bipolar disorder (Figure). Similarly, we observed considerable hospital-level variation, with appendectomy showing the least variation and bipolar disorder showing the greatest variation in direct admission rates. In models adjusting for patient and hospital characteristics and disease severity, direct admissions were associated with 5% to 31% lower costs than ED admissions.

Discussion | Direct admissions represent approximately 1 in 4 unscheduled pediatric hospitalizations nationally, with characteristics of children admitted directly aligning with those more likely to have a medical home, including white race/ethnicity and private health insurance coverage. The substantial variation in direct admission practices across hospitals and conditions may be influenced by disparities in access to timely outpatient care as well as differences in hospitals' and referring physicians' capacities to facilitate admissions without ED involvement.

While the differences in costs between direct and ED admissions were striking, we acknowledge that our findings may have been influenced by residual confounding and we were unable to draw definitive conclusions about quality, safety, and effectiveness. In addition, direct admission points of origin were not reflected in these analyses. Nevertheless, our results suggest that increasing access to direction admissions may be a means to reduce ED volumes and health care costs. To accomplish this, research is needed to better understand key stakeholders' admission preferences, the drivers of these cost differences, and conditions and procedures best suited for this admission approach.

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Conflict of Interest Disclosures: None reported.

Funding/Support: This study was supported by the Charlton Grant Research Program at Tufts University School of Medicine. Dr Lagu is supported by award KO1HL114745 from the National Heart, Lung, and Blood Institute of the National Institutes of Health.

Role of the Funder/Sponsor: The funders had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.


Trends in Energy Intakes by Type of Fast Food Restaurant Among US Children From 2003 to 2010
The percentage of energy from fast foods consumed by US adults declined from 12.8% in 2007 to 2008 to 11.3% in 2009 to 2010. Other than analyses of menu offerings, there are no comparable data on fast food consumption by children. While sources of energy by food groups and sources have previously been evaluated, to our knowledge, no study has evaluated trends in energy by fast food restaurant (FFR) type. This study used data from the National Health and Nutrition Examination Survey to analyze trends in children's energy consumption by FFR type.

Methods | Data on the locations of origin for all foods/beverages including FFRs in the National Health and Nutrition Examination Survey were first collected in 2003 to 2004. The present analyses were based on the first 24-hour recall from 4 cycles from 2003 to 2010.

Per University of Washington policies, the use of publicly available data was not considered human participant research. Participants or their parent/guardian provided written informed consent and all procedures were approved by the National Center for Health Statistics Research Ethics Review Board.

A multistep algorithm was developed to assign FFR eating occasions into 8 segments by the following restaurant type: burger, pizza, sandwich, chicken, Mexican cuisine, Asian cuisine, coffee/snack, or fish. Data on the latter 3 FFR types were not presented owing to their infrequent use by children. The dietary recall data were scanned for 1 of 26 sentinel foods characteristic of each FFR segment (eg, hamburger/pizza). Eating events with multiple sentinel foods were flagged for additional scrutiny.

Details of the algorithm have been published.
Figure 1. Trends in the Estimated Population Mean Energy Intake (A) and Proportion of US Children Consuming Any Food/Beverage (B) by Fast Food Restaurant Market Segment Among US Children Aged 4 to 19 Years in 2003 to 2010

A  Estimated population mean energy intake

B  Proportion of US children consuming any food/beverage

Figure 2. Trends in Estimated Median Energy Consumed per Eating Occasion by Fast Food Restaurant Market Segment Among US Children Aged 4 to 19 Years in 2003 to 2010
The survey-weighted arithmetic means of energy intakes were estimated by FFR type. Trends were tested using survey-weighted linear regression. The proportions of children who were FFR consumers were evaluated using survey-weighted logistic regression. Amounts of energy consumed per FFR eating occasion defined by meal name and time were evaluated to distinguish between the number of FFR eating events and the amount of energy consumed. All analyses used Stata 13 (StataCorp), accounted for the complex survey design, and were representative of the US population 4 to 19 years of age.

Results | Panel A in Figure 1 shows population-wide trends in children’s mean energy intakes by FFR type. Energy intakes from burger, pizza, and chicken FFRs decreased significantly while energy intakes from other FFRs remained constant (P > .15 for others). Panel B in Figure 1 shows that the percentage of children consuming fast food on a given day dropped from 38.8% in 2003 to 2004 to 32.6% in 2009 to 2010 (P = .008). The proportion of children eating at burger restaurants remained stable (P = .35) and a modest drop was observed for chicken restaurants (P = .01). The observed decrease in energy from pizza restaurants may have been driven in part by a decrease in the number of consumers. While 12.2% of children obtained food/beverages from pizza restaurants in 2003 to 2004, only 6.4% did so in 2009 to 2010. The percentage consuming the other FFR types remained constant (P ≥ .29). Median energy consumption per eating occasion declined (Figure 2) except for chicken and sandwich FFRs.

Discussion | Analyses of nationally representative data by FFR type compared with menus can provide insights into the contribution of fast foods to children’s diets. Publicly available data can complement data obtained from consumer panels, which are costly, inaccessible to many public health stakeholders, and may not be representative of the US population, limiting their value to inform policy. The present results were consistent with published sales reports. The decline in total pizza sales from 2003 to 2010 has been noted by industry sources.1 Burger and pizza restaurants accounted for much of the reduction in energy intakes. No fast food market segment experienced a significant increase in energy during the 8-year study. Analyses of population-based National Health and Nutrition Examination Survey dietary intakes data separated by FFR market segment should allow researchers to focus on children and other populations and can also be extended to monitor consumption for other dietary constituents of concern, including sodium, added sugars, and solid fats.

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Study concept and design: Both authors. Acquisition, analysis, or interpretation of data: Both authors. Drafting of the manuscript: Both authors. Critical revision of the manuscript for important intellectual content: Both authors. Statistical analysis: Rehm. Obtained funding: Drewnowski. Administrative, technical, or material support: Drewnowski. Study supervision: Drewnowski.

Conflict of Interest Disclosures: Dr Drewnowski advises McDonald’s Corporation on global issues related to public health nutrition. No other disclosures were reported.

Funding/Support: This study was funded by a research grant from McDonald’s Corporation to the University of Washington. The University of Washington has received grants, donations, and contracts from both the public and the private sector.

Role of the Funder/Sponsor: The funder had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.


COMMENT & RESPONSE

Placebo Effects in Infants, Toddlers, and Parents

To the Editor Paul and colleagues1 studied 120 infants and toddlers aged 2 to 47 months with acute cough. Infants and toddlers were randomized to pasteurized agave nectar mixed with natural grape flavoring and other bulking agents, natural grape-flavored water with caramel color (placebo), and a no treatment group.1 Significant symptom improvements were found for the agave nectar and placebo groups compared with the no treatment group, with no significant differences for any outcome between the agave nectar and placebo groups.1

The study was designed with dose volume stratified by age, randomization performed by a statistician not affiliated with the study, and investigator blinding maintained, giving each study participant an opaque syringe filled with agave nectar, placebo, or no treatment. Although the lack of treatment in 1 of 3 groups can be viewed as a source of parental disappointment and assessment bias, the no treatment group permitted the detection of a true placebo effect excluding clinical changes owing to the natural history of the child’s acute illness.

Parents were asked to report symptom improvements through a set of specific questions raising the question of whether the placebo effect was on the child, parent, or both. Parental reports can be flawed and in conflict with physicians’ reports and their expectations can interfere with perception of subjective outcomes. Placebos and otherwise...