

Winter 2010: New Research and Training Projects

In our first issue of 2010, *CROR Outcomes* celebrates the newly funded Rehabilitation Research and Training Center on Improving Measurement of Medical Rehabilitation Outcomes. Read inside about our research projects, conducted in collaboration with Northwestern University, Kessler Foundation Research Center, Washington University (St. Louis), University of Illinois at Chicago, and the University of Washington.

Key to the success of a Rehabilitation Research and Training Center is ongoing education and dissemination. In this issue,

we describe our plan for developing training materials for clinicians and researchers, as well as widely disseminating key research findings. We also profile our collaborator Jennifer Moore, who will be leading a project that will create an online, searchable database of outcomes instruments for clinicians.

We also highlight the achievements of research scientist Dr. Anne Deutsch, as well as bid a fond farewell to Associate Director Dr. Trudy Mallinson.

Allen Heinemann, Director



Jennifer Moore: Physical Therapist, Researcher

Jennifer Moore, a research physical therapist and educator at the Rehabilitation Institute of Chicago (RIC), credits her initial interest in physical therapy to the determination of a close family member. After her grandmother had a stroke, Moore watched as she relentlessly devoted herself to rehabilitation therapies and to her own recovery.

"After her stroke, my grandmother spent hours each day exercising and working hard to get better," Moore said. "I realized the impact that physical therapy had on her recovery, and it was very inspiring to me."

A native of Indianapolis, Moore studied psychology at Indiana University, and completed a master's degree in physical therapy (PT) from the University of Evansville in 2001.

After a year as a staff physical therapist at Resurrection Health Care's Westlake Hospital in Melrose Park, Ill., Moore joined RIC as a clinical physical therapist where she has worked with individuals with traumatic brain injury, stroke and orthopedic injuries. The work was exciting, said Moore, and in 2004, after participating in a walking retraining project, she also became interested in learning more about clinical research.

"I've taken advantage of so many of the opportunities clinicians have at RIC, including research, teaching, and ongoing professional development," said Moore. "RIC's vision fosters

...Continued on Page 6

New RRTC Focused on Improved Measurement

As a matter of public policy, the Americans with Disabilities Act of 1990 emphasized that an individual's level of participation in society is critically important, regardless of his or her level of impairment. For years, numerous researchers – and even the World Health Organization – have attempted to develop reliable methods of measuring one's level of community participation.

Unfortunately, existing instruments are not tailored specifically for use by people with disabilities, said Allen Heinemann, PhD, director of the Center for Rehabilitation Outcomes Research (CROR), and associate director of research at RIC.

"Something needs to be done to ensure people with disabilities are accurately represented in research"

Dr. Susan Magasi

That is an issue, Heinemann said, because people with disabilities are often excluded from studies due to a lack of adapted tools or accommodations. The National Institute of Disability and Rehabilitation Research (NIDRR) recognized the problem when it recently ranked the measurement of cognitive function high on its funding-priority list, he added.

"NIDRR recognized that cognition is a rehabilitation outcome and a factor that is related to broader functional status and community outcomes for people with a variety of conditions," Heinemann said.

...Continued on Page 5

Inside

Training Opportunities

Read about the new RRTC's many opportunities for education and training in rehabilitation outcomes measurement on *Page 3*.

Farewell to Dr. Mallinson

Dr. Trudy Mallinson on her exciting new position at the University of Southern California on *Page 7*.

CROR Scientist Honored

Dr. Anne Deutsch receives two prestigious awards for her commitment to health policy and outcomes research. Read about her accolades on *Page 3*.

The Center for Rehabilitation Outcomes Research (CROR) conducts studies measuring how medical rehabilitation and health policies impact people with disabilities. The Center also examines methods to increase effectiveness and efficiency of the rehabilitation process. CROR is a part of the Rehabilitation Institute of Chicago – ranked #1 Rehabilitation Hospital for 18 Consecutive years by U.S. News & World Report.



