



# Executive Summary

Community NeuroRehab of Iowa  
2017 Outcome Validation Study

**2017 Outcome Validation Study submitted by:**

Reviewed by:

Rolf B. Gainer, Ph.D.  
Board of Directors

Tom Brown, B.S., CBIST  
Chief Executive Officer

Completed by:

Angie Weis, MA, CBIS  
Quality Improvement Director

## Executive Summary

Community NeuroRehab's Outcome Validation Study was developed to measure the durability of outcomes achieved through participation in CNR's community-based neurobehavioral rehabilitation service. Information is provided on each discharging participant's avocational and vocational endeavors, behavioral supports, social role return, substance abuse, interfering psychiatric issues, level of caregiver involvement, and other factors affecting quality of life and level of autonomy. Data is collected in each of these areas at time of admission, discharge, and post-discharge follow-up. This study is reflective of the 57 discharges which have occurred since CNR's opening in 2010; however, due to four individual's readmissions, the study is based on data collected on 51 individuals.

The number of discharges per year has ranged from three in 2011 to fourteen in 2016. The 2017 cohort was the second smallest cohort with nine discharging individuals. The average age at admission was 45 years old, making this year's cohort the oldest cohort of admitting individuals. On average, the individuals discharged in 2017 experienced a ten-year gap between injury and admission to CNR, which is consistent with our cumulative average of eleven years.

Despite the 2017 cohort being more medically fragile than all other cohorts both pre- and post-injury, this factor did not appear to hinder the achievement of outcomes obtained. Data from the 2017 cohort showed the following:

- At time of admission, 100% of individuals were at risk of institutionalization, unnecessary hospitalization, incarceration or homelessness. At time of discharge, 88.89% of individuals returned to a lower level of care than he/she was at prior to admission. The only individual who did not discharge to a lower level of care returned to his/her pre-admission level of care due to an acute medical crisis. Follow-up was completed three to six months post discharge and 88.89% of individuals maintained or lowered their discharging level of care resulting in continued cost savings
- Unemployment decreased by 22.23% between pre-admission and follow-up.
- Prior to admission, 55.56% of individuals were using substances. At discharge, only 11.11% were utilizing illicit drugs or alcohol. And at the time follow-up, 100% of individuals were abstaining from drugs and alcohol.
- Access and utilization of community services increased by 33.33% between pre-admission and follow-up.
- Interfering psychiatric and behavioral problems decreased by 66.67% allowing for a greater return to pre-injury social role.

Along with the data points mentioned above, future studies will begin to take a deeper look at: the rate of occurrence and effect of multiple brain injuries, possible deterrents linked with standardized testing scores (MPAI-IV), a cross comparison of the durability of outcomes achieved for individuals who left CNR's residential program and transitioned into CNR's intermittent component of services, and the durability of outcomes achieved compared to length of time post injury.