Implementing a Disease Management Program within a PBM Environment

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SVP and Chief Clinical Officer

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Agenda

- Explore pharmacy benefit managers as disease management providers
- Examine health outcomes from a PBM DM program
PBM Providers: 
Advantages of DM from a PBM

- Optimize most commonly utilized healthcare benefit: pharmacy
- Identify individuals in real-time whose conditions cannot be managed by lifestyle and diet alone
- Benefit from physician familiarity with PBM interventions
- Reap shared goals between DM and PBM
- Integrate plan design with DM interventions across an entire population through pharmacy, lifestyle and clinical initiatives
- Manage polypharmacy
- Address the increasing use of higher-cost biotech therapies
PBM Providers: Improving Outcomes by Influencing Decision Makers

Influenced through:
- Consultation
- Intervention
- Communication
- Education

Physicians
Pharmacists
Plan Participants

Aligning constituents across the healthcare continuum for consistent application of client goals
### PBM Providers: Solutions for the Entire Population

#### Wellness programs
- Health risk assessments
- 24/7 nurse line
- Call a pharmacist
- Onsite pharmacy
- Internet tools and resources

#### Health impact conditions
- Hypertension
- Depression
- Peptic ulcer disease

#### Common chronic conditions
- Chronic obstructive pulmonary disease
- Heart failure
- Diabetes
- Coronary artery disease
- Asthma (adult and pediatric)
- Musculoskeletal / chronic pain

#### Rare conditions
- Seizure disorders
- Sickle cell anemia
- Multiple sclerosis
- Scleroderma
- Lupus
- Polymyositis
- Rheumatoid arthritis
- Amyotrophic lateral sclerosis
- Parkinson’s disease
- Gaucher’s disease
- Cystic fibrosis
- CIDP
- Hemophilia
- Dermatomyositis
- Myasthenia gravis

#### In development
- Obesity
- Atrial fibrillation
- Gastro-intestinal disorders
- Stroke management
- Integrated goals, diet and exercise program
PBM Providers: Diabetes Program Intervention Components

PARTICIPANT
- Medication adherence (education)
- Blood sugar management (HbA1c)
- Activity management (evaluation, education)
- Smoking cessation (education)
- Nutrition modification (healthy eating education)
- Test monitoring/sick day plan (diabetes record book)
- Cholesterol management (diet modification, monitoring)
- Blood pressure management (education)
- Associated conditions management (retinopathy, nephropathy education)
- Immunizations (flu & pneumonia education)
- Depression screening (education)
- Participant progress report (after each assessment)
- Participant education follow up (after each contact)
- Newsletters (quarterly)

PHYSICIAN
- Treatment algorithm
- ADA guidelines (upon request)
- Action interventions:
  - HbA1c tests
  - ACEI/ARB therapy
  - Lipid tests
  - Influenza and pneumonia vaccination
  - Depression screening
PBM Providers: 
Key Data Types and Uses in DM

- Types of data:
  - Administrative claims
  - Biometric measures
  - Participant or clinician reported

- Uses for data:
  - Targeting
  - Stratification for interventions (number, intensity)
  - Self management such as testing, monitoring
  - Outcomes
    - Clinical
    - Quality of life
    - Satisfaction
    - Productivity
    - Financial
PBM Providers: Linking Data with Health Partners

Pharmacy Advocate

Health Advocate

Care Management

Data Management

Participant
PBM Providers: Utilizing Pharmacy Data as a Primary Source

- Identification from medical claims not necessarily the best identifier for DM participants for all conditions
- Using medical claims has:
  - Significant lag time in receiving medical claims
  - Can be incorrect
- Using pharmacy data:
  - Ability to track and improve adherence to certain therapies: key to improving clinical outcomes and quality of life

Better outcomes yields appropriate resource utilization and reduction of medical expenditures
PBM Providers:
Prevalence and Health Expenditure Client Profile

### Condition Prevalence Medical Utilizers Total Medical Paid Mean Medical Per Utilizer Total Rx Paid Mean Rx Per Utilizer Total Rx Claims Rx Claims/Utilizer

