

# Project HealthDesign

Rethinking the Power and Potential of Personal Health Records

[www.projecthealthdesign.org](http://www.projecthealthdesign.org)



Robert Wood Johnson Foundation

## Who We Are

*Project HealthDesign* is a \$5 million national program designed to support health and information technology pioneers in creating a new generation of personal health record (PHR) systems that can share common technical functions. The project is funded by the Robert Wood Johnson Foundation's Pioneer Portfolio, which funds innovative ideas that may lead to future breakthroughs in health and health care, with additional support from the California HealthCare Foundation.

*Project HealthDesign* funded nine multidisciplinary teams to develop PHR applications that extend and enhance the range of services offered by existing PHRs. Through creative use of information technology that is guided by extensive user-centered design activities, this bold new program provides a variety of tools and services that draw on clinical records and relevant information from people's daily lives. The *Project HealthDesign* teams' PHR applications go beyond providing access to health information to interpret consumers' health data and provide customized, easy-to-use feedback that can guide daily health decisions and empower consumers to manage their health more effectively. The grantees' prototypes are now being tested by patients and families to help them manage complex health data, improve their health and get the care they need. Complementing the individual work of each team, technical specialists created a common platform of computer resources that will make it easier and more efficient in the future to build highly tailored PHR tools.

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## The Challenge

When patients with multiple chronic health conditions are discharged from hospitals, they often are barraged with instructions, medications, information and advice. Once back at home, older patients in particular may struggle with understanding and following these instructions—especially as they relate to properly taking medications. Many older adults who move from a closely monitored hospital or rehabilitative care setting to home find themselves navigating a complicated and often confusing health care experience, all while having to manage multiple prescriptions for various conditions. It is critical that they pay close attention to how and when they take their medications, especially during that transition, when they are most at risk for errors that could lead to re-hospitalization.

To improve the experience of transitional care for older adults, the *Project HealthDesign* team at the University of Colorado Denver—Anschutz Medical campus and University of Colorado at Boulder interviewed older patients to learn about their medication management concerns. Patients reported that they need help tracking and taking medications once they leave the hospital. They were most concerned about knowing when to take medicines and what to do if a dose was missed. Patients also felt that they did not have enough information about potential complications and side effects and worried about the potential for harmful drug interactions.

## The Solution: Where We Are Now

To address the needs of these patients, the team developed the Colorado Care Tablet, a personal health record (PHR) application that uses a portable touch-screen tablet computer given to patients and their caregivers upon hospital discharge. It was designed with the older user in mind, with simplified screens and a bar code scanner that recognizes medication labels. The Colorado Care Tablet integrates personal medication data with detailed information about prescribed drugs—including pictures of pills, generic names and side effects—to help patients build and maintain an electronic, encoded medication list. The Tablet provides older patients with clear, authoritative guidance on the uses and potential side effects and drug interactions of medications without requiring them to manually type in information. The device also helps them track and organize medications, allowing them to better coordinate their medication lists with their clinical and family caregivers. Additional tools that can run on this device will assist in scheduling times and reminders to take medications, ordering refills, preparing for doctor visits and more.

The Colorado Care Tablet prototype has been tested by 20 patients and caregivers in the metro-Denver area. As part of the second phase of *Project HealthDesign*, the Tablet is being integrated with national data banks and a personal health record platform to ensure interoperability with other tools to assist patients. Lessons learned from this project will also be applied to the personal health record in use at University of Colorado Hospital. Ultimately, the tools derived from this project will help patients feel more confident about taking their medications safely and effectively.