Rehabilitation Institute of Chicago

#1 Rehabilitation Hospital in America

Project Manager with a Passion for Health Policy Research



As a project manager in the Center for Rehabilitation Outcomes Research (CROR), Holly DeMark has coordinated research initiatives that cover a wide range of post-acute care topics including spinal cord injury, depression, substance abuse, and health literacy. It is a position that has helped her to learn a great deal about the complexities of health services research and it has also prepared her for work in health care policy.

“Good research plays such a fundamental role in creating and evaluating health policy, and it has been very important for me to understand all of the important health services research that is being done here at RIC,” DeMark said.

DeMark was raised in Oak Forest, a southwest suburb of Chicago, and completed a bachelor’s degree in sociology with a concentration in the sociology of health care and medicine at Illinois State University – a specialization she had been introduced to by her college mentor, Dr. Virginia Gill. In 2003, she entered a doctorate program in sociology and research methodology at the University of Illinois at Chicago. She spent a year in the program, but left after realizing it was not the right fit for her.

“Around that time, I learned about an unpaid internship at the Centers for Disease Control and Prevention (CDC) in Atlanta,” she said. “I applied for it and got it, and I loved the work. The position was supposed to be for four months and I ended up staying for a year.”

At the CDC, DeMark worked at the National Center for HIV, STD and TB Prevention, and assisted with a project that evaluated rapid testing centers for HIV around the country. It proved to be a great fit because much of her previous research work had been in HIV prevention and community health, she said.

After her internship was complete, DeMark decided to return to Chicago and on the urging of a CDC colleague, she applied for a research assistant position at CROR. She was hired in 2005 and found RIC to be a new and exciting place.

“When I came aboard, I wasn’t very familiar with physical and medical rehabilitation. For the first three months, I would write down all of the new terms and acronyms mentioned in meetings so I could look them up later,” DeMark said, laughing. “Once I caught up, I really loved it.”

And it didn’t take long for DeMark to become an

integral part of the center’s operations, according to Anne Deutsch, PhD, a clinical research scientist at CROR. As a research assistant, DeMark performed a range of duties including interviewing more than 200 people at vocational rehabilitation sites around Chicago for a project on substance abuse screening. In 2007, she was promoted to project manager.

“It is amazing to think about all of the things Holly has done – creating graphics for presentations, organizing conferences, setting up webinars, interviewing current and former RIC patients – the list goes on,” said Deutsch. “She is always ready to help us with our project tasks and she is a key person in our department. We are very lucky to have such a talented person working with us.”

DeMark has served as project manager on many studies including one recently completed health literacy project. The goal of the five-year project was to improve available quality data on post-acute facilities and to make it easier for patients and their caregivers to choose the right care setting for their needs. She is also a project manager for the National Spinal Cord Injury Database, which collects data from patients with spinal cord injuries. DeMark coordinates the research assistants who search for former patients from up to 35 years ago to follow up about their injury, as well as enrolling new patients in the longitudinal study.

She is also playing an active role in CROR’s new Rehabilitation Research and Training Center on Improving Measurement of Medical Rehabilitation Outcomes, a five-year study to improve research measurements for

people with disabilities.

DeMark serves as project manager for the training and dissemination components of the study, which will provide educational tools and information on outcomes measures to researchers, clinicians and graduate students.

Despite her hectic schedule, DeMark has also managed to complete a master’s degree from Northwestern University in public policy and administration with a specialization in public health policy.

“Holly was a finalist for a Magnuson Award, an annual contest that recognizes RIC employees that most closely personify the hospital’s values,” added Allen Heinemann, PhD, director of CROR and associate director of research at RIC. “She is an absolutely marvelous person to work with, she has grown incredibly during her employment, she is very effective in her job duties, and she serves as role model for the rest of our staff.”

Although DeMark eventually plans to pursue a career in health policy, she appreciates the opportunities that RIC and CROR provide. Recently, she became project manager of a clinical drug trial, which is a new and complicated skill set she hopes to develop.

