AGRICULTURAL ECONOMICS

October 26, 2016

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Cornhusker Economics

Point-of-Purchase Efforts to Increase Healthy Food Choice

Market Report	Year Ago	4 Wks Ago	10-21-16
Livestock and Products, Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	138.00	*	101.56
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	225.42	155.25	130.50
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	200.88	143.46	125.17
Choice Boxed Beef, 600-750 lb. Carcass.	216.03	186.48	179.99
Western Corn Belt Base Hog Price Carcass, Negotiated	68.32	51.29	45.70
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	87.50	78.18	71.98
Slaughter Lambs, wooled and shorn, 135-165 lb. National.	158.51	163.48	145.41
National Carcass Lamb Cutout FOB.	360.60	355.93	353.59
Crops, Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	3.95	2.71	2.72
Corn, No. 2, Yellow Nebraska City, bu.	3.44	2.81	NA
Soybeans, No. 1, Yellow Nebraska City, bu.	8.29	8.70	NA
Grain Sorghum, No.2, Yellow Dorchester, cwt.	5.89	4.36	4.70
Oats, No. 2, Heavy Minneapolis, Mn, bu.	2.60	2.36	2.76
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	180.00	*	160.00
Alfalfa, Large Rounds, Good Platte Valley, ton.	75.00	67.50	67.50
Grass Hay, Large Rounds, Good Nebraska, ton.	77.50	67.50	67.50
Dried Distillers Grains, 10% Moisture Nebraska Average.	111.25	115.50	109.25
Wet Distillers Grains, 65-70% Moisture Nebraska Average.	56.00	37.00	42.00

*** No Market**

The prevalence of overweight and obesity in the U.S. population has increased steadily over the past four decades, impacting health, livelihoods, and quality of life. Recent estimates of U.S. adult and childhood overweight and obesity rates suggest that nearly 35 percent of adults are obese and another 34 percent are overweight, while 17 percent of children are obese and 15 percent overweight. Obesity is associated with a number of negative consequences that impact both the individual and society. These consequences include poorer health, an increased risk of associated non-communicable diseases, such as type-2 diabetes, certain types of cancer, and heart disease, and reduced quality of life operating through a variety of channels, including decreased physical function, social stigma, reduced self-esteem and increased rates of depression. Additionally, increasing rates of obesity lead to direct and indirect economic costs, such as higher health care costs, and other negative economic impacts, like increased absenteeism and presenteeism—reduced productivity when people are at work.

While average rates of obesity have been increasing throughout the U.S. population, the incidence of overweight and obesity is not distributed evenly throughout the U.S. population. In general, minority, rural, and low-income households experience higher rates of overweight and obesity than the overall population. African American and Hispanic individuals have been found to have significantly higher rates of obesity than white individuals of the same age groups. In epidemiologic studies of obesity and related non-communicable diseases (NCDs), these characteristics—ethnicity, residence,

and poverty—are frequently identified as factors that place individuals at greater risk of experiencing obesity and diet-related diseases. However, these characteristics are—presumably—simple proxies for a more fundamental cause: behaviors, conditions, or constraints that ultimately lead to overweight and obesity. As an example, Mexican American and African American youth tend to have higher than average consumption levels of sugar-sweetened beverages, which is a prime source of empty calories and is thought to contribute significantly to childhood obesity.

The general increase in the prevalence of overweight and obesity, as well as disparities among minority and other populations, has prompted significant action to both understand and combat the trend. Researchers and public health officials have proposed a host of ultimate causal factors, and used them to design policies and large-scale interventions to prevent overweight and obesity. A significant focus of this work is providing more objective information about the nutritional content of foods, greater access to healthy options, and incentives (typically extrinsic incentives) to consume healthier foods. In the past decade, insights on human decision making drawn from economics and psychology—a field popularly known as behavioral economics—have informed obesity prevention efforts, particularly a line of research promoting the choice of healthier foods in schools. Recently, researchers have started to apply these tools to retail food locations to encourage a healthy food environment at home. In the rest of this article, I present a brief history of efforts promoting healthier food purchases, and reasons that those efforts have been less successful than anticipated.

Previous Strategies to Promote Healthier Food Choices at Retail Food Locations

The first major effort to promote healthier choices was based on the assumption that consumers simply lacked information about the nutritional content of foods. This view that providing additional objective information to consumers could address diet-related health problems led to the Nutrition Labeling and Education Act (NLEA), which was passed in 1990 and implemented in 1994. The NLEA was intended to provide consumers with objective information about the nutritional content of packaged foods in order to improve dietary quality and health, as well as to verify health claims made by food manufacturers. More recently, the Affordable Care Act (ACA) contained a provision requiring many chain restaurants—those with 20 or more locations—and similar food establishments to post calorie information in their stores.

Evidence from these two laws suggests that providing consumers with objective information has resulted in, at best, minor shifts towards healthier choices. Individual-level research provides reasons why objective information labeling efforts may not be successful. Shoppers' search for and recall of nutrition information pre- and post-NLEA implementation did not change; however, highly motivated individuals with low levels of knowledge were an exception to this finding and did increase information search and retention.

