

Impact of Access to Refurbished Durable Medical Equipment on Quality of Life and Community Participation



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INTRODUCTION

Refurbishing Durable Medical Equipment (DME; wheelchairs, walkers, bath benches, etc.), is a cost-efficient way of providing equipment to individuals who lack resources and affordable medical equipment. Project CARAT (Coordinating and Assisting the Reuse of Assistive Technology) is an outreach program focused on refurbishing and providing free DME to areas of need in Kentucky. Similar programs exist, but there has been limited research on the impact of reusing medical equipment on overall patient health and financial well-being. Limited research examining the impact of refurbishing & reutilization programs that provides DME free of charge.

PURPOSE OF STUDY

The aim of this study was to examine the factors facilitating or hindering the use of Project CARAT (Coordinating and Assisting the Reuse of Assistive Technology) and investigate how obtaining necessary durable medical equipment (DME) free of charge influences the quality of life (QOL) of individuals and/or caregivers. Project CARAT has multiple sites, one of which is overseen by University of Kentucky Doctor of Physical Therapy students, and assessing the impact will allow for enhanced services.

METHODS

This cross-sectional study employed a qualitative survey distributed through multiple community organizations and social media as an online survey, with optional hard copy, to collect detailed narratives from participants. The 13-question Qualtrics survey was comprised of multiple-choice and open-ended questions designed to explore the participants' experiences with refurbished DME in terms of QOL, both for the person and caregiver. Quantitative data analysis included averages. Relative frequencies were performed. Responses to the open-ended questions were categorized into common themes.

SUBJECTS

70 subjects across Kentucky who had recently acquired refurbished DME through local Project CARAT sites.

- 56% - individuals needing the equipment or caregivers
- 21% - employed by an agency
- 7% - community health workers
- 6% - healthcare case workers.

RESULTS

70 of 300 surveys were submitted. Data on location suggests 43% lived in urban settings, 31% in the suburbs, and 26% in rural areas. Altogether, participants came from 27 different counties.

