

Evaluation of Manufacturer Websites as Sources of Sodium Values to Monitor Sodium Levels in the Food Supply

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ABSTRACT

The USDA Agricultural Research Service, in collaboration with other Federal agencies, monitors sodium in the US food supply to assess the extent of industry sodium reduction initiatives. Approximately 125 commercially-processed and restaurant Sentinel Foods (SF) are tracked as indicators to assess sodium changes in the food supply; nutrient profiles are monitored through nationwide sampling and analysis. Approximately 1200 other multi-ingredient Priority-2 Foods (P2F) are monitored through information from manufacturers or restaurant chains. Analysis of numerous foods is cost-prohibitive, so the investigators depend on this process. Manufacturer values are checked every year for SF and every two years for P2F. **Justification/Objective:** The major data source is manufacturer or supermarket websites. USDA is evaluating these websites' label information as a source in estimating sodium levels of a representative sample of foods being monitored for change by comparing that information to values found on package labels. **Methods:** Ten SF and sixteen high-consumption, varied P2F reported in What We Eat in America, NHANES were selected for evaluation. Market share data were used to select top brands for product market checks. Information was retrieved from manufacturer and store websites and package labels in Baltimore-Washington area national chain supermarkets during the same one-week period. Percent difference between the two sodium values was calculated for each product. **Results:** One to two brands representing 75-80% of the retail market were identified for 26 food items, for a total of 40 products examined. Seventy-three percent had identical sodium values comparing website to package label information. Of the remaining eleven products, three were closely matched, with less than 5% difference. Eight website sodium values were 6% (corn chips) to 29% (deli ham) higher than the package label values. **Conclusions/Significance:** Baseline examinations of label values suggest that manufacturer websites may be an adequate source of sodium values for monitoring levels in the food supply.

INTRODUCTION

A multi-agency project is underway to monitor food manufacturers' efforts to reduce sodium in their commercially-processed products. In absence of analytical or company-provided data, the Nutrient Data Laboratory (NDL) is using Nutrition Facts Panels (NFP) to assess changes in sodium levels for many of these foods. The NFP information is primarily gleaned from manufacturers' or national chain supermarkets' websites as a more cost-effective method than searching for that information on product package labels in stores. NDL is evaluating these websites as sources of sodium values by comparing them to values found on the NFP on packages.

METHODS

Sodium Monitoring Procedures [1]

- Selection of foods to monitor
 - Criteria: commercially packaged and restaurant foods with added sodium; sodium content; consumption data; and potential for reduction.
 - Sentinel Foods (SF): about 125 foods, primary indicators to assess sodium changes in food supply.
 - Priority 2 Foods (P2F): additional ~1200 commercially packaged and restaurant foods which support What We Eat in America (WWEIA), NHANES.
- Review of sodium content using the Nutrition Facts Panel (NFP)
 - Annually for SF, biennially for P2F.
 - Review sodium content using the sodium content of brands associated with 75-80% of the total market share.
 - Use company website for brand names; national chain supermarket website for store brands.

Evaluation of Manufacturer Websites

- Selection of foods to study
 - Ten foods within the top three categories of SF contributing sodium to the U.S. diet (processed meats; bread/rolls; mixed dish with meat).
 - Sixteen high-consumption P2F reported in What We Eat in America, NHANES.
 - Market share data were used to select top brands for product market checks.
- Retrieval of NFP information
 - Manufacturer (brand name products) or supermarket (private label/store brand products) websites were perused for label information to include serving size and sodium value per serving.
 - Package labels for the same products and brands were sought from Baltimore-Washington area national chain supermarkets during the same one-week period as website searches.
- Sodium values were compared on 100 g basis if serving sizes differed between website and package. Percent difference between the two sodium values was calculated for each product.

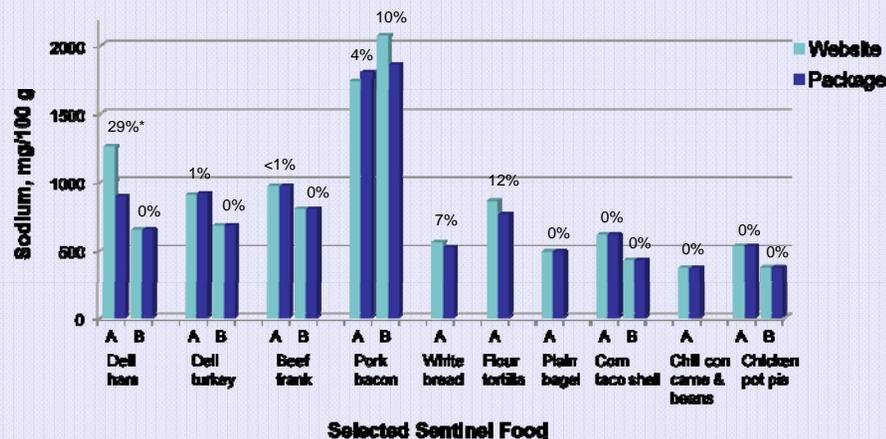
RESULTS & DISCUSSION

- Some foods such as the SF frozen thin-crust cheese pizza could not be evaluated due to absence of sodium information on company or supermarket websites and/or inability to locate product in supermarket for identified top brands. Final sample totaled 40 products for comparison.
- Overall results are shown in Table 1 which indicates number of SF and P2F products and brands evaluated and amount with no difference, <5% or >5% difference between website and package sodium values.
- Differences identified: 29 of the 40 products evaluated had identical sodium values. Of the remaining 11 products, 3 were closely matched, with less than 5% difference. Eight website sodium values were 6 to 29% higher than the package label values. Those with the greatest discrepancies include 1 brand of deli ham, 1 brand of pastrami, and 1 brand of oil-roasted peanuts. All but 1 of the 8 store brand products had identical sodium values.
- Sentinel Food results are illustrated in Figure 1. The majority of the website and package labels had identical sodium values.

Table 1. Number of products with discrepancies in online versus package sodium values

Food Category	Types of Products	Brands of Products	No Difference	<5% Difference	>5% Difference
Sentinel Foods (Totals)	10	16	9	3	4
Processed meats	4	8	3	3	2
Bread/rolls	4	5	3		2
Mixed dishes w/meat	2	3	3		
Priority 2 Foods (Totals)	16	24	20	0	4
Breakfast cereals	2	2	2		
Dairy	2	4	4		
Fats/oils	2	3	3		
Processed meat/fish	3	4	3		1
Nuts/peanuts	3	5	4		1
Snacks	2	2	1		1
Soups/gravy	2	4	3		1
Total SF + P2F	26	40	29	3	8

Figure 1. Comparison of online versus package sodium values in Sentinel Foods (top brands)



* Percent difference between website and package sodium value



Packaged deli ham (SF), store brand: package and website both 180 mg sodium per 1 slice



Corn chips (P2F), top brand: package 160 mg, website 170 mg sodium per 1 oz.

CONCLUSIONS

- For most products, sodium values on manufacturers' websites were similar to values on the product label, leading to more confidence that sodium levels in commercially-prepared products can be monitored via company websites.
- Discrepancies in label information could be due to 1) lag in updates to websites to catch up to product reformulations; 2) regional differences in product market (website gives an average); or 3) difficulty in accurately matching products from the two sources.
- University of Minnesota found similar results [2], yet additional products should be surveyed in order to fully evaluate sodium values from commercial websites.
- Label information posted on manufacturer and supermarket websites aids researchers and educates consumers. Posting current information and date last updated will make it even more valuable.

REFERENCES

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