

Nevada School Wellness Practices

WASHOE COUNTY SCHOOL DISTRICT

Introduction

- Schools play a pivotal role in the promotion of students' health, well-being, and ability to learn.
- School districts participating in the National School Lunch Program and/or School Breakfast Program are required to develop a local school wellness policy that promotes the health of students and addresses the growing problem of childhood obesity¹.
- The Nevada State School Wellness policy has been in place since 2007 and was recently revised and reissued in 2014.
- A progressive and more collaborative school/health interagency partnership is emerging to optimize school wellness programming outcomes in Nevada. As a beginning point, a 36-item survey to assess the school wellness practices in NV was disseminated to NV K-12 public schools through NV superintendents' offices in the Fall of 2014.
- The partnership will use the results of the survey to develop statewide priorities for improving school wellness in Nevada schools.

Methodology

The purpose of this brief report is to provide district superintendents with aggregated information about the physical activity and nutrition practices of elementary, middle, and high schools in their districts. In this report we focus on one universal wellness practice - the presence of a school wellness coordinator, three specific physical activity (PA) practices, and four specific nutrition practices. We selected these items because they (a) had the greatest variability throughout the state AND (b) were perceived to be feasibly modifiable. The PA practices are 1) minutes of required physical education; 2) minutes of recess provided (elementary schools only); and 3) school support of active transportation through the existence of an active travel plan (e.g., Safe Routes to Schools). Nutrition practices are 1) student access to a salad bar/traveling salad bar; 2) school participation in a fresh fruit and vegetable snack program; 3) scheduling of daily nutrition breaks; and 4) identification of nutrition education goals. A complete report of all survey items is in the Appendix.

For each of these items, we identify the percentage of schools in Washoe County who indicated affirmatively and compare those percentages with percentages of Clark County schools that indicated as well as the percentages of schools from the rest of the state that indicated. We separate Clark County because its schools represent 65% of all respondents. We present error bars indicating 95% confidence intervals around the percentages. Overlapping confidence intervals indicate that the difference between Washoe County and Clark County or Washoe County and the rest of the state is not statistically significant at the $p < 0.05$ level.

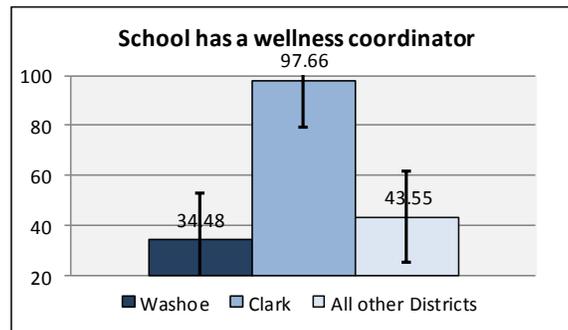
Findings

After removal of duplicate surveys from the same schools and surveys with a significant number of missing responses, our Washoe County sample included 30 elementary schools (29% response rate), 4 middle schools (25% response rate) and 8 high schools (47% response rate)². Given the relatively low response rate, readers should be aware that results reported here for Washoe County are not necessarily representative of all schools in the county.

Elementary Schools

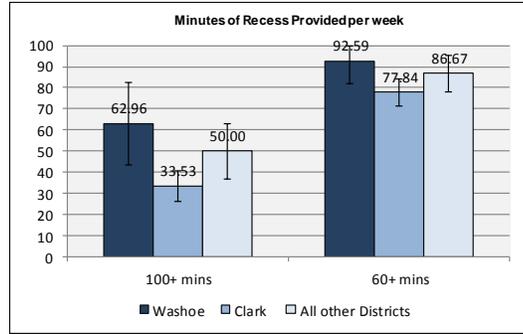
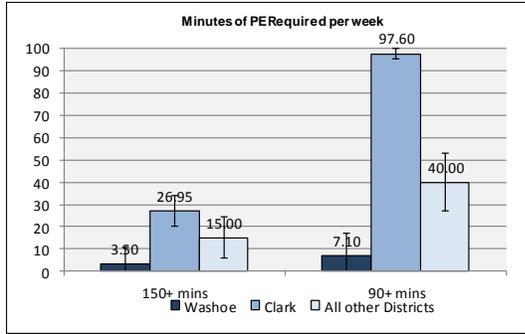
School Wellness Coordinator

