Medication Adherence: A Prescription for Star-Rating Success and Lower Costs

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Introducing Today’s Speakers

Craig Schilling, PharmD  
Vice President, Patient Programs, Life Sciences, Optum

Carol Simon, PhD  
Sr. Vice President and Director, Optum Institute for Sustainable Health

Todd Spaulding  
Vice President/General Manager, Medicare Business, Public Sector, Optum
Today’s Agenda

I. The Problem of Medication Adherence

II. An Approach to Population Health

III. Recent Adherence Research from the Optum Institute

IV. New Strategies for Improving Adherence and Part D Star-Ratings

V. Care Facilitation: A Coordinated Approach to Member Engagement Beyond Adherence Intervention

VI. Questions and Answers
I. The Problem of Medication Adherence
Craig Schilling, PharmD, Vice President, Patient Programs
Patients’ failure to take prescribed medications correctly is pervasive and…
accounts for up to $100 billion in health care and productivity costs.¹

¹ Noncompliance With Medications: An Economic Tragedy, A report by The Task Force for Compliance, Revised 1994
Adherence by the Numbers

20
Percentage of new prescriptions in the US that are not filled

125,000
Number of US deaths annually attributed to poor medication adherence

40
Percentage of heart attack survivors who remain on statins two years after being prescribed the medication

5
Dollars saved per $1 invested in medication therapy management programs

290
Billion dollars or 13% of total health care expenditures, in potential savings, from adherence and related disease management annually

1 Fischer, M, Primary Medication Non-Adherence: Analysis of 195,930 Electronic Prescriptions, Journal of General Internal Medicine
2 McCarthy R, The Price You Pay for the Drug Not Taken
3 Fernandez, G, Statin Myopathy: A common dilemma not reflected in clinical trials, Cleveland Clinical Journal of Medicine
4 Perez A, Economic Evaluation of Clinical Pharmacy Services, Pharmacotherapy
5 New England Health Care Institute estimate
Improving adherence is easy pickings to improve health outcomes, rather than having to discover new ways to treat a disease — or reduce the cost of medicine.” Janet Wright, cardiologist and Executive Director, Million Hearts initiative

- Diabetes, hypertension and high cholesterol non-adherence cost the U.S. $106 billion a year. *Am J Pharm Benefits, 2012*

- In patients who take their medications as prescribed, annual medical spending is reduced by approximately:
  - $9,000 per patient with CHF
  - $4,000 per patient with hypertension or diabetes
  - $2,000 per patient with high cholesterol

*Health Affairs, 2011*
II. An Approach to Population Health
Craig Schilling, PharmD, Vice President, Patient Programs
Optum: A Leading Health Services Business

One of the largest health information, technology, services and consulting companies in the world

The leader in population health management serving the physical, mental and financial needs of both individuals and organizations

The pharmacy management leader in service, affordability and clinical quality
Optum: Serving the Entire Health System

- 60,000,000 individuals
- 88,000 physicians & groups
- 67,000 pharmacies
- 5,000 hospital facilities
- 400 global life sciences organizations
- 300 commercial insurance companies and health plans
- 140 government agencies
The Next Big Challenge: Balancing Costs and Quality

Cost Pressures

- Increasing utilization
- MLR requirements
- Decreased CMS reimbursements
- Care Coordination

Quality and Star Ratings

- HEDIS measures tied to revenue
- Member satisfaction measures
  - Partnering with providers for accountability

Rise in Consumerism

- Transparency demanded
- Consumer behavior
- HSAs, rising costs and exchanges forcing awareness of the cost of healthcare

Changing Landscape

- Continual growth in Medicaid and Medicare patient pools
- Dual Eligible coordination via State Exchanges under Health Reform
- Providers entering payer market
The payer value chain serves as a strategic framework to organize ideas and actions in three key areas critical to successfully meeting stakeholder requirements.