“There is so much to learn from the people I work with, from clinicians like my occupational therapist officemate as well as policy experts like Dr. Deutsch. The work is always changing, and I love the challenge.”

“Good research plays such a fundamental role in creating and evaluating health policy.”
Holly DeMark

RRTC Committed to Training, Capacity-building, and Dissemination

The goal of a Rehabilitation Research and Training Center (RRTC) is to conduct a coordinated and integrated advanced program of research targeted toward the production of new knowledge. The National Institute on Disability and Rehabilitation Research (NIDRR) funds RRTCs not only for excellence in rehabilitation research, but to be a resource for research information. An RRTC is expected to conduct graduate, pre-service and in-service training, as well as disseminate and promote the utilization of research findings.

In RIC's newly funded RRTC on Improving Measurement of Rehabilitation Outcomes, the research projects focus on developing and validating outcome instruments specifically for rehabilitation populations. Translating this knowledge to the appropriate audiences is equally important. To that end, the training component of the RRTC is dedicated to ensuring that other post-acute care researchers and clinicians have access to the research results, understand the newly-adapted measurement instruments, and are able to use them correctly, said Linda Ehrlich-Jones, PhD, RN, a clinical research scientist at CROR.

"Training is a very big part of the RRTC because many professionals are unfamiliar with outcome measurement," said Ehrlich-Jones, director of the training and dissemination component of the study. "This grant gives us the opportunity to provide training and education to researchers, clinicians, educators and graduate students so they can learn more about these measures and how they can use them in their work."

Training projects

The RRTC includes seven training activities, which are scheduled at various times throughout the five-year project and will also provide information on topics such as measurement theory and survey design, Ehrlich-Jones said.

These activities play a critical role in the project's success because they call on the organizations involved – RIC, Northwestern University, the University of Illinois at Chicago, the Kessler Foundation, Washington University and the University of Washington – to share their expertise and improve other researchers' and clinicians' capacity to utilize measurement tools, she added.

"NIDRR is funding this RRTC with the idea that we need more people in the field that are capable of doing rehabilitation outcomes research," agreed

Holly DeMark, project manager for the training and dissemination component. "The goal is to help people who are already practicing in the field and answer their questions about which instruments are best to use and why."

The RRTC's first training activity will be a Summer Institute on Measuring Rehabilitation Outcomes, an introductory session on measurement skills led by Richard Gershon, PhD, Vice chair of the department of Medical Social Sciences at Northwestern University.

Gershon will lead these education workshops during the second and fourth years of the RRTC, and will include instruction in data collection methods and instrument development. Specifically, the sessions, which will be open to clinicians, researchers and students, will highlight the use of research methodology including item response theory (IRT) and computer adaptive testing (CAT). Computer adaptive testing tailors surveys based on respondents' previous answers, allowing for much shorter tests with a high degree of accuracy.

The workshops will also highlight Northwestern's work on the Patient-Reported Outcomes Measurement Information System (PROMIS) initiative, an effort funded by the National Institutes of Health (NIH) to create standardized sets of item banks and computer adaptive tests for use in studying patients with a range of chronic diseases.

In addition, attendees will learn about the PROMIS Assessment Center, a free, online application that enables researchers to centralize all of their research activities and facilitates the selection of instruments.

The second training activity will be a series of half-day and day-long workshops that will summarize the content of the Summer Institute sessions, as well as disseminate findings from the research projects. These workshops will occur once per year starting in year two of the grant, and will take place in conjunction with meetings of professional associations, Ehrlich-Jones said.

"Essentially, these workshops will describe the latest innovations in outcome measurement, including item response theory and computer adaptive testing, and focus on how to use these measures in clinic and research," she said. "Working with professional organizations, like the American Physical Therapy Association, American Occupational Therapy Association, and the Association of Rehabilitation Nurses, will allow us to bring this information directly to clinicians."

