The State of the Clinic: Data collection and reporting at HOPES Free Clinic

Karthik Subbu[1]
Eastern Virginia Medical School, Norfolk, VA

Abstract

In April 2015, HOPES Free Clinic introduced the State of the Clinic report, a monthly newsletter describing clinic statistics for each month including the number of patients seen at each clinic, the number of physician and student volunteers, lab tests ordered, and reminder call success rates, and other statistics. This essay serves to describe the report, including an overview of its organization, the process of data collection and presentation, summary statistics from its first year (April 2015-March 2016), strengths and shortcomings of the report, and finally, our plans for its future.

Introduction

The Health Outreach Partnership of EVMS Students (HOPES) Free Clinic was established in 2011 and since its inception has served nearly 1,000 patients with the help of over 500 student volunteers and over 100 physician volunteers. At any given time, there are around 100 students considered to be on clinic staff, which consists of several teams each with different responsibilities (Figure 1).

The Monitoring, Evaluation, and Quality (MEQ) team at HOPES Free Clinic collects data regarding different aspects of clinic operations. In April 2015, the MEQ team introduced the State of the Clinic report, a monthly newsletter presenting key statistics and information about the clinic. This essay serves to describe the report, including an overview of its organization, the process of data collection and presentation, summary statistics from its first year, strengths and shortcomings of the report, and our plans for its future.

Organization of the report

The report is a four-page newsletter which begins with a foreword written by the Directors of Quality, a photo from HOPES clinic that month, and a quote from a renowned individual in healthcare. The report then illustrates the data collected for that month including information on clinic participants, a breakdown of the number of new and returning patients by clinic type with corresponding no-show rates, the success rate of reminder calls to patients, lab tests ordered, and any clinic cancellations for that month.

Data Collection and Presentation and Summary Statistics

Clinic participants

The Student Relations team has the responsibility of recruiting students to volunteer as junior and senior clinicians and front-desk receptionists. The Professional Relations team likewise has the responsibility of recruiting attending and resident physicians to volunteer at clinic nights. Both these teams record the names of the volunteers in HOPES' master spreadsheet of clinic night participants.

The Patient Continuity team maintains continuity with patients and is responsible for scheduling appointments and adding these
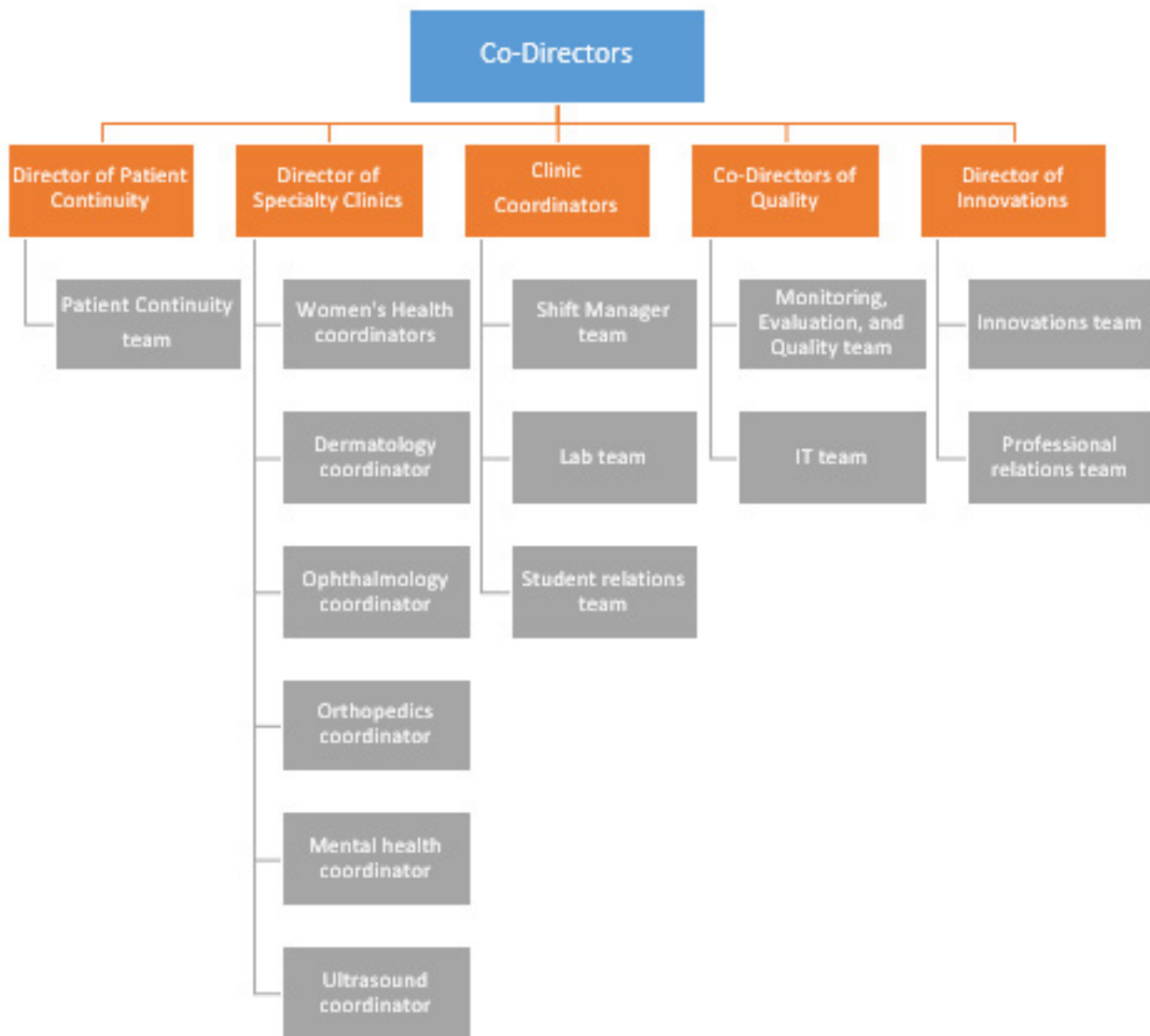
Figure 1. Organization scheme of the HOPES free clinic.

