only of a bird-call and bell do not indicate the presence or location of a pedestrian push button and, therefore, do not solve one of the most important problems associated with push buttons: the difficulty in knowing whether pedestrian action is required (Bentzen, Barlow, & Franck, 2000). Although advances have been made to address some of these problems, there is no consensus about whether available solutions are adequate to address the travel needs of individuals with blindness and low vision. Research leading to development of innovative and effective solutions that will help individuals with blindness and low vision to safely and independently navigate their surroundings, and a better understanding of technology applications would increase our capacity to improve disability and rehabilitation outcomes for these individuals.

References


Crandall, W., Bentzen, B.L., Myers, L., & Brabyn, J. (2001). New orientation and accessibility option for persons with visual impairment: Transportation applications for remote infrared audible signage. Clinical and Experimental Optometry. 84:3 120–131.


Proposed Priority

The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for a Disability Rehabilitation Research Project (DRRP) on Mobility Aids and Wayfinding Technologies for Individuals With Blindness and Low Vision. To meet this priority, the DRRP must be designed to contribute to the following outcomes:

(a) Effective technology solutions and intervention approaches that can enable blind and low vision individuals to safely and independently navigate their surroundings. The DRRP must contribute to this outcome by identifying or developing and testing methods, models, and measures that will inform the technology solutions and intervention approaches.

(b) Improved understanding about the effectiveness of wayfinding technology and orientation and mobility (O&M) techniques for navigation and travel problems. The DRRP must be designed to contribute to this outcome by, at a minimum, conducting comparative analysis of outcomes for specific subpopulations of individuals with blindness and low vision who use O&M techniques and wayfinding technology.

(c) Increased technical and scientific knowledge about the applications of navigation and travel technologies for individuals with blindness and low vision, leading to more effective use of technologies and intervention strategies, through the development of knowledge translation and utilization activities.

(d) Coordination of research activities. The DRRP must contribute to this outcome by collaborating and consulting with relevant Federal agencies responsible for the administration of public laws that address access to and usability of transportation and transit-related systems and environmental structures for individuals with disabilities, such as the Architectural and Transportation Barriers Compliance Board, the U.S. Department of Transportation’s Federal Highway Administration, Federal Transit Administration and National Highway Traffic Safety Administration, and relevant funded research projects as identified through consultation with the NIDRR project officer.

Priority 9—Improving Employment Outcomes for the Low Functioning Deaf (LFD) Population

Background

Current population estimates indicate that there are approximately 53 million individuals with disabilities in the United States and an estimated 8 million of these individuals are deaf or hard of hearing (McNeil, 1994; 1995). The pervasiveness of a hearing problem and its impact on every aspect of life, including employment status, is well documented (Stika, 1997; Hetu, Lalonde, and Getty, 1994).

Within the population of individuals who are deaf or hard of hearing there is an even smaller sub-population, estimated at between 125,000 and 165,000 persons referred to as “low functioning deaf” (LFD). While individuals considered LFD share the primary disability of hearing loss, as a group, they also are compromised by a combination of environmental risk factors and a lack of appropriate environmental and social supports. Most LFD individuals have limited communication skills, often are unable to live independently, cannot obtain or maintain employment, and exhibit minimal social and emotional competency.

Studies indicate that the functional capacity of individuals who are LFD present unique challenges and complications at the individual and systems levels. More specifically, significant difficulty with all modes of communication, including the limited literacy proficiency that characterizes the LFD population (Wheeler-Scruggs, 2002), is a potentially important factor in disability and rehabilitation outcomes across the lifespan and major life domains for these individuals.

While several factors influence employment outcomes for the general population of individuals who are deaf or hard of hearing, the LFD population is at particular risk for being underserved by rehabilitation and vocational training systems. Most LFD individuals are inadequately prepared for workforce participation due to limited communication abilities and low literacy rates; often LFD adults read below the second grade level and are unable to complete high school. Additionally, the majority of existing social supports and services are targeted to deaf and hard of hearing youth able to participate in college and other postsecondary vocational programs where a certain level of academic achievement is presumed (National Association for the Deaf, 2004). Thus, LFD individuals are at a distinct disadvantage in their ability to access and benefit from existing employment and vocational services and supports.