...Continued on Page 4

Dr. Anne Deutsch Honored Twice in One Night



Dr. Deutsch with the Deborah L. Wilkerson Early Career Award for Rehabilitation Research

From the left: Former ACRM President Dr. Wayne Gordon, Dr. Anne Deutsch, Dr. Allen Heinemann

On Friday, October 9, 2009, CROR Scientist Dr. Anne Deutsch was honored by two different organizations – in two different states – for her commitment to rehabilitation outcomes research.

In Denver, Colorado, Dr. Deutsch received the **Deborah L. Wilkerson Early Career Award for Rehabilitation Research** by the American Congress of Rehabilitation Medicine (ACRM). This award, created to honor the late Deborah Wilkerson's commitment to person-centered services and advocacy for individuals with disabilities, is given to a scientist who has made significant contributions to rehabilitation research in her early career work. Dr. Deutsch's selection was particularly poignant, since she shared Wilkerson's dedication to measuring and improving the quality of rehabilitation services.

In Chicago, though she was not present to accept the award, Dr. Deutsch received the

Magnuson Manager's Award – named after Dr. Paul B. Magnuson, who founded RIC in 1954 after being profoundly moved by the physical disabilities of service men and women in World War II. The award recognizes a supervisor who models superior performance in communication, achievement orientation and team leadership.

Dr. Deutsch, a rehabilitation nurse, was honored for her mentorship of researchers, both within RIC and from other organizations, as well as clinicians and medical residents. Her expertise in the areas of health policy, analysis of large databases, and rehabilitation outcomes instruments (such as the FIM™) makes her a much-needed resource. This year alone, she has helped two CROR team members develop research questions and create posters for a conference, and helped a medical resident with a project that won an award at RIC's Baskin Research Day.

Training (Continued From Page Three)

Third on the list of training projects will be a series of instructional courses on clinical outcome measurement. Held at Northwestern University, UIC, and Washington University, and taught by Gershon, Joy Hammel, PhD, and Carolyn Baum, PhD, the courses will help students learn more about survey design, item response theory, computer adaptive testing, PROMIS, and clinical outcomes research. Clinicians will be encouraged to attend, Ehrlich-Jones said.

Building Capacity in Rehabilitation Outcomes Research

The RRTC will focus on capacity-building through Northwestern University's Institute for Healthcare Studies. As part of the RRTC's fourth training activity, CROR will help to arrange a series of measurement lectures each year on instrument development and analysis, as well as topics such as the PROMIS Assessment Center and the NeuroQOL Project, a neurology-specific measurement tool for patients with conditions such as stroke, multiple sclerosis and Parkinson's disease.

Participants in the quarterly lectures will also learn about the NIH Toolbox for Assessment of Behavioral and Neurological Function, said Ehrlich-Jones. The NIH Toolbox is an effort to create tests of neurological and behavioral function that are uniform and standardized, thereby making it easier for researchers to aggregate data and compare results.

"These lectures will be designed for postdoctoral fellows as well as graduate students, and will be a great opportunity to discuss patient outcomes and common health status measures," she added.

Twice each year, RIC will invite a guest speaker to provide a lecture on a specific topic in outcomes research. The speaker will present at RIC's Grand Rounds, a clinically focused lecture that occurs every Wednesday for residents and faculty or the Institute for Healthcare Studies' weekly seminar.

"The speaker will also provide consultations following the lectures, working with faculty, post-doctoral fellows and clinicians as requested," Ehrlich-Jones said. "It's a chance to sit down one-on-one or in small groups with experts in the field and ask questions about what kind of tools are useful for specific applications."

The new RRTC will also provide a two-year fellowship in rehabilitation health services research to two fellows. The fellowships are an important piece of the training project, said Allen Heinemann, PhD and Principal Investigator of the RRTC, because they provide important training in health services research that will be passed along as the fellows move on

in their careers. Additionally, the program provides the fellows an opportunity to collaborate on original research projects.