School wellness coordinators play an important role in implementing strong physical activity and nutrition programs in schools. Only 35% of Washoe County elementary schools reported having a school wellness coordinate, significantly less than Clark County (98%), but comparable to the rest of the elementary schools in the state (44%).



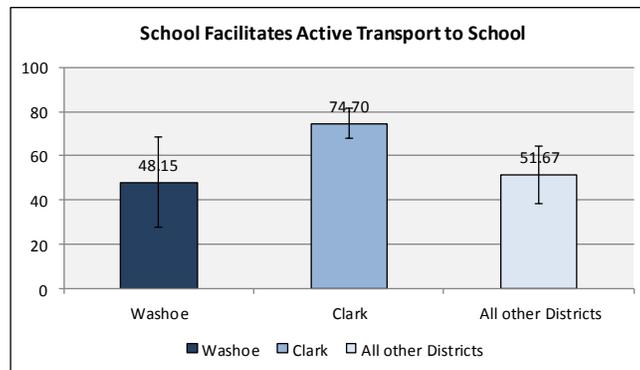
Physical Education and Recess Minutes

A very low percentage of Washoe County elementary schools are providing the recommended amount of PE per week (150 mins or more), and only 7% of Washoe County elementary schools are providing even 90 minutes per week of PE. These percentages are low relative to both Clark County and to schools throughout the rest of the state. In addition, the national recommendation is that schools provide elementary students with at least 20 minutes of recess each day, equivalent to 100 minutes per week. Most Washoe County elementary schools (63%) reported providing at least 100 minutes of recess per week, which is significantly greater than Clark County and statistically comparable to the rest of the state. Nearly all (93%) reported providing at least 60 minutes per week (equating to an average of 12 minutes or more per day). This percentage is statistically comparable to Clark County schools and the rest of the state.



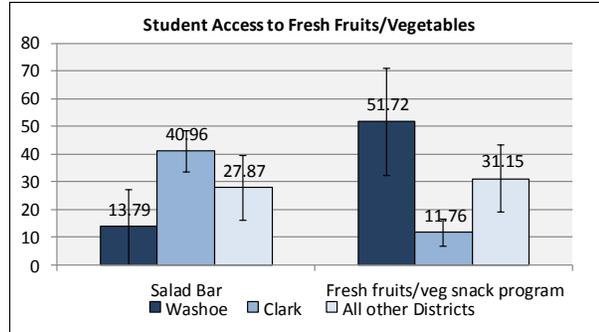
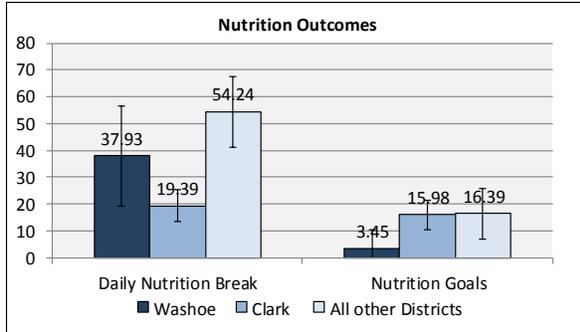
Active Transport

Facilitating active transport (e.g., walking and biking) to school has been shown to help students accrue important minutes in moderate to vigorous physical activity. A lower percentage of Washoe County elementary schools indicated facilitating active transport than either Clark County or the rest of the state, but the differences were not statistically significant. Examples of such efforts include the Safe Routes to School and Walking School Bus programs. Schools also work with their local municipalities to take traffic calming measures such as school zone flashing lights, speed bumps, traffic lights, narrower streets, medians, and well-placed and well-marked cross walks with crossing guards.



