Abstract

Healthcare provider’s goal is to establish collaborative relationships with patients to improve healthcare outcomes. To achieve this goal, healthcare providers provide patients with electronic patient portals opportunities. MyChart is one of common electronic patient portals platforms offered to patients to provide access to their health information with a personalized and secure online access. The patient portal functionality helps increase the patient’s engagement in healthcare which is a key metric contributing to reducing the cost and increasing the quality of healthcare in the United States.

MyChart is an electronic patient portal that is free of cost to patients and allows them access to their personal health information and their child’s health information with personalized and secure online access. In this Study, the MyChart dataset we are planning to use is provided by one of the leading hospitals in United States. It was a limited dataset that was stripped of protected health information (PHI) and reviewed by a privacy board as well it received IRB approval. The hospital has an integrated health system. The hospital system uses MyChart as a patient portal to provide patients a secure online access to their personal health information and their dependent’s health information.

The objective of this study is to describe patient portal utilization and explore the relation between patient’s characteristics and MyChart to understand the distributions of patients using MyChart. Specifically, we propose to address the following questions: Who uses MyChart patient portal? and How are MyChart users using the portal to manage their health status?

In literature, studies evaluated patient characteristics associated with patient electronic health service use. Based on the literature review, most of the Patient portal utilization studies used a survey data collection approach to collect data about patient characteristic and adoption. Some other studies used EHR to obtain patient data. But, the data sample size was limited. In our study, we propose to utilize a large dataset of patient portal utilization provided by a leading hospital has an integrated health system. The dataset has over than one million records. This dataset with this big size will help to add a significate contribution to the area of patient portal utilization relation with patient characteristics aspect, and improve patient portals use.

To answer the research questions identified in the proposal, we are planning to implement exploratory data analysis method on the dataset containing emergency data records, urgent care data records, MyChart records, patients’ demographics (age, gender, country, zip code, race), insurance type, diagnosis type, hospital/urgent care/primary care zip code, number of (emergency department, urgent care) visits, number of (eVisit, advices, appointments, medication renewal) using MyChart. This study will primarily use the exploratory data analysis method to see what the data can tell us, and help us answer the research questions.

Out of this study, we aim to obtain recommendations that can help close the gap between a patient portal and patient engagement and assist in the identification of the optimal path of care for patients and healthcare providers. We look forward to comments and feedback from the audience about how we can improve the work and ideas in terms of using the appropriate analysis technique.