

Wheelchair breakdowns becoming more common

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Wheelchair users with spinal cord injury (SCI) report very high rates of wheelchair breakdowns—and the problem is getting worse, suggests a study in American Journal of Physical Medicine & Rehabilitation (AJPM&R), the official journal of the Association of Academic Physiatrists, AJPM&R is published by Lippincott Williams & Wilkins, a part of Wolters Kluwer Health.

The study found that over 50 percent of wheelchair users experienced a breakdown in a six-month period, up from a previous report. "It is possible that this increase in the number of repairs is the result of a decrease in wheelchair quality resulting from changes in reimbursement policies and a lack of enforcement of standards testing," write the researchers, led by Dr Michael Boninger of University of Pittsburgh's Department of Physical Medicine and Rehabilitation. They also found a significant increase in wheelchair breakdowns causing health and safety consequences.

For People with SCI, Wheelchair Breakdowns Becoming More Frequent

Dr Boninger and colleagues analyzed data from an ongoing survey study of more than 700 individuals with SCI who used wheelchairs at least 40 hours per week. The participants provided routine data on wheelchair breakdowns requiring repairs, along with any consequences of breakdowns—for example, being stranded, missing a medical appointment, or being injured.



The data suggested that the rate of wheelchair breakdowns has increased in recent years. From 2006 to 2011, about 53 percent of wheelchair users reported one or more breakdowns requiring repair per six-month period—a significant increase over the 45 percent rate from 2004 to 2006. The average number of repairs per person also increased: 1.42 in 2006-11, compared to 1.03 in 2004-06.

The rate of adverse consequences of breakdowns increased as well: 30.5 percent in 2006-11, compared to 22 percent in 2004-06. The total number of consequences per participant in 2006-11 was more than twice as high as in 2004-06.

Power wheelchairs had more problems than manual wheelchairs—nearly two-thirds of all consequences were reported by power wheelchair users. These rates were especially high in wheelchairs equipped with power seat functions.

Differences by Race/Ethnicity and Funding Source

Rates of breakdowns and repairs appeared higher for individuals from a racial/ethnic minority background. These same individuals were also less likely to have a backup wheelchair available.

Individuals whose wheelchairs were funded by Medicare or Medicaid had higher rates of breakdowns and consequences, compared to those covered by private insurance or other sources (such as the Veterans Administration or workers compensation).

More than 2.8 million Americans use a wheelchair for mobility, allowing greater independence in daily functioning, home life, and vocational settings. Wheelchair users are at risk when breakdowns occur, with consequences ranging from minor inconveniences to significant injuries.



The new data raise concerns that wheelchair users with SCI are experiencing higher rates of wheelchair breakdowns. The higher risk among people whose wheelchairs are funded by Medicare/Medicaid may be at least partly related to recent changes in insurance reimbursement policy. In addition, the lax requirements for testing don't ensure that wheelchairs meet established standards for performance and safety.

"This paper should serve as a call to reevaluate and revise current policies and standards testing for wheelchair prescription in the United States," Dr Boninger and coauthors conclude. They also suggest that educating wheelchair users on the importance of routine maintenance—such as replacing cushions, caster wheels, and batteries at recommended times—might help to reduce the rates and consequences of breakdowns.

Provided by Wolters Kluwer Health

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