

## Meet the New NCDDR

Access to high-quality information has the potential to improve the lives of individuals with disabilities and their families. With an emphasis on knowledge translation, the NCDDR will promote the production and aggregation of research results that can be used in shaping new technology, improving service delivery, and expanding decision-making options for people with disabilities and their families. The U.S. Department of Education's National Institute on Disability and Rehabilitation Research (NIDRR) funds these initiatives through its January 2006 award to the Southwest Educational Development Laboratory (SEDL), which operates the NCDDR. This grant continues 10 years of support for the NCDDR. During this new 5-year funding cycle, the NCDDR will "serve as a lead center in the area of Knowledge Translation/Knowledge Dissemination and Utilization" (U.S. Department of Education, 2005, p. 23853).

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This issue of *FOCUS* will describe how the impetus for NCDDR's reorganization relates to NIDRR's new emphasis on knowledge translation. It will also outline several of the services the NCDDR will offer to NIDRR grantees and, in some cases, to interested consumers.

### **NIDRR's New Long-Range Plan and Knowledge Translation Program**

Knowledge translation plays a significant role in connecting research and development to the needs of intended users. As the Canadian Institutes of Health Research (CIHR, 2006, "About Knowledge Translation") has defined it, knowledge translation is "the exchange, synthesis, and ethically-sound application of knowledge—within a complex system of interactions among researchers and users—to accelerate the capture of the benefits of research." NIDRR's long-range plan has adapted the CIHR definition for the purposes of the disability and rehabilitation research field.

NIDRR's long-range plan defines knowledge translation as the following:

The multidimensional, active process of ensuring that new knowledge gained through the course of research ultimately improves the lives of people with disabilities, and furthers their participation in society. The process is active, as it not only accumulates information, but it also filters the information for relevance and appropriateness and recasts that information in language useful and accessible for the intended audience. (U.S. Department of Education, 2006, p. 8195)

NIDRR's science and technology advisor, Dr. Art Sherwood, participated in a webcast held on May 31, 2006, titled "Meet the New NCDDR." He described knowledge translation as "cyclic in nature . . . it's a two-way street between the researcher producing the knowledge, the consumer of that knowledge, and then the feedback from the deployment of that information back to the researcher to refine and tweak the process of generating knowledge." As Dr. Sherwood also pointed out, research quality is increasingly stressed

“in our current era of accountability.” The information produced, disseminated, and consumed via NIDRR sponsorship should be both “meaningful and relevant” (Independent Living Research Utilization, 2006, paragraph 14).

NIDRR research should not only affect the end user but also influence other intermediary beneficiaries: researchers, policymakers, and practitioners. The goal of the NCDDR is to expand production, access, dissemination, and use of disability and rehabilitation research among NIDRR management, grantees, people with disabilities and their families, and disability-oriented practitioners and service providers. The NCDDR has established several services and collaboratives to achieve these goals.

### Services

NCDDR services have three major aims. They are

- to build the capacity of NIDRR-sponsored researchers in applying the knowledge translation process;
- to increase inclusion of NIDRR-sponsored research results into mainstream evidence collections and products; and
- to improve consumers’ access to and use of disability and rehabilitation research evidence in making personal choices.

These services are spread over five categories: (1) research quality, (2) development, (3) dissemination, (4) technical assistance, and (5) utilization effectiveness. Some services will be available only to NIDRR-supported researchers, while others will be available to everyone.

### Research Quality Services

NIDRR describes research and development that correspond to three stages of knowledge, which generally develop sequentially. Stage 1 (discoveries and descriptions) and Stage 2 (methods, measures, and theories) “provide the critical foundation for new ideas, information, analyses, and scientific tools . . . upon which to base the conduct of valid and reliable research and development activity” (U.S. Department of Education, 2006, p. 8174). Researchers working at projects characterized by Stage 3 knowledge design interventions, or develop products, assistive and adaptive technologies, and environmental systems.

