



Carolinus Healthcare System

# Increasing Health Portal Utilization To Enhance Care Coordination in a Cardiac Ambulatory Clinic

Carmen L. Shaw DNP, RN-BC; Gail Woods RN, BSN; Cynthia D. Thomas RN, BSN  
Carolinus Healthcare System, Sanger Heart & Vascular Institute  
Charlotte, NC

One TEAM,  
DRIVEN TO MAKE  
A DIFFERENCE

## Background and Significance

- Enhancing care coordination processes within the healthcare system is key to improving outcomes in high-risk populations such as those with heart disease (The Advisory Board Company, 2010).
- Healthcare technologies such as patient health portals is one example of how care coordination models can enhance patient care outside of the hospital setting.
- Addressing this issue is important because patient participation in the health portal actively engages them in their care and improve overall outcomes.
- Patient Health Portal** “A secure online website that gives patients convenient 24-hour access to personal health information from anywhere with an Internet connection. Using a secure username and password, patients can view their health information.”
- Getwell Network** “An Interactive Patient Care (IPC) delivery model that allows healthcare providers to engage patients and families in their care.” Getwell serves as the platform for the health education video space in the My Carolinas patient portal.

HealthIT.gov (2015). <https://www.healthit.gov/providers-professionals/faqs/what-patient-portal>

Getwell Network (2015) <http://www.getwellnetwork.com/company>.

## Problem

- Invitation rate average was approx. 72% GOAL=50% (Q4/14)
- View, Download, and transmit was approx. 6.2% GOAL=5% (Q4/14)
- Secure Message was approx. 1.4% GOAL=5% (Q4/14)
- Cardiac clinic inconsistently underperforming overall among meaningful use standards

## Intervention

- Develop and implement a nurse led educational demo for cardiac patients to learn how to sign on, activate, and navigate their My Carolinas health portal.

## Intervention

### KEY ACTIVITY

Assign patient education video for patient to view prior to day of procedure and after hospital discharge between Oct. 2015 and Jan. 2016.



## Aims

- Educate at least 30% of eligible cardiac patients on how to access and use their health portal prior to appointment discharge
- Ten percent of study patients would view their assigned education video in their health portal prior to day of procedure and 30-days post hospital discharge
- Increase utilization of health portal by 5% in cardiac patients who were educated on the use of the patient portal one-month following hospital discharge
- Increase utilization of health portal by 5% in all cardiac office patients seen from October 2015 to January 2016

## Methodology

- Design**
- Iowa Model of Evidence Based Practice To Promote Quality Care
- Collection**
- Data collected by RN then entered in Red Caps
- Setting**
- Cardiac Nurse Navigator Ambulatory Clinic
- Sample**
- English speaking adults between 18-75 years of age
  - Patients who had internet access

## Results

Table 1. Demographic Characteristics

Demographic Information	N(%)
Received the intervention	14(73)
Sex	
Male	9(64)
Female	5(36)
Race	
White	14(73)
Black	1(5)
Hispanic American	1(5)
Other	1(5)
Payer Status	
Medicare	4(28)
Medicaid	3(19)
Private Insurance	5(36)
Unsure	2(14)
Medical Level of Education	
Less than 12 <sup>th</sup> grade	4(28)
High school	2(20)
Some college	4(28)
Bachelor's degree	4(28)
Master's degree	1(5)
Doctorate degree	1(5)
Number Living in Household	
1 person	5(36)
2 person	11(77)
3 person	1(5)
Provider Classification	
Cardiac	14(73)
Procedural Vascular	5(36)
Intervention Access	
Yes	14(73)
No	5(36)
Device Type	
No device	4(28)
Computer	11(77)
Smartphone	12(84)
Tablet	4(28)
Laptop access	2(14)

N=19

Table 2. Patient Portal Utilization

Meaningful Utilization	N(%)
View of patient information	10(53)
Printed results	11(58)
Download	11(58)
Transmit	11(58)
Secure Message	11(58)
View of patient records	9(47)
Access to online appointment office	9(47)
Access to online health	9(47)
View of test results	2(11)
View of online patient portal	2(11)
View of online patient portal call	2(11)
Response rate	
Electronic survey response	7(37)
Electronic survey	11(58)
Other survey	11(58)

N=14

**Outcome 1=MET**  
 Frequency of educating eligible patients about the health portal using the education demo.

- Goal 30%;  
- Outcome **73%**

**Outcome 2= MET**

Frequency of health portal utilization by patients who received the intervention (educational demo) in the navigator office.

- Goal 5%  
- Outcome **36%** used portal feature post hospital discharge.

**Outcome 3=MET**

Frequency of health video compliance in health portal pre and post intervention.

- Goal 10%  
- Outcome **16%** reported viewing assigned video prior to procedure day, **18%** reported viewing their video after hospital discharge.

**Outcome 4=MET**

Frequency of health portal utilization by patients in the cardiology office based on Meaningful Use metrics view, download, or transmit of information.

- VDT Timely-Invitation Goal 50%: Pre-Intervention **93%** Post Intervention **92%**  
- VDT Goal 5%: Pre-Intervention **12%** Post Intervention **16%**



## Lessons Learned

- Consistent communication with key players before and during project implementation
- Provider engagement
- Culture of readiness
- Consistent and reliable technology infrastructure
- Role reversal
- Length of time
- Everyday unexpected changes
- Competing priorities
- Staffing and patient volumes

## Keys to Success

- Family members involvement
- Personal devices owned by patients
- Hands-on/one-on-one portal instructions
- Quick, easy access to sign-up
- Patient health video features
- Controlled/outpatient setting

## Sustainability in System

- Get results to major key players
- Re-evaluate culture after new leadership
- Re-evaluate resources and cost factors
- Continued engagement with technology projects that support the health portal initiative
- Modify and test on a different population using updated technology
- Health system strategic goal

## Conclusion

- Health portals are essential to engaging patients in their care.
- Patients need a reason to use their health portals.
- Finding successful tactics is key to increasing health portal utilization.
- Usability and technology integration is key to maximizing the use of health

## Contact Information

**Carmen L. Shaw DNP, RN-BC**  
Director Nursing Clinical Practice and Policy  
Carolinus Healthcare System  
[Carmen.Shaw@carolinushealthcare.org](mailto:Carmen.Shaw@carolinushealthcare.org)