## **Research Brief**

# Oregon Parents' Perceptions of the Supportiveness of the School Environment for Their Children's Health Behaviors

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## ABSTRACT

**Objective:** To describe Oregon parents' perceptions of their children's school regarding health behaviors; examine how perceptions vary by parent, child, and community characteristics; and identify recommendations for improving school environments.

Methods: Oregon parents with an elementary school-aged child completed an electronic survey.

**Results:** Over 90% of parents (n = 814) described their child's school as supportive of healthy eating and physical activity. Parents who ate  $\geq$ 5 fruits/vegetables per day more often perceived their children's school as unsupportive of healthy eating (P < 0.001) and physical activity (P < 0.05) relative to others. Parents of children eligible for free/reduced-price lunch more often perceived the school as unsupportive of physical activity (P < 0.05) relative to others. Parental activity (P < 0.05) relative to others. Parental recommendations included improving school meals and providing short physical activity breaks.

**Conclusions and Implications:** Parents' suggested school improvements can inform school wellness committees' and administrators' quality-improvement efforts and, in turn, better support children's healthy behaviors.

Key Words: parents, school wellness policy, elementary schools (J Nutr Educ Behav. 2020; 52:975-981.)

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### INTRODUCTION

Elementary schools are critical settings to promote children's physical activity (PA) and healthy eating to lessen current childhood obesity prevalence  $(18.4\% \text{ of } 2\text{- to } 19\text{-year-olds})^1$  and prevent future incidence of obesity, chronic diseases, and several types of cancer. Evidence shows that increasing opportunities for PA and access to healthy foods in schools are associated with improved engagement in health behaviors and improved learning and academic performance, particularly among children from low socioeconomic status households.<sup>2,3</sup> In an effort to create school environments that support children's health, the US federal government passed the Child Nutrition Program and Women, Infants, and Children Reauthorization Act of 2004, followed by the Healthy, Hunger-Free Kids Act of 2010. These acts mandated all public-school districts participating in the *National School Lunch Program* (ie, free/reduced-price lunch) to develop a local school wellness policy (SWP). An SWP is a written document that outlines the nutrition and PA-related policies by which the schools within each district are expected to operate.

Studies have found wide variance in the quality and implementation of SWPs within and across states.<sup>4,5</sup>

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Studies have also identified the involvement of parents as strong facilitators of effective SWP implementation.<sup>6,7</sup> Public health quality-improvement frameworks (eg, Plan-Do-Study-Act) point out that regularly gathering input from community stakeholders is a key component of assessing and addressing the needs of school communities.<sup>8</sup> Despite these findings and the various federal policies that call for parents' input in the development, implementation, and evaluation processes of SWPs, evidence suggests that many parents have little to no familiarity with SWP content,<sup>9</sup> and that there is ineffective communication regarding SWPs and the overall school wellness environment between parents and schools.<sup>7,10</sup> Additionally, evaluations of SWPs showed that plans for how schools gather input from parents are often absent or vague.<sup>7,11</sup> Parental feedback on how they perceive their children's schools are doing with regard to supporting their children's health behaviors is necessary to promote healthier school environments and, ultimately, foster healthier children. There is heightened importance to gather feedback from parents whose children experience disparities in obesity and health

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behaviors, such as racial/ethnic minorities and those from rural communities, low socioeconomic house-holds, and families with unhealthy eating/PA patterns.<sup>12–14</sup>

This cross-sectional study aims to contribute to the empirical literature by gathering feedback on the supportiveness of school environments for children's health behaviors from Oregon-residing parents with an elementary school-aged child to inform SWP quality-improvement processes. Oregon is a fitting setting for this study because 35% of residents live in rural communities and 47% of children qualify for free/reduced-price lunch, an indicator of low socioeconomic status.<sup>15,16</sup> By surveying a geographically and socioeconomically diverse sample of Oregon parents, this study addressed the following research questions: (1) How do Oregon parents of elementary school-aged children perceive the supportiveness of their children's school environment for promoting PA and healthy eating? (2) How do these parents' perceptions of their children's school environment vary by characteristics and health behaviors of the parents and children and by community setting? (3) What school-environment improvements do Oregon parents recommend to better support their children's health behaviors?

