Methods | Administered by the National Center for Health Statistics, the National Ambulatory Medical Care Survey (NAMCS) samples office visits with physicians to create nationally representative estimates of outpatient care (n = 473 132 visits from 2001 to 2013). We identified visits to specialist physicians and divided these into surgical and medical specialist physicians. We first examined unadjusted trends from 2001 to 2013 in the percentage of visits with NP or PA involvement (ie, an NP or PA saw the patient with a physician or an NP or PA saw the patient without a physician), using multiyear intervals owing to sample size. We then examined visit characteristics associated with higher likelihood of NP or PA involvement in recent years (2010-2013), using a logistic regression model controlling for all listed visit and patient characteristics (**Table**) to generate adjusted percentages. The University of Pittsburgh Human Research Protection Office judged this study exempt from review.

Results | Among visits to surgical and medical specialist physicians, the proportion involving an NP or PA increased from 3.3% in 2001 to 2003 to 6.9% in 2010 to 2013 (P = .001) and 2.4% to 5.8% (P < .001), respectively (**Figure**, A). Similar growth in NP or PA visits was observed for new and return visits (Figure, B) and for all visit reasons (ie, acute problem, routine chronic, perioperative) (Figure, C). Among visits with NPs or PAs, the proportion of visits where the patient did not also see a physician increased from 12.3% to 21.4% (P = .004).

Adjusting for other visit and patient factors, the proportion of 2010-2013 visits involving an NP or PA varied significantly by visit reason (4.9% of routine chronic visits vs 9.3% of presurgical and postsurgical visits; P = .004 for category), patient comorbidity (10.6% of visits among patients with ≥4 chronic conditions vs 5.6% with no chronic conditions; P = .001 for category), and region (4% of visits in the Midwest vs 9.6% in the Northeast; P < .001 for category) (Table). The adjusted proportion of 2010-2013 visits involving an NP or PA ranged from 4.0% to 8.5% across specific specialties identified in the Table (P = .86).

Discussion | Involvement of NPs and PAs in the care of patients of specialist physicians increased over the past decade, but growth slowed in recent years, and visits involving NPs or PAs remain a small proportion of overall specialty visits. Contrary to our hypothesis, growth was observed in unadjusted analysis not only for return and routine visits, but also for new patients and acute visits. Rates of NPs or PAs seeing patients without a physician also seeing the patient increased. In adjusted analysis, NPs or PAs were disproportionately involved in care of patients with greater medical complexity, requiring further work to understand if this reflects team-based care, coding artifact, or other explanations. These findings are particularly notable given that NPs and PAs in specialty care receive shorter formal training than specialist physicians, with specialty-specific training entirely on-the-job in some fields.

Our study is limited in that NAMCS samples visits to nonfederal office-based physicians and reflects only care that occurs among NPs and PAs sharing rosters with physicians. As such, our results may underestimate total involvement of NPs and PAs in specialty care but should accurately reflect trends in NPs and PAs providing care in conjunction with specialist physicians. Our findings have implications for the specialty workforce, and the impact on access to specialty care and its quality should be evaluated.

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Accepted for Publication: March 22, 2017.

Published Online: June 5, 2017. doi:10.1001/jamainternmed.2017.1630

Author Contributions: Drs Ray and Barnett had full access to all the data in the study and take responsibility for the integrity and the accuracy of the data analysis.
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Conflict of Interest Disclosures: None reported.

Funding/Support: This study was supported in part by a grant to Dr Ray from the Agency for Healthcare Research and Quality (K12HS022989).

Role of the Funder/Sponsor: The funding source 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.

Disclaimer: The content is solely the responsibility of the authors and does not necessarily represent the official views of the funders.

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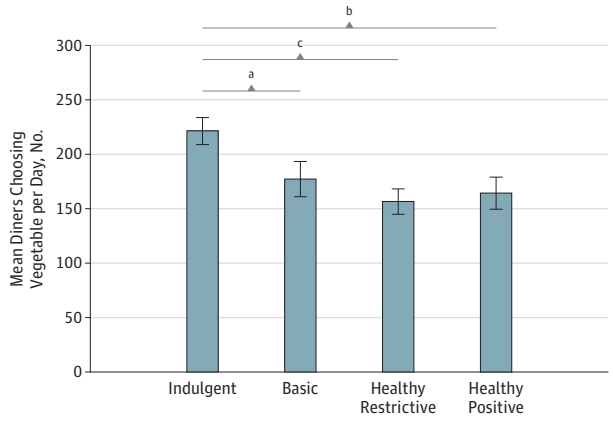
Association Between Indulgent Descriptions and Vegetable Consumption: Twisted Carrots and Dynamite Beets