Nutrition

Providing students with daily access to fresh fruits and vegetables, implementing daily nutrition breaks, and identifying nutrition goals can facilitate healthier eating, potentially contributing to reductions in childhood obesity and increases in attention and cognition. Nearly 38% of Washoe County elementary schools reported providing a daily nutrition break which was less than Clark County and more than the rest of the state, but these differences were not statistically significant. Like the rest of the state, a very low percentage of Washoe County elementary schools reported having nutrition goals. In addition, while over half of Washoe County elementary schools reported having a fresh fruits and vegetables snack program, a very low percentage (14%) reported having a salad bar for students.

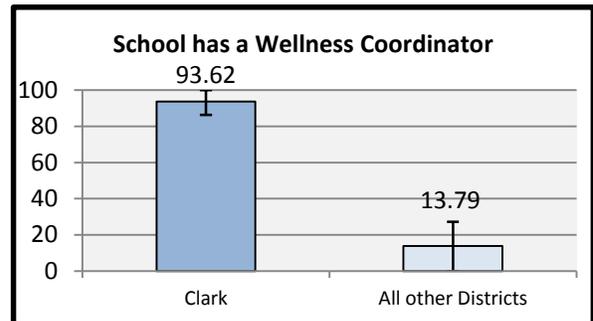


Middle Schools

Because only 4 Washoe County middle schools completed the survey, there are not enough cases to provide a statistical comparison between Washoe County schools and the rest of the state. Accordingly, below we report the number of Washoe County middle schools (out of the four that reported) that indicated having each practice. We also present figures that show the values for Clark County and all other districts in the state for comparison purposes.

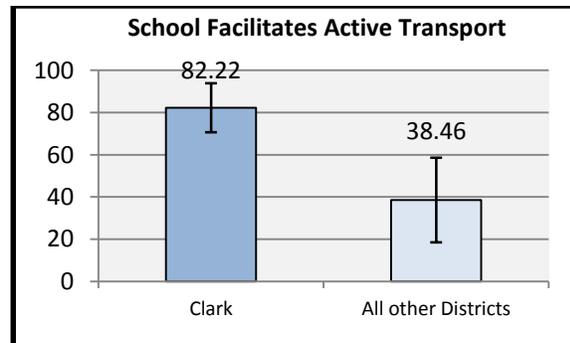
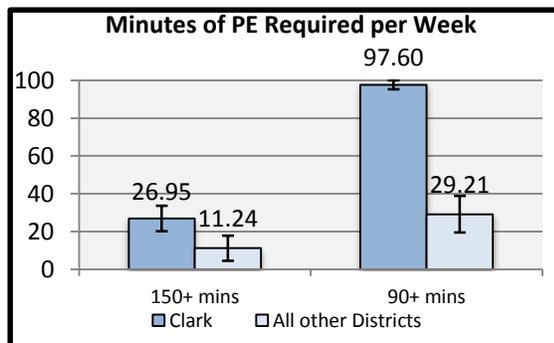
School Wellness Coordinator

One Washoe County middle school reported having a wellness coordinator. An overwhelming majority and significantly more Clark County middle schools reported having a school wellness coordinator relative to the rest of the middle schools in NV.