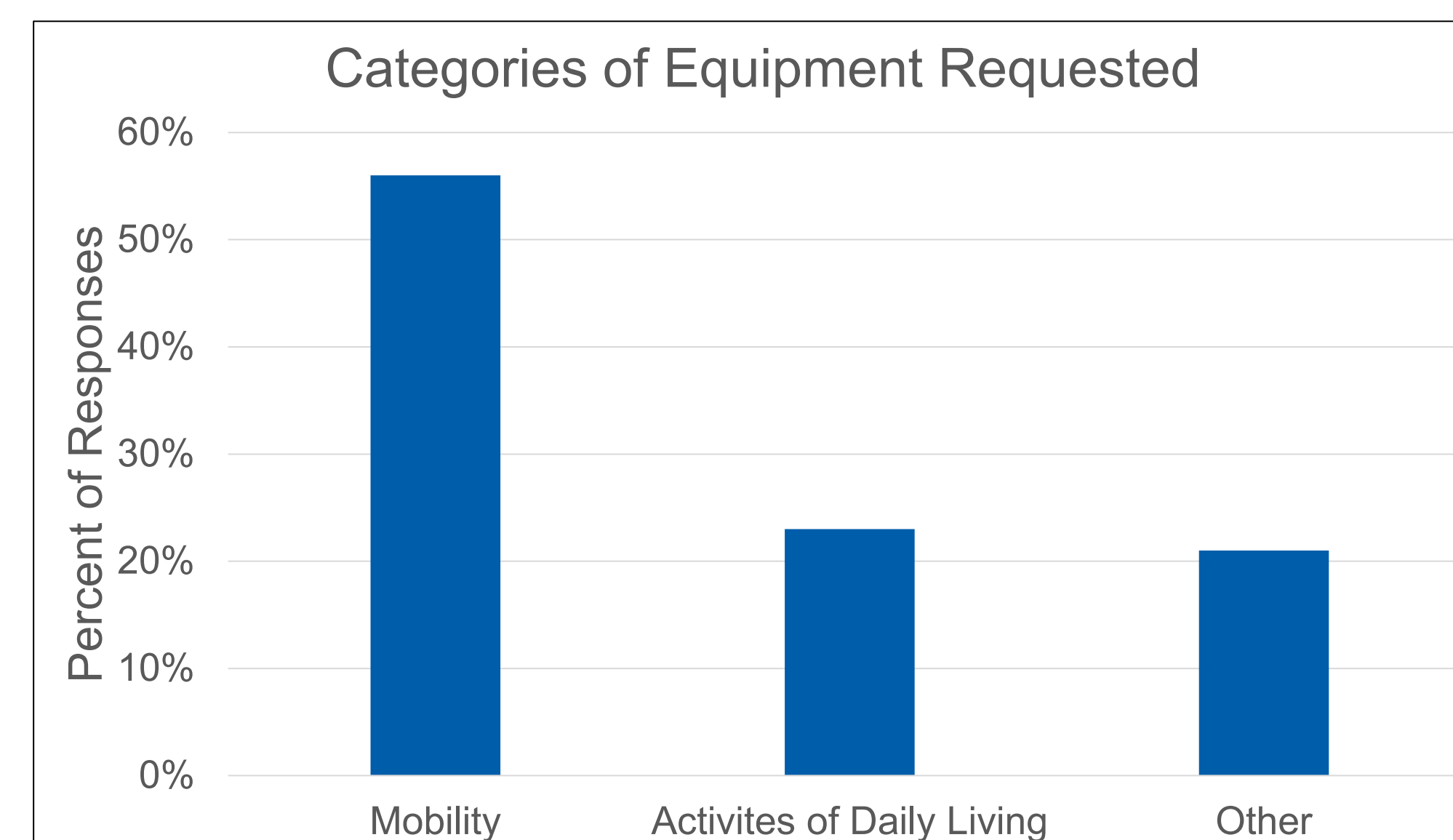


Figure 1: Mobility enhancement is the primary reason participants requested DME. Equipment that assisted with mobility included wheelchairs, walkers, and scooters.