The seventh training activity is a State of the Science Conference on Building Rehabilitation Research Capacity, a conference that will take place in the third year of the Center. The goals of the conference include assessing progress on building research capacity in the last few years and setting goals for the future, Ehrlich-Jones said.

Dissemination projects

Training and mentoring professionals in the field is important, said Ehrlich-Jones, but it is also a high priority to ensure that the tools and information developed in the RRTC are easily accessible. To achieve this goal, the Center will utilize five dissemination projects. In year four of the Center, for instance, researchers will release a State of the Science monograph, a comprehensive publication featuring information from the previous year's conference on building research capacity.

In order to maintain a centralized hub for dissemination, the Center has established a web site dedicated to the new RRTC to highlight research projects as they progress. This site will house key presentations and lectures from training activities online so people who were not able to attend can benefit from them. CROR Outcomes, the Center's quarterly newsletter, will also provide periodic updates on the RRTC. Researchers and clinicians will also have the benefit of an online outcomes instrument database that will provide data on which instruments are available and are best to use in each case. Focus groups with clinicians are currently underway to inform the format and usability of the database.

"Clinicians often don't know which instrument to use to measure aspects of a patient's progress, whether it is balance or quality of life," Ehrlich-Jones said. "The database will be online, free, and allow clinicians to quickly search for an instrument by criteria like impairment, time of administration, and reliability within a given population. We're just getting started, but this is a very innovative tool developed in collaboration with NU's Medical Social Sciences department."

"The dissemination projects are another way for us to increase the number of people who can use outcome instruments," DeMark said. "Our goal is to help nurses, physicians and residents who are just getting into research and make sure they don't feel lost and overwhelmed. We're trying to spread measurement knowledge as widely as possible."

CROR Team Climbs Willis Tower in RIC Fundraiser

Congratulations to our SkyRise Chicago victors!

On November 15, 2009, four CROR team members bravely scaled 2,109 stairs to the top of the Willis Tower (formerly known as the Sears Tower), the tallest building in the western hemisphere. This event, with more than 1,800 participants from 31 states and 5 countries, raised more than \$600,000 to support the Rehabilitation Institute of Chicago.

Pictured with our CEO, Dr. Joanne Smith is the CROR team:

Back row, from the left: Dustin Williams, Caitlin Taylor, Kyle Seanor

Front row, from the left: Dr. Joanne Smith, Esther Liu



For information on the 2010 SkyRise event, please visit:

www.skyrisechicago.org

RRTC on Improving Measurement (Continued From Page One)

“When the instruments that measure cognitive function don’t work properly for the disability population, that’s a problem that needs to be addressed.”

“It seems like a no brainer: If an environment is not good, it will be difficult to participate...but we don’t know the magnitude of what that means.”

Dr. Holly Hollingsworth, Washington University

In response, CROR and several other organizations have entered into a five-year, NIDRR-funded study with a goal of improving outcome measures and evaluating existing tools for reliability and validity for the disability population. The Rehabilitation Research and Training Center (RRTC) on Improving Measurement of Rehabilitation Outcomes began in October 2009 and will run through September 2014. The RRTC includes research projects and training and dissemination initiatives.

“We feel very strongly that something needs to be done to ensure people with disabilities are accurately represented in research,” said Susan Magasi, PhD, OTR, assistant professor in the Department of Medical Social Sciences and physical medicine and rehabilitation in the Feinberg School of Medicine at Northwestern University and a principal investigator on the new RRTC.

Enhancing the NIH Toolbox

The first of the RRTC’s research projects is an effort to make an existing set of instruments funded by the National Institutes of Health, the NIH Toolbox, more usable and accessible for people with disabilities. The NIH Toolbox for Assessment of Behavioral and Neurological Function is an initiative to create standardized assessment tools that measure cognitive, motor, sensory, and emotional function. The NIH Toolbox project is led by Richard Gershon, PhD, vice chairmen of the department of Medical Social Sciences at Northwestern University.

