How Supermarkets Are Shaping Up and Growing Their Lower-Calorie Products

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Supermarket sales of lower-calorie foods and beverages are growing faster than higher-calorie options.

Lower-calorie product sales in supermarkets command a higher percentage of total sales than they do for either consumer packaged goods companies or restaurant chains.

However, lower-calorie products in supermarkets are not driving growth as robustly as for packaged goods companies and restaurant chains.

Despite growing faster than higher-calorie items, lower-calorie product share of total sales underperforms in food deserts compared to supermarkets located outside food deserts.

Higher-calorie versions make up the overwhelming proportion of sales of products contributing the most calories to children and adolescents and are growing at a faster clip.

Private label food and beverage products are making significant inroads in driving lower-calorie sales growth.

“The proper social responsibility of business is to tame the dragon—that is, to turn a social problem into economic opportunity and economic benefit.”

- Peter Drucker, Frontiers of Management, 1968
Introduction

The Centers for Disease Control and Prevention (CDC) estimates that more than a third of adults and nearly 17 percent of children in the United States are obese. This public health crisis has spurred policy debates at all levels of government, and has prompted initiatives aimed at making schools and communities healthier for children and families.

The food and beverage industry continues to come under fire for its role in the obesity crisis. Studies, books and the media have scrutinized factors such as large portion sizes; the amount of fat, sugar and salt in packaged foods; and the placement of less healthy items in highly visible supermarket locations.

For the past four years, Hudson Institute, a nonpartisan policy research organization, has studied the link between healthier, lower-calorie products and the sales performance of the companies that offer them. It has completed several landmark studies covering consumer packaged goods (CPG) food companies and restaurant chains that have demonstrated the positive impact of lower-calorie and/or better-for-you (BFY) foods and beverages on overall sales growth. Funded by the Robert Wood Johnson Foundation (RWJF) or the Healthy Weight Commitment Foundation (HWCF), these studies have demonstrated that selling more lower-calorie/BFY foods and beverages benefits companies financially and therefore should be aggressively pursued by industry.

The first CPG study, titled “Better-For-You Foods: It’s Just Good Business,” found that between 2006 and 2011, 15 leading CPG companies that grew their lower-calorie/BFY foods and beverages enjoyed superior sales growth, operating profits and operating profit growth. An analysis of restaurant chains covering the same time period illustrated similar results: those that grew their lower-calorie menu servings enjoyed greater same-store sales, traffic and total servings gains than those that did not.

In May 2013, a follow-up study evaluated HWCF members to determine if they were increasing their sales of lower-calorie items, and how that trend was influencing total company sales. Results indicated that from 2006 to 2011, lower-calorie products drove 82 percent of the sales growth among the HWCF member companies, over four times the rate of higher-calorie products. A second study of HWCF members, released in October 2014 and covering the five years ending December 2012, demonstrated that more than 99 percent of total growth of the member companies was driven by lower-calorie versions of the products they market.

While these studies have shown that lower-calorie and better-for-you foods are good for business, there has not been a comparable study on the performance of retailers, the front lines where consumers purchase these products. This latest study aims to determine whether supermarket chains, like CPG companies and restaurant chains, are also reaping business benefits from selling lower-calorie products.
Background

Obesity is the foremost public health challenge facing our nation today. Over the past two decades, obesity rates have grown to epidemic proportions that threaten our economic and national security. In 2013, twenty states had adult obesity rates over 30 percent. Policymakers at all levels have felt pressure to pass and implement laws to improve school nutrition, make communities safer for physical activity, and improve access to affordable healthy foods.

Many have called on the food industry to help address the obesity crisis by making the U.S. food supply healthier, and by reducing the number of calories in the products it produces, markets and sells. Several CPG companies have stepped up by making pledges to the Partnership for a Healthier America or participating in the Healthy Weight Commitment Foundation (HWCF), whose members sold 6.4 trillion fewer calories in 2012 than they did in 2007. The restaurant industry’s Kids LiveWell initiative now has 42,000 restaurant locations participating in an effort to provide healthier options for children, and the Food Marketing Institute (FMI), representing the food retail trade, has joined with the Grocery Manufacturers Association (GMA) in advancing the Facts-Up-Front labeling initiative to communicate key nutrition information to consumers on the front of food packages.

