Background
The national Combat Methamphetamine Epidemic Act of 2005 (CMEA) enacted in March 2006 attempting to control methamphetamine precursors included a number of restrictions including 10-day purchase limits on pseudoephedrine, identification verification, and placement of the substance behind the counter. In July 2006, an even more restrictive law was enacted in Oregon requiring a prescription to obtain pseudoephedrine. While all states were subject to CMEA, it is unknown if overall pseudoephedrine requiring a prescription to obtain pseudoephedrine. It is unknown if overall methamphetamine use was more significantly decreased in Oregon, as compared to other states that were subject only to the national regulations.

Hypothesis
To evaluate methamphetamine-related call volume trends to Oregon Poison Center (OPC) and Washington Poison Center (WAPC) before and after implementation of a prescription pseudoephedrine law in Oregon in 2006.

Methods
- Methamphetamine-related calls involving human exposures from Oregon Poison Center (OPC) and Washington Poison Center (WAPC) from 2003-2012 were evaluated
- The number of pre-law calls to OPC and WAPC from 2003-2005 was compared to calls in 2007-2009 (short-term) and 2010-2012 (long-term)

Results
- In the immediate post-law period, methamphetamine-related calls decreased in both states:
  - 62% decrease at OPC [49 calls, (95% CI, 36, -121), p<0.007]
  - 15% decrease at WAPC [74 calls, (95% CI, 34, -112), p=0.014]
- Comparing OPC and WAPC, there was no difference between the change in call volume [RR=1.05 (95% CI, 0.978, 1.13), p=0.366]
- Long-term call volumes returned to their pre-law volumes by 2010-2012:
  - 10% decrease at OPC [-16 calls, (95% CI, 24, 53), p=0.260]
  - 10% increase at WAPC [+13 calls, (95% CI, -66, 30), p=0.349]
- Comparing OR and WA, OPC’s call volume decreased 10% and WAPC’s call volume increased 10%, a difference that was statistically significant [RR=1.10 (95% CI, 1.002, 1.21), p=0.044]

Discussion
The initial decrease in methamphetamine-related poison center calls was seen in both Oregon and Washington, indicating that confounding variables may have contributed to decreased methamphetamine-related calls. The initial decrease may represent a decrease in methamphetamine use in the community perhaps related to CMEA or a change in potency/price resulting in decreased hospital admissions or emergency department visits. However, in the longer term, Washington had an increase in calls while Oregon had a decrease in calls, a difference that was statistically significant.

Conclusion
Methamphetamine-related calls to Oregon and Washington Poison Centers decreased immediately after Oregon’s enactment of a law requiring prescription for methamphetamine, suggesting an alternative reason for the decrease in call volume. Call volume rebounded to pre-law levels in the following years in both poison centers.

Table 1: Human methamphetamine exposure calls per 100,000 population

<table>
<thead>
<tr>
<th>Year</th>
<th>OPC</th>
<th>WAPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2005</td>
<td>11.2</td>
<td>6.0</td>
</tr>
<tr>
<td>2007-2009</td>
<td>4.2</td>
<td>2.7</td>
</tr>
<tr>
<td>2010-2012</td>
<td>10.1</td>
<td>6.6</td>
</tr>
</tbody>
</table>

References
1. Oregon Poison Center (OPC). Oregon Health & Science University. 1181 SW Sam Jackson Park Road, Portland, OR 97239.