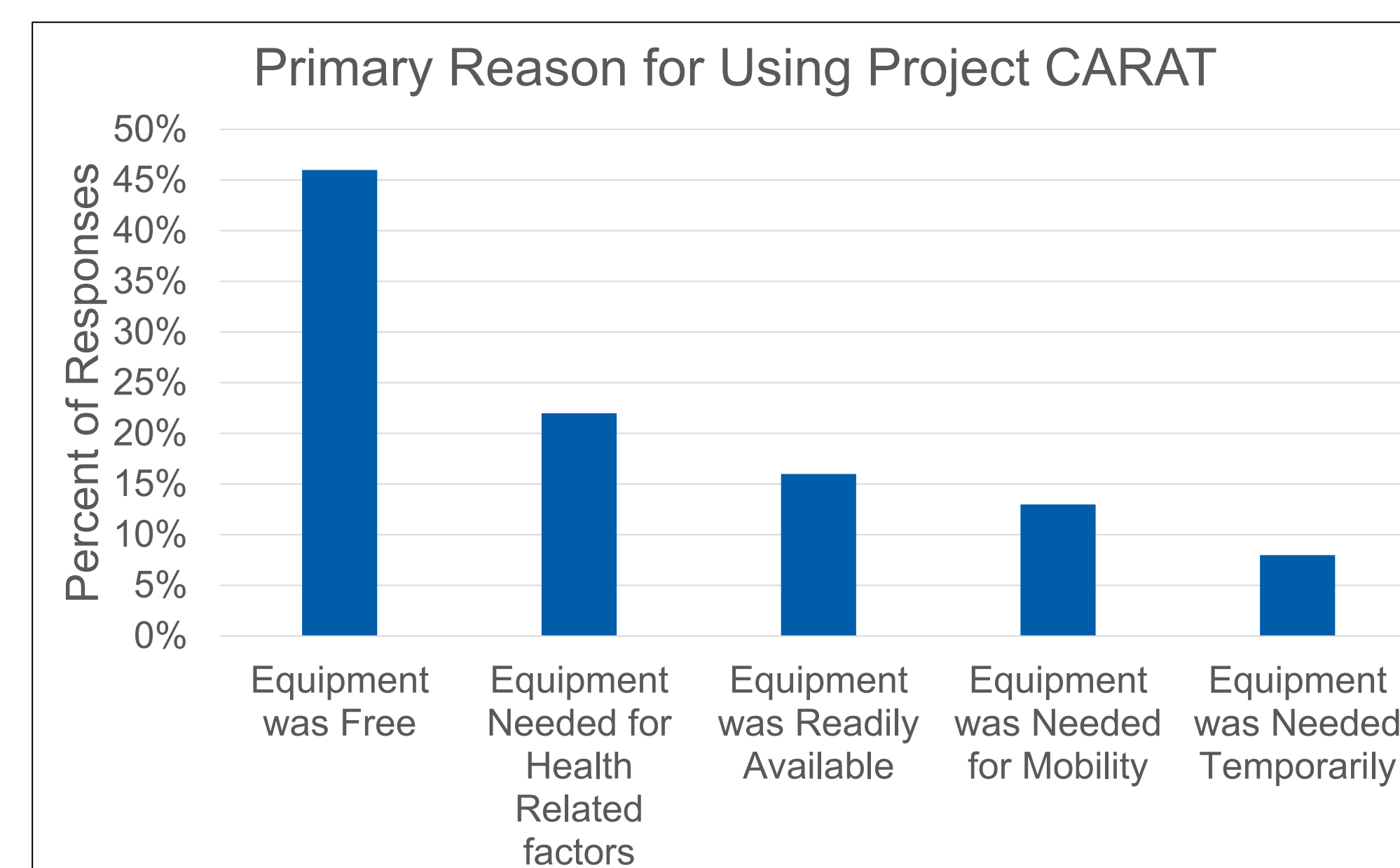


Figure 2: The Project CARAT program was utilized primarily for equipment available **free** of charge. Participants receiving DME at no cost eliminates the need to cover expenses out of pocket.

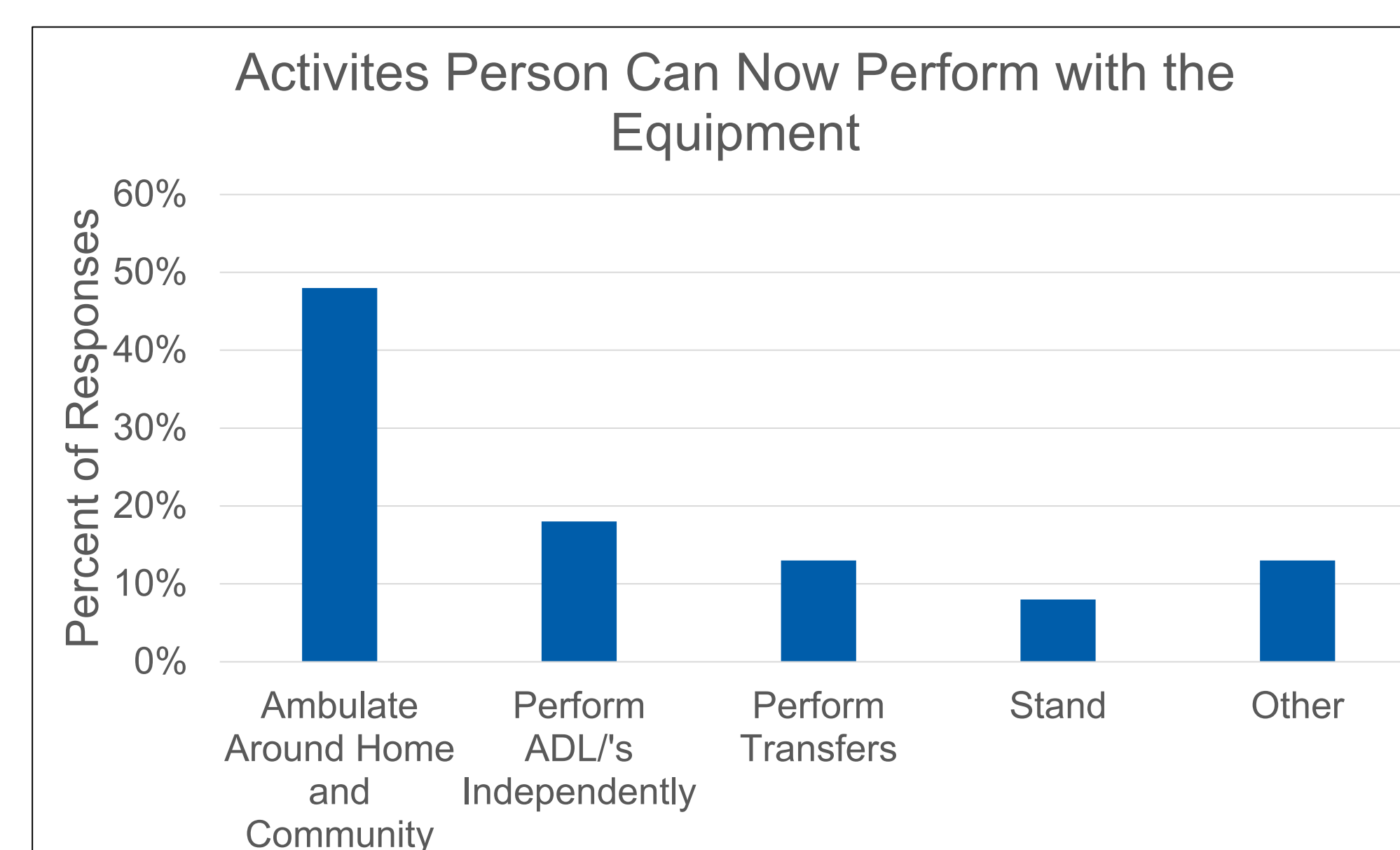


Figure 3: The access to DME promotes independence with ambulation as well as activities of daily living (ADLs).