Further, although the literature in this field documents the impact of hearing problems on functional outcomes, there is limited understanding about the unique employment needs of the LFD population. Past research on LFD and employment has not extensively examined the various elements of job readiness, job placement, and retention in relation to the impact that programs such as Supplemental Security Income, Social Security Disability Insurance, and welfare have on long-term employment outcomes for individuals who are LFD.
The complexity of the employment issues facing individuals who are LFD presents a unique opportunity for researchers to expand the current knowledge base and facilitate development of the most effective methods, approaches, and intervention strategies to improve employment outcomes for the LFD population (Dew, 1999). Research is needed to inform policy, program planning, and development activities and to assist with improving systems and individual level outcomes for the LFD population.

References


Proposed Priority

The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for a Disability Rehabilitation Research Project (DRRP) on Improving Employment Outcomes for the Low Functioning Deaf (LFD) Population. Under this priority, the DRRP must be designed to contribute to the following outcomes:

(a) Enhanced knowledge about the unique functional and communication characteristics of the LFD population and the extent to which these characteristics affect disability and rehabilitation outcomes, including labor force participation and employment preparation. The DRRP must contribute to this outcome by developing and testing protocols that accurately measure population characteristics; and psychometrically sound instruments that measure predictors of disability, rehabilitation, and employment outcomes.

(b) Improved employment outcomes and reduction of barriers to labor force participation for individuals who are LFD. The DRRP must contribute to this outcome by developing theory-based intervention strategies and methods that help to enhance functional skills, social interaction, communication and literacy competencies, and scientifically sound approaches for identifying barriers to labor force participation.

(c) Collaboration with NIDRR-sponsored projects, including the Rehabilitation Research and Training Center (RRTC) on Measuring Rehabilitation Outcomes and other relevant projects within NIDRR’s RRTC and Field Initiated programs.

Priority 10—Disability Business Technical Assistance Centers (DBTACs)

Background

The Americans with Disabilities Act of 1990, as amended, 42 U.S.C. 12101 et seq. (ADA), prohibits discrimination against individuals with disabilities in employment, transportation, public accommodations, State and local government services, and telecommunications. Since 1991, NIDRR has supported 10 regional DBTACs that have provided technical assistance and training and disseminated information on the requirements of the ADA to entities covered by the law and individuals with disabilities. The current regional DBTACs provide information and services on ADA issues relating to employment, public services, and public accommodations, and communicate with businesses, public organizations, architects, individuals with disabilities, disability organizations, and others on the law’s requirements (see http://www.adata.org/centers.htm for a current listing of the DBTACs). Each DBTAC’s activities vary, but all regional DBTACs provide technical assistance and training, disseminate materials, provide information and referral services, build public awareness, and work to build local capacity to promote technical assistance and training on the ADA. DBTACs provide their services via telephone calls (including toll-free “800” number calls), the World Wide Web, workshops and other training sessions. Services provided by DBTACs in 2004 included providing training on employment issues for State human resource personnel; collaborating with a State agency to develop an ADA reference guide for agencies within the State; providing training on accessible Web design for city and State personnel; assisting in the development of State policies regarding the accessibility of information technology procured and used by State agencies; providing training to local health departments on accessibility of medical services; development of a training curriculum on workplace accommodations for employers; conducting Web casts for public and private employers on disability-related employment policies and job accommodations; and surveying polling places to determine accessibility.

NIDRR is proposing this priority to support the funding of 10 regional DBTACs to provide technical assistance on the ADA and other assistance designed to improve employment outcomes for individuals with disabilities. Despite past attempts to reduce unemployment rates and increase workforce participation, individuals with disabilities continue to be employed at much lower rates than individuals without disabilities. The 2003 American Community Survey, for example, found that approximately 37.8 percent of adults age 21 to 64 with disabilities were employed, compared to approximately 77.5 percent of adults without disabilities (U.S. Census Bureau, 2003). Identifying strategies for improving employment outcomes is critical if such disparities are to be reduced.

