

Neurologic Rehabilitation Institute of Ontario

Outcome Validation Study 2017 Highlights

The 2017 NRIO Outcome Validation Study represents the completion of the study's 20th year of operation making it one of the longest running post-acute brain injury studies in North America. The study focuses on the functional aspects of living with a brain injury including social role return, post-rehabilitation life activities (vocational return, avocational activities, and school, training and volunteering), levels of paid and unpaid supports and barriers created by mental health and substance abuse problems. The study also includes a Durability component, which examines the long-term durability of the outcomes attained by NRIO clients.

In consideration of the 20-year length of the study specific trends and shifts in the individuals served becomes apparent:

Demographics

- 2017 Age at injury 26.9 vs. 32.1 over the life of the study
- 2017 Time from injury to NRIO Admission 39.5 months vs. 27.8 over the life of the study
- 2017 Motor Vehicle causation 92.6 vs. 90.4 over the life of the study
- 2017 male female % 62.9/37.1 vs. 67.5/32.5 over the life of the study
- 2017 GCS <9 69.2% vs. 82.0% over the life of the study

In 2017, NRIO treated a younger population with a longer period from injury to post-acute admission. The level of severity of injury was less than the average of the prior 20 years.

Outcomes

- 2017 % employed/supported employment 11.1% vs. 27.9% over the life of the study
- 2017 % discharged with 2 hours/day of Attendent care 29.6% vs. 28.8 over the life of the study
- 2017% "No change in primary social role" 25.9 vs. 25.3 over the life of the study
- 2017 % "Negative change in status" 44.4 vs. 29.2 over the life of the study
- 2017 % Reporting Substance Use/Abuse Problems 29.6 vs. 28.0 over the life of the study
- 2017% Reporting "Psychological Problems" 40.7 vs. 26.9 over the life of the study

In 2017 employment and supported employment was considerably lower than the average. The lower employment is likely associated with a higher percentage reporting a negative change in status and psychological problems.

Durability of Outcomes

- 20% showed increased vocational/avocational activity, 23% showed decreased vocational/avocational activity and 57% remained at the same level of participation
- 27% showed an increase in social role return, 3% showed a decrease in social role return and 70% remained at the same level of social role functioning

- 43% required less care than they required at discharge, 3% required greater care than at discharge and 54% had care needs which were consistent from their discharge
- 27% had increased self-management skills, 3% experienced a decrease in self-management and 70% remained at a consistent level of self-management from discharge
- 3% experienced an improvement in physical problems, 0% experienced an increase in physical problems and 97% retained their status from discharge

The durability component of the study followed 30 individuals 1-7 years from their respective discharges from NRIO and observed their functional status in work/avocational pursuits, social role return, care and assistance needs, self-management and physical problems.

- In Work and Avocational return 77% showed a stable or increased participation
- In Social Role Return 97% showed a stable or improved Sociakl Role function
- In Care Needs 97% showed stable or fewer care needs
- In Self-Management 97% showed stable or improved Self-Management Skills
- In Physical Care Problems 100% showed stable or improved physical health

In general, following discharge a significant number of former NRIO program participants demonstrated stable or improved performance, required less care and supervision and were able to engage in social role activates.