Few would argue that the more than $2 trillion food industry can have a huge impact on improving consumption of lower-calorie foods and beverages if fully engaged in the effort to reverse obesity. Over $638 billion is spent in supermarkets annually and these retailers are major players in this effort. Because of their role in displaying and marketing food, supermarkets can help shape consumer preferences and choices.

The Case for Calorie Reduction

At the most basic level, overweight and obesity are the result of a caloric imbalance: too few calories expended for the amount of calories consumed. In 2010, our aggregate food supply provided 2,568 calories per person per day, 459 more calories than in 1970.

Thus, it is not surprising that organizations such as the Institute of Medicine (IOM) have called for food companies to substantially reduce the number of calories served to children and their families. In its report titled “Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation,” the IOM highlighted that people are consuming more calories, in part, because portion sizes have increased; calorie-dense foods such as french fries are more available; and the food industry has aggressively marketed high-calorie products.

To date, proposed public health policy interventions aimed at the food industry have included tactics such as labeling menus or product packaging, creating beverage size limits, or taxing sugar-sweetened drinks. Each of these approaches contains elements that guarantee industry resistance, either because they raise costs or induce declines in sales of highly profitable items. None of them considers the traditional “success metrics” that industry executives are responsible for when making decisions on behalf of their companies and shareholders.

This imbalance between the goals of public health and those of industry has been the basis for Hudson Institute’s work to examine the business case for CPG companies, restaurant chains and, now, supermarket retailers to grow their sales of lower-calorie items.
Research Objectives

Our research sought to answer four key questions:

1. Are supermarkets capitalizing on consumer trends by growing their sales of lower-calorie items?

2. Are lower-calorie sales in stores located in food deserts, areas where lower-income residents have limited access to affordable, healthy foods, performing as well as those outside food deserts?

3. Is progress being made with products contributing the most calories to children’s diets?

4. How do private-label products stack up regarding lower-calorie sales?

Methodology Summary

To address these objectives, we utilized Nielsen Scantrack data to analyze the foods and beverages sold by the three largest U.S. supermarket ownership groups, who together own 26 “banners” or supermarket chains. Supermarkets are defined as traditional grocery stores with measured sales of more than $2 million dollars annually. Other retail outlets selling food and beverage products, such as corner stores, convenience stores, drug stores and dollar stores, were not included. Banners represent the different brands that each of the supermarket ownership groups operate under. Annualized food and beverage product sales for the supermarket chains analyzed totaled $137 billion for the twelve months ending December 31, 2013. This figure represents 45 percent of the U.S. supermarket industry’s total dollar sales of those product categories included in the study.

Data from 6,000 store locations, in 202 separate food and beverage categories, and from 275,000 food and beverage stock keeping units (SKUs) were analyzed. Private-label brand analyses were performed on more than 15 banners. The study compared sales data for the twelve months ending December 31, 2013 with the twelve-month period ending December 31, 2009.

Nielsen Scantrack provided information on dollar sales, unit sales, distribution and calories per serving (based on nutritional information required by the Food and Drug Administration). For the small percentage of food and beverage categories that did not have nutritional labeling information, we used data from public websites which listed calorie counts. The criteria for “higher-calorie” and “lower-calorie” were developed in conjunction with the Nutrition Coordinating Center at the University of Minnesota. More than 275,000 individual items (SKUs) from 202 food and beverage categories were classified in a binary fashion as either higher-calorie or lower-calorie as a prelude to analysis. Actual item calorie counts or averages were not calculated as part of this study. “Food deserts” were defined based on U.S. Department of Agriculture (USDA) criteria. Standards set forth by Reedy and Krebs-Smith were used to define the food and beverage categories that contribute the most calories to the diets of U.S. children and adolescents. A detailed methodology appears at the end of this report.

