Integrating Quality Metrics with Focused Interventions to Improve Medication Adherence

The Seventh National Pay for Performance Summit
March 2012
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<th>Presenter</th>
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<td>CECity</td>
<td>Annette Boyer, RPh</td>
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Introducing The PA Collaborative

Annette D. Boyer, RPh
Vice President
Business Development
CECity, Inc.
The Pennsylvania Collaborative

Phase I and II Partners | Stakeholder Role(s)
---|---
HIGHMARK | Data Aggregator & Data Provider
CECITY | Technology Platform Provider & Integrator
RITE AID | Healthcare Professionals Provider Organization
PQA | Measure Provider

Phase II Partners | Stakeholder Role(s)
---|---
UNIVERSITY OF PITTSBURGH | Intervention Strategy And Research Provider
HIGHMARK | Performance Payment Program

Phase I
Key Accomplishments

- Established technical approach for continuous data aggregation, exchange & measurement
- Established access to web-based performance reports inside of Rite Aid for both the pharmacist and Rite Aid as a system
- Created collaborative model for quality improvement, across disparate organizations that can serve as foundation for risk-share/P4P
- Identified that measurement alone has little impact on improvement
The Vision for Phase II Moving from Measurement to Improvement

Link Learning to Performance; Align Incentives; Make it Personal & Wrap Social Networks to Scale & Spread Improvement

Phase I Performance Measurement Only

Next Phase Add Incentives & Communities of Practice And Learning

Phase II Identify Gaps & Link to Improvement

Next Phase Add Incentives & Communities of Practice And Learning

Feed Forward

Feed Back For Improvement
Performance Measures Now and in the Future

• PQA Proportion of Days Covered (PDC) Metric - Compliance/adherence
  • ACEI/ARB medications
  • Lipid-modifiers (statins)
  • Diabetes oral medications
  • Calcium channel blockers

• Asthma controller therapy

• ACEI/ARB in diabetics with hypertension

• High-Risk Medications in the Elderly

• Drug-Drug Interactions
ASPIRE Phase II from Measurement to Improvement

Transforming Pharmacy Practice to Optimize Patient Outcomes

- Secure virtual private network
- HIPAA compliant
- Performance Reports with Peer Comparisons
- Three simple steps to move from measurement to improvement

The Three Step Process on How to Improve

1. Measure
   Review your performance report.

2. Identify
   Discover your performance gaps and how to improve.

3. Act
   Build your improvement action plan and track your progress to reach your practice performance goals.
ASPIRE Phase II
“How Do I Improve?”

Performance Goals Established By Highmark

Dynamic Peer Comparisons

Gaps in Measures Drives Link to Interventions
ASPIRE Phase II…Continuous Performance Improvement

Gaps in Measures Linked to Library of Interventions

Interventions
- CECity Hosted
- Link to 3rd party hosted resources
- Connect to 3rd party Apps (e.g. MTM)

Professional Tools Including Action Plan Builder

Next Step Add Functionality
Auto Calculate Intervention Impact
Community Added interventions
ASPIRE Phase II...Key Value Points and Success Demonstrated

**Adoption**
- Pharmacist (Professionalism)
- Organization (Leadership)
- Fostered Culture of Improvement

**Process**
- Scaled Performance Improvement via Cloud/Web Platform (n=117)
- Integrated Interventions at Point of Care & Process Redesign

**Outcomes**
- Improved Patient Adherence as Evidenced by improvement of PQA Measures...Across Sites and Systems

**Financial**
- Scaled PI with Minimal Field Support / Related Expenses
- Streamlined Data Integration
- Impact ($) of Health Costs – TBA
What are the Drivers?

