

# Nutrition & WIC Update

KANSAS NUTRITION AND WIC SERVICES



## Study Shows Mothers' Weight Before Pregnancy Impacts Children

Children's Nutrition Research Center, Baylor College of Medicine

Children of mothers who were overweight or obese at the time of conception have a greater chance of being overweight or obese themselves during childhood, according to a recent study by a researcher at the USDA/ARS Children's Nutrition Research Center (CNRC) at Baylor College of Medicine and her colleagues. The study appeared in the journal *Pediatric Diabetes*. Participants underwent measurement of height and weight, and evaluation of body composition, abdominal fat distribution, blood pressure, fasting lipids and an oral glucose tolerance test.

"Our study aimed to evaluate the relationship of maternal pre-pregnancy body mass index (BMI) to the BMI, body composition and cardiometabolic characteristics of the offspring in childhood," said Dr. Fida Bacha, associate professor of pediatrics at the CNRC.

The study showed that children of mothers who were overweight or obese at the time of conception have a greater tendency to be overweight/obese with increased total body fat and abdominal fat, compared to children born to normal weight mothers. The children of overweight/obese mothers also showed evidence of insulin resistance – a risk factor for diabetes and cardiovascular disease – and an adverse lipid and inflammation profile, which increases the risk for cardiovascular disease. These differences occurred despite similar birth weight and gestational age and were independent of ethnic differences of the study participants.

"These findings highlight the importance of maternal nutrition even before conception as a contributing factor for excess adiposity and cardiometabolic disease risk in the offspring during later childhood," Bacha said. "The contribution of environmental/societal factors vs. epigenetic transmission of risk factors to these findings need to be evaluated in future studies. These studies are needed to formulate effective strategies to better manage childhood obesity."

Others who were involved in the study were Hong Chang Tan and Roman Shypailo of the CNRC, James Roberts and Janet Catov of the University of Pittsburgh, and Ramkumar Krishnamurthy of Baylor and Texas Children's Hospital. The work was supported by the National Institutes of Health, the USDA/ARS and the Children's Hospital of Pittsburgh Foundation.

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# What Do You Know About the Grocery Business?

Valerie Merrow, State WIC Vendor Manager

Did you know that the average grocery store owner only makes a 1 to 3 percent profit margin? Yes, that's correct! If you researched this subject you'd find that most articles/research reports a grocery store owner could expect a 1.3 to 3.1 percent profit margin in 2013 (more recent national data is not yet available.) Research suggests the profit margin goes up to 3.2 to 6 percent for organic and specialty type grocery stores, but those are not WIC authorized. It is suggested for large box stores, there is a 2.5 percent average profit margin, but for the mom and pop stores, the margins are much smaller and closer to a 1 percent profit margin.



Most locally owned, small mom and pop grocery stores are in the business because they have a sense of community and want to provide healthy foods to their children, neighbors and friends. Or the store has been in the family for generations, "that's just what we've always done." All grocery store owners try to find the right combination of goods to order (stock), so their local community will shop in their store; how to make sure their stock does not go out of date before it's sold as they cannot buy in the quantities the larger stores can buy; how to compete with the larger stores who can offer better pricing and wider variety of items the customer can purchase; and how to maintain the business aspect including distributors, banking, government food programs and staffing, plus other 'doing business' needs.

So why is there anyone willing to go into the grocery business if it's not to make a profit? According to an article in the Houston Chronicle, its estimated the average, large supermarket, with 45,000 square feet will bring in approximately \$14 million a year. The industry as a whole earns about \$400 billion yearly. However, according to the same article, the supermarket business is not prospering. Only about 40 percent of American food is bought at a typical supermarket grocery store, and that is falling slowly and it is expected to decrease even more, requiring that stores diversify their services to include salad bars, video rentals and gas points. Recent data showed a steady increase in sales at stores that offered gas points. Loyalty cards are not only allowing the bigger stores to offer coupons and discounts on food and gas, but it's allowing them to track where you shop, what you shop for, how often you shop for it, all in an effort to keep you shopping at their store.

