Outcomes of a Data Driven Physician Practice Schedule Re-Design

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Background
As the number of patients requiring an appointment at Mayo Clinic continues to grow, we must be data-driven and strive to see patients with the best possible availability without requiring more resources. Limited facility space and a desire by the organization and providers to reduce burnout created an environment that required a data-driven approach to develop a schedule redesign.

Measures Utilized
- New patient evaluations, consultations, and procedures
- Historical Demand Data
- Interventions Utilized
- Measures of Success: % change in gross revenue
- Time Periods:
  - Pre: September - November 2017
  - Post: January - March 2018

Previous Template Example
This template was developed through an approach that did not consider appointment availability or patient flow. The schedule was a 50% reduction in the number of visits, but the quality was not improved, as the number of patient visits increased without a corresponding increase in the number of new patients seen.

Re-Designed Template Example
This template was developed through a data-driven approach that considered appointment availability and patient flow. The schedule had a 10% increase in the number of visits, with a corresponding 10% increase in the number of new patients seen.

Pre and Post Average Weekly Demand Table
<table>
<thead>
<tr>
<th>Visit Type</th>
<th>Pre Average</th>
<th>Post Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Patient Evaluation</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Procedure</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Consultation</td>
<td>82</td>
<td>64</td>
</tr>
<tr>
<td>Return for Physician A</td>
<td>14</td>
<td>37</td>
</tr>
<tr>
<td>Return for Physician B</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>Return for Physician C</td>
<td>14</td>
<td>36</td>
</tr>
</tbody>
</table>

Improve in Finances
Improving the new calendar allowed the Department of Physical Medicine & Rehabilitation to increase an additional 10% in the number of new patient evaluations that they felt unable to see during the pre-period, without any increase in the number of new patients seen. This resulted in a 50% reduction in the number of patients seen at a higher clinical appointment rate.

Improve in Access
Implementing the re-designed calendar allowed the Department of Physical Medicine & Rehabilitation to improve by 10% in the number of new patient evaluations that they felt unable to see during the pre-period, without any increase in the number of new patients seen. This resulted in a 50% reduction in the number of patients seen at a higher clinical appointment rate.

Conclusions
- Historical demand data can be utilized to build physician schedules that align capacity with demand patterns and trends. When this is done effectively, it can yield financial results and higher physician utilization rates.
- Shifts providers to four 10-hour workdays can significantly decrease physical exam room costs and allows for more patient access, while using the existing resources in a more efficient manner.
- Continuous evaluation of physician schedules, access for patients, and finances is necessary as demand patterns constantly change.
- Physician preference for when they want appointments also continues to change.
- Physician burnout, while improved, continues to be a problem across many healthcare disciplines and we will continue to explore innovative ways to improve their well-being.