**Background**

The Wisconsin Pharmacy Quality Collaborative (WPQC)
- Consortium of private and public third party payors, pharmacies, the Pharmacy Society of Wisconsin and the University of Wisconsin-Sonderegger Research Center
- Dedicated to the creation of a quality-based medication therapy management services demonstration project
- Aligns incentives for both pharmacists and payors
- The WPQC pilot is supported, in part, by a Signature Grant from the Community Pharmacy Foundation

The Pharmacy Society of Wisconsin (PSW)
- Sole Wisconsin state pharmacy professional association representing members comprised of pharmacists, pharmacy technicians and pharmacy students

Current Pilot Participants
- Unity Health Insurance, 42,000 covered lives
- Group Health Cooperative of South Central Wisconsin, 16,400 covered lives
- 53 community (independent, chain and health-system) pharmacies

Internet-based Billing/Documentation System
- McKesson MTM application (RelayHealth)

Return on Investment (ROI)
- Performance measure used to evaluate an investment
- This analysis measured the effectiveness of the third party payors’ investment in WPQC

**Level I Interventions**
- Drug product-focused services that occur within the pharmacy workflow
- Recommendations are communicated to the prescriber and are billed after approval is received

**Level II Interventions**
- Comprehensive medication review and assessment

**Methods**

**Level I Cost Effectiveness Interventions**
- Formulary Interchange
- Therapeutic Interchange
- Tablet Splitting Opportunity (from payor identified list)
- Conversion to an OTC Product
- Dose Consolidation

**ROI Results for WPQC Interventions**

<table>
<thead>
<tr>
<th>Drug Cost Savings for a Single Fill</th>
<th>Payor 1</th>
<th>Payor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of intervention includes analyzed interventions only</td>
<td>Payor 1: ROI 0.22</td>
<td>Payor 2: ROI 3.25</td>
</tr>
<tr>
<td>Payor 1: ROI 10.43</td>
<td>Payor 2: ROI 42.77</td>
<td></td>
</tr>
<tr>
<td>Payor 1: ROI 10.43</td>
<td>Payor 2: ROI 9.83</td>
<td></td>
</tr>
</tbody>
</table>

**ROI Calculation**

ROI = Drug Cost Savings – Cost of Intervention

**Assumptions**
- Quantity dispensed calculated using prescription instructions field data
- Chronic/Acute designation assigned based on common use
- 6 & 12 month savings includes one-time fill of acute and 6 or 12 fills of chronic meds
- Nasal steroids: 6 months savings includes 3 fills, 12 months savings includes 6 fills

<table>
<thead>
<tr>
<th>Payor 1</th>
<th>Payor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual drug cost to payor after rebates</td>
<td>Payor 1: $719</td>
</tr>
<tr>
<td>Copays = weighted average for each tier</td>
<td></td>
</tr>
<tr>
<td>Average dispensing fees: Brand = $2.00, Generic = $2.25</td>
<td></td>
</tr>
<tr>
<td>Average copays: Brand = $20.00, Generic = $5.00</td>
<td></td>
</tr>
<tr>
<td>Brand drug cost = (AWP-15%) + 2.00 - 20.00</td>
<td></td>
</tr>
<tr>
<td>Generic drug cost = (MAC supplied by payor) + 2.25 - 5.00</td>
<td></td>
</tr>
<tr>
<td>Rebates not included</td>
<td></td>
</tr>
</tbody>
</table>

**Drug Cost Savings**

<table>
<thead>
<tr>
<th>Total Drug Cost Savings (6 months*)</th>
<th>Payor 1: $26,943</th>
<th>Payor 2: $4,830</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Based on a single fill for acute medications and 6 fills for chronic medications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Drug Cost Savings (12 months*)</td>
<td>Payor 1: $53,913</td>
<td>Payor 2: $90,612</td>
</tr>
<tr>
<td>*Based on a single fill for acute medications and 12 fills for chronic medications</td>
<td></td>
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</tr>
</tbody>
</table>

**Results**

**ROI Analysis extrapolated over 12 months**

<table>
<thead>
<tr>
<th>Included Costs</th>
<th>Payor 1</th>
<th>Payor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level I Cost Effectiveness Interventions only</td>
<td>10:1</td>
<td>43:1</td>
</tr>
<tr>
<td>All Level I Interventions</td>
<td>5:1</td>
<td>12:1</td>
</tr>
<tr>
<td>All Level I &amp; II Interventions</td>
<td>2.5:1</td>
<td>10:1</td>
</tr>
</tbody>
</table>

**By the Numbers**

- March 2008 – August 2009
- 609 Total Interventions
- 533 Level I Interventions
- 76 Level II Interventions
- 248 Cost Effectiveness Interventions
- 225 Cost Effectiveness Interventions Analyzed
- 23 Cost Effectiveness Interventions Insufficient Data
- 225 Cost Effectiveness Interventions Analyzed
- 156 Payor 1 Cost Effectiveness Interventions
- 69 Payor 2 Cost Effectiveness Interventions

**Challenges**
- Data provided was incomplete and did not include quantity or accurate drug costs. This required manual data input and may prohibit a simple analysis when more data is available in the future.
- For many interventions, the total value is difficult to measure and is often not realized for many years.
- Multiple assumptions, including actual quantity dispensed and number of fills, decreased the overall accuracy of the analysis.
- Different methods were used by each payor to determine drug costs and copays. This resulted in a different level of analysis for each payor.

**Conclusions**

- Cost Effectiveness Interventions within WPQC have resulted in a positive ROI for third party payors
- Total savings resulting from cost-effectiveness interventions alone have resulted in a positive ROI even when including the cost of all Level I and Level II interventions (when calculating savings over 6 or 12 months)