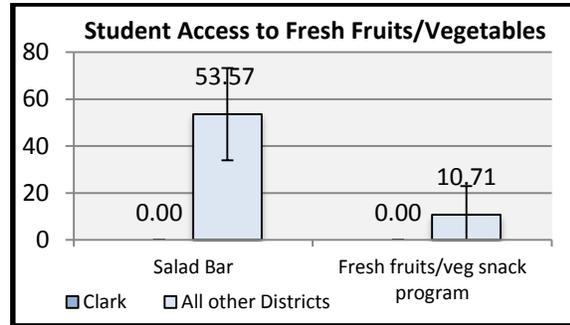
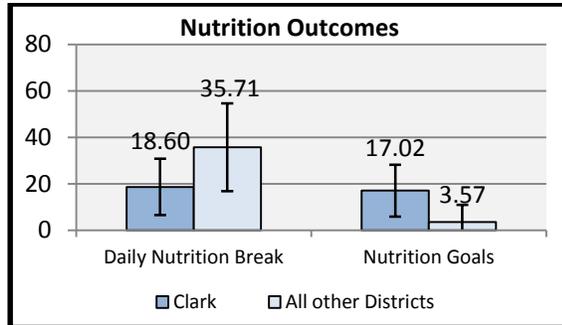
Physical Education Minutes and Active Transport

The national recommendation for middle schools is that students should receive at least 225 minutes of PE per week³. Our results suggest that most middle schools throughout the state of Nevada are not meeting that recommendation. Only one Washoe County middle school reported providing at least 150 minutes per week, and the other three reported providing 90 minutes or more per week. In terms of active transport to school, two Washoe County middle schools reported having these programs.



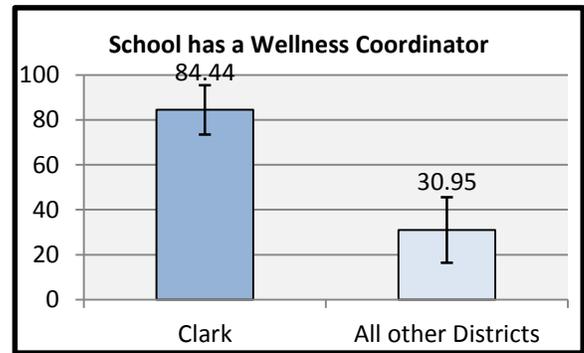
Nutrition

In terms of nutrition, all four Washoe County middle schools reported providing a daily nutrition break to students but none reported having nutrition goals. One middle school reported having a salad bar, but none reported participating in a fresh fruits/vegetables program.



High Schools

Only 8 high schools in Washoe County completed the survey, so we are unable to provide a statistical comparison between Washoe County high schools and schools in the rest of the state. Instead, below we present the number of Washoe County high schools (out of 8) that reported having each practice, and we present figures that compare the percentage of Clark County schools and schools throughout the rest of the state that reported having each practice.

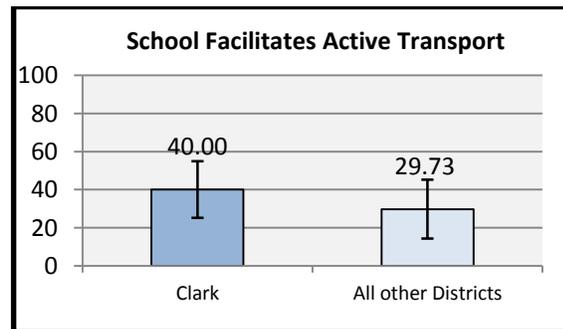
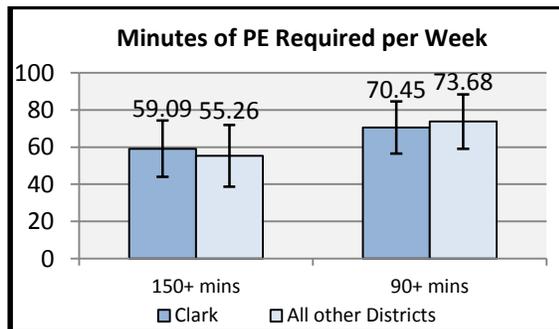


School Wellness Coordinator

Four out of the eight Washoe County high schools with completed surveys reported having a school wellness coordinator.

