

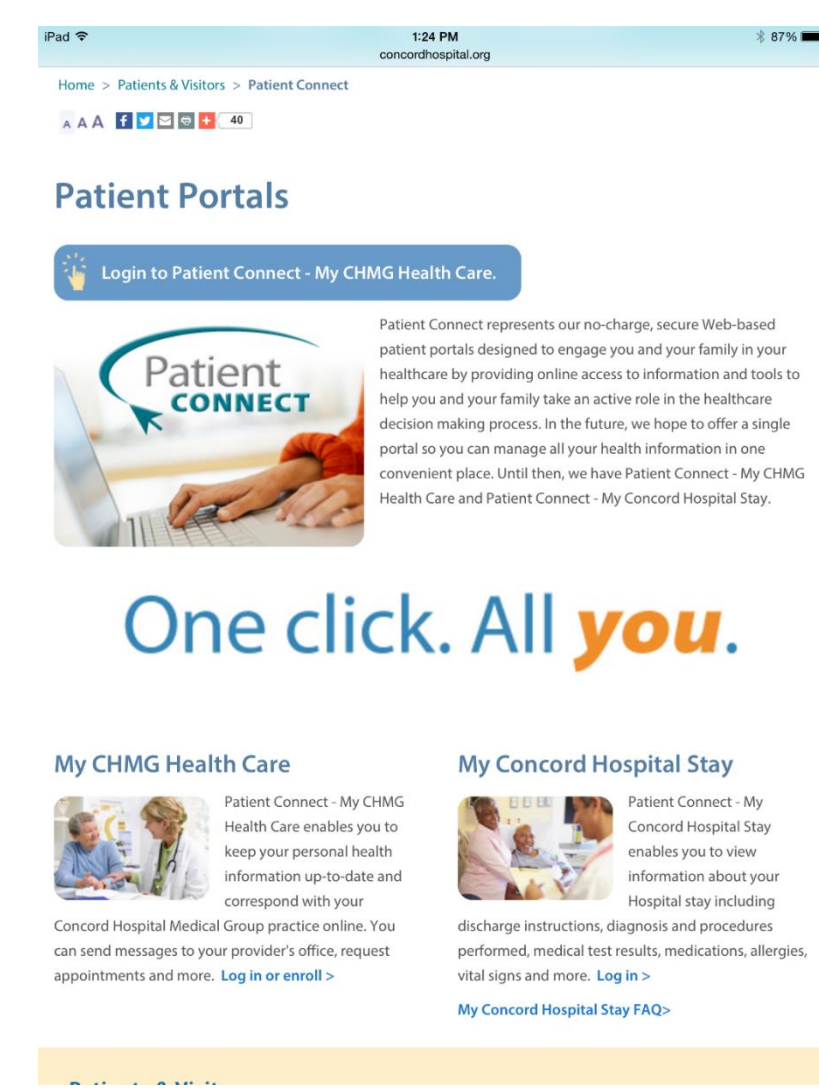
# Patient Portal Use in a Community Medical Group: A Healthcare Improvement Project



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## Introduction

- American Recovery and Reinvestment Act (ARRA) and the Health Information Technology for Economic and Clinical Health Act (HITECH) 2009
  - Promote the adoption and meaningful use of health information technology
- Meaningful Use Financial Incentives & Penalties for Eligible Providers
  - Use of a Tethered Personal Health Record also known as the patient portal is theorized to increase patient engagement which has been associated with:
    - Improved Clinical Outcomes
    - Decreased Cost of Care
    - Increased Patient Satisfaction



## Project Goals

- Global Aim: Optimize patient engagement with the use of a patient portal
- Specific Aim: Increase the percentage of patients who register to use the patient portal to the benchmark of >50%



