Reducing Patient Cycle Time in Ambulatory Care

Maimonides Medical Center: 9th Avenue Women’s Primary Care Center

*Maimonides Medical Center is Brooklyn’s largest hospital and one of the largest independent teaching hospitals in the U.S. Its ambulatory network provides personalized primary care services throughout Brooklyn, serving the needs of a diverse urban community. The Labor Management Project (LMP) partnered with the ambulatory network to successfully decrease patient cycle time at the 9th Avenue Women’s Primary Care Center, a provider of comprehensive gynecological and obstetric services.*

**The Challenge**
The 9th Avenue Center aimed to improve patient satisfaction by reducing visit cycle time for routine gynecology and obstetric patients. At baseline, the average time that patients spent in the clinic from arrival to discharge (cycle time) was approximately 3.5 hours. Frustrated by excessive waits, patients would regularly complain to staff.

**The Solution**
LMP consultants provided process improvement (PI) training and coaching to an 1199SEIU (Union) and management co-led PI team in the fall of 2016, using PDSA (Plan-Do-Study-Act) and Lean models. Consultants trained PI team members on communication and team-building so they could motivate other staff to adopt new processes. The LMP met with the PI team weekly for two months and then bi-weekly for an additional four months. In addition, the LMP provided executive coaching to the center’s leadership and administrators, engaging them in PI implementation and guiding them on how to remove obstacles.

With the LMP’s guidance, the PI team established roles and responsibilities, created process maps for patient visits, and identified changes to test. During process mapping, the team identified all steps in a visit, considered whether each step was necessary, and identified bottlenecks. Importantly, the team asked itself if current processes were designed for patient convenience or for staff convenience. According to the site’s medical director, Dr. Ronald Berka, process mapping was an “eye-opening experience” that exposed the myriad of steps in a typical visit.
The LMP also helped the PI team develop a patient tracking tool (Figure 1), which they used to measure cycle time at baseline and periodically over the course of the initiative, and assisted with data analysis.

Process changes instituted by the 9th Avenue Center included:
1. Pre-registering patients early in the morning
2. Scheduling new patients at 10am, instead of 9am, to give staff time to resolve insurance issues
3. Extending the schedule template (e.g. changing 8:45-10:45am to 8:45-11:45am) to decrease overbooking and give patients more realistic appointment times
4. When front desk registration staff are busy, having medical assistants start the intake process with patients even if they have not yet been registered
5. Assigning medical assistants to specific providers
6. Having providers review patient charts, labs and radiology studies before seeing the patient
7. Requiring preceptors to intervene once a medical resident has been with a patient for more than 20 minutes
8. Instructing patients that they can return for ordered tests (e.g. x-rays) between appointments

The Results
Over the course of the project, average cycle time decreased by almost 50%, from three and half hours to one hour and 46 minutes (Figure 2). Cycle time decreased for both new and returning routine OB-GYN and gynecology patients, as shown in Figure 3.

1 Cycle time was defined as the length of time between a patient's scheduled appointment time and discharge. For patients who arrived later than their scheduled appointment time, the cycle began at the time of their arrival.
Team effectiveness and labor-management collaboration also improved, as measured by an LMP survey (Figures 4 and 5). The percentage of survey respondents who agreed or strongly agreed that “staff understand the importance of working on a team” increased to 73% at project end, up from 45% at baseline. Moreover, 84% agreed or strongly agreed that “management and staff work well together” at the closing of the PI as compared to 55% at the beginning of the work.

**Figure 4: Staff Understand the Importance of Working As a Team**

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<tr>
<th></th>
<th>Agree/Strongly Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree/Strongly Disagree</th>
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<tbody>
<tr>
<td>Pre (N=20)</td>
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<td>Post (N=26)</td>
<td>73%</td>
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**Figure 5: Management and Staff Work Well Together**

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Project co-leads, site administrator Lisamarie Alba and admitting clerk Jennifer Quevedo told a story that demonstrates that the PI project lead to sustainable improvements in collaboration among staff. On a day in October 2017, more than six months after the end of the PI project, all of the clinic’s computer systems were down. Instead of succumbing to chaos, staff pulled together and had a good day because of teamwork and communication.

Positive Feedback
Jennifer Quevedo, PI committee Union Co-lead and Admitting Clerk: “The LMP was very helpful. They provided all the information that we needed and gave us great ideas on how to change. The exercises they made us do helped break the ice and work together as a group.”

Lisamarie Alba, PI Committee management Co-Lead and Site Administrator: “The LMP was a big help. We couldn’t have done it without someone from the outside.”

Sophie Joslin-Roher, PI Team Member and Family Planning Program Manager: “The LMP consultants were really encouraging and listened to our concerns. They gave us tools to help us speak to the clinic staff about the PI project.”