Enhancing Access to Care: Load Balancing

A collaboration with:
CPUP 3701 General Medicine
CCA, Penn Medicine at Rittenhouse
Scheduling Center
Contact Center

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background:

What was the initial intent of the big idea?
Use web scheduling to make it easier for new patients to gain access to Penn primary care doctors.

Why was it important?
Fast access to a PCP is critical to the health of our patients and community. Delays also lead to cancellations, no shows, and the loss of patients to other health systems.
Affects of Appointment Lagtime

Appointments Scheduled within 0 - 31 days vs 31 - 60 days

<table>
<thead>
<tr>
<th>Time Range</th>
<th>Appointments Scheduled</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 31 Days</td>
<td>20,368</td>
</tr>
<tr>
<td>31 - 60 Days</td>
<td>12,623</td>
</tr>
</tbody>
</table>

Percentages of No-Shows and Cancellations to Total Appointments

<table>
<thead>
<tr>
<th>Category</th>
<th>No Shows</th>
<th>Cancellations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 31 Days</td>
<td>7.8%</td>
<td>10.0%</td>
</tr>
<tr>
<td>31 - 60 Days</td>
<td>18.7%</td>
<td>29.5%</td>
</tr>
</tbody>
</table>

Increase in Cancellations and No-Shows for appointments scheduled after 31 days

13% ↑
Reasons for New Patient PCP Non-Accommodation

- Patient wants specific physician
- Patient is sick, wants appt. asap
- Patient wants to be seen sooner
- Conflicts with patients schedule
- Insurance issues
- Hard freeze
- No slots / not accepting NPV
- Misc

Internal Medicine Sample July - Oct 2012
enhancing access to care

process:

Gaining Insight

The Center for Innovation was brought into the project to help drive its execution, and we worked with two design students from The University of the Arts Masters of Industrial Design program to gain insight into the underlying PCP access issues.

Defining the problem

Web scheduling was proposed as an initial solution; however, it did not address the underlying issues related to internal scheduling access.

The primary care scheduling process requires most new patients to call 800-789-Penn and then get re-directed to separate call centers that do not communicate or share schedules.

Appointment access varies across the Health System: fewer than 50% of patients are able to schedule appointments with a physician at the Department of General Internal Medicine within 4 weeks of calling. For Rittenhouse, the percentage is 76%.

These findings point to some form of load balancing as a potential way to alleviate some of the problem.
New Patient Scheduling Journey

**Patient Touchpoints**

1. **Patient Discovers Need for Care**
2. **Patient Selects UPHS as their choice for care and identifies phone number (Based on Insurance, Referral, Reputation, etc.)**
3. **Patient Calls 800-789-PENN “Contact Center”**
4. **Patient selects appropriate automated option to schedule appointment**
5. **Patient describes their need for appointment and provides demographics**
6. **Access Rep enters the patient into the system (EPIC) and identifies available appointments at the practice(s) in their queue**
7. **Patient is notified of available appointments and makes decision**
8. **If needs are urgent the patient Access Rep connects the patient with Practice Nurse/PSR**
9. **Patient waits for Rep to answer**
10. **Contact Center Rep asks several questions to enter patient into the system (Name, DOB, Insurance type, Address, etc.)**
11. **If the practice utilizes an internal call center the Rep connects them directly to the practice**
12. **If the practice utilizes the external call center the Access Rep is notified of patient type**

**Internal Processes**

1. **Appointment Scheduled**
2. **Pre-authorization and Records are Confirmed**
3. **Patient receives confirmation/reminder call 7 days prior to appointment**
4. **Patient confirms appointment**
5. **Patient makes arrangements for Transportation, Time off, etc.**
6. **Patient receives confirmation/reminder call 3 days prior to appointment**
7. **Patient confirms appointment**
8. **Patient receives information in mail (Depends on Practice)**
9. **Patient is sent Information in mail (Depends on Practice)**

**Waiting for Appointment**
New Patient Narrative

**PATIENT TOUCHPOINTS**
- Patient Discovers Need for care
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**INTERNAL PROCESSES**
- Patient makes arrangements for transportation, time off, etc.
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- Patient is sent appointment information in mail (Depends on Practice)
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- Patient receives confirmation/reminder call 3 days prior to appointment
- Patient confirms appointment

**Patient Narrative**

I am new to Philly and when I got sick I wanted to find a PCP. A friend said I should try Penn. I searched Penn medicine and found a website with a phone number. I called the first one I could find. I wanted to get in as soon as possible.

The woman explained that there were several options I could choose from and provided examples based on my location. When I made my selection she then explained that if I cannot get an appointment soon enough there I can call back and try another practice that may be able to get me in sooner. I asked if there was any way she could tell me now which practice might get me in the fastest, and she said she could not access that information, but then recommended a different location based on her general knowledge and connected me with that practice.