#### **METHODS**

In this cross-sectional study, adult  $(\geq 18 \text{ years})$  parents with an elementary school-aged child (prekindergarten through sixth grade), who resided in Oregon with their child and spoke English fluently were identified via Qualtrics Panels (Qualtrics, LLC, Provo, UT, 2019) and asked to complete a 93-question electronic survey between January and May 2017. Parents were asked to respond to questions with their oldest elementary school-aged child in mind. Qualtrics Panels identified eligible participants and sent an e-mail invitation with the survey link. To avoid self-selection bias, the survey invitation did not include specific details about the contents of the survey. This study was approved by the University of Oregon Institutional Review Board.

#### Measures

Parents' perceptions of their child's school environment related to healthy eating and PA were assessed by their answers to 2 questions: My child's school environment is supportive of my child's healthy eating, and My child's school environment is supportive of my child's PA. Response options were on a 4-point Likert scale (strongly agree to strongly disagree, later dichotomized into agree and disagree). From 29 total response options, parents were asked to rank the 2 most important changes they would recommend to make their child's school environment more supportive of (1) healthy eating and (2) PA. These response options were derived from the School Wellness Policy Evaluation Tool (version 2.0, wellSAT.org, Storrs, CT, University of Connecticut Rudd Center for Food Policy and Obesity).

Demographic characteristics of the parents who were assessed included age group, gender, and race/ethnicity.<sup>17</sup> Reflective of the racial/ethnic composition of Oregon, few respondents identified as racial/ethnic minorities.<sup>18</sup> As such, a dichotomous variable was created for parents' race/ethnicity composed of parents who identified as white, non-Hispanic and those who identified as racial/ethnic minorities. Community setting was assessed by asking parents to indicate which type of setting best described the community in which they lived, from 3 options: urban, suburban, and rural.

Parent health behaviors were assessed through several questions. Deriving from the 2011 Behavioral Risk Factor Surveillance System, parents were asked to indicate the frequency of their fruit/vegetable intake during the previous month, week, or day, depending on the frequency of consumption.<sup>19</sup> From the International Physical Activity Questionnaire, parents were asked to indicate the frequency and duration of moderate- and vigorous-intensity PA in the previous week.<sup>20</sup> Behaviors were dichotomized into whether they met or did not meet the national guidelines for fruit/vegetable intake ( $\geq 5$ servings/d)<sup>21</sup> and PA ( $\geq$ 150 min/wk moderate intensity or ≥75 min/wk vigorous intensity).<sup>22</sup>

Child demographic characteristics included the age and gender of the parents' oldest child in elementary school and whether that child was eligible for free or reduced-price lunch (yes/no). Child health behaviors were assessed by asking parents to indicate the servings of fruits/vegetables their child consumed on a typical day, a measure from the Active Where? study by Joe et al,<sup>23</sup> and whether that child participated in 60 minutes of PA every day in the past week, a screening measure by Prochaska et al.<sup>24</sup> Behaviors were dichotomized into whether they met national guidelines of  $\geq 2.5$  servings/d<sup>21</sup> and  $\geq 60$  min/d of PA.<sup>25</sup>

#### Statistical Analyses

Descriptive statistics were conducted for all study variables and to answer research questions 1 and 3. To examine research question 2, Pearson chisquare tests for independence were conducted, including Cramer V, using SPSS statistical software (version 25, IBM Corporation, Armonk, NY, 2019).

#### RESULTS

Among the 814 parent respondents, most were aged 30-39 years (50.7%), female (71.1%), and white, non-Hispanic (76.4%), and most did not meet national guidelines for fruit/vegetable intake (76.6%) but did meet guidelines for PA (60.3%) (Table 1). Approximately half of the respondents' children (mean = 8.0; SD = 2.3 years; range, 5–13 years) were male (51.1%) and eligible for free/reduced-price school lunch (50.7%). Most did not meet guidelines for fruit/vegetable intake (93.5%) or PA (65.6%). Regarding research question 1, most parents described their child's school as supportive of healthy eating (91.4%) and PA (94.0%).