“The goal of this study – enhancing the NIH Toolbox and making it more usable – comes from a really practical place,” said Magasi. “If we want the assessment instruments in the toolbox to be useful, we need to make sure the rehabilitation population can access them. Our vision is to examine the toolbox in depth and ensure that full inclusion is really possible.”

Researchers, led by Magasi, will evaluate the existing NIH Toolbox in three rehabilitation populations – stroke, spinal cord injury, and traumatic brain injury. They will also evaluate the accommodations recommended by the toolbox’s creators, identify barriers, and recommend best practice guidelines.

“There are a lot of different tests in the Toolbox including computer adaptive tests that measure cognitive function and physical characteristics, and before we can move on, we have to make sure that both the disability population and the general population can use them in a meaningful way,” Magasi said. “That means we have to go beyond the letter of accessibility laws like the Americans with Disabilities Act, and we have to examine them in much more detail.”

Validating measures of cognitive function

The second project in the new RRTC is a natural extension of the first and will evaluate the NIH Toolbox against existing measures of cognition, according to David Tulsy, PhD, principal investigator on the project, Vice

President of Outcomes and Assessment Research and Director of the Spinal Cord Injury Research Laboratory at the Kessler Foundation Research Center.

In the study, researchers will be collecting data on 600 patients from RIC, Kessler and Washington University – 200 with spinal cord injury, 200 with stroke, and 200 with traumatic brain injury. Then, Tulsy said, they will evaluate how people with those disabilities perform on the NIH Toolbox tests of cognition, while also taking a deeper look at other traditional measures of cognitive function.

“We’ll be testing the Toolbox, which is performance-based, in relation to self-reported measures of cognitive function that ask respondents questions about their memory, for example,” he explained. “We want to see if the adapted Toolbox correlates with these gold standard measures.”

The second project will begin in 2011 and will utilize the data from the then-completed first project on the NIH Toolbox.

“The Toolbox was set up for epidemiological studies within the general population,” Tulsy added. “If we can demonstrate that it is valid and reliable for people with disabilities, there would not always be that fear that these instruments are not appropriate and more people would be included.”

Measuring environmental influences

In addition to the cognitive factors that affect participation, NIDRR also called for a closer look at environmental factors that can serve as barriers and facilitators including social attitudes and architectural features, said Heinemann. The third project aims to develop and test measures of environmental factors and how they affect participation for people with stroke, traumatic brain injury and spinal cord injury.

“Our goal is to develop a repository of questions that measure the extent to which environmental conditions impede – as well as facilitate – participation,” said Heinemann, principal investigator on the project. “This newly developed ‘item bank’ of questions will be tested to ensure the items are valid and reliable when administered to people with disabilities. Ultimately, we will study the possibility of administering the questions through a streamlined, computer-adaptive test.”



Examining environmental factors that can affect participation.

Team members from left: Dr. Allen Heinemann, Dr. Joy Hammel, Dr. Susan Magasi, Dustin Williams

Once an item bank has been developed, researchers from RIC, Northwestern, Kessler, Washington University and the University of Illinois-Chicago will test it on 200 people with stroke, 200 with spinal cord injury, and 200 with traumatic brain injury, he said.

Validating the CARE tool

Currently, the Centers for Medicare and Medicaid (CMS) is spearheading a demonstration project utilizing a standardized patient assessment instrument called the Continuity and Record Evaluation (CARE) tool, which

...Continued on Page 7

Collaborator Profile: Jennifer Moore (Continued From Page One)



collaboration – even on a patient-by-patient basis – between clinicians and researchers, and it’s a great way to capitalize on each other’s expertise.”

Moore has participated in research projects on a variety of topics including the treatment of incontinence in individuals with spinal cord injury, and improving gait in individuals with stroke. She completed some of her most interesting research while working on her doctorate of health science from the University of Indianapolis, which she completed in December 2009.

