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Research Question:

What are the advantages of food prepared on site over prepacked items in school lunches?

Rationale:

The food guidelines established by the Obama Administration cut back on salt, sugar and fat but we can do better. The healthy components of meals provided by the school are compromised by the preservatives and packaging. Another barrier to providing adequate nutrition is that kids are throwing away a large portion of what they are given without ever opening the wrappers, leaving them hungry for the rest of the day or supplementing their daily intake with chips and other junk foods.

Essentially, the students in title one districts have parents relying on the free and reduced lunches provided by the schools but the students are still not getting their nutritional needs met, becoming obese and developing other health issues. Every teacher is taught about Maslow's hierarchy and knows that students must be fed so that they are able to concentrate and learn but it is time for us all to question what we are feeding them.

Literature Review:

McCarthy (2020) discusses the chemicals used in packaging prepared food and their effects on adolescent development – both cognitive and physical.

Trasande (2018) reports a myriad of health issues caused by the addition of food colorings and stabilizers added to processed foods and their packaging. It explains the gaps in policy that allow for these substances to be allowed by the FDA and lists recommendations for governmental agencies, pediatricians and the FDA.

Muncke (2009) Examines the significance of endocrine disrupting compounds in packaging materials.

Russo (2019) focusses on the issues associated with the presence of Bisphenol A in the packaging of foods in Europe.

Wojcicki (2011) investigates how making changes to the food that is offered to students can affect their consumption levels and participation in the lunch program. The authors look at how changing the food that's offered to students and providing fresher and more colorful choices results in students making healthier choices.

Data Collection/Tools:

I interviewed 15 teachers from three different schools, parents from 10 different families and three cafeteria managers to find out what they thought about the food and how effective it was at providing nutrition. All of the interviewees were connected to title one schools and referring to the lunches served there. The grade levels they represent varied from K-12 and they reported 15-60% of the lunches served being disposed of, with many items being thrown away without being opened. The teachers and parents who observed K-5 students reported the highest amount of waste at 60% of each lunch being disposed of. The cafeteria managers all reported that their kitchens are equipped with the appliances necessary to prepare large batches of fresh foods but that everything that goes through their kitchen is prepackaged, including bags of precut vegetables.

Analysis and Findings:

The shared intent of the school lunch program, nutrition guidelines and the staff associated with preparing and distributing the food is to provide balanced meals and nourishment to all students. Food is selected based on the listed ingredients and dietary information and prepared according to the directions on the packaging. It is ensured that each meal has protein, fruits and vegetables, dairy and low fat carbohydrates while avoiding the most common food allergens so that all the children can participate and benefit from the lunch program. On the surface, this plan is wonderful.

Unfortunately, much of the food goes uneaten and the food that is consumed comes to the schools prepackaged and processed. Even the fresh vegetables are precut and packaged in plastic before they arrive on site to be distributed to individuals. Often, the food is heated in the disposable containers it was delivered in or frozen in disposable containers to prolong the shelf life.

Many ingredients are listed innocuously as natural flavors and colors and others unintentionally leech into the food from the packaging materials. The effects some of these have on adolescent development are detrimental. Bisphenols, phthalates, and perfluoroalkyl chemicals affect hormones and can interfere with everything from puberty and fertility to genital development. Artificial food colors aggravate Attention Deficit Hyperactivity Disorder (ADHD) and magnify symptoms and behaviors. Nitrites, nitrates and perchlorates interfere with thyroid function. These chemicals reduce static in dry packaged foods, preserve food or enhance its color, line cartons and cans or make grease-proof paper and cardboard packaging but between the ones on this short list, they also disrupt brain development, increase obesity and cardiovascular disease, lead to low birthweight babies, reduce the blood's ability to deliver oxygen and increase the risk of certain cancers. This is just a short list of the chemicals that affect processed foods.

The Food and Drug Administration (FDA) allows over 10,000 chemicals to be added to foods and food contact materials and children are more susceptible to their effects than adults because their metabolic systems are still developing, their organs are changing and they eat more in relation to their own weight than adults do. The amount of chemical leaching from wrappers is increased when food is heated in the packaging, which has been the most common way of preparing hot foods in schools for the last year.

The American Association of Pediatrics (AAP) acknowledges that the additional chemicals that get into our foods are a problem that can be lessened by avoiding processed meats, using alternatives to plastic such as glass or stainless steel, not heating foods in plastic and prioritizing fresh or frozen fruits and vegetables.

Conclusion:

The AAP's recommendations can be followed in school cafeterias and the school employees I spoke to said they would prefer to cook foods from more basic ingredients. If schools truly are preparation for participation in society as an adult, we should set the expectation of healthy foods that do not cause additional health problems and have foods that are prepared onsite. It has been shown in multiple districts that offering a colorful selection of fresh vegetables gets students to consume more of them. We should have salad bars and foods made from basic ingredients to offer the students.

Bibliography:

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