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Abstract

NYC Health + Hospitals / Gouverneur serves more patients than any other diagnostic and treatment center in New York State. As part of the NYC Health + Hospitals public health care system, which serves 1.4 million patients and is the largest municipal health care delivery system in the United States, Gouverneur strives to serve the needs of both scheduled and unscheduled patients. Within Gouverneur, the Women's Health department treats approximately 1,600 patients per month through approximately 2,100 visits. In September 2014, Gouverneur's Women's Health department launched a weeklong process improvement initiative known as a Rapid Improvement Event (RIE). Structured through Breakthrough, the RIE focused on improving the process of serving urgent needs patients, including those that arrive without an appointment or miss their appointment time, or those who call with an urgent issue. As the team examined problems faced by urgent needs patients – including the amount of time required to complete a visit, and barriers to having an appointment scheduled the same day with a provider – they discovered that the root of many issues was simply variability in how staff members approached the unexpected patient. To solve the issues in a low-cost, sustainable way, the team set to work designing staff trainings to enhance staff skills and improve the experiences of urgent and unscheduled patients. As a result, staff members were better able to support the needs of patients with urgent needs, ultimately improving the patient experience.

Keywords

Patient experience, patient-centered care, patient satisfaction, staff training, staff skills, urgent needs, process improvements

Arriving at a health center with an urgent need, a patient is likely bearing one thought in mind: will I be able to quickly see a doctor that can address my concerns? If she doesn't have a scheduled appointment or has missed her appointment time, her anxiety is likely magnified. And with an issue affecting her sense of well-being, she does not want to hear that she cannot be seen because she did not bring the right financial registration documents, or to discover that she needs to see multiple staff members before she finally reaches the one that can help.

These are all issues tackled by a team at Gouverneur, the largest diagnostic and treatment center in New York State, during a weeklong process improvement initiative known as a Rapid Improvement Event (RIE) in September 2014. Structured through Breakthrough, the process improvement methodology that the NYC Health + Hospitals health care system created in 2007 in collaboration with Simpler Consulting, the RIE focused on improving the process of serving urgent needs patients, including those that arrive without an appointment or miss

their appointment time, or those who call with an urgent issue.

As the team examined problems faced by urgent needs patients – including the amount of time required to complete a visit, and barriers to having an appointment scheduled the same day with a provider – they discovered that the root of many issues was simply variability in how staff members approach the unexpected patient. To solve the issues in a low-cost, sustainable way, the team set to work designing staff trainings to enhance staff skills and improve the experiences of urgent and unscheduled patients.

Quality Improvement at the NYC Health + Hospitals

The goal of Breakthrough is to improve staff and patient satisfaction while reducing wastes (including wasted skills and time) and streamlining processes throughout the organization. Based on two central tenets – continuous improvement and respect for people – Breakthrough

methodology engages staff members at all levels of the organization throughout NYC Health + Hospitals facilities.¹

The Breakthrough principles are based on the Toyota Motor Corporation's production efficiency process, which is known as "Lean" and aims to increase organizational efficiency while reducing costs. Making processes more efficient benefits both the organization and its customers.¹ Breakthrough is also based on the principles of "Six Sigma," a method of improving quality that began in the manufacturing industry among companies such as Motorola and GE.² Six Sigma's key concepts promote process design that consistently delivers what is most important to the customer.³

In Breakthrough, a Rapid Improvement Event (RIE) incorporates the principles of the Lean and Six Sigma methodologies during a 4.5-day team-based approach to improving an organizational process.⁴ The RIE is structured similarly to the Lean problem-solving process. The team analyzes the process by examining the: (1) Reason for Action, (2) Initial State, (3) Target State, (4) Gap Analysis, (5) Solution Approach, (6) Rapid Experiments, (7) Completion Plan, (8) Confirmed State, and (9) Insights. RIE team members have expertise in part or all of the process being evaluated.

Reason for Action, Initial State, Target State, Gap Analysis & Solution Approach

In its location on Manhattan's bustling Lower East Side, Gouverneur serves more patients than any other diagnostic and treatment center in New York State. As part of NYC Health + Hospitals, the largest municipal health care system in the United States serving 1.4 million patients, Gouverneur strives to serve the needs of both scheduled and unscheduled patients. Within Gouverneur, the Women's Health department treats approximately 1,600 patients per month through approximately 2,100 visits.

Gouverneur's patients are culturally diverse: 32% are Latina, 30% are Asian and 9% are African American. They are also largely low-income; in 2014, approximately 40% of Women's Health department patients were uninsured. As a result, all patient initiatives are designed with language concordance and affordability in mind. The reason for action behind this RIE, entitled, "Flow Management of Walk-ins, Phone Calls & Late Patients," was that Women's Health did not have standard work to adequately address the needs of patients who: (1) call the health center with an urgent clinical need, (2) arrive to the health center with an urgent need but without a scheduled appointment, or (3) arrive so late to the health center that they have missed their scheduled appointment time but still wish to be seen. As a result, there is limited ability to accommodate them, negatively affecting their experience as well as the

department's utilization of staff time and timeliness of clinical operations.

