ACUTE INPATIENT REHABILITATION PROGRAM

2011 ANNUAL REPORT
2011: The Year in Review

FROM THE MEDICAL DIRECTOR

We are pleased to present the annual report for the Regions Hospital Rehabilitation Institute for 2011. The Rehabilitation Institute is comprised of therapies serving Regions Hospital acute care inpatients, the accredited intensive inpatient rehabilitation facility at Regions Hospital, and outpatients both on and off the hospital campus. It also includes the inpatient rehabilitation interdisciplinary team of physical medicine and rehabilitation physicians (PM&R), rehabilitation nursing, occupational, physical, speech and language, recreational, and aquatic therapies, social work, nutrition services, and rehabilitation psychology. The primary focus of this report is the 16-bed intensive inpatient rehabilitation program and related services.

Regions Hospital and the Rehabilitation Institute continue to grow staff, services and facilities. Our staff members work with people who have a wide variety of disabling illnesses and injuries. Figure 1 shows the ages of the 267 persons we served in 2011, with slightly more than three-fourths within the ages of 41 to 85. Our CARF-accredited comprehensive program provides intensive rehabilitation services to inpatients that meet their individual needs and help them regain maximum independence and function. Figure 2 shows the diagnosis of persons we served. Our specialty focus continued to be neurological rehabilitation and trauma rehabilitation: 90 percent of persons served had impairments in these areas; the top three diagnoses were stroke, brain injury and major multiple trauma. We coordinate care among all providers and especially with Regions’ award-winning Stroke Program, Spine and Spinal Cord Injury Center, Level I Trauma Center, Cancer Care Center, Burn Center, the growing Parkinson’s Disease Program and the orthopedics and neurosurgery programs.

Through the dedicated and compassionate work of the interdisciplinary rehabilitation team including patients, families, care providers of all types, administrators, physicians and volunteers, the Rehabilitation Institute continues to strive for excellence in quality of care, patient experience, and value of services provided. We hope you will enjoy learning about some of our recent accomplishments highlighted throughout this report.

FIGURE 1 PERSONS SERVED BY AGE GROUP, 2011

<table>
<thead>
<tr>
<th>Age Group in Years &amp; Number of Persons</th>
<th>Percent of Persons Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-17 (2)</td>
<td>0.7</td>
</tr>
<tr>
<td>18-25 (19)</td>
<td>7.12</td>
</tr>
<tr>
<td>26-40 (38)</td>
<td>14.23</td>
</tr>
<tr>
<td>41-65 (125)</td>
<td>46.82</td>
</tr>
<tr>
<td>66-85 (79)</td>
<td>29.59</td>
</tr>
<tr>
<td>85+ (4)</td>
<td>1.5</td>
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</tbody>
</table>

FIGURE 2 PERSONS SERVED BY DIAGNOSIS, 2011

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number of Persons Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>109</td>
</tr>
<tr>
<td>Brain Injury</td>
<td>13</td>
</tr>
<tr>
<td>Major Multiple Trauma</td>
<td>10</td>
</tr>
<tr>
<td>Spinal Cord Injury</td>
<td>9</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>5</td>
</tr>
<tr>
<td>Neurological Conditions</td>
<td>38</td>
</tr>
<tr>
<td>Lower Extremity Amputations</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>59</td>
</tr>
</tbody>
</table>
Everyone involved in the Regions Hospital Rehabilitation Institute is dedicated to the delivery of best patient care and best patient experience. We are proud of our work in many areas that enhance these objectives.

Our People
The success of the care we deliver to the people we serve begins with our employees. In 2011 we continued to make great strides in developing staff expertise to support best care and the expansion of services.

