Return on Investment Evaluation of Cost-Effectiveness Interventions Within a Quality-Based Medication Therapy Management Pilot Program

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Background

The Wisconsin Pharmacy Quality Collaborative (WPQC)
• Consortium of private and public third party payers, pharmacies, the Pharmacy Society of Wisconsin and the University of Wisconsin Sondergerrig 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, 18,400 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

Objective

The objective of this analysis is to evaluate the return on investment (ROI) for two third party payors of service claims paid to pharmacies during the pilot phase of WPQC.

Methods

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

ROI Results for WPQC Interventions

ROI Calculation

ROI = Drug Cost Savings – Cost of Intervention

Cost of Intervention

Drug Cost Savings (based on single fill)

Payor 1: $5719
Payor 2: $9790

Drug Cost Savings (6 months*)

Payor 1: $26,043
Payor 2: $45,830

*Based on a single fill for acute medications and 6 fill for chronic medications

Payor 1: $53,513
Payor 2: $100,612

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

Payor 1
- Actual drug cost to payor after rebates
- Copays = weighted average for each tier

Payor 2
- Average dispensing fees: Brand = $2.00, Generic = $2.25
- Average copays: Brand = $20.00, Generic = $3.50
- Brand drug cost = (AWP-15%) + 2.00 - 20.00
- Generic drug cost = MAC (supplied by payor) + 2.25 - 5.00
- Rebates not included

Payor 2

Total Drug Cost Savings (based on single fill)

Payor 1: $5719
Payor 2: $9790

Total Drug Cost Savings (6 months*)

Payor 1: $26,043
Payor 2: $45,830

*Based on a single fill for acute medications and 6 fill for chronic medications

Payor 1: $53,513
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Results

ROI Analysis extrapolated over 12 months

<table>
<thead>
<tr>
<th>Included Costs</th>
<th>Payor 1 ROI</th>
<th>Payor 2 ROI</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>

Payor Savings (Payor 1)

- Patients saved a total of $3775 on 156 interventions (based on weighted average copays)
- Patients saved an average of $25.34 per prescription

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.

By the Numbers

March 2008 – August 2009

623 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

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)