In response to increasing rates of obesity, many dining establishments have focused on promoting the health properties and benefits of nutritious foods to encourage people to choose healthier options.[1] Ironically however, health-focused label-

Table. Example Vegetable Descriptions by Condition

Indulgent	Basic	Healthy Restrictive	Healthy Positive
Dynamite chili and tangy lime-seasoned beets	Beets	Lighter-choice beets with no added sugar	High-antioxidant beets
Rich buttery roasted sweet corn	Corn	Reduced-sodium corn	Vitamin-rich corn
Sweet sizzlin' green beans and crispy shallots	Green beans	Light 'n' low-carb green beans and shallots	Healthy energy-boosting green beans and shallots
Zesty ginger-turmeric sweet potatoes	Sweet potatoes	Cholesterol-free sweet potatoes	Wholesome sweet potato superfood
Twisted garlic-ginger butternut squash wedges	Butternut squash	Butternut squash with no added sugar	Antioxidant-rich butternut squash
Slow-roasted caramelized zucchini bites	Zucchini	Lighter-choice zucchini	Nutritious green zucchini
Tangy ginger bok choy and banzai shiitake mushrooms	Bok choy and mushrooms	Low-sodium bok choy and mushrooms	Wholesome bok choy and mushrooms
Twisted citrus-glazed carrots	Carrots	Carrots with sugar-free citrus dressing	Smart-choice vitamin C citrus carrots

Figure. Diners per Day Choosing Vegetables by Condition



Bars represent mean number of diners choosing the vegetable per day by condition; error bars represent standard error. Two-tailed *t* tests were used for pairwise comparisons, and $P \leq .05$ were considered statistically significant. [a]$P < .05$; [b]$P < .01$; [c]$P < .001$.

ing of food may be counter-effective, as people rate foods that they perceive to be healthier as less tasty.[2] Healthy labeling is even associated with higher hunger hormone levels after consuming a meal compared with when the same meal is labeled indulgently.[3] How can we make healthy foods just as appealing as more classically indulgent and unhealthy foods? Because healthy foods are routinely labeled with fewer appealing descriptors than standard foods,[1] this study tested whether labeling vegetables with the flavorful, exciting, and indulgent descriptors typically reserved for less healthy foods could increase vegetable consumption.

Methods | The study was conducted in a large university cafeteria serving a mean (SD) 607 (52) diners per weekday lunch (52.5% undergraduate students, 32.5% graduate students, 15.1% staff/other). The Stanford University institutional review board approved this study and waived informed consent. Data were collected each weekday for the 2016 autumn academic quarter (n = 46 days). Each day, one featured vegetable was randomly labeled in 1 of 4 ways: basic, healthy restrictive, healthy positive, or indulgent (**Table**). No changes were made to how the vegetables were prepared or served. Each day research assistants discretely recorded the number of diners selecting the vegetable and weighed the mass of vegetables taken from the serving bowl. We predicted that vegetables labeled with indulgent descriptors would be chosen more than the same vegetables labeled with basic or healthy descriptors. Means were compared using analysis of variance.

Results | During the study period, 8279 of 27 933 total diners selected the vegetable (29.6%). Labeling had a significant effect on both the number of diners selecting the vegetable ($F_{3,42} = 2.83$; $P = .01$) and the mass of vegetables consumed ($F_{3,42} = 4.29$; $P = .05$). Pairwise comparisons (**Figure**) revealed that labeling vegetables indulgently resulted in 25% more people selecting the vegetable than in the basic condition (95% CI, 1%-49%; $P = .04$), 41% more people than in the healthy restrictive condition (95% CI, 18%-64%; $P = .001$), and 35% more people than in the healthy positive condition (95% CI, 10%-60%; $P = .01$). Similarly, labeling vegetables indulgently resulted in a 23% increase in mass of vegetables consumed compared with the basic condition (95% CI, 3%-43%; $P = .03$) and a 33% increase in mass of vegetables consumed compared with the healthy restrictive condition (95% CI, 11%-53%; $P = .004$), but a nonsignificant 16% increase in mass consumed compared with the healthy positive condition (95% CI, −5% to 36%; $P = .14$). There were no significant differences among the basic, healthy restrictive, and healthy positive conditions for either outcome ($P > .25$ for all).