The practice utilizes an automated option. I was on hold for about ten minutes. I waited for about 5 minutes listening to advertisements that had nothing to do with me.

After selecting the appropriate automated option I was on hold for about ten minutes. Access Rep enters the patient into the system (EPIC) and identifies available appointments at the practice(s) in their queue. Patient is notified of available appointment(s) via phone call.

After explaining all of my information, the person on the phone told me that she would not be able to get me in that, a Wednesday, day but an appointment was available that following Monday, which I was satisfied with and so took the appointment. They told me what information to bring with me and to come a 1/2 hour early to fill out some paperwork; I appreciated the heads up...

**Waiting for Appointment**
- Patient makes arrangements for transportation, time off, etc.
- Pre-authorizations and Records are Confirmed
- Patient is sent appointment information in mail (Depends on Practice)
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enhancing access to care

Load Balancing Areas of Opportunity

PATIENT TOUCHPOINTS

1. Patient discovers need for care
2. Patient selects UPHS as their choice for care and identifies phone number (Based on Insurance, Referred, Reputation, etc.)

INTERNAL PROCESSES

1. Patient calls Practice specific number
2. Patient selects appropriate automated option to schedule appointment
3. Patient describes their need for appointment and provides demographics

Load Balancing Areas of Opportunity

1. Contact Center Rep. asks several questions to enter patient into the system (Name, DOB, Insurance type, Address, etc.)
2. Based on patient criteria, preferred location, insurance requirements, etc., the Rep connects them to the appropriate practice.
3. If the practice utilizes an external call center the Access Rep connects them directly to the practice.
4. If the practice utilizes the internal call center the Access Rep is notified of patient type.

While we don’t have any direct insight to this process, there would surely be a benefit in providing the necessary information/tools for these practices to accommodate these patients through load balancing, particularly because these are typically the most urgent cases.

Patient makes arrangements for Transportation, Time off, etc.

Another opportunity may be to utilize a waiting list type approach, as we have discussed in the past, which could be shared and managed across practices.

While waiting for an appointment, the patient confirms appointment.

If needs are urgent the patient Access Rep connects the patient with Practice Nurse/PSR

Here Reps will sometimes notify the patient that if the practice they are connected to cannot accommodate them in a reasonable time they should call back and try another practice. How could we build on this by providing these reps with the knowledge to direct the patient to the practice that best accommodates their needs.

Load Balancing Areas of Opportunity

1. Patient receives confirmation/reminder call 7 days prior to appointment.
2. Patient receives confirmation/reminder call 3 days prior to appointment.
3. Patient makes arrangements for Transportation, Time off, etc.
4. Pre-authorizations and Records are Confirmed

This is the area I believe we have been looking at for the load balancing approach, which there would be an obvious benefit in providing access to scheduling across practices.

Access Rep enters the patient into the system (EPIC) and identifies available appointments at the practice(s) in their queue.

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Measures used to define success

New patients should receive appointments within 1 week for urgent issues and 3 weeks for non-urgent issues.

Explore solutions

Load balancing, through shared scheduling among primary care services, was our main area of focus as it would meet the needs of a large population.

We explored other solutions to better understand and meet the needs of other more specific populations, namely our own employee population and those patients already receiving Penn specialty care.

Rapidly validate

Practice managers and call center supervisors gave nineteen call center representatives the ability to schedule appointments at both CPUP practices and Rittenhouse CCA starting on December 28, 2012. This load balancing effort was aimed at redirecting new patients from the overcapacity CPUP practices to the under utilized CCA clinic.
Enhancing access to care

Current State

- Patient directed to a specific PCP based primarily on location.
- If dissatisfied with time to appointment, directed or transferred to another practice or goes outside of Penn Medicine.

Shared Scheduling

- Short lag time.
- Load balancing.

800-789-PENN

This visual represents the current state and purposed future state with share scheduling. In the current state, a patient is directed to a specific PCP based primarily on location. If they are dissatisfied with the time to appointment, they may be directed or transferred to another practice or go somewhere outside of Penn Medicine. This gap is bridged with shared scheduling.
RESULTS

What were the initial results and what did they reveal?

Load balancing has redirected 147 new patient appointments from CPUP to Rittenhouse CCA between December 28, 2012, and February 28, 2013, resulting in a reduction in lag time for patients from as much as 3+ months to several days. Approximately 80% of patients have shown up for their appointments.

These positive results indicate that new patients appreciate and utilize options that reduce the time they have to wait for their first appointment. In addition, Rittenhouse CCA was eager to get new patients.

What are the next steps?

Our recommendations are to build upon the load balancing experiment with additional experiments in the following areas:

- Test an intervention at the contact center that expands upon the triage that currently is used. Instead of directing new patients based on their zip code, consider triaging patients based on other important physician characteristics such as time to next available appointment.
- Work with the call center to test the expansion of load balancing to other CCA clinics throughout the Philadelphia metropolitan area.