For research question 2, the findings showed that parents who consumed  $\geq 5$  servings/d of fruits/ vegetables more often perceived their children's school environment as unsupportive of healthy eating and PA than parents who did not meet dietary guidelines (Table 2). Parents who consumed  $\geq 5$  servings/d of fruits/vegetables, parents of boys, and parents

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Table 1. Characteristics of Oregon Parents With an Elementary School-Aged Child (n = 814) <sup>a</sup>				
Characteristic	n (%)			
Parent age, y 18-29 30-39 40-49 50-59 ≥60 Missing Parent sex	208 (25.6) 412 (50.6) 149 (18.3) 32 (3.9) 12 (1.5) 1			
Male Female Missing	228 (28.0) 584 (71.7) 2			
Parent's race/ethnicity Non-Hispanic white Racial/ethnic minority Missing	622 (76.4) 126 (15.5) 66			
Parent's FV intake/d ≥5 <5 Missing Child's FV intake/d	184 (23.4) 606 (76.6) 24			
≥2.5 <2.5 Missing Parent's PA	53 (6.5) 759 (93.5) 2			
≥150 min/d moderate-intensity PA or ≥75 min/d vigorous-intensity PA	464 (60.3)			
<150 min/d moderate-intensity PA or <75 min/d vigorous-intensity PA Missing	305 (39.7) 45			
Child's sex Male Female Missing	416 (51.1) 396 (48.6) 2			
Child's PA ≥60 min/d <60 min/d Missing Child's eligibility for free/reduced-priced lunch	279 (34.4) 531 (65.6) 4			
Yes No Missing Community setting	404 (50.7) 393 (49.3) 17			
Rural Suburban Urban Missing	189 (23.2) 387 (47.5) 236 (29.0) 2			

(44.3%) and ensure adequate time to eat (36.2%) (Table 3). The top recommendations to improve the school environment to support their child's PA better were to provide short PA breaks throughout the school day (47.1%) and ensure the PE [physical education] curriculum is appropriate for each grade level (41.5%) (Table 4).

#### DISCUSSION

This study indicated that most Oregon parents of elementary school -aged children found their child's school environment to be supportive of health behaviors. Other US studies also reported positive parental perceptions regarding various characteristics of their child's school wellness environment.<sup>27,28</sup> Among the minority of parents in this study who found their child's school environment to be unsupportive of their child's health behaviors, parents who reported healthier behaviors with regard to fruit/vegetable intake and parents of children eligible for free/reducedprice lunch were overrepresented. The group of healthy-eating parents may have been more aware or have had higher expectations for the wellness environment of their child's school than parents who were less engaged in healthy eating themselves,<sup>10</sup> and the harsher criticism of the school wellness environment may have reflected these perspectives. Although the feedback of all parents is important to gather, feedback from the parents who perceived their child's school environment as unsupportive of their child's PA and had a child eligible for free/reduced-price lunch is of particular concern to those interested in reducing health disparities.<sup>2,3</sup> Specifically, research showed that the supportiveness of the school environment for health behaviors is more influential to the health and academic achievement of children from low socioeconomic households compared with their peers.<sup>2</sup> This may be why parents of children eligible for free/reduced-price lunch were more critical of their child's school wellness environment, a theory that warrants further study. Parent recommendations on how to improve the school environment to support PA better serve as guidance for addressing the

FV indicates fruit/vegetable; PA, physical activity. <sup>a</sup>Valid percentages are reported.

of children eligible for free/reducedprice lunch also more often perceived the school environment as unsupportive of PA than other parents. All significant associations were weak (Cramer V = 0.08 - 0.16).<sup>26</sup>

With regard to research question 3, the primary recommendations parents endorsed to improve the school environment to promote their child's healthy eating better were to improve nutrition standards for school meals

# Table 2. Comparison of Parent Perceptions of School Environment and Parent and Child Demographic Characteristics

	Parent Perceptions of Supportiveness of School Environment for Healthy Eating		Parent Perceptions of Supportiveness of the School Environment for PA	
Characteristic	Р	Cramer V	Р	Cramer V
Parents' race/ethnicity Non-Hispanic white Racial/ethnic minority	0.38	0.03	0.06	0.07
Parents' FV intake/d ≥5 <5	<0.001	0.14	0.02	0.08
Child's FV intake/d ≥2.5 <2.5	0.85	0.01	0.21	0.04
Parents' PA ≥150 min/d moderate-intensity PA or ≥75 min/d vigorous-intensity PA <150 min/d moderate-intensity PA or <75 min/d vigorous-intensity PA	0.28	0.04	0.59	0.02
Child's PA ≥60 min/d PA <60 min/d PA	0.07	0.06	0.002	0.11
Child's eligibility for free/reduced-priced lunch Yes No	0.77	0.01	0.03	0.08
Community setting Rural Suburban Urban	0.81	0.03	0.68	0.04

FV indicates fruit/vegetable; PA, physical activity.