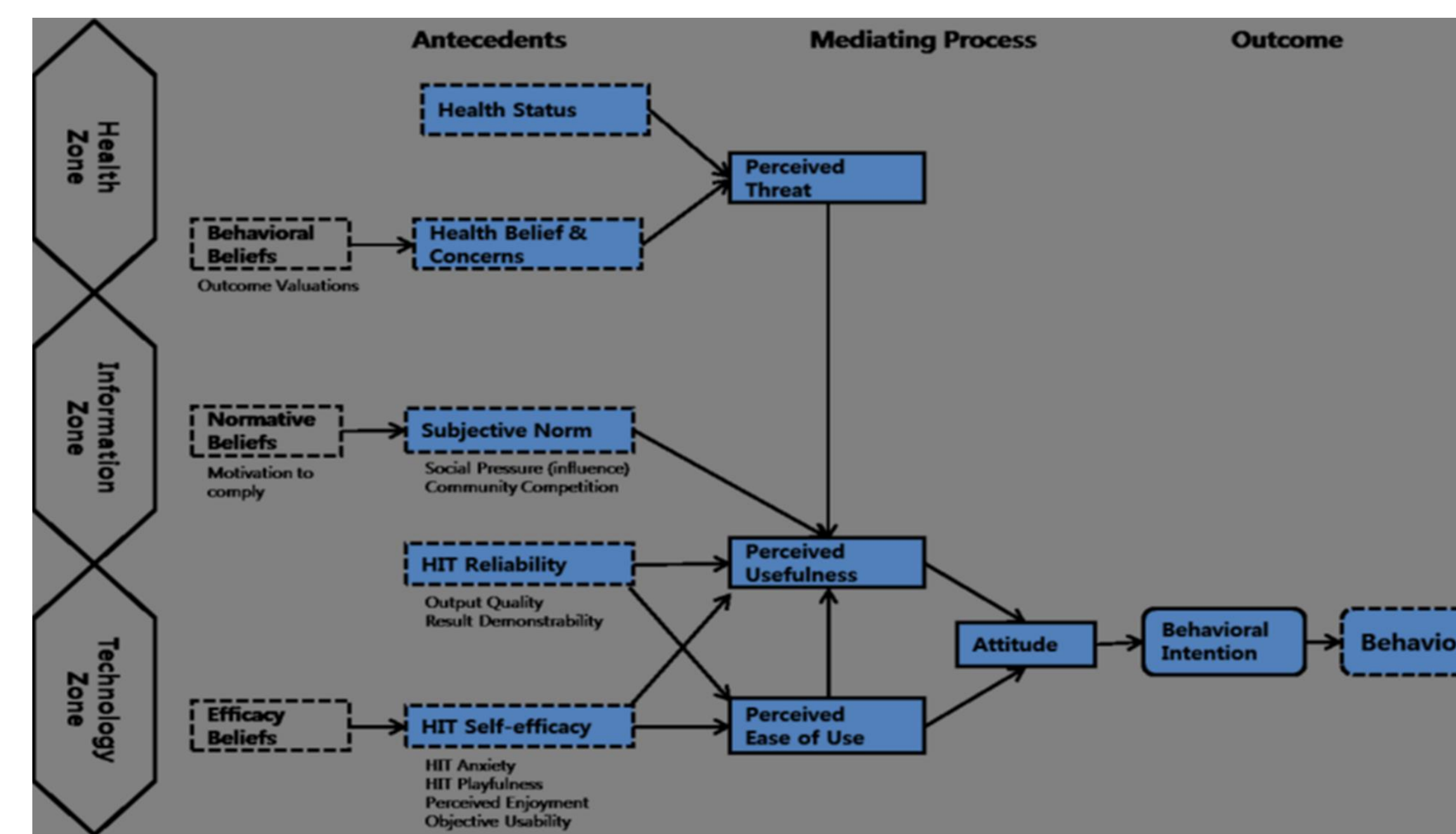
## Project Description

- A two-part Research Translation and Health Care Improvement DNP Project
  - Phase I: Survey the CHMG patients and analyze the results
  - Phase II: Implement a trial of Open Notes