A second factor commonly cited as a likely cause of low quality diets is a lack of access to healthy foods—particularly fresh fruits and vegetables. Areas lacking in access to healthy food options, which are frequently located in rural and low-income urban communities, are referred to as food deserts. Significant parts of the state of Nebraska qualify as food deserts; a map is available at *http://news.legislature.ne.gov/lrd/files/2015/12/lrd_mow_11.pdf*.

Food deserts have been cited as a source of the disparity in poor diets and concomitant weight and health problems observed in minority and rural populations relative to wealthier, white urban and suburban populations. However, research from urban food deserts—there are fewer data available from rural food deserts—suggests that opening a grocery store with healthy food options, such as fresh produce, increases residents' perceived access to healthy foods, but it does not lead to increased consumption of healthy foods on average.

A spatial analysis of household food purchases and accessibility of retail food stores indicates that households with lower income and education consume lower quality diets and confirms that these households have less access to healthy foods. However, after controlling for access to healthy foods, it appears that socioeconomic differences drive much of the disparity in healthy food purchases. That is, evidence suggests that food deserts—at least in urban areas—may reflect a lack of demand for fresh, healthy foods.

A third proposed solution—providing monetary or non-monetary incentives (or disincentives) for purchasing and eating healthy foods—though widely discussed, is less frequently used as a policy tool to explicitly attempt to manipulate the composition of individuals' diets. For instance, though many states collect sales tax on sodas, the tax is applied equally to regular and diet versions rather than targeting the added sugar of regular sodas. Part of the reason that these incentives, including so-called fat taxes and subsidies for healthy foods, have not been used more is that they are controversial, though there are also many governmental and academic proponents of this approach. Private industry, for various reasons, tends to take the opposite approach. A recent study of food retailer practices reveals that retailers are more likely to provide price promotions—that is, incentives—for unhealthy products and larger-sized packages.

A handful of studies on the use of incentives to engender healthier eating have been conducted. Using financial incentives to change the relative prices of healthy and unhealthy products does not lead to markedly different purchase decisions, though low-income households respond to a healthy food subsidy by increasing their purchases of both healthy and unhealthy products, corroborating food choices made by shoppers in an on-line supermarket. In a high-poverty neighborhood in Chicago, shoppers were offered a $1 incentive to purchase at least five cups of fresh produce per shopping trip or were given information on preparing fresh produce. Though information had little impact, the incentive doubled purchases during and after the study period. The structure of this incentive program may have resulted in greater success by presenting a clear relationship from the action required to the incentive. Participants had a clear, easy-to-remember path to earn the incentive, whereas taxes or incentives that are widely applied to thousands of food products across a grocery store may go unnoticed.

Point-of-Purchase Behavioral Economic Interventions

Behavioral economic techniques, which combine insights from psychology and economics in models of choice, have been widely and successfully employed to improve schoolchildren's food consumption. Many of these behavioral economics interventions are intended to influence, or *nudge*, individuals to make healthier choices at a subconscious level. Behavioral economics interventions have nearly always been evaluated at the population level, rather than investigating whether priority individuals or subpopulations—those who would benefit most from behavior change—respond to the intervention.

While many of the strategies targeting obesogenic factors have not yielded the results that policymakers and researchers anticipated, evidence from related, experimental or survey-based literatures suggests ways to make interventions more effective. Research on the presentation of nutrition information suggests that strategies that provide context or increase the ease of interpreting nutritional information; that draw individuals' attention to the important relationship between diet and health; or that increase the salience of health messages by discussing them in the context of one's social environment may be more motivating than objective information, increased access, or taxes/subsidies alone. A commonality among these enhanced strategies is that they are designed to actively draw individuals' attention to the health trade-offs inherent in food choice at the point that the consumer is making their food purchase decision that may not be considered under normal shopping circumstances. Efforts that provide timely, easily interpretable information and prompts to consider the importance of health when making food choices may provide a way to increase the health of the U.S. population.

Further Reading:

1. Cawley, J. An economy of scales: A selective review of obesity's economic causes, consequences, and solutions. Journal of Health Economics. 2015 Sep;43:244–68.
2. Cawley, J., A. S. Hanks, D. R. Just, B. Wansink. Incentivizing Nutritious Diets: A Field Experiment of Relative Price Changes and How They are Framed. National Bureau of Economic Research; 2016. Available from: *http://www.nber.org/papers/w21929*
3. Hanks, A. S., D. R. Just, B. Wansink. Smarter lunchrooms can address new school lunchroom guidelines and childhood obesity. Journal of Pediatrics; 2013 Apr;162(4):867–9 .
4. Powell, L. M., S. K. Kumanyika, Z. Isgor, L. Rimkus, S. N. Zenk, F. J. Chaloupka. Price promotions for food and beverage products in a nationwide sample of food stores. Preventive Medicine. 2016 May;86:106–13.

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