

Accelerating Innovations into CarE – Validate Program (AICE-Validate)



Clinical validation of a prototype custom wheelchair cushion

PROJECT FAST FACTS

RECIPIENT: Assistability

AWARD: \$299,950

AWARD DATE: August 15, 2022

PROJECT DURATION: 24 months

ASSISTABILITY™
Making Movement Manageable

THE PROBLEM

Long-term wheelchair users can be prone to developing pressure wounds, which are costly to treat, are associated with lengthy hospital stays and can even be life-threatening. Commercially available wheelchair cushions can negatively impact a user's skin health and comfort. Most cushion materials don't breathe, allowing for heat and moisture retention conditions to contribute to wound development. Cushion shapes and compression structures can cause pressure wounds since currently available designs do not account for patient movement. Lack of sanitization is also a concern since most cushion materials aren't washable.

THE SOLUTION

Assistability's custom-fit wheelchair cushion can help maintain the skin health and comfort of wheelchair users. The 3D-printed, resin-based lattice design keeps the skin cooler and drier, reducing the risk of wound development. The lattice is washable and easy to clean, preventing bacteria growth and foul odours resulting from daily use and incontinence. The compression profile of the cushion is customizable to alleviate pressure spots around bony prominences. Contours support the body and match a client's position and conform to movement within their wheelchair throughout the day.

PROJECT OBJECTIVES

Assistability's project is focused on validating its prototype in a clinical setting.

ABOUT THE AICE-VALIDATE PROGRAM

AICE-Validate is an opportunity for Alberta's health-tech innovators to accelerate commercialization of digital and data-enabled health technologies through the early validation phase. If you'd like to learn more, please check out [AICE Validate on the Alberta Innovates website](#).

Learn how

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