Impact of Sweetened Beverage Tax on Chain Retailers in Philadelphia

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IMPACT OF SWEETENED BEVERAGE TAX ON CHAIN RETAILERS IN PHILADELPHIA

Christina A. Roberto, Hannah G. Lawman, Michael T. LeVasseur, Nandita Mitra, Ana Peterhans, Bradley Herring, Sara N. Bleich
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On January 1, 2017, Philadelphia became the second U.S. city to tax the distribution of sweetened beverages. The 1.5 cent per ounce tax applies to the distribution of sugar- and artificially sweetened beverages. Similar taxes have been passed in several other cities and are being considered at the state level. The authors examined the effect of the tax on beverage prices and sales at chain retail stores in Philadelphia.

STUDY DESIGN
- Analyzed beverage prices and sales data one year before and after the tax at 291 chain supermarkets, mass merchandisers (e.g., Target), and pharmacies
  - Compared changes in beverage prices and sales in Philadelphia to changes in Baltimore
  - Looked at changes in sales of sweetened beverages in Pennsylvania zip codes bordering Philadelphia to account for people crossing city lines to avoid the tax
- Calculated amount of tax passed on to consumers through higher retail prices

The Philadelphia sweetened beverage tax led to a 38% reduction in taxed ounces sold after one year. That's equivalent to 83 million fewer cans of soda sold.

108 million fewer cans sold in Philadelphia . . . offset by 25 million more cans sold in neighboring counties

The effect of the tax varied by store type.

<table>
<thead>
<tr>
<th>STORE</th>
<th>SUPERMARKETS</th>
<th>MASS MERCHANDISERS</th>
<th>PHARMACIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did taxed beverage prices change?</td>
<td>0.65 cents/ounce (43% OF TAX)</td>
<td>0.87 cents/ounce (58% OF TAX)</td>
<td>1.56 cents/ounce (104% OF TAX)</td>
</tr>
<tr>
<td>How did taxed beverage sales change?</td>
<td>59%</td>
<td>40%</td>
<td>13%</td>
</tr>
</tbody>
</table>

POLICY IMPLICATIONS
- This is one of the largest studies to date demonstrating that a beverage tax in a large U.S. city substantially reduced purchases of sweetened drinks.
- Overconsumption of sweetened drinks is linked to health problems like obesity and type 2 diabetes. These results suggest beverage taxes are a promising policy tool to improve population health.