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Findings

Lower-Calorie Share of Sales and Sales Growth

Our research examined two key measures: dollar sales and dollar sales growth. We found that the lower-calorie foods’ share of total dollar sales was higher in supermarkets than for CPG companies or restaurants (Figure 1). However, supermarkets were not deriving as much sales growth from the lower-calorie items as either CPG companies or restaurants (Figure 2), for which virtually all of the sales growth was driven by lower-calorie options.

Sales in Food Deserts

Findings were similar when we explored stores located in food deserts, lower-income areas where residents have limited access to healthy, affordable foods. Lower-calorie dollar sales grew faster than higher-calorie dollar sales both in food deserts and outside food deserts (Figure 3). Nevertheless, lower-calorie share of total dollar sales lags higher-calorie item sales in food deserts (Figure 4). This gap is equivalent to $500 million in lost revenue from lower-calorie items for the stores located in food deserts.

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Products Contributing the Most Calories to Children’s Diets

Among the categories of foods and beverages found by Reedy and Krebs-Smith to contribute the most calories to children’s diets (e.g., grain-based desserts, caloric beverages, pastas and pizza), the lower-calorie share of total sales hugely lags sales for higher-calorie versions (Figure 5). Similarly, growth in lower-calorie product sales has been substantially outpaced by the growth in sales of higher-calorie options (Figure 6). These trends are in contrast to the overall progress being made in the sales growth of lower-calorie products.

One potential explanation for these findings is that availability of lower-calorie versions of products contributing the most calories to the diets of U.S. children and adolescents significantly trails availability of lower-calorie products across all product categories analyzed (Figure 7).
Private Label Sales

The lower-calorie share of total sales for products made by private-label companies, which produce items bearing retailers’ own proprietary labels, trails that of branded products, but it is catching up (Figure 8). Closing this “gap” could have a significant impact, more than $600 million, on total dollar sales of lower-calorie products (Figure 9).

Conclusions and Implications

This study found that although supermarkets are gaining the majority of their food and beverage sales growth, 59 percent, from lower-calorie products, they are not fully capitalizing on the growing demand for lower-calorie products found by recent CPG and restaurant industry studies. It is clear that traditional, full-calorie items are no longer carrying the day, and supermarkets can tap tremendous sales growth by making more lower-calorie foods available and promoting them to shoppers. Past research also has shown that new, lower-calorie products were more than twice as likely as traditional higher-calorie products to remain available at retail stores after five years, providing more incentive for retailers to prioritize them.10

Our study also found that lower-calorie sales growth is outpacing higher-calorie sales growth in both food deserts and non-food deserts, signifying that consumers, regardless of where they live or shop, are increasingly seeking out lower-calorie alternatives, and represent a market ready for change. Retailers in food deserts should seize the opportunity to make lower-calorie foods and beverages more available, and promote them more vigorously.

Retailers and manufacturers together need to place greater focus on lower-calorie versions of products that contribute the most calories to children’s and

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adolescents’ diets or they will likely face even stronger headwinds from consumers, regulators and public health advocates. The business case is compelling, as demonstrated by Hudson Institute’s previous studies, that shifting to lower-calorie versions is tied to higher growth rates. Retailers must also consider modifications to their current merchandising and promotional practices, such as increasing lower-calorie product prominence on shelf, in feature ads, on displays, and in check-out lanes, to address both challenges and opportunities related to selling healthier products for children and their families.

Private-label brands are making significant strides in the proportion of lower-calorie sales, but they still lag the brand-name labels. By introducing and generating in-store visibility of more lower-calorie versions of the most popular products, retailers can realize huge sales potential.

