Is a Diabetes Value Based Insurance Design Associated with Lower Costs?

Background

- The Diabetes Mellitus Control and Prevention (COP) study affirmed that American adults have diabetes more than an estimated 30 million adults, a diagnosis in all eligible adults. The study reviewed the evidence for care leading to diabetes in patients with diabetes, and the potential causes of diabetes in terms of medication failure. More than 20% of all health care spending in the people with diabetes.

- Glucose lowering medications have been shown to lower the incidence of complications and hospitalisations [1], and diabetes medication adherence has been shown to lead to lower incidence of complications and hospitalisations [1].

Methods

- In BCBSKS, 70.9% of patients met the Healthcare Effectiveness Data and Information Set (HEDIS) definition for diabetes diagnosis.

- For the purposes of identifying the Study Population, members were matched with all other drugs (non-DM) for all other drugs (non-DM) members.

- Analyses of variance and multiple linear regression were used to identify differences in the percentage of members with diabetes identified for this study. The Chi-square test was used for dichotomous data comparisons.

Descriptive statistics were used for all cost comparisons. Administrative pharmacy and medical claims have the potential for miscoding and include assumptions of member actual membership. They identified a 3.8 percentage diabetes drug adherence among DM non-VBID matched, matched 4:1 on age and gender to BCBSKS non-DM members. From these 32,512 non-DM members we matched 12:1 to the 5 million members identified for this study among DM non-VBID matched members.

Results

- The DM VBID benefit consisted of insulin at the generic cost share and generic/preferred formulary DM drugs having an extended preferred cost share to zero dollars for generic and brand medications.

- To assess the background cost differences, we calculated the 10% lower cost share potentially resulted in the significant 1.5 percentage point higher diabetes drug adherence.

- Table 1. Annual Diabetes Mellitus (DM) Per Patient Per Year (PPPY) Allowed Cost Comparison Among VBID and Non-VBID Populations

<table>
<thead>
<tr>
<th>Population</th>
<th>Diabetes Drug Adherence, Insulin Utilization and Any Diabetes Drug Utilization</th>
<th>Total Cost of Care</th>
<th>Pharmacy Cost</th>
<th>Medical Cost</th>
</tr>
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<tbody>
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<td>DM VBID</td>
<td>Very high: 75.3% (p &lt; 0.01) compared to 72.4% among BCBSKS non-DM matched members</td>
<td>100 day supply or 100 units for a single copay.</td>
<td>$1,317</td>
<td>$1,006</td>
</tr>
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<td>DM non-VBID</td>
<td>Low: 68.9% (p &lt; 0.01) compared to 72.4% among BCBSKS non-DM matched members</td>
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- Table 2. Diabetes Mellitus (DM) Drug Adherence and Utilization Comparison Among VBID and Non-VBID Populations

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Conclusions

- The DM VBID was associated with a 20% lower member out of pocket cost share for diabetes drugs during 2015 and this lower cost share potentially resulted in the significant 1.5 percentage point higher diabetes drug adherence.

- Outcomes and cost savings of the DM VBID were less among those with shorter matched years and the number could range up to 30,000 units (buying drug) to 20% of 210,000 units, which is why drug utilization was less among those with shorter years.

- The lack of total cost of care is partially explained by the 2.7% higher 3.1% additional diabetes drug utilization.

- Total cost of care during 2015 diabetes drugs were $2,542 for patients without Diabetes Mellitus (DM) and $3,288 for patients with DM (p < 0.01). In 2015 diabetes patients compared to $1,541 among non-DM matched members.

Limitations

- Although higher drug adherence has been associated with lower hospitalization rates and lower medical costs, this study could not assess the direct impact of increased DM drug adherence with medical errors or costs. This study was not designed to identify additional diabetes drug utilization in a matched group.

- It is anticipated that it may take longer than the alternative intervention in this study to changes in medical care costs and care utilization for the future.

References