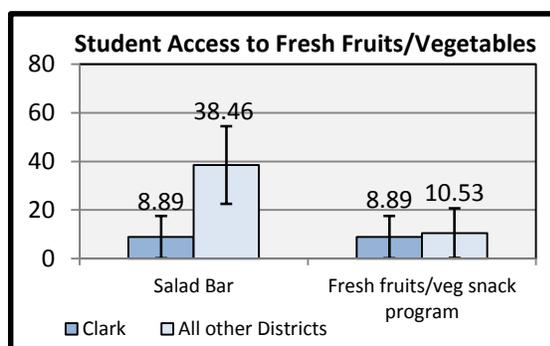
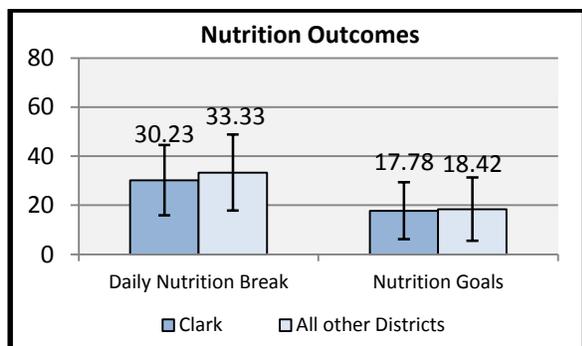
Physical Education Minutes and Active Transport

The national recommendation for middle schools is that students should receive at least 225 minutes of PE per week³. Four Washoe County high schools reported providing PE for at least 150 minutes per week and one additional school reported providing PE for at least 90 minutes per week. No Washoe County high schools reported participating in an active transport travel plan.



Nutrition

No Washoe County high schools reported providing a daily nutrition break, and none reported having nutrition goals. Two Washoe County high schools reported having a salad bar and one reported participating in a fresh fruits/vegetables program.



This report has provided Washoe County School District with a detailed account of select aspects of school wellness practices of the reporting schools. Only some Washoe County schools reported having a school wellness coordinator (35% of elementary schools, one of four middle schools, and four of the eight high schools). Compared to Clark County schools, Washoe County schools provide students with less PE minutes per week. Washoe County Schools are however on par with other Nevada schools in terms of the PE minutes per week. Washoe elementary schools however, reported strong investment in recess with 62% reporting providing at least 100 minutes of recess per week. In terms of nutrition, participation in fresh fruits and vegetable snack program was the only highly prevalent practice with over half of Washoe elementary schools participating.

Recommendations

Comprehensive school wellness programs provide a healthy school environment where the promotion and reinforcement of healthful dietary behaviors and physical activity can be fostered. In 2014, the Centers for Disease Control and Prevention released a comprehensive report summarizing the evidence-based linkages between student physical activity, nutrition, and overall health and academic achievement.⁵ This report provides salient rationale for school investment in improving school wellness programming as an investment in the whole child and in improving student academic performance. Based on the findings detailed in this report, we provide the following recommendations for school wellness practice improvement in physical activity and nutrition areas.

Physical Activity⁴

Nevada schools do not meet national recommendations for recess or physical education, and compared to the rest of the state, more Washoe elementary schools provide 20 minutes of recess or more to their students but, they do not provide nearly enough PE at any school level. Through superintendent leadership and strong interagency partnerships, improvement PE is possible.

Physical Education

Numerous authorities recommend that elementary children receive PE daily and for a total of at least 150 minutes per week and secondary students receive PE for a total of 225 minutes per week. In most cases, Washoe schools fall far short of these recommendations.

Strategies for Improvement

- Consider hiring additional PE specialists and/or providing staff development for classroom teachers so they can implement evidence-based PE programs under the supervision of a PE specialist.
- National physical education and health authorities recommend PE be taught by certified specialists. Compared to classroom teachers, specialists conduct longer lessons and cancel them less. In addition, their students are more likely to engage in high intensity physical activity, resulting in increased physical fitness and skills.
- Employing more PE specialists may not be economically feasible now. In the interim, consider staff development for classroom teachers or part-time teachers who implement an evidence-based PE program (e.g., SPARK-PE, CATCH PE, or planet health) under the direction of a PE specialist.