**Detailed Methodology**

Nielsen Scantrack\textsuperscript{21} data from 2009 to 2013 (ending December 31 of each year) were used to track the total sales across 202 individual food and beverage categories (out of 209 categories tracked by Nielsen) for the three largest supermarket ownership groups in the U.S. (including 26 of their banner chains). Supermarkets are defined as traditional grocery stores with measured sales of more than $2 million dollars annually. Other retail outlets selling food and beverage products, such as corner stores, convenience stores, drug stores and dollar stores, were not included. Banners represent the different brands that each of the supermarket ownership groups operate under. Annualized food and beverage product sales for the supermarket chains analyzed totaled $137 billion for the twelve months ending December 31, 2013. This figure represents 45 percent of the U.S. supermarket industry’s total dollar sales of those product categories included in the study. Data from 6,000 store locations and from 275,000 individual food and beverage stock keeping units (SKUs) were supplied by AC Nielsen in a large Microsoft Excel File and subsequently analyzed. Private label brand analyses were performed on more than 15 banners. The study compared sales data for the twelve months ending December 31, 2013 with the twelve-month period ending December 31, 2009.

Specific data types provided included dollar sales, unit sales and distribution. For the purposes of this study, dollar sales were used as the measure for all volumetric analyses, as the unit data are not based on an equivalent unit measurement. Distribution measures used in the study are based on average number of items on the shelf per store.

Data included all branded products, private label products (from two of the three supermarket ownership groups), as well as unbranded products, most notably, items such as fresh produce (fruits, vegetables and herbs) and fresh bakery. Nielsen Scantrack also supplied calories per serving data for the majority of these products, based on the Nutrition Facts Label (NFL) information required by the Food and Drug Administration.\textsuperscript{22} For products whose nutritional information was not supplied in the Nielsen Scantrack database—such as non-flavored water (still and sparkling), fresh produce (fruit, vegetables and herbs), and non-flavored coffee (ground, instant and whole bean), caloric information was verified by using publicly available information from websites such as: calorieking.com, calorie count.com and nutritiondata.self.com.
Lower-Calorie Product Criteria and Categorization Process

All products included in the database were classified as either a “lower-calorie” or a “higher-calorie” product based on criteria developed in conjunction with the Nutrition Coordinating Center, University of Minnesota. More than 275,000 individual items (SKUs) from 202 food and beverage categories were classified in a binary fashion as either higher-calorie or lower-calorie as a prelude to analysis. Actual item calorie counts or changes in calories over the 5-year evaluation period were not calculated as part of the scope of this study. A representative categorization of select categories is shown in Figure 10. A complete listing of the lower-calorie criteria for all 202 food and beverage categories can be found at Hudson Institute’s Obesity Solutions Initiative web site for this report at www.obesity-solutions.org.

Products that require other ingredients for preparation and serving (e.g., dessert mixes, add-meat boxed dinners) were classified based on the “as prepared” calories per serving on the label.

In addition to the sales and distribution measures reported in the study based on Nielsen Scantrack, information regarding the number of stores for all banners of the three major retailers was provided by Nielsen TDLinx data. These data were also based on 12-month periods for 2009 to 2013, ending on December 31 of each year.

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Calorie Criteria</th>
</tr>
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<tbody>
<tr>
<td>RTE Cereal - Kid/Adult*</td>
<td>≤150</td>
</tr>
<tr>
<td>Hot Cereal*</td>
<td>≤150</td>
</tr>
<tr>
<td>Pancake/Biscuit Mixes/Muffins**</td>
<td>≤150</td>
</tr>
<tr>
<td>Toaster Waffles/Pop Tarts</td>
<td>≤150</td>
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<tr>
<td>Soups</td>
<td>≤150</td>
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<tr>
<td>Meal/Pasta Sauces</td>
<td>≤100</td>
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<tr>
<td>Main Dishes</td>
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<tr>
<td>Complete Meals</td>
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</tr>
<tr>
<td>Side Dishes</td>
<td>≤150</td>
</tr>
<tr>
<td>Fruit</td>
<td>≤150</td>
</tr>
<tr>
<td>Vegetables</td>
<td>≤150</td>
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<tr>
<td>Condiments/Coffee Additives</td>
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<tr>
<td>Dressings</td>
<td>≤100</td>
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<tr>
<td>Complete Breakfast Bars/Drinks</td>
<td>≤250</td>
</tr>
<tr>
<td>Plain Pasta</td>
<td>≤250</td>
</tr>
<tr>
<td>Spreads/Dips</td>
<td>≤50</td>
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<tr>
<td>Snacks (Popcorn/Crackers/Pretzels &amp; Baked Snacks)</td>
<td>≤150</td>
</tr>
<tr>
<td>Gum</td>
<td>≤50</td>
</tr>
<tr>
<td>Candy</td>
<td>≤125</td>
</tr>
<tr>
<td>Chips</td>
<td>≤125</td>
</tr>
<tr>
<td>Nuts</td>
<td>≤125</td>
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<tr>
<td>Snack Bars</td>
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<tr>
<td>Juice/Juice Beverages</td>
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<tr>
<td>Coffee/Tea/CSDs</td>
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<tr>
<td>Breads and Pastries</td>
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</tr>
<tr>
<td>Milk</td>
<td>Skim, 1%</td>
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<tr>
<td>Yogurt</td>
<td>≤170</td>
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<tr>
<td>Cheese</td>
<td>≤80</td>
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<tr>
<td>Desserts</td>
<td>≤150</td>
</tr>
<tr>
<td>Cookies</td>
<td>≤125</td>
</tr>
</tbody>
</table>