- Medicare Part D Star Ratings
  Medicare drug plans receive an overall rating on quality as well as scores in four domains;
  PQA measures are used in one of the domains
- National Business Coalition on Health evaluates health plans;
  PQA measures are used
- URAC accredits pharmacy benefit managers (PBMs), mail-service pharmacies and disease mgmt organizations;
  PQA measures are used
- NCQA accredits health plans and requires reporting of quality measures (some related to medications)
Balancing cost, quality, and access
• Control/Reduce healthcare spend
• Improving quality of services for our members

Incentive reimbursement programs (P4P)
• Model P4P or other incentives for pharmacies based on performance improvement

Adaptation to changes in the market
• Medicare Plans - CMS STAR ratings
• PQA-endorsed metrics
Medicare Advantage Incentives

- Medicare Advantage plans have a new payment system in 2012 and beyond
- The star ratings will affect payment to Medicare Advantage plans wherein higher-rated plans get higher payment
- Quality Bonus Payments (QBPs) will be awarded on a sliding scale according to star ratings
- 2013 payments will be based on 2012 ratings which were based on 2010-11 data
- Stand-alone Part D plans will have marketing advantages related to star ratings, but not QBPs
Quality Bonus Payments (QBPs)

For Demonstration in 2012-14

<table>
<thead>
<tr>
<th>Stars</th>
<th>QBP*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 3</td>
<td>0</td>
</tr>
<tr>
<td>3 stars</td>
<td>3.0 %</td>
</tr>
<tr>
<td>3.5 stars</td>
<td>3.5 %</td>
</tr>
<tr>
<td>4 stars</td>
<td>4.0 %</td>
</tr>
<tr>
<td>4.5 stars</td>
<td>4.0 %</td>
</tr>
<tr>
<td>5 stars</td>
<td>5.0 %</td>
</tr>
</tbody>
</table>

•QBP is a percentage increase in payment to the plan above the standard rate. For plans with less than 5 stars, the standard rate may be capped at pre-ACA rates. For more details, https://www.cms.gov/MedicareAdvtgSpecRateStats/
QBPs – Big Deal?

- Medicare Advantage plans are paid by CMS
- The expected difference in payments for a 3-star plan and 5-star plan is about $16 per member per month
- For a Medicare Advantage plan with 1 million members, moving from 3 to 5 stars would boost revenue by ~ $200 million
- PQA measures account for about 20% of the star rating for a Medicare Advantage plan that offers drug benefits
- In 2015, the demonstration is scheduled to end; QBPs will change to ACA-specified rates unless further changes occur (plans below 4 stars will not be eligible for QBPs)
<table>
<thead>
<tr>
<th></th>
<th>MA-PD</th>
<th>PDP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PDC – Diabetes</strong></td>
<td>73.0 %</td>
<td>74.4 %</td>
</tr>
<tr>
<td><strong>PDC - ACEI/ARB</strong></td>
<td>72.2 %</td>
<td>74.3 %</td>
</tr>
<tr>
<td><strong>PDC – Statins</strong></td>
<td>68.0 %</td>
<td>69.1 %</td>
</tr>
<tr>
<td><strong>Diabetes – ACEI/ARB Use</strong></td>
<td>84.1 %</td>
<td>82.2 %</td>
</tr>
<tr>
<td><strong>High-Risk Medications</strong></td>
<td>20.0 %</td>
<td>22.2 %</td>
</tr>
</tbody>
</table>
### MA-PD Plans

<table>
<thead>
<tr>
<th></th>
<th>3-star</th>
<th>4-star</th>
<th>5-star</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDC – Diabetes</td>
<td>70.7%</td>
<td>74.9%</td>
<td>78.8%</td>
</tr>
<tr>
<td>PDC - ACEI/ARB</td>
<td>70.1%</td>
<td>74.8%</td>
<td>77.9%</td>
</tr>
<tr>
<td>PDC – Statins</td>
<td>67.4%</td>
<td>70.8%</td>
<td>75.2%</td>
</tr>
<tr>
<td>Diabetes – ACEI/ARB Use</td>
<td>83.2%</td>
<td>86.0%</td>
<td>87.3%</td>
</tr>
<tr>
<td>High-Risk Medications</td>
<td>≤ 22.2%</td>
<td>≤ 14.0%</td>
<td>≤ 9.3%</td>
</tr>
</tbody>
</table>
There are Implications for All

- As CMS and employers increase their scrutiny of quality of medication utilization, the health plans are asking PBMs to measure and improve quality.