Note: Pearson chi-square tests for independence were conducted.

## Table 3. Parent Recommendations for Making Their Child's School Environment More Supportive of Healthy Eating

Recommendation	Rank No. 1, n (%)	Rank No. 2, n (%)	Rank No. 3, n (%)	Row Total n, (%)
Improve nutrition standards for school meals	186 (22.9)	134 (16.5)	41 (5.0)	361 (44.3)
Ensure adequate time to eat	106 (13.0)	102 (12.5)	87 (10.7)	295 (36.2)
Encourage staff to be role models for healthy eating	146 (17.9)	50 (6.1)	42 (5.2)	238 (29.2)
Provide nutrition education	115 (14.1)	53 (6.5)	30 (3.7)	198 (24.3)
Have marketing that promotes healthy choices	49 (6.0)	63 (7.7)	46 (5.7)	158 (19.4)
Ensure access to free drinking water	18 (2.2)	39 (4.8)	92 (11.3)	149 (18.3)
Improve nutrition standards for school beverages	14 (1.7)	82 (10.1)	52 (6.4)	148 (18.2)
Restrict marketing of unhealthy choices	68 (8.4)	44 (5.4)	35 (4.3)	147 (18.1)
Establish an advisory committee to address health and wellness	23 (2.8)	73 (9.0)	35 (4.3)	131 (16.1)
Ensure the environment during school meals is quiet and calm	12 (1.5)	41 (5.0)	64 (7.9)	117 (14.4)
Ensure food is not used as an award	8 (1.0)	28 (3.4)	73 (9.0)	109 (13.4)
I don't think the school environment needs any changes	37 (4.5)	12 (1.5)	47 (5.8)	96 (11.8)
Regulate food served at class parties	10 (1.2)	21 (2.6)	51 (6.3)	82 (10.1)
Regulate food served in school stores	6 (0.7)	23 (2.8)	38 (4.7)	67 (8.2)
Regulate food sold for fundraising purposes	3 (0.4)	11 (1.4)	24 (2.9)	38 (4.7)
l don't know	2 (0.2)	10 (1.2)	23 (2.8)	35 (4.3)

Table 4. Parent Recommendations for Making Their Child's School Environment More Supportive of PA					
Recommendation	Rank No. 1, n (%)	Rank No. 2, n (%)	Rank No. 3, n (%)	Row Total, n (%)	
Provide short PA breaks throughout the school day, not including PE and recess	102 (12.5)	197 (24.2)	84 (10.3)	383 (47.1)	
Ensure the PE (physical education) curriculum is appropriate for each grade level	263 (32.3)	47 (5.8)	28 (3.4)	338 (41.5)	
Increase the time per week of PE	189 (23.2)	82 (10.1)	29 (3.6)	300 (36.9)	
Increase structured PA time before or after school through clubs, classes, or interscholastic activities	34 (4.2)	98 (12.0)	108 (13.3)	240 (29.5)	
Prohibit restricting PA (eg, recess) as punishment	18 (2.2)	57 (7.0)	139 (17.1)	214 (26.3)	
Invest in better equipment and facilities for PE	73 (9.0)	85 (10.4)	39 (4.8)	197 (24.2)	
Allow community use of school facilities for	12 (1.5)	52 (6.4)	122 (15.0)	186 (22.9)	
PA outside of the school day					
Provide daily recess	17 (2.1)	25 (3.1)	122 (15.0)	164 (20.1)	
Provide additional training to PE teachers	22 (2.7)	80 (9.8)	26 (3.2)	128 (15.7)	
I don't think the school environment needs any changes	32 (3.9)	13 (1.6)	38 (4.7)	83 (10.2)	
Reduce the teacher to student ratio for PE	33 (4.1)	29 (3.6)	10 (1.2)	72 (8.8)	
l don't know	6 (0.7)	5 (0.6)	21 (2.6)	32 (3.9)	

PA indicates physical activity; PE, physical education.

concerns of parents from low socioeconomic households.

