Effects of Medicaid and CHIP Policy Changes on Receipt of Preventive Care among Children

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Motivation

- National statistics indicate that many children with Medicaid or CHIP coverage do not receive preventive care on an annual basis

- Low reimbursement in public programs and other supply factors may reduce access to care

- Low demand for preventive care may also contribute to low preventive care receipt
Study Overview

- Idaho and Kentucky implemented changes in their Medicaid and CHIP programs aimed at increasing access to primary care for children
- This study examines the receipt of preventive care, other types of primary care, and preventive and any dental care among children
- Other project work examines service use patterns for adults served by Medicaid, and explores implementation issues
Medicaid/CHIP Policy Changes Made in 2005 to 2007

- Increased provider reimbursement for child preventive visits, evaluation and management services and dental care for children

- Outsourced dental care for children to a managed care organization in September 2007 (ID only)

- Introduced wellness benefits in January 2007—ultimately used to offset CHIP premium costs for children with family income 133-185% FPL whose parents keep them up-to-date on well visits and immunizations (ID only)
Medicaid and CHIP Policy Context

Eligibility

- **Idaho**
  - Medicaid
    - Ages 0-5, <133% FPL
    - Ages 6-18, <100% FPL
  - CHIP Medicaid Expansion
    - Ages 6-18, 100-133% FPL
  - CHIP Separate program
    - Ages 0-18, 133-185% FPL
    - $10 premium per child per month: 133-150% FPL introduced in Jan 2007
    - $15 premium per child per month: 150-185% FPL

- **Kentucky**
  - Medicaid
    - Ages 0-1, <185% FPL
    - Ages 1-5, <133% FPL
    - Ages 6-18 <100% FPL
  - CHIP Medicaid Expansion
    - Ages 1-5, 133-150% FPL
    - Ages 6 - 18 100-150% FPL
  - CHIP Separate Program
    - Ages 0-18, 150-200% FPL
    - $20 premium per family: 150-200% FPL
Medicaid and CHIP Policy Context

- **Idaho**
  - 8-24% increase in preventive visit rates for (now reportedly close to commercial rates) for fee-for-service providers
    - Effective July 1, 2006
  - Wellness benefits introduced in Jan 2007 for children with family income between 134-185% FPL staying up-to-date on well-child visits & immunizations (could offset premium payments starting Sept 2007)
  - Dental coverage outsourced to MCO and reimbursement rates for children’s services increased by average of 7.7%

- **Kentucky (outside Louisville, almost all in PCCM/KenPac)**
  - 12.5% increase in well-child visit rates
    - Effective July 1, 2007, but publicized earlier
  - Number of preventative dental visits covered for children increased from one to two per year (starting July 2006)
  - 30% rate increase for most dental services
    - Effective August 2006
Methods

- Case study analyses to assess policy changes included key stakeholder interviews with current and former Medicaid officials, providers, provider associations, and advocacy groups.

- Quantitative analyses rely on administrative claims and enrollment data from Medicaid and CHIP in each state:
  - Analysis of reimbursement impacts includes children 1 to 18 years enrolled in Medicaid or CHIP for at least 12 consecutive months.
  - Multivariate analysis of impacts of Wellness Benefits and dental outsourcing in ID includes children enrolled for at least 6 consecutive months.
  - For analysis of Wellness Benefits in ID, data for the 150-185% FPL eligibility group start 6 months later than for other eligibility categories.
  - Excludes those dually covered by Medicare and months when children are institutionalized.
  - Excludes children in Idaho seen by community health centers and related providers because no claims are available (excludes 14% of children).
  - Excludes children in the Louisville region of KY who are enrolled in a capitated managed care plan (Passport) (23% of children).
  - Estimated multivariate linear probability models of primary and dental care use over a twelve month period, with controls for eligibility category, age, race, gender, and geographic location.
  - Conducted numerous sensitivity analyses.
Methods, cont.

- Kentucky: Reimbursement impacts derived from a pre-post design with alternative definitions of the post period (did not use Passport children as a comparison group)
- Idaho: Reimbursement impacts derived from a pre-post design with 2007/08 as the post period and 2004 & 2005 as the pre period. Impact of wellness benefits derived from difference-in-difference estimates:
  - Young children
    - Comparison: children in SSI, Foster Care, or with family income 0-133% FPL
    - Treatment 1: children with family income 133-150% FPL
    - Treatment 2: children with family income 150-185% FPL
  - Older children
    - Comparison: children in SSI, Foster Care, or with family income 0-100% FPL
    - Treatment 1: children with family income 100-150% FPL (29% of whom faced premiums in post period)
    - Treatment 2: children with family income 150-185% FPL
Methods, cont.

- Analyzed the impact of reimbursement changes on the time to a first (preventive physician, preventive dental) visit over a 12 month period in a duration framework

- The time to each type of visit is measured from the first month of each new enrollment spell initiated by a child during calendar years 2004-2007

- This allows inclusion of some partial year enrollees

- As with the linear probability models, reimbursement impacts here are derived from a pre-post design with alternative definitions of the post period (did not use Passport children as a comparison group)
Receipt of Any Preventive Care by Enrollee Characteristics

- In both states, younger enrollees (ages 1-5) are twice as likely as older enrollees to have received a well-child visit in the past year but overall reported well-child visit receipt rates are low.