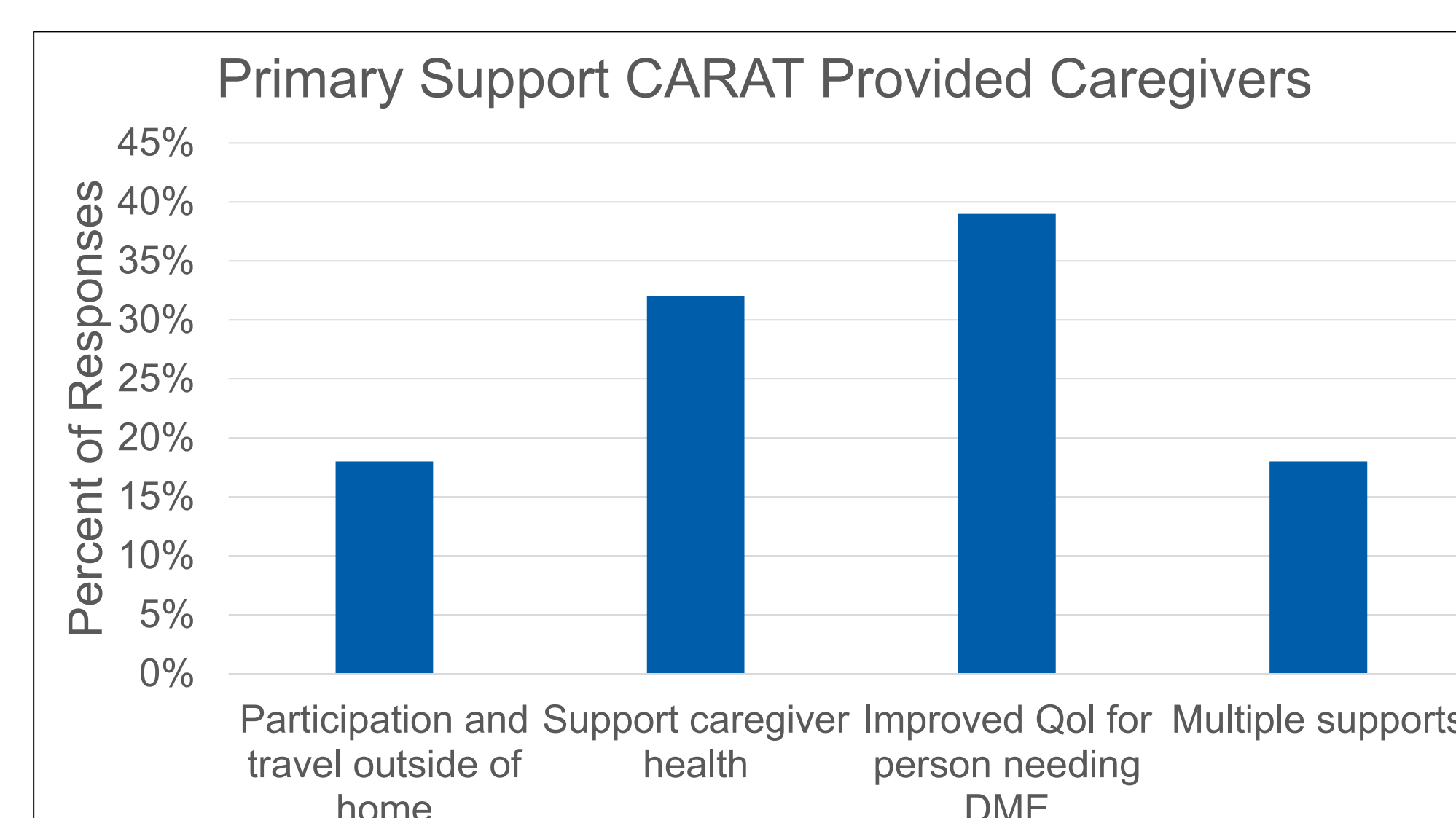


Figure 4: The use of DME improved the quality of life of both caregiver and individual. Access to DME allowed more independence of the individual, increased ADL performance, increased mobility, supported travel outside the home, and effectively minimized the risk of injury in their caregivers.