Knowledge gained from the DBTAC program about the ADA, employers, and employment issues suggests that research and research-based information are needed to help employers, State and local governments, other public entities, private entities, individuals with disabilities, and postsecondary institutions better achieve the objectives of the ADA and improve outcomes for individuals with disabilities. Through this proposed priority, NIDRR seeks to advance the DBTAC program beyond a strict focus on compliance with the ADA and expand the focus to include assistance in identifying and implementing a variety of more effective intervention approaches and more cost-effective strategies to help individuals with a variety of disabilities reach their full potential on the job. NIDRR also intends that this proposed priority will improve the research capacity of the regional DBTACs so that the DBTACs can identify areas where research is warranted and conduct targeted research and development that would be of benefit to employers and to individuals with disabilities.

We are proposing that each of the 10 regional DBTACs will provide technical assistance to increase the capacity of other organizations to provide technical assistance; identify problematic areas where research or informational campaigns might aid in the avoidance of
or solution to problems associated with compliance with the ADA in their region; and conduct research to inform program planning, development, policy, and practice.

Finally, in order to prevent duplication of effort, NIDRR intends to fund, under a separate priority, a center that will be responsible for taking the lead in making available, through a central Web site, information about the ADA that is of interest nationally and would be useful across all regions. This center, the DBTAC Coordination, Outreach, and Research Center (DBTAC CORC), will be expected to serve several functions, including overall coordination of activities among the regional DBTACs, conducting research, and facilitating research capacity building and dissemination.

Reference


Proposed Priority

The Assistant Secretary for Special Education and Rehabilitative Services proposes to fund, under its Disability Rehabilitation Research Projects program, 10 Disability and Business Technical Assistance Centers (DBTACs), 1 within each of the 10 U.S. Department of Education regions. Each DBTAC must be designed to contribute to the following outcomes:

(a) Improved understanding about rights and responsibilities under the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. 12101 et seq. (ADA), as well as developments in case law, policy, and implementation through rigorous research and technical assistance activities.

(b) Improved employment outcomes for individuals with disabilities by conducting activities that help to increase accommodations, access to technology, and supports in the workplace, especially in high growth industries.

(c) Enhanced ADA information dissemination, awareness, and referral activities by establishing effective, coordinated local, regional, and national resource networks. The DBTAC will contribute to this outcome by, among other activities, partnering with the DBTAC Coordination, Outreach and Research Center (DBTAC CORC) and other regional DBTACs to develop, implement and evaluate these networks.

(d) Enhanced capacity of entities at the local and State levels and within specific industries to provide technical assistance and training on the ADA through dissemination of information that promotes awareness of the ADA.

(e) Identification of impediments to compliance with the ADA and individuals’ access to technology, postsecondary education, and the workforce, and of tested solutions and innovative approaches for eliminating these impediments by conducting targeted, rigorous research activities in at least one of the following areas: employment, technology and postsecondary education, technology and school-to-work transition, and participation and community living.


(g) Improved technical assistance and research capacity through development and application of effective coordination strategies within the network of relevant NIDRR Rehabilitation Research and Training Centers, Rehabilitation Engineering Research Centers, Disability and Rehabilitation Research Projects, Assistive Technology and Outcomes Research Projects, NIDRR-funded knowledge translation and dissemination centers, employers, industries, and community entities.

(h) Improved research capacity through scientifically sound data collection and analysis leading to identification of research topics and submission of a preliminary research proposal to the DBTAC CORC beginning in the first year of the project period, and conducting rigorous, high quality research beginning in the second year of the project period.

(i) Improved knowledge about the provision of ADA and employment-related technical assistance, implementation of the ADA, and employment outcomes through submission of region-specific information and data to the DBTAC CORC for analysis and reporting.