appointments to the electronic medical record. The MEQ team then records the number of student or physician volunteers and patients for each clinic night from the master spreadsheet and electronic medical record respectively. Also recorded was the distribution of student volunteers by program of study (e.g. MD, PA, MPH).

In the report, the number of physicians, patients, and student volunteers per clinic night is graphed (Figure 2) alongside a list of the most active physicians (both for that month and year-to-date) and the average and range of physician-patient load (patients per physician during clinic night). The latter is

also compared to the previous month.

Also graphed is student volunteer distribution. From April 2015 to March 2016, a total of 78 clinic nights were held; the average clinic night served 7.44 patients with the help of 2.49 physicians and 9.06 volunteers. Among volunteers, 88.1% were from the MD program.

Breakdown of patients by clinic type

HOPES has a total of seven sub-specialty clinics – primary care, women's health, dermatology, ophthalmology, orthopedics, mental health, and
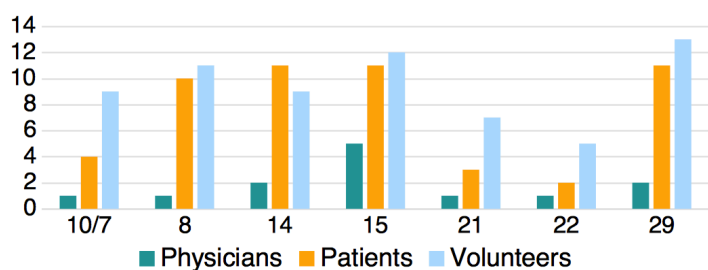
Figure 2. Physicians, patients, and student volunteers per clinic night (as seen in October 2015 report).

ultrasound. On average, primary care clinic is held once every week, women's health thrice every month, and the remaining clinics once every month. The total number of patients seen by each clinic every month is recorded by the MEQ team via the electronic medical record. Also recorded is the number of first time patients at HOPES and the number of patients who did not show up for their scheduled appointments.

In the report, this information collected is simply presented in the form of a table with comparisons to the previous month. Table 1, found at the end of this paper, summarizes this information for our clinics from April 2015-March 2016.

Reminder call Success Rates

Patient Continuity team members usually attempt reminder calls to patients a few days before their scheduled appointments. Information regarding whether patient reminders were attempted as well as the rate of success was recorded in the patient's electronic medical record. The MEQ team then recorded this information and used it to create a pie graph indicating the percentage of patients where a reminder was not attempted and patients where a reminder was attempted unsuccessfully (Figure 4). From April 2015-March 2016, there were a total of 1,001 appointments scheduled. 160 patients (16.0%) were not attempted to be reminded and 78 patients (7.8%) were attempted to be reminded but could not be reached.

Lab tests

HOPES has the capability to run a number of lab tests

on-site – basic metabolic panel, dipstick urinalysis, EKG, fingerstick blood glucose, hemoccult, hemoglobin A1c, lipid panel, and urine pregnancy (β-hCG). Lab team members perform tests at clinic nights and record each test performed on a Google form. This information is then recorded by the MEQ team and used to create a cumulative line graph of the lab tests in order to identify trends in test usage (Figure 5). Table 2 summarizes this information for April 2015-March 2016.