Recess

Besides providing physical activity, recess may increase academic attentiveness and on-task classroom behavior. National physical education and health authorities recommend that elementary schools provide all students with at least 20 minutes of recess each day. While a majority of reporting Washoe elementary schools met this recommendation, it is important to note that students don't always receive recess even when it is scheduled because teachers withhold it for disciplinary or academic reasons.

Strategies for Ensuring Student Access to Recess

- Require that elementary schools make morning and afternoon recess part of the formalized schedule.
- Provide recess-related staff development for classroom teachers, supervisors, and recess volunteers.
- Implement policies that ensure students have access to recess time.

Nutrition

Deficits in dietary nutrients found in fruits in vegetables have been found to be associated with lower academic performance. This report found that in Washoe elementary schools rarely provide student access to a salad bar but participation in the fruits and vegetable snack program is prevalent. Middle schools and high schools appear to participate in the salad bar and the fruits and vegetable snack program variably.

Salad Bar and Fruit and Vegetable Participation

Based on the results from this report, there is opportunity to improve salad bar access and fruit and vegetable program participation in Washoe County schools.

Strategy for Improvement

- Work with the district food services director and the NV Department of Agriculture to develop strategies for school adoption of salad bar access and participation in the fruits and vegetable snack program.

APPENDIX: Comparison of all Items between Schools in Washoe County School District vs. Schools in Rest of State

OVERALL WELLNESS

	Elementary					Middle			High		
	Washoe	Clark	t value	All Other Schools	t value	Washoe (# of schools out of 4)	Clark (%)	All Others (%)	Washoe (# of schools out of 8)	Clark (%)	All Others (%)
School has a school wellness coordinator	34.5	97.7	-6.98***	43.6	-0.82	1	93.6	13.8	4	84.4	31.0
School wellness policy is disseminated to staff annually	41.4	89.4	-4.99***	59.7	-1.63	2	69.6	39.3	3	77.8	47.6

PHYSICAL ACTIVITY

	Elementary					Middle			High		
	Washoe	Clark	t value	All Other Schools	t value	Washoe (# of schools out of 4)	Clark (%)	All Other (%)	Washoe (# of schools out of 8)	Clark (%)	All Other (%)
School requires all students to participate in PE at least 150 mins/week	3.6	27.0	-4.71***	15.0	-1.95	1	76.1	53.9	4	59.1	55.3
School requires all students to participate in PE at least 90 mins/week	7.1	97.6	-17.75***	40.0	-4.07***	3	84.8	76.9	5	70.5	73.7
PE taught by certified PE teacher during all PE lessons	17.9	99.4	-11.03***	71.2	-5.63***	2	100.0	88.9	6	97.8	86.8
Recess is provided at least 100 mins/week	63.0	33.5	2.90**	50.0	1.12	N/A	N/A	N/A	N/A	N/A	N/A