Proposed Priority 11—Disability Business Technical Assistance Centers (DBTAC) Coordination, Outreach, and Research Center

Background

The Americans with Disabilities Act of 1990, as amended, 42 U.S.C. 12101 et seq. (ADA), prohibits discrimination against individuals with disabilities in employment, transportation, public accommodations, State and local government services, and telecommunications. Since 1991, NIDRR has supported 10 regional Disability and Business Technical Assistance Centers (DBTACs) that have provided technical assistance and training, and disseminated information on the requirements of the ADA to entities covered by the law and individuals with disabilities. (See the background statement and priority for Proposed Priority 10—Disability and Business Technical Assistance Centers (DBTACs) for additional information on DBTAC activities.) Despite past efforts, however, unemployment rates for individuals with disabilities remain high. For that reason, NIDRR seeks to advance the DBTAC program beyond a strict focus on compliance with the ADA and expand the focus to include assistance in identifying and implementing research-based interventions.

NIDRR is proposing this priority to support the funding of an entity to take the lead in conducting activities to improve the capacity of the regional DBTACs to use research-based information to help achieve the objectives of the ADA and improve employment outcomes for individuals with disabilities. This entity, the DBTAC Coordination, Outreach, and Research Center (DBTAC CORC), will serve several functions, including overall coordination of activities among the regional DBTACs, conducting research, facilitating research capacity building, and information dissemination. The key goals of the DBTAC CORC are improving ADA and employment-related technical assistance to employers, State and local governments, and other public entities; enhancing understanding and knowledge about the ADA, employers, and employment issues; and improving research capacity related to the ADA and employment. Accomplishing these goals will require a coordinated effort to facilitate partnerships and collaborative research and development activities that respond to the state of the science and national needs. All 10 regional DBTACs are expected to provide region-specific information and contribute data to the DBTAC CORC to support this effort.

The regional DBTACs and the DBTAC CORC will share some responsibilities; however, they each play a distinct role within the DBTAC program. For example, regional DBTACs provide frontline technical assistance to help with implementation of the ADA and conduct research that leads to improved employment outcomes for individuals
with disabilities. While the DBTAC CORC does not have oversight responsibility for the regional DBTACs, it provides technical assistance to the regional DBTACs to increase their research capacity and generate evidence to inform practice, based on scientifically-sound research.

The Department intends to have substantial and sustained involvement in the activities of the DBTAC CORC to be funded through this proposed priority, including by shaping the grantee’s priorities, activities, and major products to meet the purposes of this program. The details and parameters of the Department’s expectations and involvement with the DBTAC CORC will be included in the Department’s cooperative agreement with the grantee that receives an award under this proposed priority. This project will work closely with NIDRR through a cooperative agreement.

**Proposed Priority**

The Assistant Secretary for Special Education and Rehabilitative Services proposes to provide funding, under its Disability Rehabilitation Research Projects program, for a DBTAC Coordination, Outreach, and Research Center (DBTAC CORC). The DBTAC CORC must be designed to contribute to the following outcomes:

- (a) Improved public access to information relating to the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. 12101 et seq. (ADA), through development and maintenance of a public Web site that includes relevant information that is of interest nationally and that would be useful across all DBTAC regions, preparation of documents in a format that meets a government or industry-recognized standard for accessibility, and establishment of a DBTAC database to support regional DBTAC activities.
- (b) Improved technical assistance, collaboration, information dissemination, knowledge translation and training materials through a national, coordinated process for developing materials to address topics that are relevant across regions; and use of a document review board to assist with development and review of collaborative products and research activities.
- (c) Increased research capacity building and high quality research through synthesis and analysis of ADA information and data provided by the regional DBTACs, and review of literature and related information from other sources, in order to produce evidence reports, generate topics for the regional DBTAC research activities, identify areas where additional research is warranted, conduct relevant research, and enhance understanding of ADA compliance and implementation issues on a national level.
- (d) Enhanced capacity of regional DBTACs to assist with improving employment outcomes, workplace supports and accommodations, and ADA compliance by producing evidence reports, conducting rigorous analyses of regional DBTAC data, and evaluating products and proposed publications. The DBTAC CORC will contribute to this outcome by (1) establishing a document review board to review regional DBTAC plans for new research activities, products, and publications and to conduct systematic reviews linked to a set of evidence questions based on scientific studies and standards (see [http://www.cebm.net](http://www.cebm.net), [http://www.cochrane.org](http://www.cochrane.org), [http://www.campbellcollaboration.org](http://www.campbellcollaboration.org)/guide.flow.pdf, [http://www.nge.gov](http://www.nge.gov), [http://www.science.gov](http://www.science.gov)); (2) establishing guidelines for submission of information to the DBTAC CORC; and (3) providing technical assistance to regional DBTACs.
- (e) Improved knowledge of and contribution to the state of the science within the subject areas covered by the regional DBTACs by serving as a consultant to regional DBTACs to support research capacity building, facilitating development of a coordinated national research agenda, and working cooperatively with regional DBTAC grantees to assist with the development of research topics and activities.
- (f) Enhanced coordination of information dissemination on DBTAC activities, research findings, publications, products, and tools through coordination of the network of appropriate NIDRR research projects, including Rehabilitation Research and Training Centers, Disability and Rehabilitation Research Projects, Field-Initiated Projects, Rehabilitation Engineering Research Centers, and NIDRR dissemination centers, including the National Rehabilitation Information Center ([http://www.naric.com](http://www.naric.com)) and the National Center for the Dissemination of Disability Research ([http://www.ncddr.org](http://www.ncddr.org)).
- (g) Increased use of DBTAC-generated products and information by developing strategies to promote the use of developed products and improved relevance and quality of the products through assessment of their effectiveness and impact on practice and policy.
- (h) Increased application of research findings and products through translation of DBTAC evidence reports into practice guidelines, quality improvement products, and technical assistance tools.

(i) Enhanced understanding about the state of the science and improved program planning, development and evaluation by hosting a DBTAC biannual program development and planning meeting beginning in year one of the project period; and an annual conference leading to a report of proceedings in years three through five of the project period.

**Rehabilitation Research and Training Centers (RRTCs)**

RRTCs conduct coordinated and integrated advanced programs of research targeted toward the production of new knowledge to improve rehabilitation methodology and service delivery systems, alleviate or stabilize disability conditions, or promote maximum social and economic independence for persons with disabilities. Additional information on the RRTC program can be found at: [http://www.ed.gov/rshstat/research/pubs/res-program.html#RRTC](http://www.ed.gov/rshstat/research/pubs/res-program.html#RRTC).

**General Requirements of RRTCs**

RRTCs must:

- Carry out coordinated advanced programs of rehabilitation research;
- Provide training, including graduate, pre-service, and in-service training, to help rehabilitation personnel more effectively provide rehabilitation services to individuals with disabilities;
- Provide technical assistance to individuals with disabilities, their representatives, providers, and other interested parties;
- Demonstrate in their applications how they will address, in whole or in part, the needs of individuals with disabilities from minority backgrounds;
- Disseminate informational materials to individuals with disabilities, their representatives, providers, and other interested parties; and
- Serve as centers of national excellence in rehabilitation research for individuals with disabilities, their representatives, providers, and other interested parties.

**Priority 12—Rehabilitation Research and Training Center (RRTC) on Effective Independent and Community Living Solutions and Measures**

**Background**

Advances in technology and research have helped to enhance our understanding about disability and to improve outcomes for individuals with
disabilities. However, there are numerous barriers that prevent individuals with disabilities from full participation in society. Data indicate that there are large gaps in participation in home, community, education, and workplace activities between individuals with and individuals without disabilities. Compared to individuals without disabilities, individuals with disabilities are more likely to be homebound due to lack of transportation (Department of Transportation, 2003). Also, compared to individuals without disabilities, individuals with disabilities are less likely to own a home (internal NIDRR analysis of U.S. Census 2000) and less likely to be employed (Waldrop, J. & Stern, S., 2003). Individuals with disabilities also are less likely to socialize or engage in a number of other activities (National Organization on Disability, 2004).

A variety of factors may account for disparities between individuals with and individuals without disabilities; these include differences in functional abilities, health and well-being, access to assistive technology and personal supports, economic resources, and a variety of physical, social, cultural, and environmental barriers. However, we have limited understanding about the effects that environmental barriers and facilitators at the systems and individual levels have on opportunities for participation for people with disabilities, particularly with respect to differences in outcomes for specific disability subgroups and within specific environmental conditions.