For eight weeks leading up to the RIE, staff members collected data to illuminate the current state. The data showed:

- The process for serving walk-ins was lengthy and overly complicated for patients, and disruptive to staff workflow
- Only half of walk-in patients were seen by a provider that day
- Patient phone calls were not always returned in a timely manner
- Nurses' voicemail recordings were unstandardized and not in languages that all patients could understand

Patient experience data reinforced that the patient call-in process needed improvement. In a patient satisfaction survey distributed to 50 Women's Health patients in the department's waiting room in June 2014, a survey question that asked patients to rate their ability to get questions answered by phone was rated 2.96 out of a total possible score of 5. On the rating scale, a 2 correlates with "fair," a 3 correlates with "okay," and a 5 correlates with "great." For more information about the sources staff members used to collect initial state data in the weeks leading up to the event, please see Table 1: Pre-Event Data Collection.

The overarching goal of the RIE was to more efficiently meet the urgent needs of unscheduled, late and call-in patients. Specific goals of the RIE's target state were to decrease the amount of time needed to serve urgent needs patients, increase the percentage of walk-in patients seen the same day, and increase the percentage of phone calls to the nurse returned within one business day.

Using the Gap Analysis and the Solution Approach methodology, the 10-member team—including Women's Health provider, nursing, front desk and medical assistant staff, as well as staff members from Patient Navigation and Central Scheduling departments—identified and solved root causes of inefficiency in serving urgent needs patients. To facilitate the group's Gap Analysis, where gaps causing the disconnect between the Current and Target States are explored, the team used a problem solving tool known as a Fishbone Diagram, in which a fishbone is drawn on a whiteboard. The effect of the problem is depicted as the head of the fish. Staff brainstorm potential causes of the problem and write them on sticky notes. The sticky notes are grouped into categories, and each category is depicted as a bone of the fish. Staff then brainstorm solutions to each category of problem, and organize them into a Solution Approach table.⁵ Of the ten solutions that this team identified, seven were related to staff training and standard work, highlighting the need for improved staff training and

Table 1. Pre-Event Data Collection

DATA POINT	SOURCE OF DATA
Volume of phone calls per day	Manually tracked by nursing and administration using a log sheet
Number and percentage of patients per day that are more than 30 minutes late	Soarian 3.4 (Gouverneur's scheduling software)
Number of late patients in the morning vs. in the afternoon	Soarian 3.4 (Gouverneur's scheduling software)
Number of walk-in patients per day	Manually tracked by nursing using a log sheet
Percentage of walk-ins that are non-urgent	Manually tracked by nursing using a log sheet
Percentage of walk-in patients who are seen the same day, the next day, or in less than one week	Manually tracked by nursing using a log sheet
Time to next available appointment	Soarian 3.4 (Gouverneur's scheduling software)
Cycle time of walk-in patients' nurse visits (time from check-in until the patient finishes the appointment with the nurse)	Soarian 3.4 (Gouverneur's scheduling software)
Percentage of walk-ins that require provider input	Manually tracked by nursing using a log sheet

management. For more information on the Solution Approach table, please see Table 2: Solution Approach.

Rapid Experiments, Completion Plan, Confirmed State & Insights

Once root causes to the problem and potential solutions were identified, the team carried out a series of Rapid Experiments including retraining the front desk staff to cross-cover each other's job duties, piloting the new process for checking in walk-in and late patients, monitoring staff in the central scheduling department to see if standard work was being followed, and tracking and logging patient phone calls to nurses.

The RIE team then created a Completion Plan assigning staff members to carry out next steps – such as writing standard work, providing staff training and requesting shared nursing phone lines – by specified deadlines. Once these changes were implemented, departmental leadership encouraged sustainment by posting Current and Target State metrics in the departmental administrative hallways. Additionally, progress towards metrics was reviewed at monthly staff meetings and during other predetermined check-in dates.

Using the Initial State data, the Solution Approach exercise, and the Rapid Experiment outcomes, the team set the following data-driven targets:

- Decrease the flow time for addressing walk-in patients' needs by 25%
- Create a standard process to manage the needs of walk-in and late patients
- Streamline the process for addressing the needs of patients calling in with problems while also minimizing delaying scheduled patients
- Create a process to ensure non-urgent phone calls to nurses are returned by the next business day

- Create a standard script for nurses' outgoing voicemail messages

Once the specific data-driven targets identified by the team were achieved, the process was considered to have reached its Confirmed State. For more information on Initial, Target, and Confirmed States, please see Table 3: Initial, Target & Confirmed State Data.

