Using Pay-for-Performance to Improve COPD Care
Session Objectives

- Discuss Chronic Obstructive Pulmonary Disease (COPD), its impact and opportunities for improved care
- Review Pay for Performance, its components, and how it can improve COPD care
- Steps you can take to implement a P4P program to minimize costs and improve outcomes for COPD patients
Chronic Obstructive Pulmonary Disease (COPD)

- Chronic condition that limits airflow in lungs
- Preventable and treatable but not curable
- Symptoms include:
  - Persistent cough
  - Increased mucus production
  - Shortness of breath, especially during physical activities
  - Wheezing
  - Chest tightness
  - Frequent respiratory infections
COPD Affects Commercial Population

● Demographics
  – Middle-aged working population
  – Both men and women

● Risk Factors
  – SMOKING: 80-90% of COPD deaths\(^1\)
  – Exposure to air pollutants
  – Genetics
  – (Most COPD diagnoses occur in patients 40 years or older.\(^2\))

2. Source data: Mannino, et al.

COPD: Flying High Yet Under the Radar

● Health Impact
  – 12.1 million American’s diagnosed with COPD in 2006\(^1\)
  – Additional 12 million undiagnosed in 2006\(^1\)
  – 4\(^{th}\) leading cause of death—over 127,000 deaths annually\(^1\)
  – Mortality rates rose 102% from 1970-2002\(^2\)
  – Typically undetected until advanced stages
  – Poorer quality of life, limiting even slight amounts of activity

● Financial Impact\(^3\)
  – $42.6 billion on total costs (3\(^{rd}\) among chronic disease)
  – $26.7 billion in direct costs; $15.9 billion in indirect costs

1. American Lung Association
3. American Lung Association
COPD Affects Consumers

- Out of pocket expenses
  - Medical
  - Pharmacy
- Decreased quality of life
- Complications and co-morbidities
- Hospitalizations
- Sick days and lower work productivity
COPD Affects Purchasers

- Prevalence in working population, not just Medicare

- Total healthcare expenditures per employee (age 40-63):  
  - $8,559 for COPD patient  
  - $5,443 for non-COPD patient

- At-risk costs: complications, co-morbidities, and hospitalizations

- Decreased productivity:  
  - 58 million total lost work days per year  
  - $16.3 billion of indirect costs from disability lost productivity

1. Mannino, DM and Sidney Braman.  
2. Nordyke, B and Shah, H.  
3. Kraczkowsky, K.
Chronic Care Challenges: Optimal Care

- 2003 – RAND study published in NEJM\(^1\)
  - Optimal care delivered only about 50% of the time

- 2008 – Commonwealth Fund report details poor overall quality of care\(^2\)
  - Across 37 performance indicators, U.S. quality of care scored a 65 out of possible 100
  - Compared to centers of excellence within the U.S. and internationally

2. Commonwealth Fund
Collaboration is Key

Consumers

Purchasers

Providers
Address Chronic Care Issues

- Several approaches to realign incentives and address sub-optimal quality
  - Increased public reporting and transparency
  - Value Based Benefit Design and patient steerage
  - Wellness programs
  - Disease management programs
  - Episode Case Reimbursement
  - Pay for Performance
Pay for Performance (P4P)

- Aims to improve quality and/or efficiency of care through financial and non-financial rewards for performance achievements
- Rewards providers who comply with a defined measure set
  - Structure Measures
  - Process Measures
  - Outcome Measures
- Applicable for chronic conditions: existing programs for diabetes, CV disease, asthma
Goals:
• Reward higher quality and/or efficiency
• Fund quality investments (eg, health IT)
• Minimal disruption to processes of care
• Increase value of healthcare spend

Successful Outcomes: Bridges to Excellence
Physician Office Link - estimated avg. annual savings of $300 per patient\(^1\)
Cardiac Care Link - up to $547 estimated annual savings per patient\(^2\)
Diabetes Care Link - estimated avg. annual savings of $250 per patient\(^1\)

1. Dudley, RA and Rosenthal, MB.
2. Bridges to Excellence
3. Towers Perrin
P4P Widespread Across the U.S.

- Approximately 258 P4P programs implemented in the U.S. as of 2007

- Wide range of program treatment areas:
  - Preventive care
  - Patient satisfaction
  - Health Information Technology (HIT) adoption
  - Office system functionality
  - Chronic care management: diabetes, CV disease, back pain, asthma, etc.