**Acquisition & Retention**
- Grow profitably by retaining members and winning in new markets
  - Acquiring & Retaining Members
  - Enter New Markets & Geographies
  - Succeeding on Exchanges
  - Managing Medical loss Ratio (MLR)
  - Ensure Compliance

**Population Health Management**
- Improve medical cost, quality and stakeholder satisfaction
  - Manage Medical Cost Trend
  - Delivery High Quality Care
  - Promote Wellness
  - Meet Quality / STARS / HEDIS Objectives
  - Ensure Compliance

**Operations & Administration**
- Drive down administrative costs while ensuring stakeholder satisfaction
  - Operational Efficiency
  - Payment Accuracy
  - ICD-10 Optimization
  - Connectivity of Health Stakeholders
  - Ensure Compliance

Payers are seeing challenges across all aspects of the value chain.
III. Recent Adherence Research
Carol Simon, PhD
Sr. Vice President, Optum
Optum Research: Benchmarking Community Performance

Optum findings create a benchmark for communities based on:
- Cost
- Quality of Care
- Population Health

Informs us where we are now, how sustainability varies across communities in the U.S., and factors that drive performance.
Measuring Population Medication Adherence

Community-level measures of medication adherence
- 306 healthcare markets (hospital referral regions); cover the nation
- Data warehouse with >15M commercial members

Claims-based medication adherence measures: Optum analytics
- Episode groupers used to identify chronic conditions and episodes of care
- Compute adherence based on accepted metrics (HEDIS, MPR, PDC)
- Can apply analytics and tools to other data streams

Timely- Responsive - Detailed
- Data presented today cover 2011-2012; 6 chronic conditions, 39 medications
- Link to medical claims to understand impact on quality and cost
- Link to population and community characteristics – understand local drivers
- Lessons from commercial populations provide insights into Medicare
Medication adherence rates were calculated for 6 chronic conditions

- Asthma, CAD, depression, diabetes, hyperlipidemia, and hypertension
- These are the most common chronic conditions in the commercial population; also priority STARS measures
- Adherence rates can also be calculated for other chronic conditions including HIV/AIDS, COPD, and CHF

Overall medication adherence rate
- A composite of community medication adherence was created from the adherence rates of the six chronic conditions
Medication Adherence and Community Performance Are Directly Related

According to the Optum:

88% Hypertension drug medication adherence rates among high-performing communities\textsuperscript{6}

53% Medication adherence rates for asthma drugs among lower-performing communities\textsuperscript{8}

10 Percentage points or more between the worst and best tier communities\textsuperscript{6}
Medication Adherence Rates Varies Significantly Across Communities for Commercial Populations

Adherence rates were different for the 6 conditions: asthma lowest.

The spread (25%--75%ile) was similar for the six chronic conditions.

Medication Adherence Rate by Chronic Condition

- Asthma
- CAD
- Depression
- Diabetes
- Hyperlipidemia
- Hypertension
Adherence Rates for Six Chronic Conditions Exhibit Similar Geographic Patterns

Places with high diabetes adherence rates also had high adherence rates for hypertension and the other chronic conditions.

Diabetes

Hypertension

Analyses by Optum
Geographic Variation in Overall Medication Adherence

Medication Adherence Commercially Insured (HRRs>4,000 members)

- Average medication adherence rates tend to vary across regions
- Communities in the South and mountain regions have lower rates of medication adherence

Data from UnitedHealth Group commercial claims as analyzed by Optum
Population Characteristics affect Medication Adherence

Medication adherence is related to certain community characteristics

- HRRs with very high adherence have more PCPs, higher incomes, higher percent college graduates, and higher percent white population

<table>
<thead>
<tr>
<th>Medication Adherence¹</th>
<th>PCP per 100,000²</th>
<th>Income³</th>
<th>Percent College Grads³</th>
<th>Percent Non-White²</th>
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</thead>
<tbody>
<tr>
<td>Very Low</td>
<td>89</td>
<td>$40,722</td>
<td>21%</td>
<td>34%</td>
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<tr>
<td>Average</td>
<td>98</td>
<td>$50,676</td>
<td>25%</td>
<td>20%</td>
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<tr>
<td>Very High</td>
<td>103</td>
<td>$54,597</td>
<td>29%</td>
<td>16%</td>
</tr>
</tbody>
</table>