Although most Oregon parents reported a supportive school environment for their child's health behaviors, most parents affirmed multiple recommendations to improve the school wellness environment. The top 2 recommendations parents endorsed related to improving their child's school environment for healthy eating were to improve the nutrition standards for school meals and ensure adequate time to eat. These findings are consistent with previous research on parent perceptions conducted in Washington and Virginia.<sup>29,30</sup> Even though parents in the study reported supportive school environments overall related to healthy eating, their recommendations suggested they were less than satisfied with certain aspects of the school environment pertaining to healthy eating. Although federal mandates that require schools to provide meals that meet national nutritional guidelines are present, at times, the effective implementation of these policies into practice does not occur.<sup>31</sup> For example, the National Alliance for Nutrition and Activity recommends that students should be given at least 20 minutes to eat their school lunch,<sup>32</sup> and 1 study showed that students with longer lunch times ate more nutrients than students with shorter lunch times.<sup>33</sup> Turner and colleagues<sup>34</sup> found that 82% of US schools had policies

that allocated at least 20 minutes for school lunch. However, another study found that, despite district policy requiring that students be provided a minimum of 20 minutes to eat lunch, most students had <13 minutes to eat.<sup>35</sup> Parent recommendations for improving the school wellness environment that arose from this study may highlight district- and school-level policies across Oregon that need implementation attention to promote children's healthy eating.

In addition, Oregon parents advocated providing short PA breaks throughout the school day, not including PE or recess and ensuring the PE curriculum is appropriate for each grade level. Parents' suggestion to incorporate short PA breaks throughout the school day was shown to be effective in reducing sedentary time and increasing students' focus, academic performance, and classroom behavior.36 Recent work found that Oregon elementary school teachers were concerned about their students' lack of PA and were interested in implementing activity breaks into their curriculum.<sup>37</sup> Teacher resources or trainings on how to lead short activity breaks may facilitate wider use of the strategy.<sup>37</sup> The state of Oregon has legislation that requires PE teachers to be competent in providing age-appropriate PE to students<sup>38</sup>; yet, even with such a law, parents saw room for improvement. Age appropriateness of PE curriculum

is a characteristic of high-quality PE that positively contributes to children meeting PA guidelines and something parents from other states also endorsed as important.<sup>39</sup>

Although this study was exploratory and had limitations, it used a large sample of Oregon parents whose race/ethnicity and engagement in fruit/vegetable consumption and PA are reflective of the Oregon adult population.<sup>18,40</sup> Similarly, the percentage of children eligible for free/reducedprice lunch reported in this study is also reflective of the percentage of children in Oregon eligible for free/ reduced-price lunch.<sup>16</sup> The parent respondents provided previously absent statewide feedback on how their children's elementary schools were doing with regard to supporting students' health behaviors and provided clear strategies for improvement. Gathering such feedback is best practice for informing regular SWP quality-improvement evaluations and facilitating SWP implementation.<sup>6–8</sup> There were 2 limitations related to parents' perceptions of the supportiveness of their child's school environment for their child's health behaviors. First, the 2 questions used to assess these perceptions were not psychometrically tested, and second, there was little variability in the responses to these questions. The latter limitation means that the 2 groups being compared (ie, parents who perceive a supportive vs unsupportive

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school environment) were unequal in size, and findings related to how they varied by parent behaviors and child characteristics should be interpreted with caution. Similarly, the proportion of parents and children residing in rural communities in the study sample was about 12% less than that of all Oregon residents; thus, the study findings may not represent the perspectives of this group adequately.<sup>17</sup> Finally, school-level characteristics (eg, public vs private, size of school) would allow for further exploration of potential differences in parent perceptions of their child's school environment, but these data were not collected.

## IMPLICATIONS FOR RESEARCH AND PRACTICE

This study gathered parent feedback on the supportiveness of Oregon elementary schools for children's healthy eating and PA. These data are missing from the literature and schools' quality-improvement processes in many states. Parent recommendations for improving the school wellness environment can guide next steps for administrators and school wellness committees in their work to promote the health and academic success of children.