The first two stages of knowledge will affect NIDRR’s research priorities, which will take into account what researchers already know about a particular topic. NIDRR is likely to ask researchers to determine “if an adequate theoretical basis exists upon which an intervention can be developed” (U.S. Department of Education, 2006, p. 8174). Consequently, certain research designs are more suitable to particular kinds of questions, depending on the type of new knowledge or product to be developed.

The NCDDR will establish three task forces, one focusing on standards of evidence and methods, a second on systematic reviews and guidelines, and the third on knowledge translation and knowledge value mapping. Members will be NIDRR grantees. The task forces will develop consensus statements and position papers on how to align the most rigorous research designs possible to the research questions current in the field of disability and rehabilitation research. The NCDDR will also investigate strategies to identify evidence supporting technology-related quality measures in order to place the results of NIDRR-sponsored development activities along an innovation development continuum. Ensuring the relevance of these research guidelines to consumer needs is also a high priority.

### Development Services

Many of the new NCDDR’s development services pertain to NIDRR grantees’ use of, inclusion in, and production of systematic reviews. A systematic review treats a tightly defined review question and uses predetermined and justified methods for choosing what research studies to include in the review, as well as for applying a formal analysis to the evaluation of the strength of the studies’ findings. The goal is to determine via the strength of the aggregated body of findings how much evidence there is to address the review question. Two international organizations, the Cochrane Collaboration (<http://www.cochrane.org>) and the Campbell Collaboration (<http://www.campbellcollaboration.org>), have led longstanding and prominent work in developing and disseminating systematic reviews. The Cochrane Collaboration focuses on topics related to health-care research, while the Campbell Collaboration has spearheaded their application more generally to the social and behavioral sciences.

The NCDDR will offer free access for current NIDRR grantees to the Cochrane Library. Users will register for

120-day renewable subscriptions through the NCDDR Web site, where staff are also available to provide search assistance. The NCDDR will promote familiarity with and production of systematic reviews in the field of disability research by helping establish a disability research coordinating group within the Campbell Collaboration and encouraging NIDRR grantees to use its resources.

Not including certain information in a report of research study results—whether published or not—may mean that the study findings cannot be used in evidence-based systematic reviews or other evidence-based compilations. The NCDDR will develop a Web-based tool to facilitate the production of NIDRR grantee research reports tailored to the search needs of evidence-based systematic reviewers. This Reporting Facilitator will address a range of specific research designs used by NIDRR-sponsored researchers in order to ensure that reporting guidelines and formats are generated that address all necessary report components appropriate to each research design. NCDDR staff will assist individual NIDRR researchers, as needed, in using the Web-based tool.

### **Dissemination Services**

The NCDDR has developed new content for its Web site (<http://www.ncddr.org>). The new Web site highlights resources for knowledge translation to support planning, implementing, and evaluating knowledge translation and its outcomes. It will no longer host the electronic library of resources developed by NIDRR grantees, and the *Research Exchange* publication has been discontinued. The following dissemination projects are in development:

- **Library of knowledge translation.** This resource will share examples of standards of evidence developed by other entities; examples of evidence-based guidelines; toolboxes; training modules on procedures for developing systematic reviews; examples of protocols for systematic reviews; examples of high-quality research syntheses; background materials on knowledge translation principles; instruments and strategies for measurement; references and reviews of literature concerning knowledge translation; and other related materials.
- **A registry of systematic reviews.** The systematic reviews to be included in this registry will cover disability and rehabilitation topics relevant to

NIDRR's mission, as well as those authored by NIDRR-sponsored investigators. The reviews will be geared for both consumer and professional audiences. These systematic reviews will be coupled with a user-friendly online database.

