Improving Care via an Interoperable Health Information Exchange

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North Texas Specialty Physicians — known as NTSP — is an Independent Physician Association comprised of nearly 600 independent family and specialty doctors dedicated to delivering the best medical care to the residents of Tarrant, Johnson and Parker Counties in North Central Texas. Unlike some physician groups, NTSP is governed by a board comprised solely of local doctors and is managed by resident health care experts.

Background

As an Independent Physician Association, NTSP manages its members Medicare Part C risk contracts. For many years, NTSP used the coding and reimbursement information stored in a claims database to generate patient profile reports for risk adjustment purposes and so that doctors could review the efficiency of their coding. However, there was a severe lag time before the data were available. Without reliable data in hand, it was difficult to obtain optimal reimbursements, and there was significant potential for financial losses.

Situation Summary

In 2005, NTSP made the decision to invest $6 million in a health information exchange (HIE) solution. HIE allows for the electronic movement of clinical information among disparate health information systems while maintaining the integrity of the information being exchanged. The goal was to allow for real-time exchange of patient information among the NTSP physician community, resulting in faster, better, safer, more fiscally-responsible care for their Medicare Part C patients.

Process

NTSP created a wholly owned subsidiary called Sandlot, LLC. Sandlot provides HIE, a physician portal and integrated electronic medical record services to NTSP physicians, allowing them to remain independent and yet function as a virtual practice.

Today, a variety of providers use Sandlot to exchange information, including seven community hospitals, two national labs, radiology groups, two e-prescribe vendors, more than 350 electronic medical record (EMR) users on three connected systems and 1,400 professionals accessing the physician Web portal. More than 1.4 million unique patients are included in Sandlot and 53,000 patient records are updated daily. The following functions are included:

- Enter and receive patient information
- Order labs and radiology tests
- e-Prescribe
• Secure communication with other providers
• Referral management
• Interoperable exchange of information with other EMR users (physician-to-physician communication)

Outcomes
With Sandlot, physicians are able to make more accurate decisions quickly by viewing a patient’s entire medical record at once. Information is available at the point of care, improving diagnosis and treatment. The HIE allows physicians to better monitor patients with chronic, complex or co-morbid conditions. In addition, physicians have avoided redundancy and cost of repeated tests and procedures, helping them better manage care within the defined financial limits of a capitated population.

Additional Applications — Quality Improvement
NTSP is exploring additional opportunities for clinical decision support and customized reporting through the HIE. Specifically, proponents are working on a quality scorecard that individual physicians could view periodically to ensure they were meeting quality targets and to compare themselves to other colleagues. (See Figure 1.) Quality scorecards are important to NTSP because bonuses are determined by meeting appropriate benchmarks.

Because the system updates information daily, scorecards are constantly refreshed. Physicians could choose to view quality scorecard information at a variety of levels, such as drilling down to determine how they were performing with their diabetes or heart failure patients. The system also helps them identify gaps in performance. For example, if a particular patient had not yet received a necessary preventive screening test, then a triggering mechanism within the HIE system would prompt the physician to get it scheduled.

**Quality Scorecard**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Action Required</th>
<th>Ratio</th>
<th>% Diff vs Comparison</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1C Poor Control</td>
<td>5.15</td>
<td>10/15 (66%)</td>
<td>+16%</td>
<td>50%</td>
</tr>
<tr>
<td>Low Density Lipoprotein (LDL-C) Control</td>
<td>3.4</td>
<td>2/6 (33%)</td>
<td>-7%</td>
<td>40%</td>
</tr>
<tr>
<td>High Blood Pressure Control</td>
<td>2/4 (50%)</td>
<td>2/4 (50%)</td>
<td>+25%</td>
<td>50%</td>
</tr>
<tr>
<td>Dilated Eye Exam</td>
<td>6/9 (66%)</td>
<td>6/9 (66%)</td>
<td>+33%</td>
<td>33%</td>
</tr>
<tr>
<td>Urine Screening for Microalbumin</td>
<td>12/19 (63%)</td>
<td>12/19 (63%)</td>
<td>+40%</td>
<td>20%</td>
</tr>
<tr>
<td>Foot Exam</td>
<td>5/10 (50%)</td>
<td>5/10 (50%)</td>
<td>+10%</td>
<td>40%</td>
</tr>
</tbody>
</table>
| **Group: Gastroenterology**
| Preventative Care and Screening: Colonoscopy Interval for patients with a History of Adenomatous Polyps Avoidance of Inappropriate Use | 6/9 (66%) | 6/9 (66%) | -8% | 70% |

**Figure 1:** A sample quality scorecard for an individual physician.