- PBMs will be looking to their retail networks and pharmaceutical companies to help boost adherence.

- Plans, pharmacies and pharma companies can work together to drive improvements in medication-use quality, and improved medication adherence.

- Pharmacies and plans should share in the quality rewards (QBPs).
The large MA-PD with 1 million members may have 100,000 patients on oral diabetes meds
- 3 stars = 70,700 adherent diabetics
- 4 stars = 74,900 adherent diabetics

4,200 pharmacies x 1 more adherent patient leads to a shift from 3 stars to 4 stars
Transforming Community Pharmacy

Jesse McCullough, PharmD
Manager
Field Clinical Services
Rite Aid Pharmacy
Community Pharmacy Involvement

- Join collaborative partners to allow each to do what they do best.
- Scale performance improvement – minimal resources.
- Raises the professionalism of Rite Aid pharmacists.
- Solidifies the pharmacists’ relationship with the patient.
- Supports corporate philosophy.
Role of Community Pharmacy

- Community pharmacies:
  - Accessible
  - Patient Contact

- Positioned to drive:
  - Safety
  - Efficacy
• **Keys to Scalability**
  - Simple process
  - Easily implemented
  - Practical training & education
  - Aligns and promotes professionalism
  - Robust data sources
  - Use of technology to scale across walls
Execution Strategy

- Adopt a “Bring it on” mentality
- Maintain focus
- Screen continuously
- Provide ongoing reporting and support
- Drive participation with middle management
- Develop new strategies
Pharmacist Training

- Trained pharmacists on the following:
  - Quality in healthcare
  - Performance metrics
  - ASPIRE website access
  - Pharmacist to Patient
    - Screening tools
    - Brief Intervention – Motivation Interviewing
  - Potential impact of quality for pharmacy

- Constantly looked to improve each training class

- Encouraged pharmacists to provide feedback
Making Performance Improvement Manageable & Scalable

122
- Number of Rite Aid Stores in Phase II

245,000
- Total Unique patients on (any) Medications
- Actual in month measured

63,700
- Total patients on chronic medications (estimated based on Benchmark) relative to the PQA measures

70%
- Adherence Rate (estimated based on Highmark Benchmark)
- At 80% of PDC measures

19,110
- Opportunity for Pharmacy to Impact Patient Adherence
- Estimated number of patients non-adherent (30%)

163
- Number of Patients per Pharmacy per month to be Counseled

5
- Number of Patients to Counsel per Pharmacy per day

*Based on Rite Aid Actual Patient Counts and Highmark Benchmarks for Adherence
Case Study
Top Performing Pharmacy

Rite Aid Pharmacy #1304
(n = >1,600 patients)

- ASPIRE access > Minimum of once per month
- Pharmacist Team Engagement > 4.33/5.00 (average across 3 pharmacists)
- Use of Interventions
  - Combined Tools
  - Feedback Survey
  - Adherence and Feedback Tools
  - Taking It Right
  - Patient Education Resources

<table>
<thead>
<tr>
<th></th>
<th>Month 1</th>
<th>Month 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ace Inhibitors</td>
<td>70</td>
<td>79</td>
</tr>
<tr>
<td>Beta Blocker</td>
<td>57</td>
<td>90</td>
</tr>
<tr>
<td>Calcium Channel Blockers</td>
<td>42</td>
<td>83</td>
</tr>
<tr>
<td>Diabetes Medication</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>Lipid Medication</td>
<td>72</td>
<td>79</td>
</tr>
</tbody>
</table>
The Intervention Strategy

Aimed at improving professional practice and patient medication adherence

• **Universal Screening**: Identifies patients at high or moderate risk of non-adherence; opens up dialogue with the patient

• **Intervention**: Pharmacists, trained in motivational interviewing, facilitates positive relationships with at-risk patients with the goal of successfully affecting a behavior change

• **Targeted Resources**: Links to online CE, patient education tools, evidence-based guidelines, etc. targeted at the PQA measures
Phase II Results
Summary of Preliminary Findings

- **Total Intervention Pharmacies in Analysis = 117**
  - Pharmacies in the control group have similar demographics

- **Monthly Data Cycles Included in Analysis = 1 through 9, 12**
  - Analysis included cycles 1-9 and 1-12.

