

# ` Quick Review of Model System Research

## Type and Frequency of Wheelchair Repairs and Resulting Adverse Consequences Among Veteran Wheelchair Users

### What is the study about?

### The goal of this study was to investigate the rates of wheelchair repairs and resulting negative consequences in a population of Veteran full-time wheelchair users with spinal cord injury (SCI). Access to wheelchairs can help individuals with impaired mobility to more easily participate in personal, professional, and social activities. However, wheelchair breakdowns or repairs can act as a barrier to participating in these activities.

### What did the study find?

This study found that there were a high number of repairs and they have negative consequences in this sample of Veterans who use wheelchairs. This finding was particularly true for power wheelchair users. Nearly 90% of participants needed at least one repair in the six months prior to completing the study survey. Wheelchair usage (distance travelled and frequency of curb negotiation) was related to repairs while wheelchair age was not. Nearly 44% of participants who required at least one repair experienced at least one adverse consequence. The most common consequences were having to use a backup chair (36%), being stranded in or outside of the home (23%), and missing a social event (8.5%).

### Who participated in the study?

Individuals who are Veterans (n=60) and who use a wheelchair 40 hours or more per week. Participants were recruited at the 37th National Veterans Wheelchair Games.

### How was the study conducted?

This was a convenience cross-sectional sample survey study.

### How can people use the results?

Individuals with SCI and their families can use the results of this study to better understand the different types of wheelchair repairs needed for individuals who frequently use a wheelchair, and the different types of negative consequences that can occur due to needing repairs. Practitioners can use these findings to help reduce adverse consequences after breakdowns by improving wheelchair quality, providing preventative chair maintenance, and repairing breakdowns in a timely and efficient manner.

### Reference

Henderson, G.V., Boninger, M.L., Dicianno, B.E., & Worobey, L.A. (2020). Type and frequency of wheelchair repairs and resulting adverse consequences among veteran wheelchair users. *Disability and Rehabilitation: Assistive Technology,* doi:10.1080/17483107.2020.1785559.

**Disclaimer**

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