- **The registry of NIDRR-sponsored research.** This database will be a compilation and description of all current NIDRR-sponsored research. The registry will facilitate the collecting, sorting, and retrieval of scientifically based disability and rehabilitation research conducted by NIDRR grantees. It will also be searchable and intended for use by multiple disability stakeholders, such as consumers, other researchers, professionals, and policymakers.
- **Other dissemination services.** The NCDDR will also offer webcasts, open outreach events, and publications focusing on research and consumer issues. Publications like the *FOCUS* technical briefs will continue. NCDDR staff will also support two communities of practice involving NIDRR grantees, one concerned with research quality and the other with cultural and linguistic diversity issues.

### **Technical Assistance Services**

As in the past, NCDDR staff will provide direct assistance to NIDRR researchers, whether on- or off-site. The NCDDR will continue to offer workshops, which will feature topics related to knowledge translation; among these will be training in systematic review delivered in partnership with representatives of the Campbell Collaboration.

### **Utilization Effectiveness Services**

These services will offer NIDRR grantees strategies to plan for, promote, and measure the use of their research findings. NIDRR engineering research centers play a prominent role in developing products for consumers, such as assistive and adaptive technologies. The NCDDR will help NIDRR grantees establish standards of evidence applicable to the phase of product development. Staff will disseminate evidence-based research reviews of pertinent topics and other informational materials that will help NIDRR-funded engineers and other grantees develop products, services, and a variety of informational resources based on the most rigorous evidence available. For consumers, the NCDDR will develop a grading system to determine the level of evidence on which products, services, and recommendations for practice are based.

## Intended Outcomes

This *FOCUS* has described how the NCDDR is drawing on a variety of inputs to develop its activities and outputs. The primary and/or initial audience for many of these initiatives is NIDRR-sponsored researchers. In the short term, the NCDDR aims to raise researchers' awareness of and support for standards of evidence, the systematic review process, the scope of high-quality technology innovation, the range of disability research topics, and the need for translating knowledge for consumers. It is hoped that if these short-term goals are achieved, researchers will increasingly come to consensus about and so attend to these standards of evidence as they design, conduct, and assess their research and development activities. Findings from NIDRR-sponsored projects will then be more likely included in systematic reviews. Ideally, disability and rehabilitation researchers will also choose to participate in producing systematic reviews on topics of high relevance to the field, taking consumer interests into account. As researchers increasingly incorporate their use of knowledge translation and knowledge dissemination and utilization strategies into their NIDRR-sponsored research plans, they will also produce consumer-oriented versions and applications of research findings. In the long run, the NCDDR seeks to bring about the following outcomes:

- Sustainable mechanisms to support the ongoing production of systematic reviews of disability and rehabilitation research

- NIDRR grantee involvement in the production of high-quality, reliable, and valid research findings and systematic reviews
- Greater access to and application of systematic reviews and other high-quality, reliable disability and rehabilitation research on the part of professionals, service providers, and decision makers
- Understanding on the part of consumers with disabilities and their families of the value of high-quality, reliable NIDRR-sponsored research, leading to these consumers' regular access and use of evidence-based knowledge
- The movement of evidence from NIDRR grantees' systematic reviews into social policies due to greater utilization of knowledge value mapping concepts and strategies

Since 1995, SEDL's NCDDR has conducted research and dissemination activities and provided technical assistance to ensure that NIDRR's core constituencies have ready access to disability-related research findings that can improve the lives of people with disabilities and their families. The new NCDDR will continue this tradition by focusing on knowledge translation and working to help ensure that consumers and practitioners can access and use high-quality evidence-based knowledge on disability and rehabilitation issues.

## References

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NCDDR'S scope of work focuses on developing systems for applying rigorous standards of evidence in describing, assessing, and disseminating outcomes from research and development sponsored by NIDRR. The NCDDR promotes movement of disability research results into evidence-based instruments such as systematic reviews as well as consumer-oriented information systems and applications.

*FOCUS: A Technical Brief From the National Center for the Dissemination of Disability Research* was produced by the National Center for the Dissemination of Disability Research (NCDDR) under grant H133A060028 from the National Institute on Disability and Rehabilitation Research (NIDRR) in the U.S. Department of Education's Office of Special Education and Rehabilitative Services (OSERS).



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