For her dissertation, Moore studied contributors to the cessation of locomotor recovery, or the “plateau” that patients experience three to six months after a stroke. “We enrolled individuals four weeks before they were scheduled to be discharged from PT because they were no longer demonstrating progress,” Moore said. “We assessed changes in walking performance and stepping frequency during the last 4 weeks of PT and then used a randomized crossover design in which patients received 4 weeks of intensive locomotor training and 4 weeks of no intervention.”

Moore found that patients who had “plateaued” were actually able to make significant improvements in gait efficiency and amount of walking at home and in the community with intensive locomotor training. She and other researchers also found that

four times more walking practice was provided during intensive training than in regular physical therapy. Surprisingly, changes in walking function, including walking speed and distance, also suggested that individuals demonstrated substantial improvements during the “plateau” phase of PT.

“Therapists would have been able to identify that these patients were making clinically meaningful progress if they used outcome measures to monitor progress. Unfortunately, the improvements went unnoticed,” she explained. “After reviewing PT documentation, we determined that the interventions provided were

including a six-minute walk test and the Berg Balance Scale. Next on the agenda are measures in orthopedics, speech, and occupational therapy – all of which will be used across RIC’s sites of care, she said.

“Clinicians love using the measures and they have successfully integrated them into practice,” Moore said. “They use them to guide clinical decision making and provide useful feedback for patients.”

Moore’s work on the BRAIN will also contribute to the new outcomes instrument database that will be created as part of CROR’s new Rehabilitation Research and Training Center on

“The most important component of rehabilitation is to appropriately evaluate patient outcomes and the care we provide.”

Jennifer Moore

often not task-specific and progress was not evaluated with standardized measurements.”

Moore realized PT interventions needed to be more intensive and specific, and standardized measurements needed to be routinely used to evaluate progress. In response, she led the development of the BRAIN, or the Battery of Rehabilitation Assessments and Interventions in Neurorehabilitation, a database of standardized measures and evidence-based interventions. This database will store hundreds of evidence-based summaries developed by a group of 70 therapists who will review research literature and provide recommendations for clinical practice at RIC.

They have already begun the project in PT and have integrated seven outcome measures into patient care

Improving Measurement of Medical Rehabilitation Outcomes. As part of the RRTC, Moore will develop an outcomes database and make it accessible online for clinicians to help them decide what instruments to use to measure variables such as quality of life, function and cognition.

“The most important component of rehabilitation is to appropriately evaluate patient outcomes and the care we provide. If we are not using standardized measures, it is very difficult to see the impact of any intervention,” Moore said. “The new database will be free and available to clinicians and researchers throughout the world. It will provide them with the tools they need to assess patients and the impact of rehabilitation interventions on outcomes.”

Acknowledgements

The Center for Rehabilitation Outcomes Research at the Rehabilitation Institute of Chicago is funded, in part, by the National Institute on Disability and Rehabilitation Research, National Institutes of Health, Centers for Medicare and Medicaid Services, and the Rehabilitation Institute of Chicago. We thank them for their continued support.

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Visit <http://www.ric.org/cror> and click on “Newsletters.”

RRTC on Improving Measurement (Continued From Page Five)

was developed to record the medical, cognitive, functional, and discharge status of Medicare beneficiaries after receiving care in a variety of acute and post-acute care settings.

The goal of the fourth RRTC project, led by Anne Deutsch, PhD, a clinical research scientist at CROR, is to examine the validity of the CARE tool in rehabilitation populations. The project is especially important because the results of the CARE tool will be used to determine reimbursement and will also provide healthcare quality data to CMS.

“The CARE tool is being used to document the medical, functional and cognitive complexity of patients treated by acute care hospitals and post-acute care providers, including skilled nursing facilities, home health agencies, inpatient rehabilitation hospitals and long-term care hospitals,” said Deutsch.

Cognition items in the CARE tool include a brief interview for mental status and a confusion assessment, Deutsch said. The project will test the validity of those measures in patients with stroke, traumatic brain injury and spinal cord injury. The project will also evaluate whether more items may be necessary to accurately assess cognition in rehabilitation populations.