1. Med-Vantage
Application to Chronic Disease

- P4P is one approach that has been successfully utilized to address cost and quality issues in chronic care
  - BTE Diabetes Care Link Program¹:

<table>
<thead>
<tr>
<th></th>
<th>Non-Certified Provider</th>
<th>Certified Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cost per patient</td>
<td>$2,578</td>
<td>$2,151</td>
</tr>
<tr>
<td>% of patients w/ acute flare-ups</td>
<td>26.22%</td>
<td>5.08%</td>
</tr>
<tr>
<td>Admits per 100 patients</td>
<td>3.74</td>
<td>0.60</td>
</tr>
</tbody>
</table>

- Existing P4P applications for chronic disease include diabetes, CV disease, and asthma

- Chronic obstructive pulmonary disease represents a largely under-recognized chronic condition equally well suited for P4P

¹. Bridges to Excellence
COPD Care Opportunities

• **Issues:**
  - COPD patients receive correct care about 50% of the time\(^1\)
  - Common misdiagnosis between COPD and asthma\(^2\)

• **Quality Improvement Initiative: Global Initiative for Chronic Lung Disease (GOLD)**\(^3\)
  1. Assess and monitor the disease
  2. Reduce risk factors
  3. Manage stable COPD
  4. Manage exacerbations

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1. Mularkski et al.
2. Tinkelman et al.
3. Global Initiative for Chronic Obstructive Lung Disease
Improving COPD Care through P4P

● The business case
  – Standard process of care needed
    • Inconsistent
    • Misdiagnoses
  – Opportunity for savings in COPD\(^1\)
    • $2,849/patient for avoidable complications
    • $85-285/patient for reduced hospitalizations

● COPD P4P program focuses on value

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1. “Pay for Performance for COPD.”
Building Blocks of P4P

- Physician Engagement
- Measure set
- Data collection
- Evaluation methods
- Recognition and rewards
- Education and support tools
COPD P4P Design Process

- COPD Physician Advisory Panel
  - Experts in the field of COPD:
    - clinical practice
    - standard-setting trials
    - performance assessment
  - Internal medicine physicians at Duke University, National Jewish, and the Cleveland Clinic

- Measure Selection- important considerations:
  - Clinical impact
  - Nationally approved
  - Consistency with COPD best practices
  - Comprehensive
  - Data collection burden
COPD P4P Measure Set

1) Documentation of spirometry
2) Prescription of 1 or more inhaled bronchodilators (long-acting preferred if persistent symptoms) if FEV/FVC < 0.70 & dyspnea
3) Documentation of smoking status (by inquiry) at every visit
4) Smoking cessation intervention
5) Prescription of long-term continuous O₂ for patients with resting O₂ sat ≤ 88%
6) Administration of pneumococcal vaccine
7) Administration of latest influenza vaccine
8) Documentation of exacerbation frequency in last year
9) Prescription of at least 1 long-acting bronchodilator and /or an inhaled corticosteroid for patients with a history of exacerbation
10) O₂ saturation assessment for COPD in the past 12 months
**Example Measure**

**Documentation of Spirometry:** PCPI¹ (NQF Endorsed)

**Rationale:**
- American Thoracic Society: spirometry should be performed in all patients suspected of COPD. This is necessary for diagnosis, assessment of severity of the disease and for following the progress of the disease.
- National Heart, Lung, and Blood Institute/WHO: for the diagnosis and assessment of COPD, spirometry is the gold standard as it is the most reproducible, standardized, and objective way of measuring airflow limitation.

**Numerator:** All patients with documented spirometry results on the medical record (FEV₁ and FEV₁/FVC)

**Denominator:** All patients aged 18 years and older with the diagnosis of COPD

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1. Physician Consortium for Performance Improvement
## COPD Care Process

<table>
<thead>
<tr>
<th>I: Mild</th>
<th>II: Moderate</th>
<th>III: Severe</th>
<th>IV: Very Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>• FEV₁ &lt; 80%</td>
<td>• FEV₁ &lt; 50% - 79%</td>
<td>• FEV₁ &lt; 30% - 49%</td>
<td>• FEV₁ &lt; 30% or, FEV₁ &lt; 50% plus chronic respiratory failure</td>
</tr>
<tr>
<td>• With or without symptoms</td>
<td>• With or without symptoms</td>
<td>• With or without symptoms</td>
<td></td>
</tr>
</tbody>
</table>