Laws protecting the civil rights of individuals with disabilities and various disability policies have helped to promote the inclusion of and participation by individuals with disabilities and foster change. For example, Executive Order 13217, “Community-based Alternatives for Individuals with Disabilities,” requires Federal agencies to implement the U.S. Supreme Court’s 1999 decision in Olmstead v. L.C. (527 U.S. 561) (http://www.cms.hhs.gov/olmstead/default.asp). However, barriers to implementation of the Olmstead decision and to full participation (e.g., lack of affordable, accessible housing and reliable, accessible transportation; difficulty obtaining well-qualified personal attendants; and frequent social isolation) are preventing the inclusion of and participation by individuals with disabilities in society. Consequently, research is needed to inform development of validated strategies, supports, programs, interventions, guidelines, and policies to achieve improved community living outcomes for deinstitutionalized individuals or those diverted from potential institutionalization.

Additionally, the demand for evidence-based practice requires the development, evaluation, and use of scientifically sound measures to evaluate the effectiveness and impact of programs and interventions intended to alleviate disparities in participation. Given the scarcity of economic resources, research is also needed to understand the costs and benefits of investments intended to maximize independence and participation. Research can help to inform the development of the next generation of measures that can be easily utilized to drive decisions made by key stakeholders and improve understanding about environmental, systems, and individual level factors that influence the participation of individuals with disabilities in society across their lifespan.

References

Proposed Priority
The Assistant Secretary proposes a priority for a Rehabilitation Research and Training Center (RRTC) on Effective Independent and Community Living Solutions and Measures. To meet this priority, the RRTC’s research must be designed to contribute to the following outcomes:

(a) Enhanced participation by individuals with disabilities at home, in the community, or in educational or workplace activities through development of effective theory-based intervention methods and outcome measures.

(b) Improved intervention approaches and guidelines that help to remove or reduce barriers to full community integration and participation for individuals with disabilities. The RRTC must contribute to this outcome by conducting rigorous research examining the implementation of the Olmstead decision and practices that serve as facilitators or barriers to independent and community living.

(c) Improved understanding about the economic utility of existing or proposed policies and practices to maximize independence and participation for individuals with disabilities through development of scientifically sound, valid and reliable methods and measures to assess these policies and practices.

Rehabilitation Engineering Research Centers Program General Requirements of Rehabilitation Engineering Research Centers (RERCs)

RERCs carry out research or demonstration activities in support of the Rehabilitation Act of 1973, as amended, by:

• Developing and disseminating innovative methods of applying advanced technology, scientific achievement, and psychological and social knowledge to (a) solve rehabilitation problems and remove environmental barriers and (b) study and evaluate new or emerging technologies, products, or environments and their effectiveness and benefits; or

• Demonstrating and disseminating (a) innovative models for the delivery of cost-effective rehabilitation technology services to rural and urban areas and (b) other scientific research to assist in meeting the employment and independent living needs of individuals with severe disabilities; or

• Facilitating service delivery systems change through (a) the development, evaluation, and dissemination of consumer-responsive and individual and family-centered innovative models for the delivery to both rural and urban areas of innovative cost-effective rehabilitation technology services and (b) other scientific research to assist in meeting the employment and independence needs of individuals with severe disabilities.

Each RERC must provide training opportunities, in conjunction with institutions of higher education and nonprofit organizations, to assist individuals, including individuals with disabilities, to become rehabilitation technology researchers and practitioners.
Additional information on the RERC program can be found at: http://www.ed.gov/rschstat/research/pubs/index.html.

Priorities 13, 14, and 15—Rehabilitation Engineering Research Centers (RERCs) for Technologies for Successful Aging (Priority 13), Wheelchair Transportation Safety (Priority 14), and Wireless Technologies (Priority 15)

Background

Individuals with disabilities regularly use products developed as the result of rehabilitation and biomedical research to achieve and maintain maximum physical function, live independently, study and learn, and attain gainful employment. The range of engineering research encompasses not only assistive technology but also technology at the systems level (i.e., the built environment, information and communication technologies, transportation, etc.) and technology that interfaces between the individual and system and is basic to community integration.

