Co-designing a pediatric digital health technology with caregivers and clinicians

(i) About Gabi Smartcare

Gabi SmartCare is a pediatric health solution designed to remotely monitor children aged 0 to 12. Its product, Pediarity™, is a remote patient monitoring (RPM) platform connected to a wearable bracelet that collects vital parameters like heart rate and oxygen saturation. By combining user-friendly design with accurate medical data, the solution supports continuous monitoring without the need for extended hospital stays, easing parents' minds and helping clinicians gain better insights into their patients.

The opportunity

- RPM solutions, like Pediarity™, are a non-invasive way to continuously **monitor children** with cardiac or respiratory diseases to support **better health outcomes**. They also **reach patients in remote areas** where healthcare access is limited.

- Empowering caregivers and clinicians with **accurate data**, these devices promise to revolutionize how infant care is delivered, helping to **address critical gaps** in early-stage health monitoring.

The challenge

- Creating a wearable device for infants and young children comes with unique challenges. Children, especially infants, communicate best with their caregivers, so **caregivers and clinicians must actively participate in the design and testing phases**.

- Gabi SmartCare needed to ensure its wearable was comfortable for infants, easy for caregivers to use, and valuable for clinicians to assess and provide clinical treatment.

- Furthermore, the data interface needed to **provide medical professionals with meaningful insights without overwhelming them with unnecessary information**, requiring careful collaboration between the design and clinical teams.

gabi SMARTCARE

⚙️ The approach

- The Gabi team conducted <u>formative usability testing</u> using DiMe's V3+ framework in the development process.

- The team went through multiple iterations with caregivers and clinicians to ensure the technology was easy for caregivers to use, comfortable for patients to wear, and valuable for clinicians to assess and provide treatment.

🎖️ The success

✔ Gabi's inclusion of clinicians in the development process resulted in a well-designed and effective platform. 96% of physicians agreed that **Pediarity benefits their patients** and 95% of physicians agreed that **data collected prevent avoidable hospital visits** and **readmissions**.

✔ By **involving caregivers**, Gabi created a product that fits smoothly into the home environment, with minimal disruption to daily routines.

✔ **99% of caregivers found Pediarity easy to use**.

" Home-based care represents the future of pediatric healthcare, yet technology innovation for children has consistently lagged behind. Pediarity offers a promising solution by providing the essential tools to deliver effective and high-quality care directly to pediatric patients in their homes. This innovation has the potential to significantly improve outcomes and accessibility for children requiring ongoing care outside traditional hospital settings."

— Francesca Joseph, MD, MBA

Co-Investigator & Regulatory Core Lead - Alliance for Pediatric Device Innovation, Children's National