Nutritional policy changes in the supplemental nutrition assistance program: a microsimulation and cost-effectiveness analysis

A number of Americans benefit from the Supplemental Nutrition Assistant Programme. However, evidence shows that people benefiting from it consume more calories from sugars and fats, have higher sodium intake, and eat fewer fruits and vegetables than those who do not benefit from it. Consequently, the objective of this study is to estimate the health impacts and cost-effectiveness of banning or taxing sugar-sweetened beverages or subsidising fruits and vegetables purchased with the Supplemental Nutrition Assistant Programme.

The microsimulation model looked at three policy proposals:

1. A restriction or monetary penalty for purchasing sugar-sweetened beverages with the Supplemental Nutrition Assistant Programme.
2. A subsidy or reward for purchasing fruits and vegetables using the Supplemental Nutrition Assistant Programme dollars.
3. Overall increases in the Supplemental Nutrition Assistant Programme benefit levels.

Regarding the policy proposal on sugar-sweetened beverages, the ban yielded more net Quality Adjusted Life Years and had the largest health impacts. On the other hand, the soda tax generated new revenues and these dominated the cost-effectiveness calculation and therefore were identified as the most cost-saving intervention per Quality Adjusted Life Years.