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. 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.

JoAnna K. Leyenaar, MD, MPH, MSc
Meng-Shiou Shieh, PhD
Tara Lagu, MD, MPH
Penelope S. Pekow, PhD
Peter K. Lindenauer, MD, MSc

Author Affiliations: Division of Pediatric Hospital Medicine, Department of Pediatrics, Tufts Medical Center, Boston, Massachusetts (Leyenaar); Center for Quality of Care Research, Baystate Medical Center, Springfield, Massachusetts (Shieh, Lagu, Pekow, Lindenauer); Department of Medicine, Tufts Medical Center, Boston, Massachusetts (Lagu, Lindenaer); Division of General Medicine, Baystate Medical Center, Springfield, Massachusetts (Lagu, Lindenaer); School of Public Health and Health Sciences, University of Massachusetts, Amherst (Pekow).

Corresponding Author: JoAnna K. Leyenaar, MD, MPH, MSc, Division of Pediatric Hospital Medicine, Department of Pediatrics, Tufts Medical Center, 800 Washington St, Boston, MA 02111 (jleyenaar@post.harvard.edu).


Author Contributions: Dr Shieh had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: Leyenaar, Lagu, Lindenaer.

Acquisition, analysis, or interpretation of data: Leyenaar, Shieh, Pekow, Lindenaer.

Drafting of the manuscript: Leyenaar.

Critical revision of the manuscript for important intellectual content: All authors.

Statistical analysis: Shieh, Pekow.

Obtained funding: Leyenaar.

Administrative, technical, or material support: Lagu, Lindenaer.

Study supervision: Lagu, Pekow, Lindenaer.

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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. 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.

Colin D. Rehm, PhD, MPH
Adam Drewnowski, PhD

Author Affiliations: Center for Public Health Nutrition, Department of Epidemiology, University of Washington, Seattle.

Corresponding Author: Colin D. Rehm, PhD, MPH, Center for Public Health Nutrition, Department of Epidemiology, University of Washington, PO Box 353410, Seattle, WA 98195 (crehm@uw.edu).


Author Contributions: Dr Rehm had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: Both authors.
Acquisition, analysis, or interpretation of data: Both authors.
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Statistical analysis: Rehm.
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Study supervision: Drewnowski.

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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

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