- **Total Patients/Rxs in Denominator = 46,500/month**
  - Number of patients/prescriptions included in the denominator across PQA measures included in Phase II analysis

- Note 1: Benchmarks set before study based on average adherence rate across all Highmark patients
- Note 2: The data analyzed does not include patients excluded by the measures, or those covered by other health plans, which also may have benefited from the global Phase II performance improvement initiatives
### Percentage of Pharmacies above Benchmark by Drug Category

<table>
<thead>
<tr>
<th>Drug Category</th>
<th>Benchmark&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Cycle 1&lt;sup&gt;a&lt;/sup&gt; Number (Percent)&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Cycle 9&lt;sup&gt;a&lt;/sup&gt; Number (Percent)&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intervention Stores</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ace Inhibitors</td>
<td>72%</td>
<td>80 (68.4%)</td>
<td>87 (74.4%)</td>
</tr>
<tr>
<td>Beta Blockers</td>
<td>72%</td>
<td>71 (60.7%)</td>
<td>83 (70.9%)</td>
</tr>
<tr>
<td>Calcium Channel Blockers</td>
<td>77%</td>
<td>62 (55.4%)</td>
<td>74 (66.1%)</td>
</tr>
<tr>
<td>Diabetes Medication</td>
<td>65%</td>
<td>47 (42.7%)</td>
<td>50 (45.5%)</td>
</tr>
<tr>
<td>Dyslipidemia Medication</td>
<td>68%</td>
<td>72 (61.5%)</td>
<td>70 (59.3%)</td>
</tr>
<tr>
<td><strong>Control Stores</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ace Inhibitors</td>
<td>72%</td>
<td>67 (63.2%)</td>
<td>73 (68.9%)</td>
</tr>
<tr>
<td>Beta Blockers</td>
<td>72%</td>
<td>76 (71.7%)</td>
<td>80 (75.5%)</td>
</tr>
<tr>
<td>Calcium Channel Blockers</td>
<td>77%</td>
<td>59 (60.2%)</td>
<td>59 (59.6%)</td>
</tr>
<tr>
<td>Diabetes Medication</td>
<td>65%</td>
<td>48 (53.9%)</td>
<td>31 (34.4%)</td>
</tr>
<tr>
<td>Dyslipidemia Medication</td>
<td>68%</td>
<td>56 (52.8%)</td>
<td>71 (67.0%)</td>
</tr>
</tbody>
</table>

<sup>a</sup>Adherence reports were updated every month for 12 months (i.e., 12 cycles). The adherence rate for each cycle was based on 12 months of data.

<sup>b</sup>The benchmark for each drug category was selected prior to the study and was based on the average adherence rate for that category across all Highmark patients in that category.

<sup>c</sup>117 intervention stores and 106 control stores. Not all cases have entries for every category.
Demonstrated Success in Scaling Improvement Across the System

Percentage of Pharmacies ABOVE Benchmark
Data Cycle 1 versus Data Cycle 9
(n = 117)

<table>
<thead>
<tr>
<th>Category</th>
<th>Month 1</th>
<th>Month 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ace Inhibitors</td>
<td>67.80%</td>
<td>73.30%</td>
</tr>
<tr>
<td>Beta Blockers</td>
<td>60.17%</td>
<td>70.34%</td>
</tr>
<tr>
<td>Calcium Channel Blockers</td>
<td>52.54%</td>
<td>62.71%</td>
</tr>
<tr>
<td>Diabetes Medication</td>
<td>39.83%</td>
<td>42.37%</td>
</tr>
<tr>
<td>Dyslipidemia Medication</td>
<td>61.02%</td>
<td>59.02%</td>
</tr>
</tbody>
</table>
Intervention Store Analysis
Statistics for ACE Inhibitors