- In both states, there are geographic differences in receipt of preventive care. For example, children in the Boise region of Idaho are less likely than children in the rest of the state to receive preventive care whereas reverse pattern appears to be true in PCCM areas of KY.

- In Kentucky, there is no observable increase in receipt of well-child visits following the increase in reimbursement for well-child visits in 2007, but the share of children who received at least one preventative dental visit increased.

- In Idaho, children in nearly all age and eligibility categories experienced increases in the likelihood of receiving well-child care, especially among higher-income children in premium-paying categories.
# Receipt of Well-Child and Preventive Dental Visits in Kentucky

<table>
<thead>
<tr>
<th></th>
<th>Well-Child Visit</th>
<th>Preventive Dental Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Postreform</td>
<td>Postreform</td>
</tr>
<tr>
<td></td>
<td>July 2007-June 2008 (%)</td>
<td>July 2006-June 2008 (%)</td>
</tr>
<tr>
<td>All children age 18 and under†</td>
<td>40.6</td>
<td>43.8</td>
</tr>
<tr>
<td>Age†</td>
<td></td>
<td></td>
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<tr>
<td>Under 6</td>
<td>68.2</td>
<td>35.5</td>
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<tr>
<td>6-18 years</td>
<td>29.3</td>
<td>45.9</td>
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<tr>
<td>Eligibility category</td>
<td></td>
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</tr>
<tr>
<td>Temporary assistance to needy families</td>
<td>40.5</td>
<td>38.7</td>
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<tr>
<td>KCHIP</td>
<td>33.9</td>
<td>52.0</td>
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<tr>
<td>Foster care</td>
<td>43.9</td>
<td>52.2</td>
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<tr>
<td>Pregnant women and children</td>
<td>43.5</td>
<td>43.9</td>
</tr>
<tr>
<td>Supplemental security income</td>
<td>30.4</td>
<td>34.4</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>39.4</td>
<td>41.7</td>
</tr>
<tr>
<td>Female</td>
<td>41.8</td>
<td>46.0</td>
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<tr>
<td>Race/ethnicity</td>
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<tr>
<td>White non-Hispanic</td>
<td>40.1</td>
<td>44.1</td>
</tr>
<tr>
<td>Nonwhite or Hispanic</td>
<td>45.6</td>
<td>40.9</td>
</tr>
<tr>
<td>County of residence</td>
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<td></td>
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<tr>
<td>Metropolitan</td>
<td>45.1</td>
<td>43.0</td>
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<tr>
<td>Nonmetropolitan</td>
<td>38.5</td>
<td>44.2</td>
</tr>
<tr>
<td>Managed care§</td>
<td>58.7</td>
<td>42.4</td>
</tr>
</tbody>
</table>

*Note.* Percents are calculated by child-year, so children enrolled in more than 1 year contribute more than one observation to the estimates.

†Excludes children in the 16 counties served by a managed care plan.

‡Only ages 3–5 included for dental analysis.

§Not included in analytic sample.

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<td><strong>January 2007–</strong></td>
<td><strong>September 2007–</strong></td>
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<td><strong>December 2008 (%)</strong></td>
<td><strong>August 2008 (%)</strong></td>
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<th>Age and eligibility category</th>
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<tr>
<td>All children ages 0–18</td>
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<td><strong>Age and eligibility category†</strong></td>
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<td>Children under 6</td>
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*continued*
Multivariate results: Kentucky

- Very small increases found in receipt of well child care and timing of the first well child visit following Medicaid rate increases when using July 2006 as start of post-period. No associated change when July 2007 was specified as start of post period.

- Impacts on dental visits much larger in magnitude than those found on physician visits—increases appear to be between 6 and 7 percentage points for annual well-child visits, depending on the outcome and the definition of the post period.

- Following the reimbursement increases, children received preventive dental visits more quickly in their first 12 months of coverage after enrolling in Medicaid/CHIP
Multivariate results: Idaho

- Following the reimbursement increases, both young and older children experienced an increased likelihood of receiving a well-child visit during the year of 3 percentage points.

- Wellness benefits are associated with increased receipt of preventive care among targeted groups
  - Large effects found for 151-185% FPL for both age groups and for younger children in families with 134 to 150% FPL
  - Smaller effect found for 101 to 150% FPL for older kids (could be due to measurement error)

- Receipt of preventive care is higher for children in premium-paying eligibility groups, but these children constitute just around 10% of all child enrollees

- Small, positive changes in dental care receipt were found for younger children following dental outsourcing, but only looking at six months after implementation
Limitations

- Not controlling for possibly confounding changes in case mix or service delivery system with a simple pre-post design
- Cannot examine experiences of a significant share of kids enrolled in Medicaid and CHIP in Idaho
- Measurement error with respect to lower-income treatment group for older children in Idaho
- Length of post period may not allow sufficient time for impacts to be felt
- No information available on content of preventive care being provided
Implications

- Achieving substantial increases in preventive care receipt in Medicaid may require large, sustained, and well-publicized reimbursement increases.

- Rewarding families may help move the ball as may targeted outreach about benefits of preventive care.

- May need to incentivize providers more directly (both states have PCCM) especially to improve preventive care receipt among older children.

- May need to address access to specialty care if referrals are a constraint.

- CHIPRA quality focus may increase rates of preventive care receipt: additional investments needed in data systems to track progress with respect to receipt of appropriate follow-up care.

- Affordable Care Act provisions likely to increase preventive care.
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