- Employee satisfaction measured by employee engagement at work reached 85 percent (the high-performing all-industry norm is 75 percent).
- Ijeoma Ogbonnaya, RN, achieved certification as Certified Rehabilitation Registered Nurse (CRRN).
- Dr. Keith Moench, MD, joined Physical Medicine and Rehabilitation as a new full-time physician.
- Deborah M Spotts, MAL, BSN, RN-ONC, joined the Rehabilitation Institute as the new nurse manager for the inpatient rehabilitation unit.
- Dietitian Sina Teskey, RD, LD, was nominated on behalf of the Twin Cities district Dietetic Association as the Recognized Young Dietitian of the Year.
- In January 2012, Cathy Meakins, BSN, RN, became the centralized rehabilitation admission nurse. Her responsibilities are to assure the success of internal and external referrals to the rehab unit and to promote the rehab program internally and externally.
- Lynn Svendsen, RN, BSN, CRRN, marketed Regions rehab program at the annual Association of Rehabilitation Nurses conference.
- Cathy Johnson Thompson, therapy aide, was named Regions’ Pro of the Month in May.
- Physical therapists Erin Little, PT, and Colleen Schuldt, PT, became certified in the Neuro Developmental Treatment approach, and Kari Olk, PT, and Lindsay Olson, PT, acquired advanced training in vestibular evaluation and treatment to expand our services for evaluation and treatment of balance and dizziness disorders.

Certified Rehabilitation Registered Nurses (CRRN) focus on providing care for patients who are physically disabled and/or have chronic illness. Their mission is to assist patients to adapt to their disabilities, to achieve the highest level of function and independence possible, and to provide encouragement to help the patients return to independent living in their community. This nursing care also assists the family to cope with the adjustment to changes and teaches both patient and family new skills to be able to adapt to the disability.

CRRNs provide direct patient care through medication management, wound care and bowel and bladder management. They encourage, facilitate and reinforce the skills patients learn in therapy. For example, they help them practice transferring to and from bed to wheelchair and to and from commode or bathroom. CRRNs also help patients practice dressing, eating and grooming techniques; provide education to patients and families on the disease process and self care; and offer emotional support to patients and their families as patients learn to regain their independence.

Currently 57 percent of the registered nurses on the acute rehab unit are CRRNs. As part of our nursing strategic plan, we are working to grow our numbers of nursing staff with specialty certification.
Our Services
The Rehabilitation Institute’s comprehensive approach to care insures that all patients receive treatment specific to their needs and are helped to achieve their goals of recovery and function. In 2011 our programs continued to excel in providing top-notch care, achieving outcomes that met or exceeded national benchmarks. The Rehabilitation Institute:

- Received a three-year re-certification from the Commission on Accreditation of Rehabilitation Facilities (CARF) in adult inpatient medical rehabilitation and stroke specialty rehabilitation. Our stroke specialty rehabilitation program demonstrated 100 percent conformance to all standards and received “exemplary” recognition for our Peer Mentor Program for stroke survivors.
- Provided therapy services seven days per week through the addition of Sunday therapy services in occupational, physical and speech therapy, to ensure that the plan of care for intensity of therapies is met.
- Established a Brain Injury Support Group. This support group meets the first Thursday of every month at Regions Hospital.
- Consistently scored in the top 25 percent in patient satisfaction compared to national benchmarks, and achieved top 10 percent 3 of 12 months. Our annual statistics:
  - 71.3 percent said they “would definitely recommend” the rehab unit to family and friends,
  - 85.4 percent said that nurses treated them with courtesy and respect,
  - 78.1 percent stated that nurses explain things understandably, and
  - 69.7 percent said that nurses did everything to help their pain.
- Designated the day before discharge as patient’s “Independence Day” when the nurses and therapists challenge the patient to function as independently as possible. Independence Day also has presented a way to capture the patient’s maximum gain with functional independence.
- 100 percent of patients reached after discharge reported that the education they received while in the rehabilitation program was “very effective.”

On a September evening, Ngoan Dang was working in his restaurant when his left side became weak and he had difficulty speaking. He had a stroke. His wife requested he be taken to Regions Hospital Emergency Center where he was evaluated quickly and given t-PA. Tissue Plasminogen Activator (t-PA) is a drug treatment used to dissolve blood clots and reduce the effects of stroke. After five days of acute care at Regions Hospital, Mr. Dang regained some strength in his left leg but not much in his left arm. He was transferred to the acute inpatient rehabilitation unit at Regions to continue to improve his function with the goals of return home and return to work.