¹ Data from UnitedHealth Group commercial claims as analyzed by Optum
² Data from Area Resource File
³ Data from American Community Survey
Higher medication adherence associated with fewer avoidable admissions

• Better medication adherence in a community may reduce the number of avoidable admissions
• Decreasing avoidable hospitalizations could save billions of dollars making health care more sustainable

Data from UnitedHealth Group commercial claims as analyzed by Optum
IV. New Strategies for Improving Adherence
Craig Schilling, PharmD, Vice President, Patient Programs
Medication Adherence as a Measure of Quality

2012 Additional CMS Star Rating measures in 2012 include medication adherence, using the proportion of days covered methodology endorsed by the PQA. Categories measured: statins, RAS antagonists, and oral anti-diabetic medication (biguanides, sulfonylureas, TZDs, DPP-IV Inhibitors).

2010 Pharmacy Quality Alliance (PQA), using measures developed in partnership with NCQA, launches demonstration projects to assess the impact of pharmacists’ interventions on medication adherence.

2009 The National Quality Forum endorsed medication adherence as an indicator of quality in drug therapy management. Six of the 18 quality measures assess medication adherence in key therapeutic areas: oral anti-diabetic drugs, CCBs, statins, ACEs, ARBs and antipsychotics.

2009 URAC adds new performance measures (seven domains) to its accreditation programs for Pharmacy Benefit Management and Drug Therapy Management; one of the key domains: Medication Possession Ratios as proxy for adherence.

A Key Measure for Health Plan’s Quality Ratings

Three new medication adherence ratings were instituted in 2012.

17 of the 53 Stars ratings relate to Part D measures.

Table G-2: Part D Measure Weights

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Name</th>
<th>Weighting Category</th>
<th>Part D Summary</th>
<th>MA-PD Overall</th>
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<tbody>
<tr>
<td>D01</td>
<td>Call Center – Pharmacy Hold Time</td>
<td>Measures Capturing Access</td>
<td>1.5</td>
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<tr>
<td>D02</td>
<td>Call Center – Foreign Language Interpreter and TTY/TDD Availability</td>
<td>Measures Capturing Access</td>
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<tr>
<td>D03</td>
<td>Appeals Auto-Forward</td>
<td>Measures Capturing Access</td>
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<td>D04</td>
<td>Appeals Upheld</td>
<td>Measures Capturing Access</td>
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<tr>
<td>D05</td>
<td>Enrollment Timeliness</td>
<td>Process Measure</td>
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<td>D06</td>
<td>Complaints about the Drug Plan</td>
<td>Patients’ Experience and Complaints Measure</td>
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<tr>
<td>D07</td>
<td>Beneficiary Access and Performance Problems</td>
<td>Measures Capturing Access</td>
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<td>D08</td>
<td>Members Choosing to Leave the Plan</td>
<td>Patients’ Experience and Complaints Measure</td>
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<td>D09</td>
<td>Improvement</td>
<td>Outcome Measure</td>
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</table>

D16 Part D Medication Adherence for Oral Diabetes Medications | Intermediate Outcome Measures | 3 | 3 |
D17 Part D Medication Adherence for Hypertension (RAS antagonists) | Intermediate Outcome Measures | 3 | 3 |
D18 Part D Medication Adherence for Cholesterol (Statins) | Intermediate Outcome Measures | 3 | 3 |

### Medication Adherence Support

#### ID Members at Risk Before Gap Occurs
- Proprietary predictive modeling tool – Drug Adherence Index™ (DAI)
- Identify specific members at risk for becoming non-adherent

#### Seek to Understand the Cause
- Engage members directly for patient centric approach
- Confirm members at-risk using validated psychometric instrument
- “Diagnose” underlying issue that may cause non-adherence using Barrier Assessment Survey

#### Remove Barriers to Improve Adherence
- Multi-modal engagement of members (live agent, IVR, email)
- Leverage Optum’s NurseLine and wellness coaches to address motivation, health literacy and cost
- Provide reminder resources and organizational tools (forgetfulness barrier)
- Routine engagement to reinforce education on barriers
Drug Adherence Index™

• A predictive model that proactively identifies patients at high risk of not adhering to their medications
• Produces a risk score for every patient
• The score is based on each patient’s past drug usage and other medical and socio-demographic characteristics
• It is completely scalable and applicable to multiple data sources
• DAI is the strategic approach to targeting a sub-set of your members where we can have the greatest impact
1. Create Regression Model to predict drug adherence, using 70% of data. Evaluate accuracy through c-statistic, sensitivity, NPV, PPV metrics.