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## REFERENCES

- Centers for Disease Control and Prevention. Childhood obesity facts: prevalence of childhood obesity in the United States. https://www.cdc.gov/ obesity/data/childhood.html. Accessed July 1, 2019.
- 2. Basch CE. Healthier students are better learners: a missing link in school reforms to close the achievement gap. *J Sch Health*. 2011;81:593–598.
- 3. Bradley BJ, Greene AC. Do health and education agencies in the United States

share responsibility for academic achievement and health? A review of 25 years of evidence about the relationship of adolescents' academic achievement and health behaviors. *J Adolesc Health*. 2013; 52:523–532.

- Brener ND, Chriqui JF, O'Toole TP, Schwartz MB, McManus T. Establishing a baseline measure of school wellnessrelated policies implemented in a nationally representative sample of school districts. J Am Diet Assoc. 2011; 111:894–901.
- Pitt Barnes S, Robin L, O'Toole TP, Dawkins N, Kettel Khan L, Leviton LC. Results of evaluability assessments of local wellness policies in 6 US school districts. J Sch Health. 2011;81:502–511.
- 6. Hung TTM, Chiang VCL, Dawson A, Lee RLT. Understanding of factors that enable health promoters in implementing health-promoting schools: a systematic review and narrative synthesis of qualitative evidence. *PLoS One*. 2014;9:e108284.
- Piekarz E, Schermbeck R, Young SK, et al. School District Wellness Policies: Evaluating Progress and Potential for Improving Children's Health Eight Years after the Federal Mandate. School Years 2006-07 through 2013-14. Volume 4. Chicago, IL: Bridging the Gap; 2016.
- National Association of County and City Health Officials. Quality improvement. https://www.naccho.org/programs/public-health-infrastructure/performanceimprovement/quality-improvement. Accessed February 3, 2020.
- 9. McIsaac JD, Spencer R, Chiasson K, Kontak J, Kirk SFL. Factors influencing the implementation of nutrition policies in schools: a scoping review. *Health Educ Behav.* 2018;46:224–250.
- Hildebrand DA, Betts NM, Gates GE. Parents' perceptions of childhood obesity and support of the school wellness policy. *J Nutr Educ Behav.* 2019;51:498–504.
- Belansky E, Cutforth N, Delong E, et al. Early effects of the federally mandated Local Wellness Policy on school nutrition environments appear modest in Colorado's rural, low-income elementary schools. J Am Diet Assoc. 2010;110:1712–1717.
- Arroyo-Johnson C, Mincey KD. Obesity epidemiology worldwide. Gastroenterol Clin North Am. 2016;45:571–579.
- Davis AM, Bennett KJ, Befort C, Nollen N. Obesity and related health behaviors among Urban and rural children in the United States: data from the National

Health and Nutrition Examination Survey 2003–2004 and 2005–2006. J Pediatr Psychol. 2011;36. 699–676.

- 14. Johnson JA 3rd, Johnson AM. Urban -rural differences in childhood and adolescent obesity in the United States: a systematic review and meta-analysis. *Child Obes*. 2015;11:233–241.
- 15. Oregon.Gov. Rural Health. https:// www.oregon.gov/omb/Topics-of-Interest/Pages/Rural-Health.aspx. Accessed June 20, 2019.
- 16. The Annie E. Casey Foundation. Students eligible for free or reduced lunch in Oregon. https://datacenter.kids-count.org/data/tables/8338-students-eligible-for-free-or-reduced-lunch#-detailed/2/any/false/1639,1600,1536, 1460,1249,1120,1024/any/16922. Accessed June 20, 2019.
- US Census Bureau. Comparing 2015 American Community Survey data. https://www.census.gov/programssurveys/acs/guidance/comparing-acsdata/2015.html. Accessed November 6, 2019.
- US Census Bureau. QuickFacts: Oregon. https://www.census.gov/quickfacts/fact/ table/OR/PST045218#PST045218. Accessed June 20, 2019.
- Centers for Disease Control and Prevention. 2011 Behavioral Risk Factor Surveillance System questionnaire. Washington, DC: US Department of Health and Human Services; 2011. https://www.cdc.gov/brfss/questionnaires/pdf-ques/2011brfss.pdf. Accessed May 6, 2019.
- Craig CL, Marshall AL, Sjöström M, et al. International physical activity questionnaire: 12-country reliability and validity. *Med Sci Sports Exerc.* 2003;35:1381–1395.
- 21. ChooseMyPlate US Department of Agriculture. All about the vegetable group. https://www.choosemyplate. gov/eathealthy/vegetables. Accessed February 3, 2020.
- 22. Centers for Disease Control and Prevention. 2008 Physical Activity Guidelines for Americans. Washington, DC: US Department of Health and Human Services; 2009. https://www.cdc.gov/ physicalactivity/downloads/pa\_fact\_ sheet\_adults.pdf. Accessed May 6, 2019.
- 23. Rosenberg D, Ding D, Sallis JF, et al. Neighborhood Environment Walkability Scale for Youth (NEWS-Y): Reliability and relationship with physical activity. *Prev Med.* 2009;49:213–218.
- 24. Prochaska JJ, Sallis JF, Long B. A physical activity screening measure for use