For the next 16 days, Mr. Dang worked hard with occupational therapy, physical therapy, pool therapy, recreation therapy and speech therapy. During that time his biggest challenge was to learn to slow down. He says, “I had to help myself accept and know my weaknesses and strengths.” Mr. Dang eventually got faster. He also stayed in the “independent living room” to practice skills needed for return home with less direct supervision, and was later discharged to home with outpatient therapy.

Mr. Dang completed his outpatient therapy in two-and-a-half months and required a check up evaluation about three months after that. He has said, “I am still not fast enough for me. I get mad because I want to help seat people at the restaurant.” He looks forward to becoming strong enough to visit family in Vietnam. Mr. Dang works on his exercises every day and has set up an exercise area by his beloved Bonsai trees and orchids. His advice to others is, “If something helps you, you need to do it. Find a regular routine. If it can’t happen fast, that’s OK.”
The Rehabilitation Institute recognizes the growing role of technology in the everyday lives of the people we serve. In 2011 Regions Hospital capital funding and Regions Hospital Foundation grants to our program allowed the expansion of cutting-edge assistive technology in evaluation and treatment to meet individual patient needs and enhance rehabilitation efforts.

**iPads**

Kayla Brinkman, SLP, and Elizabeth Hostetler, OT, prepared and received a Sharing at Work Grant to fund the purchase of nine iPads. Our therapists have used iPads with the people we serve to support communication after stroke and reinforce higher-level cognitive skills such as banking, scheduling, time management and memory. It is proving to be an extremely effective technology.

**Pressure Mapping**

The seating and wheeled mobility clinic added a pressure mapping system to its evaluation tools in 2011. Pressure mapping allows the therapist to measure the pressure distribution between a patient and a support surface such as a bed or seat cushion and/or seat back. Sensors are used to create dynamic pressure images, which allow therapists to make clinical judgments in prescribing cushions, backs and also beds. The dynamic pressure images can also be used as education tools for patients who lack sensation, such as those with a spinal cord injury or others who may lack awareness of their body positioning. The use of pressure mapping aids in prevention of skin breakdown (i.e., pressure ulcers) and enhances the therapist’s ability to recommend proper positioning.

**Bioness**

The Rehabilitation Institute continued expanding its use of the Bioness to enhance therapy results. The Bioness L300 device is an advanced neuroprosthetic device that uses electrical impulses to directly stimulate the appropriate nerves and muscles in an arm or leg, in order to improve use of the hand or to lift the foot to help a patient relearn to walk. The Bioness has been helpful for those who have disease or injury to their central nervous system including stroke, multiple sclerosis, traumatic brain injury, cerebral palsy or incomplete spinal cord injury.

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**David Frank Recovered from Brain Injury**

In mid July 2011, David Frank experienced a brain injury when he fell 12 feet from scaffolding at work onto a cement floor. At first he required a ventilator for breathing, a tube for eating and a brace to protect his spine. After about 20 days in intensive care, he was able to transfer to the Region’s acute inpatient rehab unit. It took several weeks for him to fully wake up from his brain injury. “When I woke up, I didn’t know where I was, my mind was pretty much blank. I didn’t even know what town I was in!”

David worked for nearly six weeks with therapists. “They had me do projects to make me think and they kept giving me harder and harder things to push me, and I loved it; it was challenging.” He was very focused on getting back on his feet to return home, which he did in early September. “I could have chosen a hospital that was closer to my house but I got such great treatment here I didn’t want to go any other place.”

Since participating in outpatient therapy, David has been able to return to many activities, including driving. He has graduated from physical and occupational therapy. He hopes soon to return to work and his most favorite activity, riding his bicycle. “I think I’m doing really good right now, I’m getting my confidence back. I was shaken and wasn’t sure of myself and I found myself apologizing a lot. But now my confidence is back and I’m holding my head high again.”
The stated mission of the Rehabilitation Institute is to provide compassionate and comprehensive rehabilitation services that meet the individual needs and values of persons served. We measure our rehabilitation outcomes in a variety of ways.