## How Much of Your Personal Budget Goes to Food?

According to 2014 data from the U.S. Bureau of Economic Analysis for the state of Kansas (2015 is not available yet) we spend on average 10.5 percent of our income on food. Below is a table from the 2014 data of personal income and personal consumption expenditures in Kansas.

Per Capita: Personal Income and Personal Consumption Expenditures	
Kansas	
2014	
Category	Amount
Per Capita Personal Income	\$44,891
Expenditure: Food and beverages purchased for off-premises consumption	\$2,802
Percent of Food and beverages purchased for off-premise consumption as part of per capita income	6.2%
Expenditure: Food services and accommodations	\$1,917
Percent of Food services and accommodations as part of per capita personal income	4.3%
Percent of food/beverages purchased for off-premise consumption and food services/accommodations as part of personal income	10.5%

Source: Kansas Department of Labor, Labor Market Information Services, U.S. Bureau of Economic Analysis

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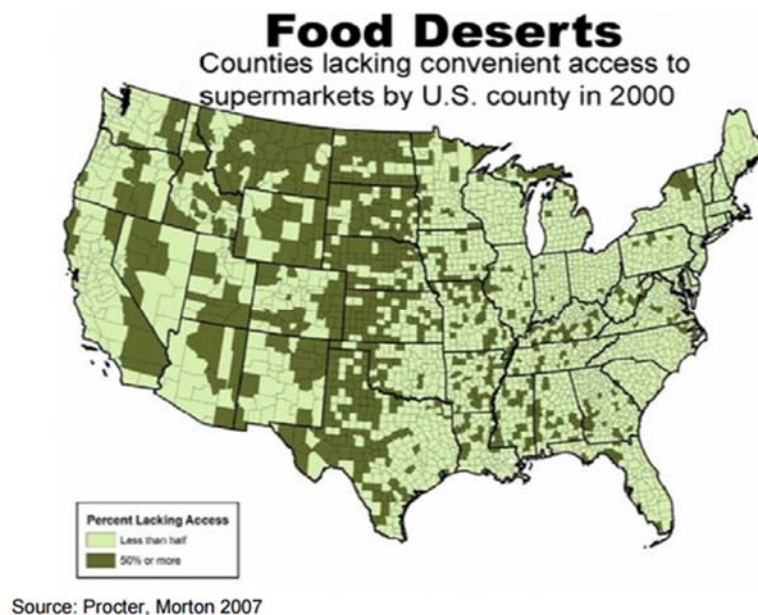
## What do you know about the grocery business (Continued)

Regardless if we're a WIC client or not, it's good for all of us to know what percentage of our cost of living is spent on food. An article by Lynn Carpenter on her Cost of Living- Real Basket of Goods compares the cost of several ordinary food items over the decades. Her weekend meal basket included "one loaf of bread, one pound of coffee, one dozen eggs, three pounds of mid-price beef, one box of Corn Flakes or Cheerios, five pounds of potatoes and one Hershey bar."

All the products she compared were for a weekend of meals, excluding fruits and vegetables, and the products were store brands except the boxes of Corn Flakes, Cheerios and Hershey bar. In this article she determined that over the years a minimum wage earner would have to work 9.25 hours in 1938 to buy this food. The amount slowly decreased over the years, then spiked to 5.5 hours in 1981, decreased again to 4 hours, then slowly increased and was back up to 5.5 hours as of August 17, 2011. I was unable to find anything newer, but knowing my own pocket book, I can only imagine where we are now!

Why does this matter to WIC?

WIC is a government funded program that provides nutritious foods and education to those who are at nutritional risk, ultimately providing improved health to themselves and their communities. Most grocery stores who become WIC authorized do not see WIC as a money maker, but as a community service that will provide an additional source of revenue that helps them stay in business. The chart below from 2000 shows the locations of food deserts across the country. With current trends, many customers are trying to save money and there is also less population growth so it's going to get tighter for stores.



The grocery store business is tough and the bottom line is without a grocery store the client would not be able to redeem benefits. Please extend a thank you to your vendors, show them they matter and let clients know that they should bring their booklets to make the process easy for both themselves and the cashier. Remember it may be a new cashier, and whatever the clients do they should show respect to those working at the store.