*10 g cap on sugars      ** as prepared
"Food deserts are defined as a census tract with a substantial share of residents who live in low-income areas that have low levels of access to a grocery store or a healthy, affordable food retail outlet. Census tracts qualify as food deserts if they meet low-income and low access thresholds:

- They qualify as “low-income communities” based on having: a) a poverty rate of 20 percent or more OR b) a median income at or below 80 percent of the area’s median income; AND
- They qualify as “low access communities” based on the determination that at least 500 persons and/or 33 percent of the census tract’s population live more than one mile from a supermarket or large grocery store (10 miles, in the case on non-metropolitan census tracts).

**Impact on Children**

An additional element of the study was to analyze the trends among those foods and beverages that have been determined to contribute the most calories to the diets of children and adolescents aged 2 to 18. We used data from a study by Reedy and Krebs-Smith, as well as input from Barry Popkin, PhD, Carla Smith Chamblee Distinguished Professor of Global Nutrition, University of North Carolina at Chapel Hill. The food and beverage categories that contribute the most calories to children’s and teen’s diets include:

- Grain-based desserts (fresh, refrigerated, frozen and shelf stable): cookies, donuts, pies, muffins, cake, cobblers, toaster pastries, frosting and granola bars
- Beverages (shelf stable, refrigerated and frozen): juices (except adult varieties), carbonated soft drinks (CSDs), powdered soft drinks (PSDs), sports drinks and sweetened/vitamin waters
- Pasta: macaroni & cheese
- Pizza (fresh, frozen and refrigerated): excludes French bread, premium/ super premium and reduced calorie
- Milk: excludes buttermilk
- White bread

**Private Label Trends**

The final analysis conducted was to evaluate comparable trends for private label brands, defined as products that stores put their own names or brands on. They are also known as store brands or house brands and are manufactured and brought to market in much the same way as the familiar national brands. To accomplish this assessment, sales and distribution data for all private label products were segregated, and that subset of the data was compared to sales data for branded products. One limitation of this analysis is that only two of the three major supermarket ownership groups would allow the release of their private label sales data.

**Limitations**

The following important limitations should be noted.

Calorie information was obtained primarily from AC Nielsen Company, package labels, and company websites. The Food and Drug Administration allows manufacturers and packagers a considerable margin of error (+/- 20 percent) regarding the nutrition information depicted on the product packaging, which may have impacted our precision. Additionally, the nutrition information collected does not account for...
nutrition fact changes that might have occurred during the 5-year analysis period, as certain discontinued package labels or calorie information were not available for our review.

Seven categories were excluded from the study because it was difficult to estimate how much consumers would actually eat as a standard portion. The excluded categories included: frozen breaded poultry, pizza kits, prepared foods, fresh meat, fresh poultry, frozen poultry, and the majority of refrigerated seafood (with the exception of pre-packed seafood products whose nutritional information, or calories per serving, were provided by AC Nielsen). All-purpose and specialty flour also were excluded. The total sales of the products that could not be classified were approximately 7.5 percent of the overall aggregate sales data supplied by AC Nielsen. Finally, no alcoholic beverages were included in the study, which is consistent with the treatment of alcoholic beverages in the previous Hudson Institute studies.