2. Develop risk score factors using the parameter estimates from the regression model.

3. Using an independent validation cohort of patients (30% data), and the parameter estimates from the regression model, estimate the validation cohorts risk of discontinuing drug.

4. Measure the accuracy of the model using the 30% sample.
Using the Index to Target Members for Intervention

Comparison of Actual PDC vs. Risk Score

- Non-adherent

Predicted Risk Score

- OAD
- Statin
- Ace Arb
Goal: Identify patients predicted to be non-adherent

Comparison of Actual PDC vs. Risk Score
Using the Index to Target Members for Intervention

Goal: Target those with the greatest opportunity for Stars success

Drug Adherence Index™: Comparison of Actual PDC vs. Risk Score

PDC

Non-adherent

Predicted Risk Score

OAD

Statin

Ace Arb
Using the Index to Target Members for Intervention

Goal: Broaden member targets to improve medical management and reduce utilization

Drug Adherence Index™ - Comparison of Actual PDC vs. Risk Score

Predicted Risk Score

PDC

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

1 2 3 4 5 6 7 8 9 10 11 12

OAD
Statin
Ace Arb

Using the Index to Target Members for Intervention
# Medication Adherence Star-ratings Improvement Program

## Proactive Approach to Age-Old Problem

### Targeted Strategy

- Identify members most likely to impact the Star Ratings measures

**Fresh data AND past behavior predicts trends**
- Weekly Rx data from health plan
- Historical Rx & Medical claims
- Socio-Demographic data

**Drug Adherence Index™ (DAI)**
Predicts future non-adherence, and members most likely to affect Star Ratings results

**Targeted member data provided to call center to be engaged at highest level**

### High-Touch Intervention

- Tailored support for each member to remove barriers to adherence

**Refill reminder program offered to member**
- Providers sent information and notices of possible gaps in patient care

**Customized strategies to overcome barriers offered**
- NurseLine nurse available for clinical questions

**Members engaged in discussion to confirm adherence behavior and individual adherence barriers**

### Performance and Analytics

- Continuous feedback assures optimization

**Weekly updates are made to call lists to keep the overall program proactive**

**Weekly reports track overall progress including: member engagement and barrier survey results Monthly reports include PDC metrics**

**Outcomes assessments can also be conducted to evaluate three key areas: clinical, economic and humanistic**

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Cutting-Edge Analytics Offer Immediate Feedback

- Weekly and monthly client meetings allow for informed/intelligent modifications to our intervention strategy based on timely adherence metrics
- Constantly updating call lists and re-evaluating patients based on engagement reports and relevant current data
- Population health management and scalable adherence solutions are an ever-changing, fluid process that requires flexibility and real-time intelligence in order to affect change
### Ongoing Enhancements to Meet the Needs of our Clients

| Outreach Plan | • Developed full-year strategic approach  
| • Customize our outreach plan based on time of the Star Rating year  
| • Cycle member engagement to maximize program enrollment |
| Telephonic Changes | • Utilize recommendations from health literacy thought leaders  
| • Tailor scripts for members previously contacted  
| • Incorporate new methods of assessing and addressing adherence barriers |
| System Enhancements | • Document members who participate in low cost cash co-pay programs  
| • Track why members may decline a nurse transfer and / or refill reminder program  
| • Utilize health plan customer service, as needed |
| Metrics | • Compare enrollees adherence behavior pre- and post program launch  
| • Evaluate adherence performance year-over-year, quarter-by-quarter  
| • Compare success in members enrolled in our program vs. those targets who have opted to not engage |
V. Care Facilitation: A Coordinated Approach to Member Engagement Beyond Adherence Intervention

Todd Spaulding, Vice President/
General Manager, Medicare Business
One Program to Help Improve Star Ratings and Accuracy of Risk Scores

Our approach will help improve Star Ratings scores, reimbursement accuracy and differentiate your Medicare program while improving member satisfaction.