<table>
<thead>
<tr>
<th>Condition</th>
<th>2003 Prevalence</th>
<th>Medical Utilizers</th>
<th>Total Medical Paid</th>
<th>Mean Medical Per Utilizer</th>
<th>Total Rx Paid</th>
<th>Mean Rx Per Utilizer</th>
<th>Total Rx Claims</th>
<th>Rx Claims/Utilizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>COPD</td>
<td>1.9%</td>
<td>764</td>
<td>$5,101,900</td>
<td>$6,678</td>
<td>$211,680</td>
<td>$2,405</td>
<td>3,574</td>
<td>40.6</td>
</tr>
<tr>
<td>HF</td>
<td>1.7%</td>
<td>711</td>
<td>$6,171,967</td>
<td>$8,681</td>
<td>$135,907</td>
<td>$2,059</td>
<td>2,963</td>
<td>44.9</td>
</tr>
<tr>
<td>DIAB</td>
<td>5.5%</td>
<td>2,223</td>
<td>$9,493,139</td>
<td>$4,270</td>
<td>$927,791</td>
<td>$2,319</td>
<td>16,262</td>
<td>40.7</td>
</tr>
<tr>
<td>CAD</td>
<td>4.3%</td>
<td>1,740</td>
<td>$10,733,738</td>
<td>$6,169</td>
<td>$534,121</td>
<td>$2,244</td>
<td>8,982</td>
<td>37.7</td>
</tr>
<tr>
<td>ASTH</td>
<td>4.2%</td>
<td>1,702</td>
<td>$4,779,433</td>
<td>$2,808</td>
<td>$478,735</td>
<td>$1,266</td>
<td>8,274</td>
<td>21.9</td>
</tr>
<tr>
<td>HYPR</td>
<td>15.6%</td>
<td>6,354</td>
<td>$20,706,197</td>
<td>$3,259</td>
<td>$1,710,624</td>
<td>$1,489</td>
<td>34,357</td>
<td>29.9</td>
</tr>
<tr>
<td>DEPR</td>
<td>0.4%</td>
<td>176</td>
<td>$326,968</td>
<td>$1,858</td>
<td>$310,683</td>
<td>$1,765</td>
<td>5,532</td>
<td>31.4</td>
</tr>
<tr>
<td>PAIN</td>
<td>3.5%</td>
<td>1,446</td>
<td>$5,297,578</td>
<td>$3,664</td>
<td>$468,975</td>
<td>$1,456</td>
<td>8,775</td>
<td>27.3</td>
</tr>
<tr>
<td>HEAD</td>
<td>0.7%</td>
<td>283</td>
<td>$3,324,080</td>
<td>$11,746</td>
<td>$39,288</td>
<td>$1,511</td>
<td>709</td>
<td>27.3</td>
</tr>
<tr>
<td>ULCR</td>
<td>1.9%</td>
<td>774</td>
<td>$4,144,657</td>
<td>$5,355</td>
<td>$241,746</td>
<td>$1,590</td>
<td>4,364</td>
<td>28.7</td>
</tr>
<tr>
<td>Unique Identified</td>
<td>25.8%</td>
<td>10,512</td>
<td>$33,373,777</td>
<td>$3,175</td>
<td>$2,819,503</td>
<td>$1,375</td>
<td>53,894</td>
<td>26.3</td>
</tr>
<tr>
<td>Total Population</td>
<td></td>
<td></td>
<td>$55,964,750</td>
<td>$1,646</td>
<td>$6,722,358</td>
<td>$945</td>
<td>122,777</td>
<td>17.3</td>
</tr>
</tbody>
</table>

### Analysis

Analysis indicates that hypertension and diabetes have the highest rates of prevalence in this population. However, headache and heart failure show the highest per utilizer medical spending at $11,746 and $8,681 respectively.

As detailed in the table at left, the segment of the population identified as having one of the specified chronic conditions accounts for 58% of **total healthcare expenditures during estimate time period**. Hypertension and cardiovascular disease are the conditions for which the most healthcare dollars were spent. **Estimate dates**: Jan. 1 through Dec. 31, 2003.

Source: Caremark individual client analysis, 2003
# PBM Providers: Outcomes Reporting

## Clinical indicators

<table>
<thead>
<tr>
<th>Heart failure</th>
<th>Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE-I</td>
<td>Eye exam</td>
</tr>
<tr>
<td>Beta blocker</td>
<td>Cholesterol test</td>
</tr>
<tr>
<td>DASI score</td>
<td>HbA1c test</td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td>Urine protein test</td>
</tr>
<tr>
<td>Pneumonia vaccine</td>
<td>Foot exam</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAD</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE intervention</td>
<td></td>
</tr>
<tr>
<td>Beta blocker</td>
<td></td>
</tr>
<tr>
<td>Anti-platelet intervention</td>
<td></td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td></td>
</tr>
<tr>
<td>Pneumonia vaccine</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asthma</th>
<th>COPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written action plan</td>
<td>Written action plan</td>
</tr>
<tr>
<td>Peak flow meter</td>
<td>Spacer</td>
</tr>
<tr>
<td>Anti-inflammatory medications</td>
<td>Pneumonia vaccine</td>
</tr>
<tr>
<td>SABA</td>
<td></td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td></td>
</tr>
</tbody>
</table>

- Clinical indicators
- Quality of life
- Participant satisfaction
- Activity and utilization
- Financial
  - Utilization
  - Direct costs
  - Productivity
- Physician outcomes

**Participant-reported data may be used for savings calculations at client request**
PBM Outcomes: 2004 CarePatterns® Book of Business Clinical Results

Therapy adherence

<table>
<thead>
<tr>
<th>Condition</th>
<th>Baseline</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes ACE inhibitor/ARB Usage (N=10,309)</td>
<td>51%</td>
<td>79%</td>
</tr>
<tr>
<td>CAD Beta-Blocker Usage (N=4,711)</td>
<td>63%</td>
<td>76%</td>
</tr>
<tr>
<td>Heart Failure Beta-Blocker Usage (N=1,013)</td>
<td>56%</td>
<td>73%</td>
</tr>
</tbody>
</table>

All differences are significant p< .05
PBM Outcomes: Managing Compliance

- Underlying assumption
  - People will be compliant with treatment therapy

- Why pharmaceutical treatment
  - Eradicating an illness or condition
  - Relief of symptoms
  - Reducing illness progression
  - Reducing clinical complications associated with illness

- Critical need
  - Monitor compliance to decrease the negative clinical outcomes associated with illness
PBM Outcomes:
Adherence Case Study on Multiple Sclerosis

Compliance was significantly higher among Caremark CarePatterns® plan participants versus non-Caremark CarePatterns plan participants.

Notes: Caremark n = 1516, P < 0.05

PBM Outcomes:
Adherence Case Study on Multiple Sclerosis

Direct medical costs per day significantly lower for MS participants dispensed by Caremark

Costs Related to Copaxone Therapy by Pharmacy Delivery System

Caremark CarePatterns Plan Participants with Pharmacy and Medical Claims

Conclusion

- DM is necessary to address the continued increases in total healthcare costs
- PBMs are well situated to address the needs of disease management
- Full disease management programs offered within a PBM have been shown to impact both direct and indirect costs