How did Medicaid expansion affect emergency department utilization in California?

Theories:
- (+) Moral hazard leads to greater utilization
- (-) Newly insured population would shift away from ED use toward primary care

Ambiguity in effect existed before and after implementation:

<table>
<thead>
<tr>
<th>Effect</th>
<th>Literature</th>
</tr>
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<tbody>
<tr>
<td>Increased utilization</td>
<td>Sharma et al., 2016; Nikpay et al., 2017; McConville, 2018; Ladhania et al., 2019</td>
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<tr>
<td>Decreased utilization</td>
<td>Hernandez-Boussard et al., 2016</td>
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<tr>
<td>No effect on utilization, but</td>
<td>Klein, 2017; Garthwaite et al., 2017; Pines et al., 2016; Barakat, 2017</td>
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<tr>
<td>changed payer mix</td>
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Plan:
- Use hospital-level administrative data (n = 332) comparing 2013 and 2015
- Unadjusted analysis determining the effect of the change in the uninsured population served per hospital on each payer source
- OLS regression determining effect of serving a Medicaid expanded population:

\[
\Delta(\text{ED visits})_i = \alpha_0 + \alpha_1 \Delta(\% \text{ Medicaid Patients})_i + \alpha_2(\text{rural})_i + \alpha_3(\text{trauma center})_i + \alpha_4(\text{teaching})_i + \\
\alpha_5(\text{private})_i + \alpha_6(\text{hospital beds})_i + A_i + \varepsilon_i
\]

Other Possible Controls: Δpatient demographics (gender, ethnicity, age)

- Extension: Differential effect of expansion on visits/admission by diagnosis type
- Extension: Long-term effect of ED utilization

Data Sources:
- Insurance data from Covered California
- Hospital-level data from CA Office of Statewide Health Planning and Development