with adolescents in primary care. Arch Pediatr Adolesc Med. 2001;155:554–559.

- 25. US Department of Health and Human Services. Physical Activity Guidelines for Americans. 2nd edition. Washington, DC: US Department of Health and Human Services; 2018. https:// health.gov/sites/default/files/2019-09/ Physical\_Activity\_Guidelines\_2nd\_edition.pdf. Accessed May 6, 2019.
- Kearney MW. Cramér's V. In: Allen M, editor. The SAGE Encyclopedia of Communication Research Methods. Thousand Oaks, CA: SAGE Publications, Inc; 2017:289-290.
- Robert Wood Johnson Foundation. Healthy schools for healthy kids report. https://www.rwjf.org/en/library/ research/2003/01/healthy-schools-forhealthy-kids.html. Accessed July 23, 2019.
- 28. Pew Research Center. Parents support healthier school food standards. https://www.pewtrusts.org/en/ research-and-analysis/data-visualizations/2014/parents-support-healthierschool-food-standards. Accessed July 23, 2019.
- **29.** Farris AR, Misyak S, Duffey KJ, et al. Elementary parent perceptions of packing lunches and the National School

Lunch Program. J Child Nutr Manag. 2016;40:1–10.

- Carlson SM. Student and Parent Perceptions of the Lunches Served Under the Revised Guidelines for the National School Lunch Program. Dissertation. Kent State University; 2014.
- Woodward-Lopez G, Gosliner W, Samuels SE, Craypo L, Kao J, Crawford PB. Lessons learned from evaluations of California's statewide school nutrition standards. *Am J Public Health*. 2010;100: 2137–2145.
- 32. The National Alliance for Nutrition and Activity. Model local school wellness policies on physical activity and nutrition. Washington, DC: National Alliance for Nutrition and Activity; 2005. http://www.schoolwellnesspolicies.org/resources/NANAWellnessPolicies.pdf. Accessed February 3, 2020.
- 33. Bergman EA, Buergel NS, Joseph E, Sanchez A. Time spent by school children to eat lunch. J Am Diet Assoc. 2000;100:696–698.
- 34. Turner L, Leider J, Piekarz-Porter E, et al. State laws are associated with school lunch duration and promotion practices. *J Acad Nutr Diet.* 2018;118: 455–463.

- 35. Kauffman S. Lunch time at school how much is enough? Seattle, WA: University of Washington School of Public Health; 2015. http://courses.washington.edu/nutr531/2015project/Time-ForLunch-FINAL\_NUTR531-winter2015.pdf. Accessed July 23, 2019.
- Da Cruz K. Supporting positive school outcomes through school-based physical activity intervention: current evidence and resources. *Interv Sch Clin.* 2017;53:120–125.
- **37.** Perera T, Frei S, Frei B, Bobe G. Promoting physical activity in elementary schools: needs assessment and a pilot study of brain breaks. *J Educ Pract.* 2015;6:55–64.
- **38.** Sheehy D. Parents' perceptions of their child's 5th grade physical education program. *Phys Educ.* 2006;63:30–37.
- Approaches to physical education in schools. In: Kohl H III, Cook H, eds. Educating the Student Body: Taking Physical Activity and Physical Education to School. Washington, DC: National Academies Press; 2013:197–249.
- Centers for Disease Control and Prevention. Behavioral risk factor surveillance system: prevalence data & data analysis tools. https://www.cdc.gov/brfss/data\_ tools.htm. Accessed November 6, 2019.

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