**Outcomes by Diagnosis**

Figure 3 shows the length of stay for 2011 (in days) by diagnosis.

Figure 4 shows that over two-thirds of persons served were discharged to home/community living settings. Regions discharges fewer patients to acute care and skilled nursing facilities compared to the national benchmark.
Figure 5 shows the discharge location for 2011 by stroke diagnosis.

Figure 6 shows the discharge location for 2011 by brain injury diagnosis.

Figure 7 shows the discharge location for 2011 by major multiple trauma diagnosis.

Figure 8 shows the discharge location for 2011 by spinal cord injury diagnosis.

Figure 9 shows the discharge location for 2011 by lower extremity amputation diagnosis.
We use a standardized assessment tool to measure our patients’ functional improvements and compare program outcomes to regional and national benchmarks.

**Functional Outcomes**

**Figure 10** shows functional improvement by diagnosis. Persons served in our program with stroke, brain injury, miscellaneous conditions and neurological conditions demonstrated greater improvement than the national average for persons with similar impairments, as measured by the Functional Independence Measure (FIM) score change.

**Figure 11** shows the FIM Effectiveness for persons receiving rehabilitation in our program. They demonstrated greater improvement overall on average than the national benchmark as evidenced by average FIM change from admission to discharge.

**Figure 12** shows that, at 90-day follow-up, 98.6 percent of our patients have sustained or continued to improve their function. Furthermore, the overall function and sustained improvement of persons served in our program is better than the national benchmark at 90 days after discharge.
We value our responsibility to all our constituencies. We strive always to remember those whose needs we are called to serve.

**Facts and Figures 2011**

Our total admissions for 2011 were 267 versus 245 admissions budgeted for the year, a 2.3 percent increase in admissions from 2010. Our average daily census was 11, exceeding the budgeted daily census of 10.6 patients per day. **Figure 13**, the “payer summary,” identifies the source of payments for the inpatient rehabilitation program in 2011. The Rehabilitation Institute accepts payment of all types. In 2011 our top three sources of payment for our patients were Medicare, Medicaid and HealthPartners health plan.

**Community Outreach**

Frequent interactions with the community are a very important objective of the Rehabilitation Institute. Each year, our staff members look forward to participating in many activities and events throughout the area, including expanding community resources for persons with disabilities, providing education and support services, and participating in health advocacy, to name a few. In 2011, we enjoyed these interactions:

- 22 adults, 5 children and 3 dogs represented the Rehabilitation Institute in the Minnesota Brain Injury Association’s “Walk for Thought” around Como Lake in St. Paul in September. The group raised $1697 and provided information about the services we offer.
- We held ongoing support groups at Regions Hospital for patients and their families; these support groups addressed the impact of stroke, communication disorders, swallowing difficulties and nutrition and brain injury.
- Three speech-language pathologists from Regions serve on the board of directors for Twin Cities Speech Language Pathologists, which coordinates continuing education opportunities to SLPs across the metro.
- Nici Lippert, PT, presented to physician assistant students at St. Catherine's University on the roles and specialties of PTs and OTs to help them better understand appropriate or under-identified referrals.
- Seven Peer Mentors from the community are actively involved talking to and counseling patients on the rehab unit.
- We sponsored and exhibited at the HealthEast Brain Injury Conference in September.
- Staff and peer volunteers gave 61 Think First presentations on preventing brain and spinal cord injuries to approximately 2300 high school students in the East Metro area.
- 2 occupational therapists participated in the Cottage Grove Safety Camp in June. They helped students gain a greater awareness of what it is like to have a physical disability.
- Kathy Kiefer, OTL, assisted with a CarFit event in Bloomington in September. CarFit demonstrates for senior citizens how to adjust seats, mirrors and other car equipment to promote driver safety. She also gave community presentations on driving safety to Bethesda Hospital’s OT/speech staff in...
August, to the East Metro AARP Driver Safety Program in October and to retired Masons in December.