# Suspected WIC Foods on Social Media – What To Do?

Lisa Long, WIC Program Consultant



The most frequent fraud and program abuse concern involves suspected WIC foods being sold on social media. The following guidelines have been developed to assist local agency staff in addressing this situation:

- Obtain copies of and review the information that was gathered from the social media site.
- Review the food package list and compare it to what was posted on social media. Are there similarities?
- Obtain a copy of the signed Rights and Responsibilities, highlighting the section related to selling, trading or giving away WIC foods.
- It may be helpful to obtain a copy of a redeemed check (your management evaluation team can help you with this).
- Review this information with the client. This is best handled face-to-face, but can be done over the phone as a last resort.

It is critically important to talk with the client/caregiver prior to issuing any type of warning or sanction letter. We want to ensure the client/caregiver has an opportunity to provide information and clarification. Some may think this would be a difficult conversation to have, but it doesn't need to be confrontational. Simply review the information collected and ask, "what can you tell me about this?" as a way to start the conversation. Ask the client/caregiver if there needs to be an adjustment to their food package – maybe they have excess food and aren't quite sure what to do with it. The conversation may also produce information that will impact whether a sanction is issued.

How will we know if these are WIC foods?

- Unfortunately, this is difficult to prove and typically requires an admission by the participant.
- If it is learned that the foods being sold are WIC foods, inform the client/caregiver that we are obligated to issue a sanction.
- If it cannot be determined that the foods being sold are WIC foods, a warning letter may be issued.

Next steps:

- Consult with SA Program Integrity Consultant (Lisa Long at [llong@kdheks.gov](mailto:llong@kdheks.gov)) to determine appropriate sanctions.
- Open and close a complaint in KWIC and document the situation in a note in KWIC.
- Document in the local agency sanctions file. The sanctions file is referenced in [PRI 02.00.00](#) Program Abuse and Sanctions, and was put in place following the USDA 2015 Management Evaluation. The state agency also maintains a sanctions file for those situations that come to the attention of the state agency.

Tracking and addressing potential cases of fraud and abuse can sometimes seem complicated and time consuming, but it's an important way to help maintain the integrity of our program.

# Some Do's and Don'ts to Help Make Mealtime More Pleasant with Young Children

Julie Ornelas, RD, LD

When I watch my daughter and granddaughter at mealtimes, I guess my daughter did learn some things I tried to do with my children. As a dietitian I already knew about Ellyn Satter's Division of Responsibility, which did make our family meals much more pleasant. It took the pressure off of me as the parent and gave my children the choice of whether they wanted to eat some, all or nothing at mealtimes. Yes, I said nothing.

Surprisingly, my own grandfather, back in the 60's had a saying, "If they don't eat it, that's ok. They will be hungry when it's time for the next meal, and then it will taste pretty good."

So, here are some Do's and Don'ts to help make mealtimes more pleasant.

**Do** have regular meals and snacks. Three meals and two snacks are ideal. Especially if you have the meals and snacks at the same time every day.

**Don't** allow daylong grazing.

**Do** have the whole family sit down to eat meals together whenever possible. Research abounds on the benefits of family meals.

**Don't** force food or make a child sit at the table until they finish their food. This can make children dislike a food and eating in general.

**Do** serve everyone the same foods.

**Don't** offer rewards or bribes to children if they eat/finish their food.

**Do** give some choices, if possible. Do you want Chex or Cheerios this morning? Do you want an apple or orange for snack?

**Don't** ask "what do you want to eat?" This is overwhelming and you may get a request for something you don't have or don't have time to prepare.

**Do** be a good role model. If your children are drinking milk for a meal, it will help if you drink milk too. Unless you have an allergy to milk. If you are lactose intolerant, drink lactose free milk.

**Don't** have distractions during the meal. Turn the TV off, don't allow cell phones during meals.

**Do** have fun! Young children love to make rhyming words or learn the colors of foods or talk about where the food came from. And at a meal they can have your undivided attention.