Clinic Cancellations

Sometimes, clinic nights must be cancelled for various reasons. At such times, a clinic coordinator will email staff members regarding the cancellation. The MEQ team uses these emails to record cancellation information, which is then listed in the report. From April 2015-March 2016, there were a total of 21 clinics cancelled. The most common reasons for cancellation were the lack of an attending physician or an insufficient number of student volunteers (7 clinics each).

Strengths of the data collection and report The State of the Clinic report, with its introduction in April 2015, helped share information on different aspects of clinic function with staff members, physician volunteers, and even our school's administrative staff. Through this, the report was able to foster a greater sense of awareness about our clinic. Prior to the introduction of the report, MEQ members presented similar information at quarterly clinic meetings. However, the concise presentation of this report made it more amenable for members to review and analyze the information in order to implement those ideas in practice.

For example, awareness of the high no-show rate and less than ideal reminder call rate prompted the Patient Continuity team to increase their efforts at reminding patients of their appointments. Also, the realization that almost 90 percent of student volunteers were from the MD program prompted the Student Relations team to increase efforts to recruit students from other medical programs (e.g. PA, MPH).
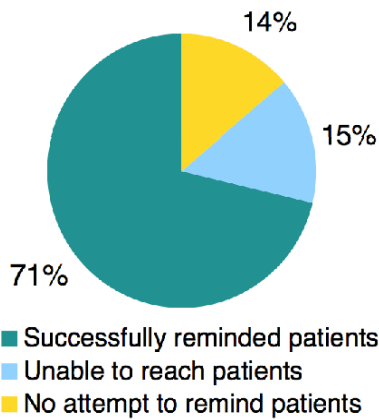
Figure 4. Reminder call success rates (as seen in October 2015 report).

14%
15%
71%
■ Successfully reminded patients
■ Unable to reach patients
■ No attempt to remind patients

Shortcomings and Future of the Data Collection and Report

Though the monthly State of the Clinic reports were a step in the right direction, a lag still exists as the report is only available at the end of the following month since the MEQ team has to manually collect data and
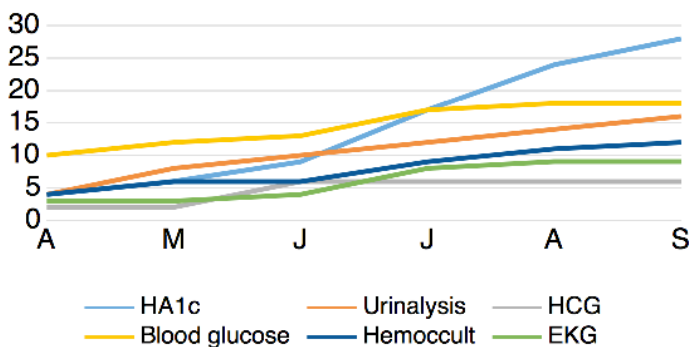

Figure 5. Lab test trends (as seen in September 2016 report)

assemble the report. In the ideal scenario, the data in the report would be available real-time after each clinic night.

In October 2015, HOPES completed its transition to using EMR. Work is currently underway to populate the EMR with information from paper charts. It is thought that these steps will help our clinic to develop the capability for real-time reporting in the near future.

It is also noteworthy that the State of the Clinic report lacks information about patient outcomes. The HOPES clinic has two longitudinal research projects monitoring patient outcomes in patients with hypertension and diabetes, respectively. The goal is that future reports will regularly incorporate findings from these research projects. As our EMR is populated with information from paper charts, we aim to incorporate information regarding the top conditions diagnosed and medications prescribed at the HOPES clinic so that we may be better suited to take care of our patient population.

	Total seen	No-shows (%)	First visit (%)
Primary care	301	165 (35.4%)	55 (18.3%)
Women's health	101	58 (36.5%)	41 (40.6%)
Dermatology	35	24 (40.7%)	15 (30.0%)
Ophthalmology	36	20 (35.7%)	10 (21.7%)
Orthopedics	44	22 (33.3%)	10 (22.7%)
Mental health	18	9 (33.3%)	2 (11.1%)
Ultrasound	10	6 (37.5%)	1 (10.0%)
Total patients	545	304 (35.8%)	134 (24.6%)

Table 1. Breakdown of patients by clinic from April 2015-March 2016.

	Total runs
Basic metabolic panel	63
Dipstick urinalysis	26
EKG	16
Fingerstick blood glucose	30
Hemoccult	14
Hemoglobin A1c	58
Lipid panel	10
Urine pregnancy (βhCG)	10
Total	227

Table 2. Lab tests run (April 2015-March 2016)

Acknowledgements