- Evan Page, CCC, SLP, gave a presentation at the HealthPartners Hematology-Oncology Nursing Symposium in April and led a roundtable discussion at the Minnesota Speech and Hearing Association’s spring convention.
- Jay Marcoulier, CCC, SLP, gave a presentation to local rehabilitation professionals in May and one at the Topics in Neuroscience Nursing Conference in September.
- We sponsored a team of 10 people who participated in the Feed My Starving Children Program in September.
- Jill Danburg Knudsen, OT, planned and participated in several fundraising events for Healing Hands for Haiti.
- Angela Schueller, SLP, participated in a mission trip for the Food for the Hungry organization. She was in Kenya, Africa, from September 29 to October 12, offering people spiritual support, community education and provision of functional goods/resources in an attempt to improve their quality of living.
- Dr. Matt Hofkens has served as the team physician for Woodbury High School. He also has been training a pet therapy dog, Floyd, with CanDo Canines. In September, Dr. Hofkens presented to the Regions Hospital Foundation on short- and long-term impact of sports-induced concussions.
- Medical Director Dr. Rebecca Koerner, MD, spent three weeks on a medical mission to Tanzania, Africa.
- Registered Dietician Sina Teskey, RD, LD, appeared 15 times on Twin Cities Live on nutrition-based topics. She wrote 13 articles for Regions Hospital newsletter, 7 articles for the HealthPartners e-newsletter and facilitated 4 Yum Power activities. At Regions Hospital and community-wide events, she discussed nutrition as related to cancer care. She contributed to the Cancer Care Newsletter and co-led the monthly “Relish” Support Group for head and neck cancer survivors. She was also involved in the Eagan High School Mentorship Program.

PEER MENTORS SUPPORT PATIENT RECOVERY

Peer Mentors who have had a brain injury, spinal cord injury (SCI) or stroke are available on a weekly basis to visit with patients who have experienced similar injuries or illnesses, and their support persons. Stroke Peer Mentors visit three days per week, Brain Injury Peer Mentors visit two days per week, and the SCI Peer Mentor visits once each week. Additional Peer Mentor visits are scheduled per staff and patient request for persons who have had brain injury, SCI, stroke or amputations. These visits last from one to three hours, per patient preference. Amputee Peer Mentors are provided through a collaborative relationship with Amputee Empowerment Partners. Peer Mentors often share their contact information, allowing patients to remain in contact after the visit. Brain injury and stroke Peer Mentors often invite patients and their support persons to the Regions TBI and stroke support groups post-discharge. Both patients and their support persons consistently comment on how helpful and therapeutic it is to visit with someone who is able to relate based on personal experience.
Looking Ahead

FROM THE INSTITUTE DIRECTOR

Our commitment to best care and best experience motivates us to continue to improve in the provision of specialized inpatient rehabilitation. We have great opportunities to partner with expanding programs of neuroscience, trauma, orthopedics, oncology, and more, to serve a broader patient population. We will be working closely with our system hospitals and programs, and with the HealthPartners Medical Group, to assure placement of patients in the most ideal setting for their rehabilitation. We continue to raise the bar on development of advanced clinical competencies and are exploring opportunities to expand our research efforts. Other 2012 goals include:

- Achieve top 10 percent in patient satisfaction compared to national benchmark
- Achieve top 25 percent compared to national benchmarks in functional improvement, length of stay and discharge to home/community compared to national benchmarks
- Continue to grow our programs overall and to expand our services, expertise and technology, especially in care of persons with brain injury and spinal cord injury
Do you want to help us provide the best rehabilitation care to the persons we serve and help them live as independently as possible? Then please consider a charitable donation to Regions Hospital Foundation on behalf of the Rehabilitation Institute. Tax-deductible gifts allow us to fund innovative new patient-centered programs and offer state-of-the-art therapeutic equipment and technology we might otherwise be unable to provide. You can make a gift online by visiting www.regionshospital.com. If you have any questions regarding a gift, please call Regions Hospital Foundation at 651-254-2376 or send an email to RHF@healthpartners.com. Thank you for your consideration.