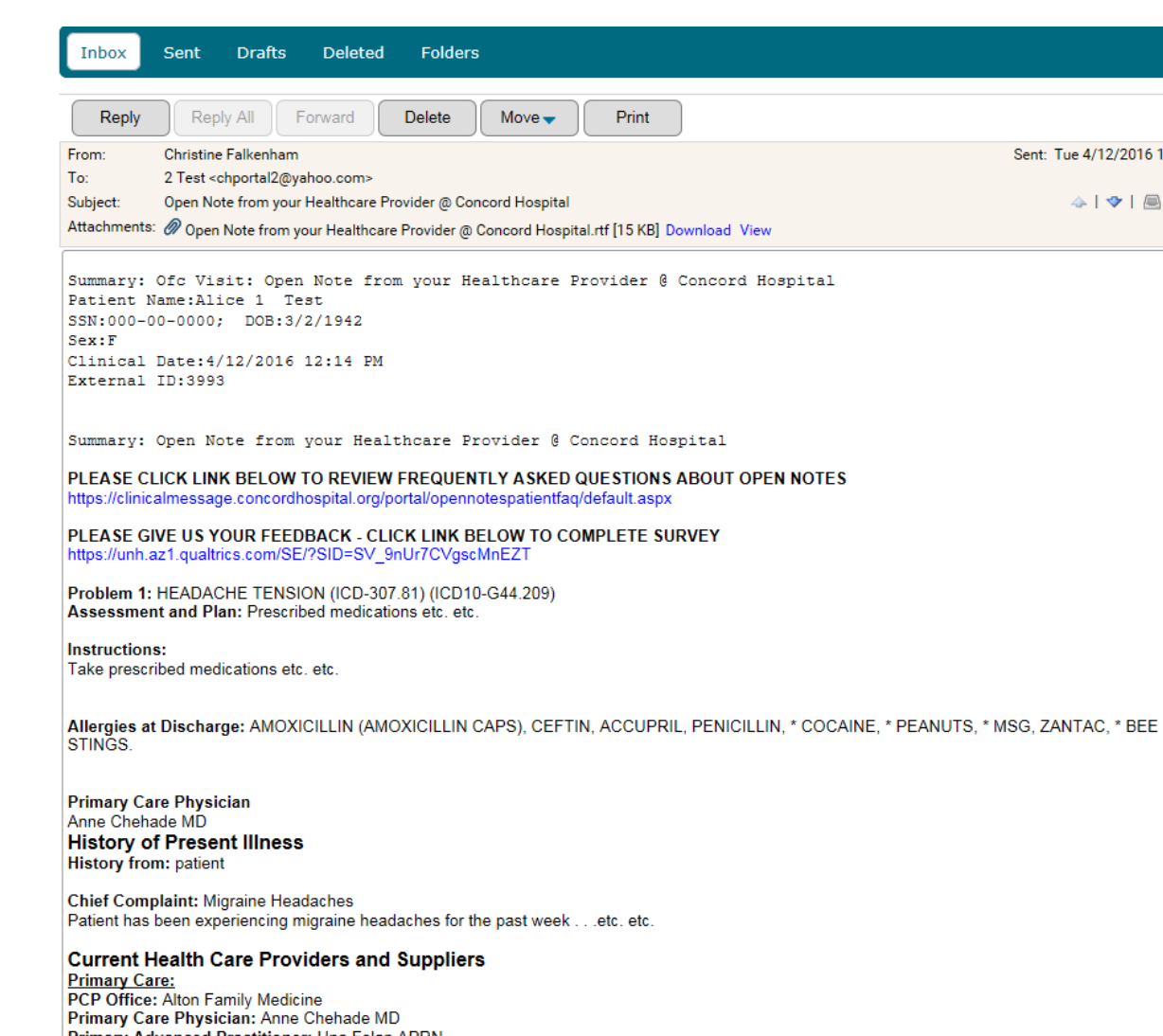
## Evaluation Strategy: Phase I

- Current facility benchmarks are >50% of unique patients seen by an EP will be registered to use the patient portal
  - Prior to the start of the DNP project there were 100,109 unique patients
  - Of these, 21,221 completed registrations for portal use
  - The percentage who have registered and use the patient portal remains suboptimal at 21%
  - Nearly 79% have not registered to use the patient portal
- Patient Connect-My CHMG Survey* to identify the factors that affect a patient's intention and decision to use a patient portal
  - Adapted from: *A Questionnaire on Development of a Health Information Technology Acceptance Model* (Kim and Park, 2013)
  - Reliability-The reliability of the original instrument was indicated by Cronbach alpha = 0.853.
  - Validity-The content of the questionnaire was independently confirmed by a group of HIT experts.
- Patient Activation Measure (PAM-10)* to measure baseline patient activation (engagement) (Hibbard et al 2004)
  - Reliability-The Rasch person reliability for the preliminary 21-item measure was between 0.85 (real) and 0.87 (model). Cronbach's alpha was 0.87.
  - Validity-Expert panel for face and content validity



