

HIGH CAPACITY WEIGHING INSTRUMENTATION FOR WHEELCHAIR USERS: A PROPOSED NEW DEVICE

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ABSTRACT

Over 20 million Americans have severe mobility impairments, including nearly 4 million who use wheelchairs for mobility. As the number of people age 65 or older increases to a projected 90 million by 2050, the number of wheelchair users is expected to increase simultaneously. The obesity epidemic is also contributing to increasing wheelchair use. However, wheelchair-accessible weighing systems are sparse within the health system, likely due to the high cost relative to traditional weighing scales. Weight measurements are key indicators of overall health; consistent weight monitoring has been shown to improve weight management and personal health. As legislation such as the Affordable Care Act (ACA) incentivizes disease prevention, there is an increased need for high-capacity accessible weighing systems for the growing population of wheelchair users. Presently, we describe a new accessible weighing device to meet this need. The long range goal of this research effort is to increase access to high-capacity weight measurement devices in clinics, hospitals, and users' homes.

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