Asthma is the most frequent cause of hospitalizations among children and also bears a heavy burden on the adult population. The National Quality Forum (NQF) has endorsed measures from the Pharmacy Quality Alliance (PQA) for suboptimal asthma control (SAC) and absence of controller therapy (ACT) which indicate poor disease control among patients with asthma. The purpose of this study was to assess the NQF measures among Mississippi Medicaid beneficiaries (children and adults) with asthma. The intended level of analysis is at the health plan level and assesses how well is Mississippi Medicaid currently performing at population asthma control.

### EXPANDED NQF MEASURES FOR ASTHMA

- **Suboptimal Asthma Control (SAC)**: Measured as the percentage of patients who received controller therapy in the same 90 day period used to the movement of some beneficiaries into managed care, thereby decreasing the burden on the adult population.
- **Absence of Controller Therapy (ACT)**: Measured as the percentage of patients who received controller therapy during the same 90 day period.

**Methodology**

The study sample consisted of beneficiaries aged 5 - 50 years as of the last day of each measurement year and who had continuous enrollment in Medicaid for the entire year.

**Beneficiaries who filled one or more prescriptions for medications including dexamethasone, albuterol, and ipratropium/benzalcohol; nasal corticosteroids (beclomethasone, budesonide, flunisolide, fluticasone, mometasone); long acting beta2 agonist inhalers within 90 days of each measurement year who had continuous enrollment in Medicaid for the entire year were eligible to participate in the study.**

Table 1 presents demographic information for the asthma population. The distribution of males and females was almost equal in both groups. From 2008 to 2012, beneficiaries in the ACT group had significantly lower medical, pharmacy, and total costs as compared to beneficiaries in the SAC group.

### Table 1. Demographic characteristics of beneficiaries with asthma in each calendar year

<table>
<thead>
<tr>
<th>Year (N)</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 (3,987)</td>
<td>2,235 (56.09)</td>
<td>1,752 (43.91)</td>
<td>3,987</td>
</tr>
<tr>
<td>2009 (5,791)</td>
<td>3,081 (52.84)</td>
<td>2,710 (47.16)</td>
<td>5,791</td>
</tr>
<tr>
<td>2010 (4,539)</td>
<td>2,446 (53.93)</td>
<td>2,093 (46.07)</td>
<td>4,539</td>
</tr>
<tr>
<td>2011 (4,539)</td>
<td>2,446 (53.93)</td>
<td>2,093 (46.07)</td>
<td>4,539</td>
</tr>
<tr>
<td>2012 (4,539)</td>
<td>2,446 (53.93)</td>
<td>2,093 (46.07)</td>
<td>4,539</td>
</tr>
</tbody>
</table>

### Results

The percentage of beneficiaries with SAC along with ACT decreased from 8.08% (2008) to 4.98% (2012) despite no direct action taken by the Mississippi division of Medicaid. Literature suggests that discordance with national guidelines and no set time to administer controller therapy are risk factors for absence of asthma controller therapy. There was a significant drop in the percentage of beneficiaries with SAC and ACT in 2011. This may be due to the movement of some beneficiaries into managed care, thereby decreasing the burden associated with them on Medicaid.

### Conclusions

- The percentage of asthma patients with SAC and ACT decreased from 2008 to 2012. Suboptimal asthma control along with absence of controller therapy was associated with lower medical, pharmacy, and total costs.
- A significant decrease in the percentage of beneficiaries with SAC and ACT in 2011 may be a result of movement of sicker patients into managed care.

### References

1. AHFS data sheets and figures on repeated hospital stays by diagnosis. Available at: http://www.ahfss.org.

### Acknowledgments/Disclaimers

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**Center for Pharmaceutical Marketing and Management and Department of Pharmacy Administration; Mississippi Division of Medicaid**