This project will build on the validation work done in the second RRTC project (R2) by administering the items to the same group of 600 people, and by determining correlations between the CARE tool and gold standard instruments, Deutsch added.

Mapping and modeling RRTC instruments

The fifth and final RRTC project will map the NIH Toolbox, the Patient-Reported Outcomes Measurement Information System (PROMIS), and Neuro-QOL – a neurology-specific measurement tool for patients with conditions such as stroke, multiple sclerosis and Parkinson’s disease – all to the World Health Organization’s International Classification of Functioning, Disability and Health (ICF).

Led by David Gray, PhD, associate professor of occupational therapy and neurology at Washington University School of Medicine, and incorporating researchers from RIC, Northwestern and the Kessler Foundation, the project will map results from the other RRTC projects to the ICF. The ICF provides a framework for describing disability.

“It seems like a no brainer to say that if an environment is not good, it will be difficult to participate, but we don’t know the magnitude of what that means,” said Holly Hollingsworth, PhD, a statistician in the occupational therapy department at Washington University and member of the research team. “We want to take the data from the other projects, recode them into ICF categories, and then model the relationships so we can gauge them more easily.”

Mapping RRTC results will help clinicians, said Hollingsworth, because it will highlight which items are part of which ICF components, making the instruments easier to use.

“The good thing about this RRTC as a whole is that each project builds on the others,” he said. “Having the cognitive and environmental instruments mapped and modeled will shed a lot more light on the effects of these constructs on an individual’s ability to participate more fully in society.”

Moving forward

Stay apprised of the RRTC on Improving Measurement of Rehabilitation Outcomes by checking our website:

<http://www.ric.org/research/centers/cror/projects/RRTCImprovingMeasurement/RRTC-Improving.aspx>

Check back periodically for updates on research projects and results published in manuscripts, as well as archived training and educational materials.

A Fond Farewell to Dr. Trudy Mallinson

The departure of Trudy Mallinson from the Rehabilitation Institute of Chicago and the Center for Rehabilitation Outcomes Research in late 2009 was a major loss of a colleague and friend. Trudy brought a high level of integrity, intellectual curiosity and innovation to her work and made major contributions on a number of projects, not the least of which was the Rehabilitation Research and Training Center on Measuring Rehabilitation Outcomes and Effectiveness. She blended health policy, rehabilitation services and psychometric prowess in developing a novel project that equates measures used by inpatient rehabilitation, skilled nursing and home health facilities in order to evaluate the cost effectiveness of their services. She helped mentor and nurture CROR staff, Northwestern post-doctoral fellows, students and residents, and RIC clinicians. She epitomizes the scientist-practitioner ideal in her application of scientific rigor to clinical problems.

We wish her continued success in her new position. We will miss her greatly and trust there will be opportunities for continued collaboration.

Allen Heinemann, CROR Director



It was definitely with mixed emotions that I said goodbye to dear friends and colleagues at the Rehabilitation Institute of Chicago at the end of November. I have taken a tenure-track faculty position in the Department of Occupational Science and Occupational Therapy at the University of Southern California. I will teach a class in evidence-based practice this spring but otherwise will be doing research there.

I will continue to work with colleagues in CROR on the post-acute equating project, the CMS CARE tool and program demonstration projects, and with colleagues in women’s health on incontinence and pelvic pain. At USC, I will work with Dr. Florence Clark on their pressure ulcer prevention program, looking at the psychometrics of the outcomes instruments for that study. I will be working to obtain independent grant funding in psychometrics and health services research.

I have already found an apartment in Silverlake with a great view of the San Gabriel mountains and the Hollywood sign! Even better, it’s only 15 minutes to work and I don’t even have to get on the highway – so I get to avoid the LA driving madness!

Please stay in touch – my new contact information is:

Email: trudy.mallinson@usc.edu

Phone: (323) 442-2850

Best,

Trudy Mallinson