Improving the Nutritional Quality at What Cost?

The Economics of Reducing Sodium in Foods

Amanda N. Simpson
Jody Campiche
Rodney Holcomb
Oklahoma State University

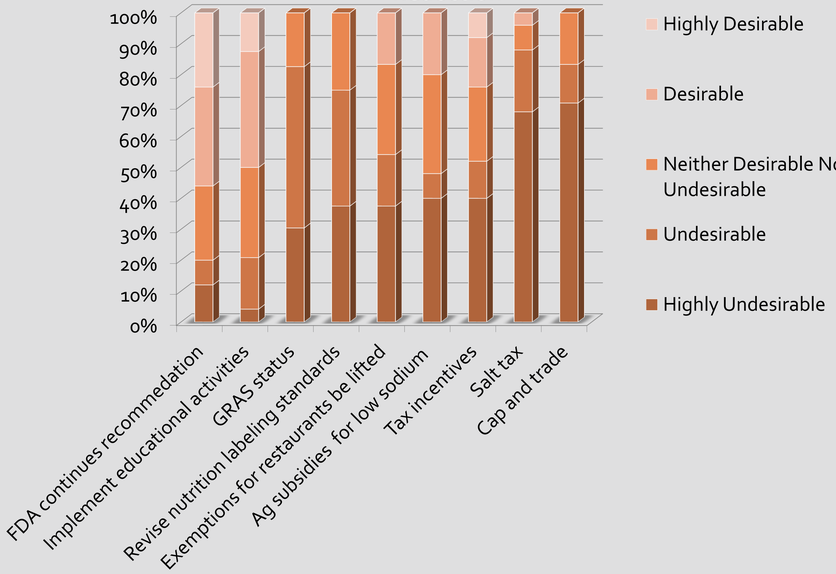
Background:

While many studies have focused on sodium intake and health effects in consumers, little has been done to find the economic impact to food processors. The current FDA recommendations are voluntary, but an actual policy limiting sodium content would significantly impact the food processing industry as salt is a key ingredient in processed foods.

Objective:

- Determine the economic impact to a food processor of a mandatory sodium reduction policy
- Determine producer preferences for various consumer nutrition issues
- Determine industry policy preferences on regulating sodium consumption

Figure 1: Processor Preferences on Addressing Sodium Reduction



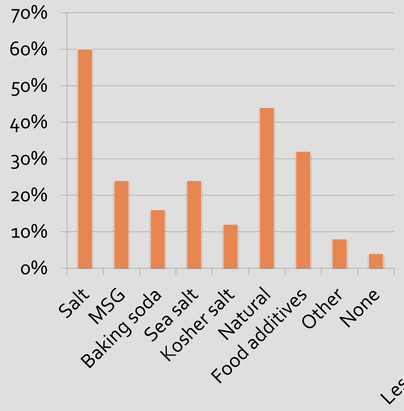
Data:

An online survey builder, Qualtrics, was utilized in this study for distributing the questionnaire in the Spring of 2012. The survey was segmented into three sections: sodium sources, regulatory environments, and demographics. The focus is on food manufacturers in Oklahoma and the surrounding region, so contacts with the Food and Agricultural Products Center were utilized.

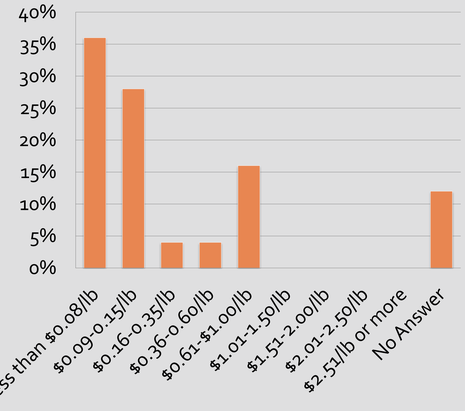
Preliminary Data Results

Rank	Food Attributes	Average
1	Lower prices	1.54
2	Reduced fat options	2.50
3	Organic ingredients	3.38
4	Reduced sodium options	3.58
5	Country of origin labeling	4.00

Sources of Sodium



Cost of Sodium Inputs

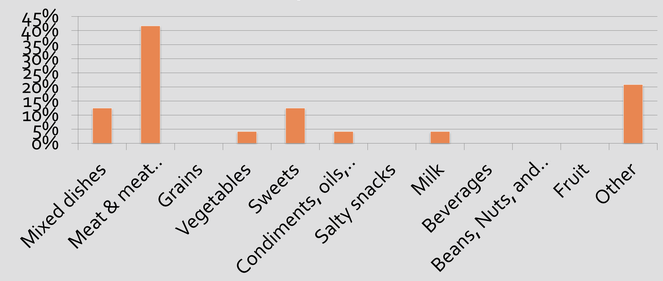


Methods:

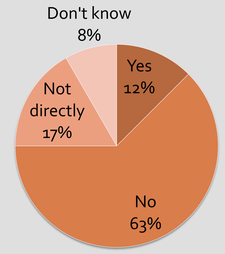
Two models are used to estimate (1) producer preferences for various consumer nutrition issues including sodium reduction and (2) policy preferences specifically on regulating sodium consumption.

(1)

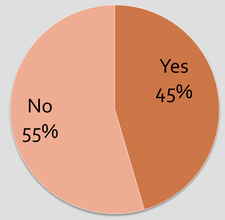
Primary Sales Product



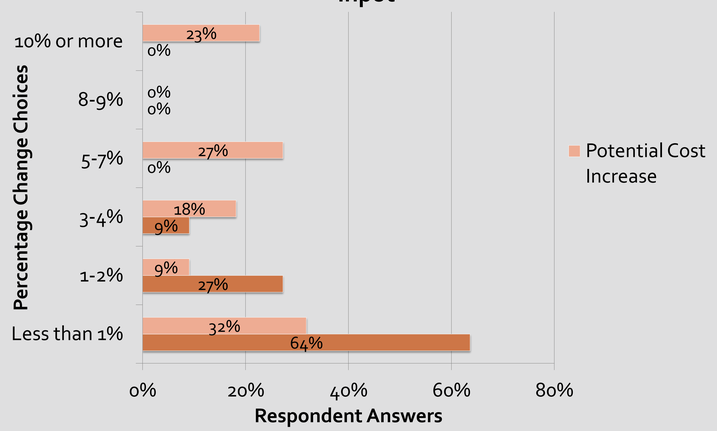
Already Spent Money Addressing Sodium Reduction



Will Companies Have to Discontinue Any Products?



Current vs. Potential Increases in Costs for Sodium Input



Results and Conclusions:

Salt is a very cheap input that serves many roles, so producers would miss having the privilege to use it freely. A universal substitute that is healthier does not exist, and any combinations of the potential ingredients that might be chosen to fill in one ingredients place will increase the input costs. Many companies do not have a simple answer to reducing sodium or if they did simply reduce sodium, they would have a completely different product. About half in our sample would have to discontinue products for this reason. Thus, as it stands, food processors would prefer to use an approach to handling the sodium debate that did not call for government control. However, with taste as the primary function of sodium in foods, the argument of sodium being included for preservation needs might be less critical or powerful than we thought.

Due to a lack of research that analyzes this impact on the industry, we believe this will help policymakers realize this will not be easy to change. Some studies may find a benefit to the consumer population if sodium was reduced in all foods, but the cost has failed to be considered.