

Method Detailed sub-acute HSU data for 316 cases of adult severe TBI (GCS 3–8) was extracted from the injury compensation database of the Transport Accident Commission in Victoria, Australia. Data comprised of monthly observation counts of HSU over the 60-month period post injury. A semi-parametric group-based trajectory analytical technique for longitudinal data was used to identify distinct clusters of participant trajectories.

Results Four patterns of HSU trajectory were identified. Group 1 (27% of participants) displayed a rapid decrease in HSU in the first 12 months post injury which stabilised to an average of 1–2 services per month thereafter. Group 2 (24%) had a sharp peak in HSU post-injury (25–36 services per month) and a gradual decline over time. Group 3 (32%) displayed a peak in the first months post injury (16–25 services per month), and then a very slow decline. Group 4 (17%) displayed a steady rise from 16 to 36 services per month, and then a gradual decrease in the final 2 years.

Significance Idiographic analysis of subacute HSU using trajectory modelling allows differentiation of distinct patterns of HSU following severe TBI. Such analysis may aid health system resource planning and management.

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DIFFERENTIATING PATTERNS OF HEALTH SERVICE USE FOLLOWING SEVERE TRAUMATIC BRAIN INJURY: AN IDIOGRAPHIC ANALYSIS

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^{1,2}A Collie, ¹K Prang*. ¹*Institute for Safety Compensation and Recovery Research, Monash University, Australia;* ²*Department of Epidemiology and Preventive Medicine, Monash University, Australia*

Background Traumatic Brain Injury (TBI) can result in lifelong physical and behavioural impairments that necessitate long-term access to healthcare services. Provision of health services to those with severe TBI is a major cost for health and injury compensation systems. Statistical trajectory modelling allows differentiation of patterns of health service utilisation (HSU) following TBI.

Objective To differentiate and describe patterns of HSU following severe TBI.