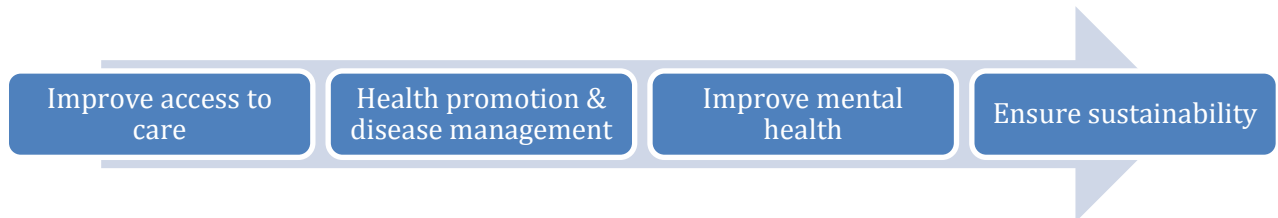


BRIDGES TO CARE TRANSITIONS: PROJECT OUTCOMES AND LESSONS LEARNED

About the project. Bay Rivers Telehealth Alliance (BRTA) led the HRSA-funded¹ Bridges to Care Transitions (BCT) project from 2015-2018. BCT provided remote patient monitoring and access to evidence-based behavioral health and chronic disease self-management education across ten rural counties on the Middle Peninsula and Northern Neck. The project goals were to:



Project Partners: Bay Rivers Telehealth Alliance led a consortium of these partners to deliver BCT:

<p>Riverside Health System’s Walter Reed Hospital and Tappahannock Hospital enrolled patients in the project upon discharge, arranged delivery of the telemonitoring equipment and provided an RN to monitor patients daily through the Riverside Transfer Center, offering interventions to reduce higher levels of care based on clinical alerts. Patients received remote telemonitoring services for up to 120 days measuring their vital signs including weight, BP, and pulse oxygen using Honeywell Touch equipment.</p>	<p>Riverside Center for Excellence in Aging and Lifelong Health provided a project evaluation, based on participating patients who had received telemonitoring services for seven to 90 days during 2017. These patients (n= 98) were compared to a control group of patients (n=184) who were discharged with the same diagnoses and were offered remote monitoring equipment for a shorter period of time (generally up to 30 days) and no coaching. Stanford Model Chronic Disease Self Management Program[®] courses were offered in community settings.</p>
<p>Bay Aging provided trained care transitions coaches through the Eastern Virginia Care Transitions Partnership who provided Coleman[®] model evidence-based care transitions coaching, assisted patients to set up their Honeywell Touch telemonitoring equipment, offered the evidence-based Healthy IDEAS[®] behavioral health program, and referred patients to evidence-based chronic disease self-management education.</p>	<p>Middle Peninsula Northern Neck Community Service Board provided the care transitions coaches with mentoring and support on behavioral health screening and protocols and when necessary, provided more specialized services to patients with acute or serious behavioral health needs.</p>

Patients Served: One hundred thirty four patients ranging in age from 32-96 received remote patient monitoring for an average 90-day period from the date of hospital discharge, plus one or more in-home coaching visits and a weekly follow-up phone calls. 398 patients received coaching visits and chronic disease self-management tele-education. Patients had the following diagnoses²:

- Chronic Heart Failure (CHF)
- Chronic Obstructive Pulmonary Disease (COPD)
- Pneumonia
- At-risk for re-admission

¹ HRSA: Health Resources and Services Administration, Rural Health Care Services Outreach Grant

² These diagnoses were selected on the basis of being the most common diagnoses in the target service area

Project Evaluation: The BCT patients (n= 98) were compared to a control group of patients (n=184) who were discharged with the same diagnoses and were offered remote monitoring equipment for a shorter period of time (generally up to 30 days) and no coaching. Fifty-one percent were female and the majority were White or African American. Clinical data (weight, BP and pulse oxygen) was collected from the telemonitoring equipment and behavioral health screening tools (PHQ-9 plus 2 SBIRT questions and 1 patient activation question). Data about the patients' experience was collected through surveys and participation logs. Claims data was collected from the RHS Epic electronic health records system.

Project Outcomes: The BCT project met its goals and achieved the following successful outcomes:

- **Greater integration and oversight of services throughout the health system:** 3,143 clinical alerts from the Honeywell Touch telemonitoring equipment were recorded across all BCT patients. Primary care physicians received trend reports on vital signs every 2 weeks.
- **Hospital admissions were reduced:** Only 23% of BCT patients were admitted to the hospital compared to 66% of control group patients. The longer patients were monitored, the less frequently they were admitted to the hospital and the longer the gaps between admissions were for those who did admit more than once, with no readmissions occurring after day 40.
- **Patients were diverted to a less costly care environment:** The longer patients stayed in the BCT program, the greater the frequency of the unscheduled MD visits as opposed readmissions. This was the result of the monitoring RN acting on clinical alerts and diverting patients (where appropriate) to unscheduled physician visits rather than the hospital.
- **\$344,000 was saved** in hospital readmission costs for BCT patients.
- **294 participants completed the Stanford University Chronic Disease Self-Management program:** 389 participants in total enrolled in this program.
- **29 patients experienced a drop in their depression scores** during participation in the program.
- **27 participants enrolled in Healthy IDEAS** behavioral health program and worked with a care transitions coach on behavioral health concerns.
- **80% of patients** were more motivated to monitor their health as a result of the BCT Program.
- **75% of patients** reported that the telemonitoring helped them to improve their health.
- **95% of patients** became more involved in their healthcare as a result of remote telemonitoring.

Lessons Learned: The key lesson to emerge from BCT is the need for clear communication among the care management staff in the hospital, patients, family, the community and technology partners:

- Patients typically received the remote patient monitoring equipment within 4-6 days of their referral to start in the BCT program, which often occurred just before discharge.
- However, had patients been identified and referred to the program earlier in their hospital stay, the remote patient monitoring equipment could have been shipped to their home prior to their arrival from the hospital.
- This would have allowed the care transitions coach to set up the equipment for the patient in every instance and to ensure a smooth transition from hospital to home.

Patients and Families Report:

"I need this equipment and the nurses. I feel that the 'equipment saved my life, more than once". "This helped us as a family monitor the weight and develop a prevention plan regarding fluid retention to keep the patient out of the hospital". "I felt that the monitoring equipment was just a bonus. The people were what made the difference and helped keep me on track"

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