



The D-Seat seating unit for wheelchairs is an innovation that fills a clear void in the world of assistive technology. It is modular and versatile; it can be mounted on any seat-base and contains a set of interchangeable postural support devices. It boasts high quality while being the lowest cost option on the market. Its adjustability and universality make it unique.

The D-Seat concept innovation

A collection of interchangeable postural support devices with universal interface for a variety of wheelchair types and models. The D-Seat can be integrated into existing intermediate-level service delivery structures in low resource settings

The D-Seat consists of:

- Customizable padded seat and back support
- Various pelvic and trunk control devices (straps, lateral supports)
- Leg and foot control devices (straps, abductor and adductor)
- Head support
- Tray table for added arm support and activities



What is the impact for AT users and other stakeholders?



For wheelchair users that require Intermediate Level (postural support) services and products, the D-Seat represents:

- Choice and control over product features and performance.
- Access to education, employment and other opportunities.
- Accommodation of changing user needs.
- Mobility and easy transferability between various wheeled or static bases.

Implications for Products, Provision, Personnel or Policy?

Products

- Universal - used with any existing appropriate wheelchair
- Fully adjustable
- Accommodates changes in growth and positioning needs of the client
- Interchangeable, modular components
- Quick mounting and release system
- Unlimited postural support devices configurations
- Passed relevant ISO tests



Provision

- Flat-packed
- Lightweight
- Intuitive
- Locally repairable
- Lowest cost in the market
- Can be retrofitted on any existing wheelchair

Personnel

- Fully aligned with WHO training
- Ease of training
- Inspires creativity
- Pre-made quality components (time-saving)

Policy

- The project was initiated by Johns Hopkins University affiliate Jhpiego.
- The Wheelchair Guidelines estimate that 65% of all wheelchair users require Intermediate Level (postural support) services and products.
- Listed in the WHO Priority Assistive Products List (APL)
- Meets requirements of applicable ISO tests and WHO wheelchair guidelines.
- Stimulates effective delivery with individual assessment and fitting rather than mass distribution.
- All materials are recyclable. All parts can be used in virtually unlimited configurations and sizes. Parts that are not used for a client become spare parts for the service center.

Implications for other aspects of the Global Research Agenda

- Encourages distributors to research and experiment with new innovative product; this in turn offers information, choice and control to the user and grassroots service provider
- Ideal training tool for all levels of wheelchair supportive seating (being universal and modular)
- Ideal product to be distributed worldwide through a neutral, nonpartisan, non-profit product hub that catalogues and manages the supply of products in APL worldwide.



Strategies to share and build global capacity based on this work

- Share design concept with academic institutions for training and development purpose. (eg. Participation in MIT student research)
- Share components with other service and product providers.
- Support selected proven local manufacturers with low-cost alternative spare parts fabrication training and design adaptations.

Contact details for global liaison

Sharmini Constantinescu
Executive Director
Diversability Development
Organization (DDO), Canada
sharmini@diversable.org