At the close of each day of the RIE, team members were asked to contribute Insights to the day's proceedings, discussing what worked well, what helped, what didn't work and what had hindered the process. The team felt that departmental involvement and RIE team visits to the Women's Health department worked well, and the Initial State data and diverse team composition helped, while unorganized conversations and technical problems hindered.

Ninety days following the completion of the RIE, the Women's Health department had met or exceeded all targets (see Table 3: Initial, Target & Confirmed State Data), achieving Confirmed State. In March 2015, the patient satisfaction survey was again distributed to 50 patients in the Women's Health waiting room, with markedly improved answers to the question about patients' ability to get their questions answered by phone. This time, respondents rated the phone-related question a 4.1, which correlates with a rating of "good," out of a total possible score of 5, which correlates with a rating of "great." The 4.1 rating represents a 1.14 increase over the survey conducted in June 2014, before the changes were implemented. This rise in patient ratings suggests that the process improvements positively impacted the patient experience.

Table 2. Solution Approach

Root Cause	If We...	Then We...	Target State Metric Impacted
Lack of Standard Work	Retrain Central Scheduling to follow standard work and inform new patients of registration documents needed and timely arrival	Patient will be prepared for financial screening	Total flow time for walk-in patient
	Create standard work for the front desk to communicate with RN and patient	Minimize the flow time for the walk-in patient to RN	Total flow time for walk-in patient Percent walk-in patients who get seen same day
	Create standard work for scheduling same day or overbook appointments to the provider	Decrease the non-value added process of patients who need a provider visit going to the RN, as well as non-urgent needs going to the RN as a same day visit	Total flow time for walk-in patient Percent walk-in patients who get seen same day Percent walk-in patient who get rescheduled for next available appointment
Lack of training	Retrain financial counselors to open visits and check-in patients when they are not engaged in financial counseling	Reduce flow time of patients by flexing front desk staff and improve financial counselor efficiency	Total flow time for walk-in patient
	Train front desk to re-register patients before their visit and then see financial counselor for additional registration needs after their visit	Prevents patient from arriving late back to department from financial counseling	Total flow time for walk-in patient
	Create standard work and scripts for voicemail with nursing instructions	Patients with urgent needs will know when to expect a return call, and will be given alternate calling instructions if they are unable to wait	Percent RN phone calls returned within 24 hours business day
Culture of Practice	Retrain staff to stop using the same day slots ahead of time	Increase access for same day visits	Percent walk-in patients seen same day Percent walk-in patient who get rescheduled for next available appointment
Lack of Patient Education	Create a new patient information sign with WH guidelines on lateness, cancellations and walk-ins, and translate into the languages most commonly spoken by patients	Improve patient education on departmental policies in order to improve department efficiency in serving patients	Total flow time for walk-in patient Percent RN phone calls returned same day
	Clinical staff to educate patients to call for RN visit for prescription refills	Reduce patients walking in unscheduled for prescription refills	Total flow time for walk-in patient Percent RN phone calls returned same day
Limitations of phone system	Develop team nurse phone lines and share extensions between teams	Increase the calls being addressed within a 24 hour window of the business day	Percent RN phone calls returned same day Percent walk-in patients who get rescheduled for next day appointment

Table 3. Initial, Target & Confirmed State Data

Target State Metric	Initial State Value	Target Value	Value 90 Days Following the RIE (Confirmed State)
Total flow time for a walk-in patient between checking in at the front desk and completing her appointment with the nurse	41 minutes	30 minutes	22 minutes
% of walk-in patients who are seen the same day by a provider	50%	65%	68%
% of walk-in patients who are scheduled for the next day by a provider	6%	20%	21%
% of walk-in patients who are scheduled for the next available appointment by a provider	44%	15%	13%
% of nurse phone calls that are returned within one business day	N/A	95%	97%

Discussion & Next Steps

Key to the department's success in carrying out this RIE was investing in group and individual training sessions, and reinforcing face-to-face training with written standard work. Hard copies of the standard work are kept in a binder in the department, and each staff member also has access to electronic copies via a departmental shared drive. Training and standard work focused on the front desk staff, nursing staff, and central scheduling staff. Topics covered included how front desk and central scheduling staff search for same day appointment availability and book appointments, and guidelines for the timeframe in which nurses return patient phone calls. The RIE team wrote the standard work, and department management as well as skilled department team members provided staff training. As a result, staff members had the knowledge and skills to help patients arrive prepared for their appointments. Once patients were in the office, staff members were able to make appointments with the appropriate clinician. They could also better support patients who called the office with issues.

While the changes were subtle, the outcomes were significant. With just a few low-cost human resource management solutions, Gouverneur's RIE team was able to build the skills and knowledge of the Women's Health team, and help clear each patient's path to a smooth provider visit and better overall patient experience. Now, the staff can give urgent and unscheduled patients a simple

answer to the question of whether a provider will be able to quickly meet their needs: Yes!

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