For more information, check out Ellyn Satter's website at: <http://www.ellynsatterinstitute.org/>



# A Few Things to Know About Infant Formula

Martha Hagen, MS, RD, LD, IBCLC



- Powdered formula is not sterile so clients should be taught how to prepare it properly. The handout, [“Safe Infant Formula Preparation”](#) is available on the [Kansas WIC website](#). Recently an infant was having problems because his mother was mixing 3 ounce bottles of formula which would require 1 ½ scoops of powder but she was not measuring accurately – it is difficult to measure a ½ scoop and she was using too much powder. Stress the importance of accurate measurements and here’s a hint from Cherokee County WIC. Clients can make an 8 ounce bottle of formula, place it in the refrigerator and then just measure out 3 ounces. The formula should be warmed by placing in a bowl of warm water or holding under warm running water.
- If children are placed on a special formula such as PediaSure or EO28 Splash etc., be sure to reduce the milk in the food package. No child needs a supply of PediaSure and then a full package of milk – they should not be drinking that much fluid. Providing a gallon of milk spread out through the month would be appropriate for cooking.
- Human Milk Fortifier – there have been many requests lately for this product. HMF is being direct shipped, as it is difficult to obtain through a vendor, so please call the SA (Martha at 785-291-3161 if you can catch her) with the request. See the [direct shipment policy](#) for the information needed to place the order.
- There have been some questions about using soy formula for male infants. Several large studies have shown that the amount of soy protein obtained from infant soy formula is not large enough to cause hormonal effects in male infants. It is suggested that infants try lactose free formulas before moving to soy. Studies have also shown that infants who are allergic to milk based formulas are also allergic to soy based formulas and may need a hydrolyzed protein formula. Changing to soy formula for “colicky discomfort” is not recommended.
- The [WIC Formula Database](#) provides information about infant and specialty formulas. If a formula is not listed in this database, the Kansas WIC Program cannot provide it. The only standard milk based and soy infant formulas that can be provided, are those provided through the WSCA contract. The contract for the milk based formula (Similac Advanced, Sensitive for Fussiness & Gas, Sensitive for Spit Up, and Total Comfort) is through September 2017. The contract for the soy based formula (Gerber Good Start Soy) is through September 2018.



## Abstract of Interest

### Features in Grocery Stores that Motivate Shoppers to Buy Healthier Foods, ConsumerStyles 2014

Moore, LV, Pinard, CA, Yaroch, AL [J Community Health](#), 2016 Jan 30

The authors examined nine features in grocery stores shoppers reported motivated them to purchase more healthful foods in the past months. Features were compiled from common supermarket practices for each of the 4 P's of marketing: pricing, placement, promotion and product. They examined percentages of the features overall and by shopping frequency using Chi square tests from a 2014 cross sectional web-based health attitudes and behaviors survey, ConsumerStyles. Participants were part of a market research consumer panel that were randomly recruited using address-based sampling methods to achieve a sample representative of the U.S.

Data from 4,242 adults ages 18 and older were analyzed. About 44 percent of respondents indicated at least one feature motivated them to purchase more healthful foods. Top choices included in-store coupons or specials (20.1%), availability of convenient, ready-to-eat more healthful foods (18.8%), product labels or advertising on packages (15.2%), and labels or signs on shelves that highlighted more healthful options (14.6%). Frequent shoppers reported being motivated to purchase more healthful foods by in-store tastings/recipe demonstrations and coupons/specials more often than infrequent shoppers. Enhancing the visibility and appeal of more healthful food items in grocery stores may help improve dietary choices in some populations but additional research is needed to identify the most effective strategies for interventions.

## Check This Out!



### Obesity in Latino Children, from Salud America!

Salud America! has released a new [2016 Healthy Weight Research Review, Issue Brief and Infographic](#) on achieving a healthy weight by kindergarten for Latino kids. The report highlights breastfeeding as an important measure for obesity prevention and calls on policymakers to expand and enforce state and federal policies promoting breastfeeding in hospitals, childcare centers, workplaces and public settings to promote breastfeeding initiation and duration.

*Published by the Kansas Department of Health and Environment (KDHE). Sam Brownback, Governor. Susan Mosier, MD, Secretary. Managing Editor: Julie Ornelas. Reprinting of articles should credit KDHE. USDA is an equal opportunity provider and employer. If you feel you have been discriminated against because of race, color, national origin, sex, age or disability, write to the Secretary of Agriculture, USDA, Washington, DC.*