1. **One Data Management Approach:** Sophisticated identification process uses multiple data sources to guide the intervention and an enterprise reporting tool.

2. **One Member Outreach Approach:** Member-centric approach integrating risk, quality and medication adherence opportunities with an emphasis on higher weighted measures.

3. **One Member Engagement for Each Member:** Coordinated touch-points for each member across programs to build relationships with members to facilitate closing member gaps.

4. **Maximized Value Proposition:**
   - **Client:** Care Facilitation will help improve Star Ratings, improve accuracy of risk coding, and differentiate the plan in the marketplace.
   - **Member:** Care Facilitation will help improve clinical outcomes and the consumer experience for individual members.
Coordinates and Enhances Existing Programs: Driving Consumer Engagement and Unique Value

Wellness and Decision Support Services

- No Chronic Conditions or Gaps in Care
  - Coordinated marketing with plan
  - Coordinated Programs
  - Proactively addressing gaps in care

Care Management Clinical Programs

- High risk with multiple gaps in care
  - Enrolled in high acuity program through plan or Optum
  - RN addressing gaps in care longitudinally

Care Facilitation

HEDIS and/or Medication Adherence Gaps
Risk Coding Opportunities

Outreach:
IVR or Telephonic
(by appropriate care facilitation advocate; Engagement Specialist, Health Coach, RN)

Engagement:
Barrier Assessments, Provider Appointment Scheduling, Appointment Reminders, Follow-Up Calls
Prospective Identification & Coordination

**Analytics are foundational and drive the intervention plan and engagement model**

Identification
- Member Characteristics
- Risk Opportunities
- Quality HEDIS Gaps
- Level of PCP Engagement
- Medication Adherence Gaps

Define Intervention Strategy

Intervention
- **Member Outreach**

Coordination
- Assessments
- Removal of barriers
- Escalation to Social Workers, RNs and Medical Directors
- Appointment Scheduling
  - Annual exam with PCP
- Appointment and Medication Reminders
- Follow-up confirmation calls

Evaluation

Reporting and Outcomes
Stratification to Best Use Plan Resources

Matching intervention type with member to successfully close gaps in care and maximize value

Patient Opportunity Profile
(Value of Gap Closure)

<table>
<thead>
<tr>
<th>Patient Activation Profile (likelihood to close through self-management)</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Managing</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gaining Confidence</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Engaging</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Struggling</td>
<td></td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

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Leveraging Consumer Activation Approach

Consumer attitudinal segmentation assist in determining ‘who’ we should use our resources to reach out to and determine ‘how’ we should communicate with them.

Example Analysis and Segmentation:
Member Experience: Building Consumer Focused Approach to Address Gaps in Care

Outbound Call
- Receive call from the health plan for inquiry on screening status (gaps)
- Receive recommendations on action to be taken

Taking Action Together
- Receive information on what to ask doctor about screening
- Receive immediate appointment assistance via 3-way call
- Immediate access to a clinician (as needed) for barrier removal, education and follow-up

Follow-up Call
- Receive appointment reminder call the day before and follow-up call the day after.
- Confirm screening was done or referral was made
- Assistance offered to follow-up on screening results and/or schedule any additional appointments
- Receive additional reminders and post-visit confirmations as needed
### Key Focus Areas to Continue Driving Value

#### Outreach Plan
- Added Probability to Enroll into segmentation plan
- Developed and aligned full-year strategic approach

#### Telephonic Changes
- Stratification levels added to determine outreach agent (i.e. non-clinical vs. clinical)
- Social workers added to support team

#### System Enhancements
- Automated display of gaps in care across programs
- Enhanced tracking and understanding of barriers to care

#### Metrics
- Measure contact rate and self-reported gap closure
- More sophisticated tracking of appointments scheduled
- Claims based outcomes measures
For more information about today’s webinar please visit:

www.optum.com/adherencewebinar

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