Recess is characterized by the provision of loose balls	96.3	99.4	-0.83	95.0	0.26	N/A	N/A	N/A	N/A	N/A	N/A
Recess is characterized by the provision of strategic playground or game markings	96.3	97.0	-0.85	91.7	0.90	N/A	N/A	N/A	N/A	N/A	N/A
Recess is characterized by the training of playground supervisors to promote PA	29.6	66.1	-3.70***	50.0	-1.78	N/A	N/A	N/A	N/A	N/A	N/A
School provides classroom activity breaks	71.4	83.4	-1.52	80.0	-0.89	0	36.8	48.0	4	38.6	44.4
School provides before school PA programs	37.0	51.5	-1.40	20.7	1.61	0	50.0	16.0	0	39.5	14.7
School offers intramural programs before school	10.0	15.3	-0.44	0.0	1.00	0	57.1	0.0	0	76.5	20.0
School offers organized sports before school	20.0	15.5	0.36	18.2	0.10	0	50.0	0.0	0	70.6	60.0
School offers walking programs before school	0.0	58.8	-10.61***	36.4	-2.39***	0	25.0	33.0	0	25.0	25.0
School offers dance before school	10.0	12.3	-0.21	0.0	1.00***	0	57.1	0.0	0	47.1	0.0
School provides after school PA programs	64.3	66.1	-0.18	50.0	1.24	2	93.5	65.4	3	77.3	71.4
School offers intramural programs after school	18.8	45.8	-2.05	40.7	-1.49	1	93.0	46.7	0	87.5	8.7
School offers organized sports after school	47.1	56.9	-0.75	53.6	-0.42	2	97.7	94.1	3	84.4	84.0
School offers walking programs after school	13.3	22.6	-0.81	23.1	0.74	0	11.1	13.3	0	32.3	13.0
School offers dance after school	20.0	42.9	-1.69	22.2	-0.16	0	71.8	26.7	2	93.8	39.1
School physical activity programming offered during school											
School offers intramural programs during school	23.5	21.6	0.18	17.4	0.54	0	33.3	45.5	1	18.8	21.4

School offers organized sports during school	29.4	38.6	-0.73	33.3	-0.29	0	41.7	36.4	2	52.9	40.0
School offers walking programs during school	29.4	42.9	-1.05	39.1	-0.70	0	27.3	18.2	1	37.5	21.4
School offers dance during school	6.3	20.0	-1.91	21.7	-1.77	0	41.7	27.3	2	62.5	14.3
School supports active transport by providing bike rack storage	100.0	98.2	1.74	86.7	3.01**	3	97.8	96.3	5	84.4	79.0
School supports active transport by having active travel plans (e.g., SRTS)	48.2	74.7	-2.86**	51.7	-0.30	2	82.2	38.5	0	40.0	29.7
School supports active transport by implementing traffic calming mechanisms	82.1	80.7	0.18	60.0	2.09*	2	54.4	40.5	5	60.0	55.3
Student access to PA is compromised for disciplinary reasons	25.0	31.7	-0.71	45.0	-1.81	2	15.6	37.0	1	15.9	36.8
Student access to PA is compromised for academic reasons	35.7	15.3	2.11*	36.7	-0.09	3	20.0	37.0	0	13.6	18.4
Student access to PA is compromised due to space not being available	7.1	6.2	0.19	8.5	-0.21	0	11.1	7.4	1	22.2	21.1
Both indoor and outdoor PA facilities are available	32.1	82.6	-5.34***	86.4	-5.40***	3	97.8	92.6	6	84.4	81.6
Either indoor or outdoor PA facilities are available	67.9	16.8	6.41***	11.9	5.63***	0	2.2	7.4	0	6.7	2.6

NUTRITION

	Elementary					Middle			High		
	Washoe	Clark	t value	All Other Schools	t value	Washoe (# of schools out of 4)	Clark (%)	All Other (%)	Washoe (# of schools out of 8)	Clark (%)	All Other (%)
Free breakfast is available to all students every day	50.0	47.1	0.29	34.4	1.40	0	51.1	40.7	3	60.0	33.3
On typical school day, students are provided at least 15 mins to consume school breakfast	71.4	98.2	-3.06**	68.9	0.24	4	100.0	78.6	6	93.3	68.4
School has a garden	25.0	30.6	-0.60	20.0	0.53	1	6.4	14.3	2	22.2	10.3
School garden is integrated into nutrition education program	57.1	58.0	-0.04	36.4	0.83	0	b	b	1	40.0	25.0
Students are allowed to consume vegetables grown in school garden at school	71.4	76.9	-0.32	83.3	-0.59	0	33.3	50.0	2	66.7	100.0
Students have a salad bar/traveling salad bar	13.8	41.0	-3.59*	27.9	-1.48	1	0.0	53.6	2	8.9	38.5
School participates in fresh fruit and vegetable snack program	51.7	11.8	4.09	31.2	1.90	0	0.0	10.7	1	8.9	10.5
School provides breakfast in the classroom	34.5	27.2	0.80	5.0	3.13**	0	0.0	7.1	0	4.4	5.1
Water is freely available to students throughout school day	100.0	98.2	1.74	96.7	1.43	4	97.9	100.0	7	97.8	97.4
School schedules daily nutrition breaks	37.9	19.4	2.23*	54.2	-1.44	4	18.6	35.7	0	30.2	33.3