The NIDRR RERC program has been a major force in the development of technology to enhance independent function for individuals with disabilities. The RERCs are recognized as national centers of excellence in their respective areas and collectively represent the largest federally supported program responsible for advancing rehabilitation engineering research. For example, the RERC program was an early pioneer in the development of augmentative communication and has been at the forefront of prosthetics and orthotics research for both children and adults. RERCs have played a major role in the development of voluntary standards that the medical equipment and technology industries use when developing wheelchairs, wheelchair restraint systems, information technologies, and the World Wide Web. RERCs also have been a driving force in the development of universal design principles that can be applied to the built environment, information technology, and consumer products. Advancements in basic biomedical science and technology have resulted in new opportunities to enhance further the lives of people with disabilities. Specifically, recent advances in biomaterials research, composite technologies, information and telecommunication technologies, nanotechnologies, micro electro mechanical systems (MEMS), sensor technologies, and the neurosciences provide a wealth of opportunities for individuals with disabilities and could be incorporated into research focused on disability and rehabilitation.

Through the following proposed priorities, NIDRR intends to fund RERCs that advance rehabilitation engineering research in the following priority research areas: Technologies for Successful Aging, Wheelchair Transportation Safety and Wireless Technologies.

(a) RERC for Technologies for Successful Aging

More than half of Americans age 65 and older report having at least 1 disability and it is estimated that one-third of this population has a severe disability. Despite the increased risks of disability associated with aging, ninety-five percent of older Americans choose to remain in their own homes, use public services, and function independently as they age. Accordingly, NIDRR seeks to fund an RERC that focuses on improving the quality of life of older persons with disabilities and promote health, safety, independence and active engagement.

(b) RERC for Wheelchair Transportation Safety

There are roughly 1.7 million Americans living outside of institutions who use wheeled mobility devices (Kaye, Kang, & LaPlante, 2000), including those who rely heavily on public and private transportation services to commute to work and school, participate in recreational activities, and carry out daily activities. However, most wheelchairs are not designed to function as vehicle seats, thus putting wheelchair-seated travelers at greater risk of injury compared to those who sit in standard vehicle seats (Bertocci, Szobota, Hobson, & Diggles, 1997). NIDRR, therefore, seeks to fund an RERC that researches and develops innovative technologies to improve the current state of the science, design guidelines and performance standards, and usability of wheeled mobility devices and wheelchair seating systems.

References


(c) RERC for Wireless Technologies

Wireless technologies allow connection of communication, information, and control devices to local, community, and nationwide networks without wires. These wireless devices support a wide range of applications spanning voice and data communication, remote monitoring, and position finding, and offer tremendous potential for assisting people with disabilities. Accordingly, NIDRR seeks to fund an RERC that facilitates equitable access to, and use of, future generations of wireless technologies for individuals with disabilities.

Proposed Priorities

The Assistant Secretary for Special Education and Rehabilitative Services proposes the following three priorities for the establishment of (a) an RERC for Technologies for Successful Aging, (b) an RERC for Wheelchair Transportation Safety, and (c) an RERC for Wireless Technologies. Within its designated priority research area, each RERC will focus on innovative technological solutions, new knowledge, and concepts that will improve the lives of persons with disabilities.

(a) RERC for Technologies for Successful Aging. Under this priority, the RERC must research, develop and evaluate innovative technologies and approaches that will improve the quality of life of older persons with disabilities and promote health, safety, independence, and active engagement.

(b) RERC for Wheelchair Transportation Safety. Under this priority, the RERC must research, develop, and evaluate innovative technologies and strategies that will improve the safety and independence of wheelchair users who remain seated in their wheelchairs while using public and private transportation services. The RERC must research and develop innovative technologies and strategies that will improve the current state of the science, design guidelines and performance standards, and usability of wheeled mobility devices and wheelchair seating systems.