Cycle 1
- Minimum: 37
- Median: 74
- Maximum: 86

Cycle 9
- Minimum: 34
- Median: 75
- Maximum: 100

72% Benchmark
Percentage of Medication Categories above Benchmarks

Mean Cycle 1 = 2.8  Mean Cycle 9 = 3.1
## Implementation Survey Results

### Survey Question

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>October, 2011</th>
<th>Average of all Months Prior to October, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>How well is your store implementing the PQA program?</td>
<td>5.64 (1.77)</td>
<td>5.60 (1.93)</td>
</tr>
<tr>
<td>Your store talks with patients to see how they can help improve their health.</td>
<td>3.83 (0.88)</td>
<td>3.96 (0.92)</td>
</tr>
<tr>
<td>You use the ASPIRE website at least monthly to review your store’s medication adherence metrics.</td>
<td>3.36 (1.31)</td>
<td>2.96 (1.51)</td>
</tr>
<tr>
<td>How well would you rate your store partner’s support of the PQA project?</td>
<td>3.00 (0.95)</td>
<td>3.59 (1.12)</td>
</tr>
<tr>
<td>Does your partner’s support of the project affect how well YOU implement it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary Score</td>
<td>4.56 (0.70)</td>
<td>4.64 (0.80)</td>
</tr>
</tbody>
</table>
Intervention vs. Control Group

- At baseline, the intervention and control stores did not differ with respect to the percent of patients who met the PDC metric.

- The analyses followed a repeated measures (panel) design. The statistical models evaluated potential time trends using first- and higher-order polynomials.
  - This is a robust method for analyzing change in adherence rates over time across multiple groups; Trend over time is a better indicator of current and potential improvement in outcomes.
  - Quadratic and cubic curves can better model trends since the change in adherence rates was not just a simple linear increase.
- Intervention stores experienced significantly greater improvement in adherence rates compared to control group stores for most categories of medications.
  - ACEI/ARBs, Beta-Blockers, Calcium Channel Blockers, and Diabetes Medications all showed improvement

- Changes in medication adherence in the intervention stores happened over time and were accumulative.
For 117 intervention stores, there were 11,342 people identified as having a prescription for ACEI/ARBs.

Each month, approximately 33 additional patients achieved PDC-80 threshold (i.e., became adherent) or almost 400 more adherent patients per year.

Caveat: The curvilinear trend would eventually reach a saturation point.
Conclusions: Implementation

- Successful Collaborative Model
- Scalable Technical Approach
- Successful Web-Based Cloud Platform (ASPIRE)
- Successful Stores Used ASPIRE More Frequently to view their performance reports
- Successful Quality Metric Aggregation
Conclusions: Implementation

- Implementation was supported by the concepts of:
  - Strong organizational leadership support
  - Updated and relevant performance measures
  - Continuous learning
  - Continuous quality improvement efforts
  - Sound and feasible intervention
  - Minimal resources and related expense
Conclusion: Impact on Adherence

- Intervention and Control Stores the Same Opportunity for Improvement

- Patient adherence for ACE/ARBs, Beta-Blockers, Calcium Channel Blockers and Diabetes medications were all significantly greater in intervention stores compared to the control stores.

- Improvements in medication adherence observed in the intervention stores accumulated over time.

- The observed intervention impact demonstrates that the effect on adherence when multiplied over a patient population can add up to a significant number of positively affected patients.
Future work will examine how well the intervention effect is sustained
- If the accumulated impact results in further improvements, and whether the positive impact on adherence translates to decreased healthcare utilization (and perhaps medical costs).

The potential impact of a health plan modeling a pay-for-performance program will also be explored

Beta Phase Implementation: Addition of multiple plans and pharmacies (chain and independents)
Where do we go from Here?

- **E-QuIPP** = **Electronic Quality Improvement Platform for Plans & Pharmacies**

- The E-QuIPP Initiative is built on the model from the ASPIRE demonstration wherein a health plan and pharmacies collaborated on quality improvement.

- During 2012, the “Beta Phase” will be implemented:
  - Engage health plans/pharmacies in Pennsylvania, Florida and Alabama to view quality scores and benchmarks.
  - Expand the functionality to support dashboards for the health plans.
  - Metrics that align with the Medicare Star Ratings.
Thank You

Questions
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