School schedules nutrition breaks during special occasions	61.5	89.4	-2.78**	86.3	-2.27*	2	86.7	77.3	7	70.7	62.9
School encourages staff to use non-food incentives/rewards	89.7	97.0	-1.25	89.7	-0.32	3	89.4	77.8	6	63.6	74.4
School participates in scripts, box tops, or labels for education	96.6	96.5	0.02	86.9	1.74	3	74.5	64.3	3	22.2	20.5
Scripts	11.5	4.3	1.10	11.0	0.06	0	8.9	8.0	0	2.2	2.6
Box tops	96.6	96.5	0.03	86.9	1.74	3	74.5	60.7	2	20.0	18.0
Labels	42.3	29.7	1.29	36.8	0.47	0	13.3	8.0	2	6.7	7.7
Nutrition education is integrated into curriculum	62.1	90.5	-3.01**	65.0	-0.27	2	78.7	71.4	6	84.4	79.5
School has identified nutrition education goals	3.5	16.0	-2.81**	16.4	-2.20*	0	17.0	3.6	1	17.8	18.4

NOTES

Not all schools provided responses for every item; sample sizes vary across items

*p<0.05; **p<0.01; ***p<0.001; two-tailed t-tests for differences in proportions/percentages

^a Sample is not large enough for statistical test

^b No responses provided

Statistical comparisons are not made for middle and high schools because there are too few Washoe County school surveys to conduct significance testing

Author Information

Monica A.F. Lounsbery, Ph.D. is Associate Vice Provost for Faculty, Policy and Research and is Director of the Physical Activity Policy Research Program in the Department of Kinesiology and Nutrition Sciences at the University of Nevada, Las Vegas.

Shannon M. Monnat, Ph.D. is Assistant Professor of Rural Sociology, Demography, and Sociology and a Research Associate in the Population Research Institute at Penn State University, University Park, PA.

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Endnotes

¹ Established by Child Nutrition and Women, Infant, and Child Reauthorization Act of 2004; Reinforced by the Healthy, Hunger-Free Kids Act of 2010

² During data analysis we identified several cases of duplicate school surveys, often completed from different ip addresses (suggesting completion by different individuals), and often with discrepant responses across the duplicates. Because we could not include a school in the results more than once, we eliminated duplicates from our analysis. In the case of duplicates, we selected which survey to retain based on which survey contained fewer missing responses to survey items. In cases where the number of missing responses were similar, we selected the survey completed last under the assumption that the last survey completed was to correct erroneous information provided in an earlier survey.

³ The national recommendation for the number of PE minutes middle school students should receive per week is 225. However, because some middle school respondents completed the survey using the link for elementary schools, and the elementary school survey allowed for a maximum response of 150 minutes or more per week, we are unable to show the percentage of middle schools that require at least 225 minutes of PE per week.

⁴ Regular engagement in physical activity is important for children's growth, development, and health. The National Physical Activity Guidelines (2008) indicate children should engage in moderate and vigorous physical activity at least 60 minutes each day, but far too many children, including Nevada's children, do not.

⁵The Centers for Disease Control report can be found at:

<http://static.squarespace.com/static/53b1a843e4b0dcbabf4b4b85/t/53d15be7e4b0a7d1d7db0e7d/1406229479998/health-academic-achievement.pdf>