(c) RERC for Wireless Technologies. Under this priority, the RERC must research, develop, and evaluate innovative technologies that facilitate equitable access to, and use of, future generations of wireless technologies for individuals with disabilities of all ages. Under each priority, the RERC must be designed to contribute to the following programmatic outcomes:

1. Increased technical and scientific knowledge-base relevant to its designated priority research area.
(2) Innovative technologies, products, environments, performance guidelines, and monitoring and assessment tools as applicable to its designated priority research area. The RERC must contribute to this outcome by developing and testing of these innovations.

(3) Improved research capacity in its designated priority research area. The RERC must contribute to this outcome by collaborating with the relevant industry, professional associations, and institutions of higher education.

(4) Improved focus on cutting edge developments in technologies within its designated priority research area. The RERC must contribute to this outcome by identifying and communicating with NIDRR and the field regarding trends and evolving product concepts related to its designated priority research area.

(5) Increased impact of research in the designated priority research area. The RERC must contribute to this outcome by providing technical assistance to public and private organizations, persons with disabilities, and employers on policies, guidelines, and standards related to its designated priority research area.

In addition, under each priority, the RERC must:

- Have the capability to design, build, and test prototype devices and assist in the transfer of successful solutions to relevant production and service delivery settings;
- Evaluate the efficacy and safety of its new products, instrumentation, or assistive devices;
- Develop and implement in the first three months of the project period a plan that describes how it will include, as appropriate, individuals with disabilities or their representatives in all phases of its activities, including research, development, training, dissemination, and evaluation;
- Develop and implement in the first year of the project period, in consultation with the NIDRR-funded National Center for the Dissemination of Disability Research (NCDDR), a plan to disseminate its research results to persons with disabilities, their representatives, disability organizations, service providers, professional journals, manufacturers, and other interested parties;
- Develop and implement in the first year of the project period, in consultation with the NIDRR-funded RERC on Technology Transfer, a plan for ensuring that all new and improved technologies developed by the RERC are successfully transferred to the marketplace;
- Conduct a state-of-the-science conference on its designated priority research area in the third year of the project period and publish a comprehensive report on the final outcomes of the conference in the fourth year of the project period; and
- Coordinate research projects of mutual interest with relevant NIDRR-funded projects, as identified through consultation with the NIDRR project officer.

**Executive Order 12866**

This notice of proposed priorities has been reviewed in accordance with Executive Order 12866. Under the terms of the order, we have assessed the potential costs and benefits of this regulatory action.

The potential costs associated with the notice of proposed priorities are those resulting from statutory requirements and those we have determined as necessary for administering this program effectively and efficiently.

In assessing the potential costs and benefits—both quantitative and qualitative—of this notice of proposed priorities, we have determined that the benefits of the proposed priorities justify the costs.

**Summary of Potential Costs and Benefits**

The potential costs associated with these proposed priorities are minimal while the benefits are significant. Grantees may incur some costs associated with completing the application process in terms of staff time, copying, and mailing or delivery. The use of e-Application technology reduces mailing and copying costs significantly.

The benefits of the Disability and Rehabilitation Research Projects and Centers Programs have been well established over the years in that similar projects have been completed successfully. These proposed priorities will generate new knowledge and technologies through research, development, dissemination, utilization, and technical assistance projects.

Another benefit of these proposed priorities is that the establishment of new DRRPs (including the new DBTACs), a new RRRTC, and new RERCs will support the President’s NFI and will improve the lives of persons with disabilities. The new DRRPs, RRRTC, and RERCs will generate, disseminate, and promote the use of new information that will improve the options for individuals with disabilities to perform regular activities in the community.

**Intergovernmental Review**

This program is not subject to Executive Order 12372 and the regulations in 34 part 79.

**Applicable Program Regulations:** 34 CFR part 350.

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(Catalog of Federal Domestic Assistance Numbers 84.133A Disability Rehabilitation Research Projects, 84.133D Disability Business Technical Assistance Centers, 84.133B Rehabilitation Research and Training Centers Program, and 84.133E Rehabilitation Engineering Research Centers Program)

**Program Authority:** 29 U.S.C. 762(g), 764(a), 764(b)(2), and 764(b)(3).


**John H. Hager,**

Assistant Secretary for Special Education and Rehabilitative Services.

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