Medication Adherence, Cost and Access

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Research Director
Integrated Benefits Institute
About IBI

• National, not-for-profit membership organization

• 550+ corporate sponsors

• Employers: 85% of IBI’s members

• IBI’s mission: *Demonstrate the business value of a healthy workforce through independent HPM research to point the way, measurement and modeling tools to help get there, and a forum for sharing ideas and experience.*

• Visit [www.ibiweb.org](http://www.ibiweb.org)
New Employer Realities

• Show the C-suite the value of improved workforce health

• Healthcare reform: the value of a healthy workforce or the cost of healthcare?

• Dead end: attempting to control claims costs in separate program silos

• Looking for best strategies to improve workforce health, reduce lost time, and enhance productivity

• Limited data, time, and dollars
Up the Organization

The View from the C-Suite
On the Brink of Change

How CFOs View Investments in Health and Productivity

IBI Research, 2002
Linking Health, Productivity and the Bottom Line

Strong link 61%
Weak link 7%
Moderate link 32%

Effect of Benefits Programs on Financial Performance

- Critical Factor: 4%
- Great Degree: 21%
- Moderate Degree: 54%
- Slight Degree: 18%
- Not At All: 3%

The Business Value of Health

Linking CFOs to Health and Productivity

IBI Research, 2006
The Impact of Ill-Health

- Higher medical costs: 96%
- Trouble focusing on job: 90%
- More absence: 86%
- Affects bottom line beyond healthcare: 84%
- Adversely affects other benefits costs: 71%

Are CFOs Getting Information?

- **Absence**
  - 51% ever get reports on occurrence
  - 22% get reports on financial impact

- **Presenteeism**
  - 22% ever get reports on occurrence
  - 8% get reports on financial impact

Lost Productivity Costs a Function of ....

- Ability to replace workers
- Time value of output
- Degree of team work

How CFOs Would Use Lost-productivity Information

- 75% Consider against health plan costs
- 75% Reduce Absence
- 73% Manage all health-related costs more closely
- 70% Examine business benefits of health plans
- 65% Reduce presenteeism

New Research

Health and Productivity as a Business Strategy: A Multiemployer Study*

Database Structure – Phase II

• Three unique databases
  – 1,045,552 medical claims
  – 413,110 pharmacy claims
  – 34,622 employee self reports

• Creating an integrated database
  – Mapping pharmacy claims to medical claims
  – Mapping self reports to medical/pharmacy claims
The Impact of Pharmaceutical Plan Design

IBI Research

2007
Ave. Medication Adherence

- **FILLING**: % EEs filling at least one script
  - Symptom Relieving: 64%
  - Disease Modifying: 45%

- **REFILLING**: % time in possession of drug
  - Symptom Relieving: 32%
  - Disease Modifying: 28%
Impact of Out-of-Pocket Cost

Increase in copay

% EEs filling at least one script

Baseline plus $5 plus $10 plus $15 plus $20

Disease Modifying Symptom Relieving
Impact on Lost Productivity Costs
-- No Script Group --

<table>
<thead>
<tr>
<th>Lost Productivity Costs ($ Millions)</th>
<th>Baseline</th>
<th>Reduced incidence</th>
<th>Reduced incidence + duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$17.2</td>
<td>$14.0</td>
<td>$12.8</td>
</tr>
<tr>
<td></td>
<td>-19%</td>
<td>-19%</td>
<td>-26%</td>
</tr>
</tbody>
</table>

-19% and -26% indicate the percentage reduction in lost productivity costs from the baseline.
What can we learn about Diabetes from the HPQ/HPQ-Select Database?

Preliminary Analysis
2010
Persons with Diabetes have more Chronic Conditions
(Self-reported Diabetes 4% Prevalence)

Average Number of Chronic Conditions

<table>
<thead>
<tr>
<th>With Diabetes (n=4955)</th>
<th>Without Diabetes (n=121053)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>2.1</td>
</tr>
</tbody>
</table>
Top Ten Chronic Conditions Among Persons with Diabetes

- Hypertension: 51.1%
- Obesity: 46.4%
- High Cholesterol: 46.2%
- Allergy: 42.4%
- Arthritis: 30.2%
- Depression: 24.5%
- Fatigue: 24.2%
- Sleeping Problems: 22.5%
- GERD: 22.4%
- Chronic Pain: 20.7%
Percent with Only Diabetes vs. Other Conditions in addition to Diabetes

- Only Diabetes (n=523), 10.6%
- Diabetes plus other conditions (n=4432), 89.4%
Percent in Current Treatment among those with only Diabetes vs. with other conditions

- With Only Diabetes: 92%
- With Diabetes and other Conditions: 88%
## Effects of Treatment and Comorbidities on Work Outcomes among those with Diabetes

<table>
<thead>
<tr>
<th>Number of Illnesses</th>
<th>Absence</th>
<th>Job Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>As comorbidity increases, absence increases</td>
<td>As comorbidity increases, job performance declines</td>
</tr>
<tr>
<td>In Current Treatment</td>
<td>No significant effect</td>
<td>Those in treatment have higher job performance</td>
</tr>
</tbody>
</table>

Those in treatment have higher job performance.
What can we learn about Diabetes from the IBI Benchmarking Database?

Preliminary Analysis
2010
CY Lost Workdays per Active STD Claim
(ABI Benchmarking Data, 2008)

- Diabetes without complications: 16
- With Renal Manifestations: 25
- With Neurological Manifestations: 45
**CY Median Costs per Active STD Claim**

(IBI Benchmarking Data, 2008)

<table>
<thead>
<tr>
<th>Description</th>
<th>Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes without complications</td>
<td>$1,153</td>
</tr>
<tr>
<td>With Renal Manifestations</td>
<td>$2,791</td>
</tr>
<tr>
<td>With Neurological Manifestations</td>
<td>$3,214</td>
</tr>
</tbody>
</table>
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www.ibiweb.org
www.benefitsintelligence.org