### Avoidance of Risk Factors; Vaccination(s)
- Add short-acting bronchodilators (when needed)

### Treatment
- Add regular treatment with 1 or more long-acting bronchodilators (when needed)
- Add rehabilitation
- Add inhaled corticosteroids if repeated exacerbations
- Add Long-term oxygen if chronic respiratory failure
- Consider surgical treatments

1. Global Initiative for Chronic Obstructive Lung Disease (GOLD)
Data Evaluation Process

- Necessary to have objective 3rd party to collect physicians’ performance data

- Performance Assessment Organization Options:
  - IPRO
  - American Board of Internal Medicine (ABIM)*
  - Minnesota Community Measurement
  - Other Quality Improvement Organizations (QIOs)

*Program scope is limited to physicians undergoing Board recertification
Scoring

Scoring Levels:
- Total of 10 consistent measures for all levels
- 3 scoring levels with each subsequent level representing higher quality care

Scoring Results:
- 100 possible points for each level
- 60 points or more qualifies for recognition and rewards at any level
- Incremental rewards after minimum threshold is met for each level

1. “Pay for Performance for COPD.”
## Scoring & Rewards

<table>
<thead>
<tr>
<th>Service</th>
<th>Level I</th>
<th>Level II</th>
<th>Level III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation of spirometry</td>
<td>10</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Inhaled Bronchodilator Therapy</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking status (by inquiry)</td>
<td>10</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Smoking cessation intervention</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation of exacerbation frequency</td>
<td>10</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>COPD Exacerbation Therapy</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment of O2 Saturation</td>
<td>10</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Long-Term O2 Therapy</td>
<td></td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Pneumococcal Vaccination</td>
<td>5</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Influenza Vaccination</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL POINTS**

- **Level I:** 100
- **Level II:** 100
- **Level III:** 100

**RECOGNITION LEVEL**

- **Level I:** 60
- **Level II:** 60
- **Level III:** 60

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Rewards Methodology

- Sample scoring and rewards methodology based on a percentage of accumulated savings
- Analysis using Prometheus™ payment methodology
  - A different per patient reward amount given for each recognition level
  - Cost of treatment for complication for typical COPD patient = $2,849 (average avoidable payer costs if achieve zero complications)
- Towers Perrin study on effectiveness of BTE diabetes program found expected average savings¹:
  - Level 1 = 3% savings
  - Level 2 = 6% savings
  - Level 3 = 10% savings

¹. Towers Perrin
Savings Potential

- **Rewards Recommendations**: 
  - Health Plans and employers can set dollar amounts
  - BTE recommends 50% of predicted savings

<table>
<thead>
<tr>
<th>Potential Savings from Reduced COPD Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Hospitalization Reduction</td>
</tr>
<tr>
<td>--------------------------------------</td>
</tr>
<tr>
<td>1%</td>
</tr>
<tr>
<td>3%</td>
</tr>
<tr>
<td>5%</td>
</tr>
<tr>
<td>6%</td>
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<tr>
<td>7%</td>
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<tr>
<td>9%</td>
</tr>
<tr>
<td>10%</td>
</tr>
<tr>
<td>12%</td>
</tr>
</tbody>
</table>

1. “Pay for Performance for COPD.”

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Current COPD P4P Status

- **BTE COPD Care Link:**
  - Incorporated a COPD program into their P4P portfolio
  - [www.bridgestoexcellence.org](http://www.bridgestoexcellence.org) and [www.hci3.org](http://www.hci3.org)

- **Available for integration into value based programs**
  - Health plan P4P programs
  - Employer coalitions
  - Large self-insured employers
What you can do next...

● Environmental assessment
  – What are customer attitudes towards P4P (internal and external)?
  – Resources available for program
  – What internal departments need to be involved?
  – Physician network attitudes

● Assess COPD costs and opportunities
  – Claims data
  – Population screening tools

● Assess current value based purchasing activity and compatibility with COPD P4P

● Identify and reach out to external P4P solutions partner
  – Bridges to Excellence
  – Integrated Healthcare Association
  – Discern Consulting
...And beyond...

● **Pilot Implementation:**
  – Determine performance assessment organization
  – Recruit pilot participants and locations
  – Educate physicians, support, technical assistance
  – Support for program operations

● **Program evaluation and ROI**

● **Potential integration:**
  – Consumer Outreach (e.g., directory of recognized COPD physicians)
  – Application of Value Based Benefit Design (e.g., patient steerage through incentives)
Questions?