

STATEMENT FOR FEDERAL COORDINATING COUNCIL

Submitted by Consortium for Assistive Technology Outcomes Research (CATOR)

Assistive technology--a spectrum of assistive devices, environmental alterations, and the services associated with providing them—can enable many people with disabilities to live independently, continue taking care of their basic needs, participate in community activities, and engage in gainful employment. However, there is insufficient evidence supporting the effectiveness of many of the available technologies. That situation may be acceptable for simpler, relatively low-cost devices whose advantages are self-evident. It is decidedly problematic, however, for technologically complex, more costly devices such as sophisticated wheelchairs, seating and postural control devices for wheelchair users, robotic devices, miniaturized sensory aids, communication/speech generating devices, myoelectric prostheses, adapted vehicles, and computerized environmental control systems. The true costs of such devices include considerable practitioner time for assessment, device selection, funding advocacy, customization, and training.

Dependable information regarding which technologies work, for whom, and under what real-life circumstances would be indispensable for candidate users, the health professionals who recommend these devices, and for the related funding agencies. A continuing dearth of that information will perpetuate reliance on the claims of manufacturers and distributors, the anecdotal reports of users, and the word-of-mouth testimony of individual health professionals.

A variety of effectiveness research is needed including:

- Investigations of the outcomes attained by innovative approaches to assistive technology service provision (comprising assessment, device selection, customization, training, and maintenance) compared with conventional service provision. This would be exemplified by research that assesses the outcomes of assistive technology (e.g., in terms of independence in activities of daily living and social role performance) that is selected with the aid of a healthcare professional, as compared with the same technology that consumers purchase directly from vendors (as is the case currently for approximately 70% of devices.)
- Collaborative studies with assistive technology developers of the cost-effectiveness of select, cutting-edge devices compared with available devices. This would be exemplified by research comparing outcomes (e.g., maintaining independent living in one's home) achieved by using computerized telemetry to monitor the well-being and safety of elderly home dwellers compared to using conventional methods of doing so.
- Methodological research regarding the reliability, validity, and usefulness of available assistive technology outcome measures and methods for data capture, and the development of new instruments and methods as needed. Measures development based on Rasch methodology is particularly attractive in this regard.

Respectfully submitted 04/13/09:

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