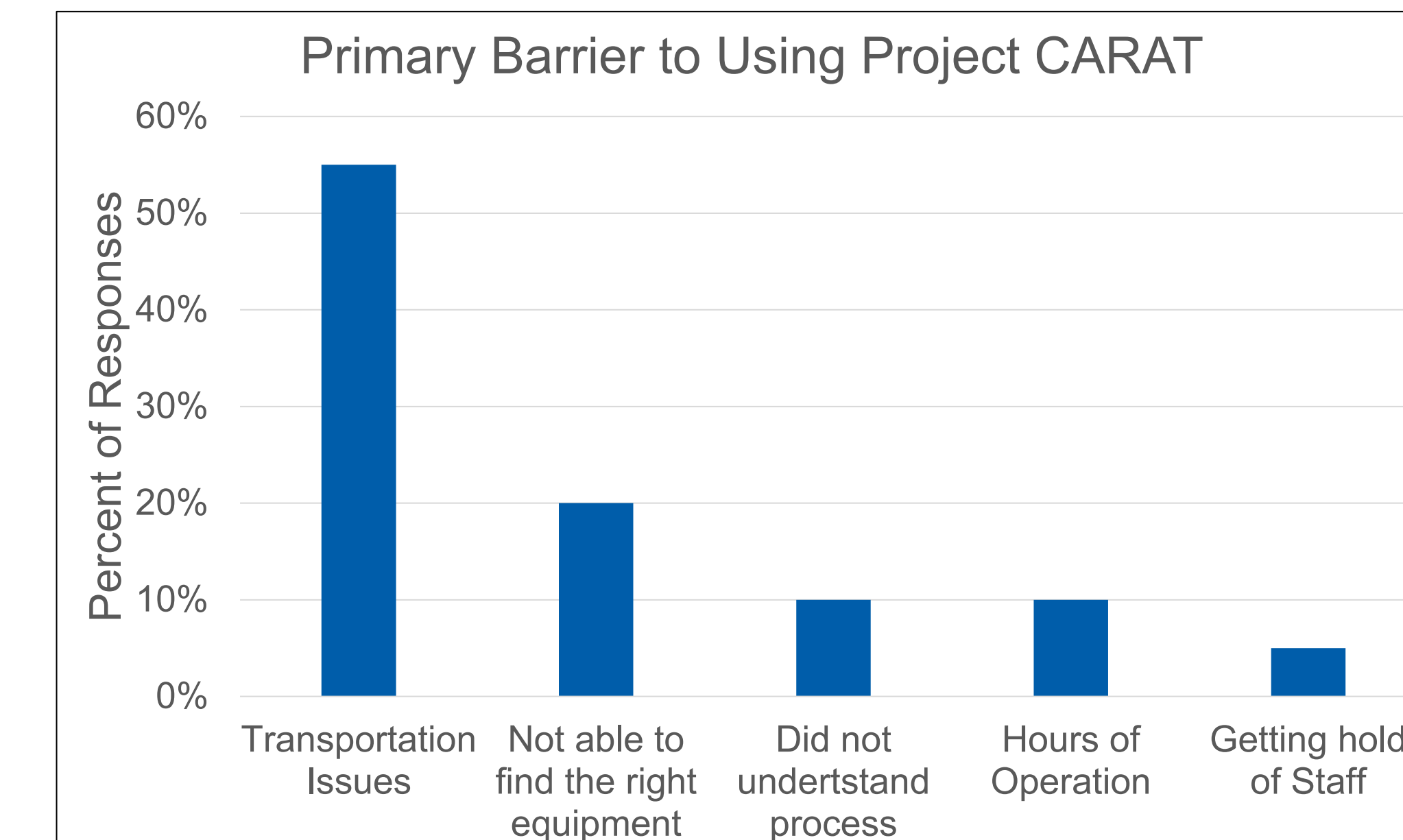


Figure 5: The primary barrier to utilization of the CARAT program was the need for the participant to travel to the Project CARAT site to pick up the durable medical equipment.

SUGGESTIONS FOR IMPROVING SERVICES:

- Better advertising
- Options for delivery of items
- Extended hours for the CARAT centers
- User friendly interface/better instructions for using the online request form.

CONCLUSION

The results show this program positively affects many people with medical necessities across KY. Access to free DME through Project CARAT has been shown to promote mobility, ADL function, and improved overall QOL of individuals and their caregivers. Refurbishing DME proves to be a cost-effective method of providing equipment to those lacking the necessary resources to acquire it. While 50% of CARAT participants were supporting agencies/organizations, improvements could be made to increase awareness through more advertising, enhancing the user interface for better usability, and expanding transportation options for delivery.

CLINICAL RELEVANCE

Increasing awareness among healthcare providers and Kentucky residents that Project CARAT is available to supply free DME to help reduce financial barriers to healthcare. Access to free DME greatly impacts the quality of life of the individual and caregiver.

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