Statistical analyses were not conducted to assess the magnitude or significance of the differences reported in this study as the more than 275,000 individual items (SKUs) analyzed were classified in a binary fashion as either higher-calorie or lower-calorie, rather than having to calculate average or median differences in actual calorie counts over the period of this study.

This report, a companion Power Point presentation, and detailed lower-calorie categorization criteria by product category, can be found at www.obesity-solutions.org.

Authors and Acknowledgements

Hank Cardello (lead author) is a Senior Fellow and the Director of Hudson Institute’s Obesity Solutions Initiative. Hank is the author of Stuffed: An Insider’s Look at Who’s (Really) Making America Fat (www.stuffednation.com) published by HarperCollins/Ecco and the landmark reports “Better-for-you Foods: It’s Just Good Business” and “Lower-Calorie Foods: It’s Just Good Business.” He is a former food company executive with Coca-Cola, General Mills, Anheuser-Busch and Cadbury-Schweppes and has been a frequent contributor to The Atlantic and Forbes on food industry and obesity policy matters.

Jeffrey Wolfson, Chief Marketing Officer at The FORT Group, provided industry perspective and led the project analytics for this study. Jeff served as the analyst for the previous Hudson Institute studies covering consumer packaged goods companies and restaurant chains. He has been a consultant to the food industry for more than 25 years and earlier served as a food company executive with General Mills, Nestle and General Foods (now part of Kraft Foods).

Lauren Elizabeth Warren provided input to the project and assisted in the review of the findings. Lauren received her MPH degree from Yale University in Health Policy & Administration. Previously, Lauren was a senior consultant at Prophet, a leading strategic brand and marketing consulting firm.

Special thanks to Catherine and Bob Buday, The Bloom Group, for their contributions to the writing and editing of this paper.
The Robert Wood Johnson Foundation (RWJF) provided funding for this study and for several previous Hudson Institute studies examining the impact of lower-calorie and better-for-you foods and beverages on food company and restaurant chain performance. For more than 40 years the Robert Wood Johnson Foundation has worked to improve health and health care. It is striving to build a national Culture of Health that will enable all to live longer, healthier lives now and for generations to come. For more information, visit www.rwjf.org.

Obesity Solutions Initiative

The mission of Hudson Institute’s Obesity Solutions Initiative is to bring about practical, market-oriented solutions to the world’s obesity epidemic.

The Initiative devises policies and offers market-based solutions to the global obesity epidemic by aligning the needs of all vested parties—corporations, the public health community, consumers and regulators. Emphasis is placed on sound quantitative analysis and incorporating pragmatic principles to enhance adoption. The undertaking is currently focused on building the business case for better-for-you foods and beverages by quantitatively demonstrating the sales, financial, shareholder and reputational benefits from selling larger amounts of better-for-you products.

The Initiative’s director is Hudson Senior Fellow Hank Cardello, the author of Stuffed: An Insider’s Look at Who’s (Really) Making America Fat (www.stuffednation.com). He is a former food executive with Coca-Cola, General Mills, Anheuser-Busch and Cadbury-Schweppes, and co-Chair of the Global Obesity Business Forum sponsored by the University of North Carolina at Chapel Hill. Cardello has been a frequent contributor to The Atlantic and Forbes on food policy and obesity matters, and his perspectives have been shared in numerous publications, including the Wall Street Journal, The New York Times, the Washington Post and the Economist, as well as in major broadcast media, such as CNN, NPR, Good Morning America, CNBC and the major television networks.

For more information, visit www.obesity-solutions.org.

References


About the Partnership, Partnership for a Healthier America. http://ahealthieramerica.org/about/about-the-partnership/


Facts-Up-Front, the Food Marketing Institute. Available online: www.fmi.org/industry-topics/health-wellness/facts-up-front.


Nutrition Coordinating Center, University of Minnesota. www.ncc.umn.edu

“Food Availability (Per Capita) Data System.” 2012.


Ibid.


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