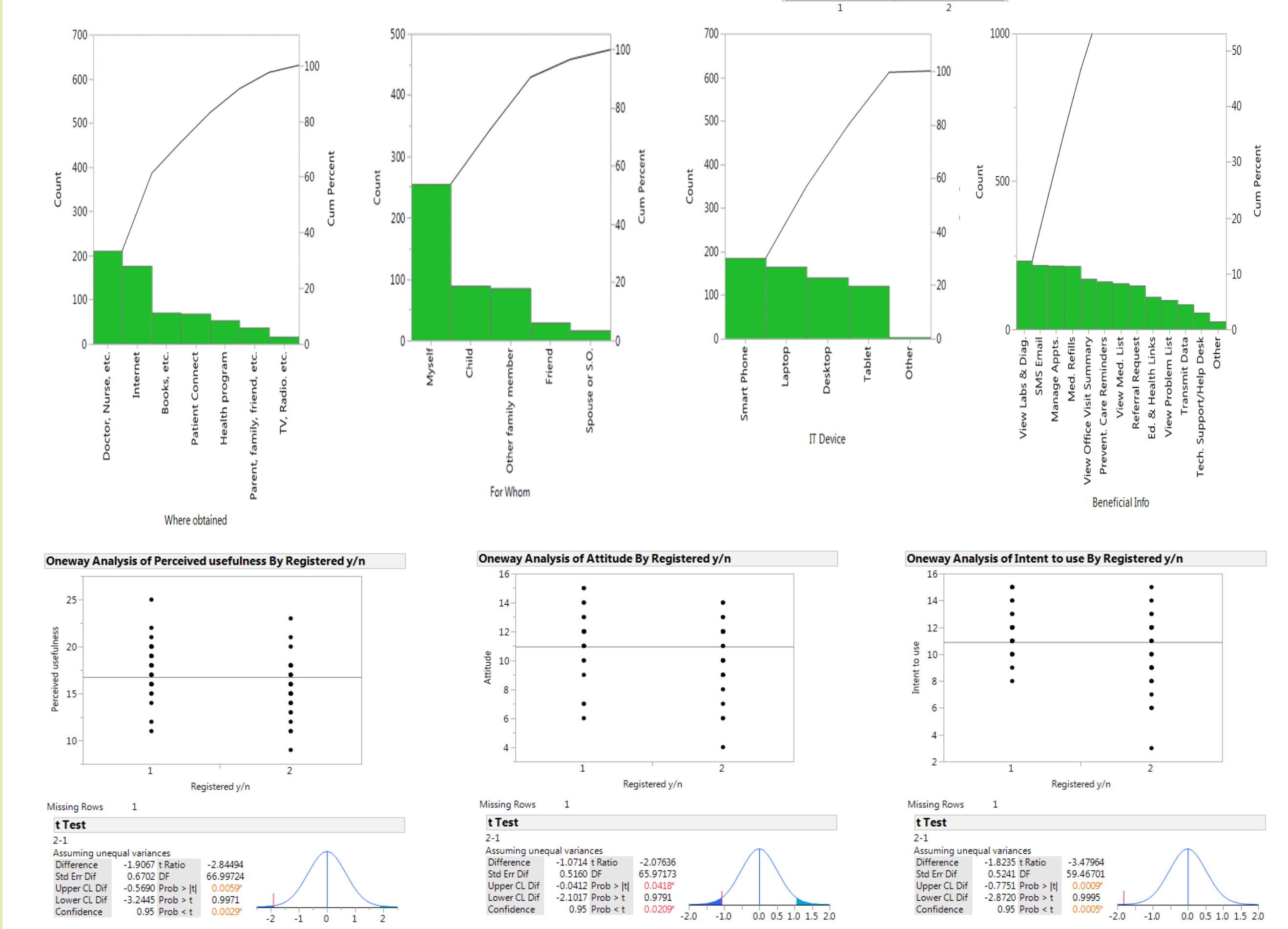
## Improvement: Phase II

- Phase II: Implement a strategy likely to address the specific aim:
  - Increase the percentage of patients who register to use the patient portal from the baseline of 21% to the benchmark of >50%
  - Intervention-Open Notes
  - The release of the office visit note through the patient portal
  - Provide education: Frequently Asked Questions (FAQs) about Open Notes through the patient portal
  - Survey the patients' perceptions of the benefits and risks associated with viewing their office visit note through the patient portal

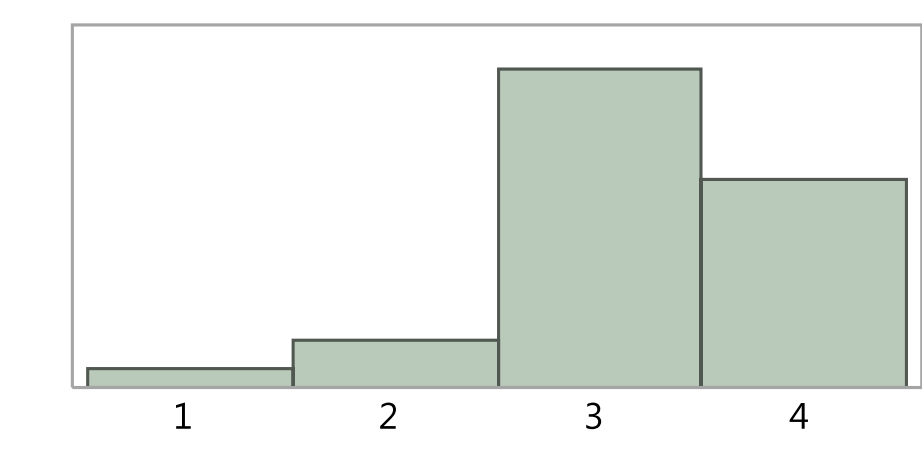


## Findings

- Total 366 survey attempts
  - First question was the informed consent and 95 selected "No" as a response (and linked them to a Thank you page) indicating that they:
    - Were not an adult >18 years, Were not a current CHMG patient, Did not give consent
  - 271 selected "yes" to the consent page (and linked them to the survey).
  - The second question "I have registered for *Patient Connect-My CHMG Health Care.*"
    - 235 selected 1=yes 36 selected 2=no



- Logistic Regression for Perceived Usefulness
  - Odds Ratio 1.44 Lower 95% 1.20 Upper 95% 1.75
  - Chi Square 30.09, df=7, p<0.0001
- Patient Activation Measure (PAM-10)
  - Level 1=3% "Disengaged and Overwhelmed"
  - Level 2=8% "Becoming aware but still struggling"
  - Level 3=54% "Taking Action in their own health care"
  - Level 4=35% "Maintaining behaviors and pushing further"



## Conclusions and Implications

- Top three insights gained from the implementation of this DNP project:
  - More data is necessary to identify why a non-user is not registering for the patient portal
  - The overall findings from this specific population are consistent with a review of the literature.
  - The perception of usefulness is a key process which impacts attitude, intent to use and ultimately portal registration and use.
- References:
  - Hibbard, J. H., Stockard, J., Mahoney, E. R., & Tusler, M. (2004). Development of the Patient Activation Measure (PAM): Conceptualizing and Measuring Activation in Patients and Consumers. *Health Services Research, 39*(4), 1005-1026. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1361049/>
  - Kim, J., & Park, H. (2012). Development of a health information technology acceptance model using consumers' health behavior intention. *Journal of Medical Internet Research, 14*(5). <http://dx.doi.org/10.2196/jmir.2143>