Discussion | Labeling vegetables with indulgent descriptors significantly increased the number of people choosing vegetables and the total mass of vegetables consumed compared with basic or healthy descriptions, despite no changes in vegetable preparation. These results challenge existing solutions that aim to promote healthy eating by highlighting health properties or benefits and extend previous research that used other creative labeling strategies, such as using superhero characters, to promote vegetable consumption in children.[4,5] Our results represent a robust, applicable strategy for increasing vegetable consumption in adults: using the same indulgent, exciting, and delicious descriptors as more popular, albeit less healthy, foods. This novel, low-cost intervention could easily be implemented in cafeterias, restaurants, and consumer products to increase selection of healthier options. Though we were

unable to measure how much food was eaten by patrons individually, people generally eat 92% of self-served food, regardless of portion size and food type.[6] Further research should assess how well the effects generalize to other settings and explore the potential of indulgent labeling to help alleviate the pervasive cultural mindset that healthy foods are not tasty.[1-3]

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Accepted for Publication: March 27, 2017.

Published Online: June 12, 2017. doi:10.1001/jamainternmed.2017.1637

Author Contributions: Mr Turnwald 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: All authors.
Acquisition, analysis, or interpretation of data: Turnwald, Boles.
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Critical revision of the manuscript for important intellectual content: All authors.
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Conflict of Interest Disclosures: None reported.

Funding/Support: This material is based upon work supported by the Robert Wood Johnson Foundation and the National Science Foundation Graduate Research Fellowship Program (grant No. DGE-114747).

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.

Additional Contributions: We wish to acknowledge the Stanford Residential & Dining Enterprises team at Stanford University for assisting study design and implementation, particularly Jackie Bertoldo, MPH, RDN; Eric Montell, Executive Director; and Shirley J. Everett, EdD, MBA. We also thank research assistants Rina Horii, Katie Wolfteich, Inbar Kodesh, Felicia Schuessler, Cole Fiers, and Meg McNulty for assisting with data collection. None of the contributors received compensation for their work.

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Efficiency and Interpretability of Text Paging Communication for Medical Inpatients: A Mixed-Methods Analysis

Today, inpatient health care teams typically communicate via paging technology on dedicated, single-purpose devices despite the advancements in mobile communication technology. Text paging has been identified as inefficient and disruptive,[1,2] and even with implementation of novel technology, concerns about communication quality and safety persist.[3] We investigated text page message content and structure with particular focus on efficiency and safety.

Invited Commentary
page 1220

Box. Themes and Example Messages

Lack of standardization:
From: Nurse
To: Physician
Message: Advise: BP 160/109, T38.7 HR 120 92% PA. RR 27, Pain 6/10. Please call back. Thank you. [SENDER][EXT]
or
From: Nurse
To: Physician
Message: FYI bp 180/73. prn hydral given. temp 38.5 Low UO over last few hrs. Pt mentating the same, still pretty drowsy. 100% O2sat on RA. thanks

Urgency designation:
From: Nurse
To: Physician
Message: Advise; May I have a 24 h extension on patient's IV?
or
From: Nurse
To: Physician
Message: Advise: BP 160/109, T38.7 HR 120 92% PA. RR 27, Pain 6/10. Please call back. Thank you. [SENDER][EXT]

Gaps in communication[a]
From: Nurse
To: Physician
Message: FYI patient BP 165/76 (109) HR 88 irregular. Plan to recheck BP as he was sitting up breathing treatment. Can I give PO Hydralazine early [SENDER][EXT]

[a] Example of mixed-message correspondence known as "FYI with question," in which the sender includes a question after presenting pertinent information.

Methods | We used a mixed-methods approach to analyze the content of text page messages generated at an academic tertiary care hospital on an internal medicine service. We included electronic messages relating to care of specific patients that were sent or received by physicians, nurses, students, and ancillary staff using a web-based text paging system allowing bidirectional messaging to dedicated devices.

We sampled 3 blocks of 200 electronic messages and used an iterative coding and memo process to develop an analysis of message themes and attributes using a modified case study approach.[4] One investigator (A.L.) read, coded, and wrote memos based on sampled messages until reaching thematic saturation. Our team refined preliminary codes, and a second investigator (B.C.) used the codebook to code messages independently (unweighted Cohen κ score [$\kappa = 0.81$; $z = 64$; $P < .001$]).