



# Nutrition and physical education policy and practice in Pacific Region secondary schools





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Summary

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Prepared by

**Melly Wilson**

**Pacific Resources for Education and Learning**

**Lance Linke**

**Yale University**

**Mathew Bellhouse-King**

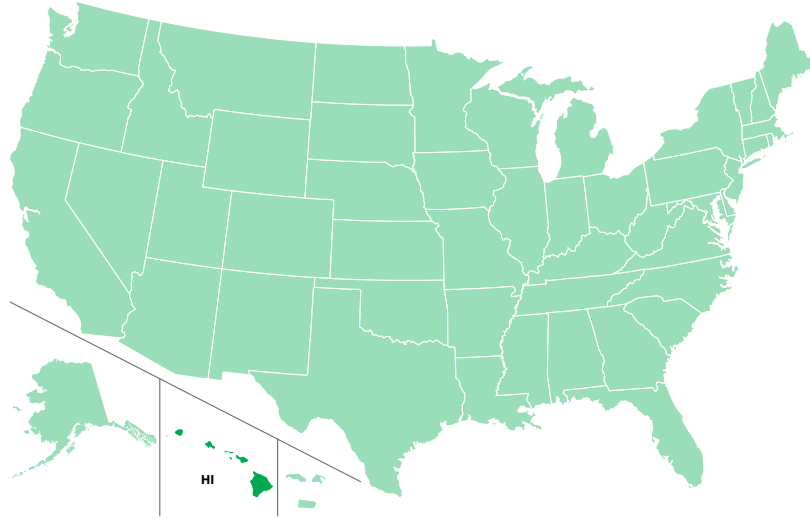
**Pacific Resources for Education and Learning**

**Malkeet Singh**

**Pacific Resources for Education and Learning**



Institute of Education Sciences



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# Nutrition and physical education policy and practice in Pacific Region secondary schools

**The report describes the percentage of secondary schools that have adopted policies and practices for student wellness, physical education, food service, and nutrition education across the seven jurisdictions in the Pacific Region. Policies include providing professional development for lead health education teachers, developing strategies to promote healthy eating, forming a health council, and providing or prohibiting certain foods. Practices include requiring nutrition and physical education courses, and assessing physical activity or nutrition, and encouraging family and community involvement in health topics.**

Obesity is a physically and emotionally debilitating condition that profoundly affects public health and education systems. According to the World Health Organization (WHO), there are 1.5 billion overweight adults in the world, with more than 200 million men and nearly 300 million women defined as obese (World Health Organization 2011).<sup>1</sup> The global prevalence of obesity in children, defined as being at or above the 95th percentile of body mass index for age and gender, has nearly quadrupled over the past 30 years. Overweight children experience cardiovascular risk factors, such as elevated blood pressure, elevated cholesterol or triglycerides, and high insulin levels (Telljohann,

Symons, and Pateman 2007). Poor dietary habits during childhood and adolescence also increase the risk of disease, unhealthy behaviors associated with weight gain during adulthood, adult overweight or obesity, and aberrant emotional and cognitive development (World Health Organization 2000; Lin, Guthrie, and Frazao 2001; Telljohann, Symons, and Pateman 2007). Without a positive change in dietary and physical activity patterns, childhood obesity can lead to the early onset of life-threatening medical conditions, including diabetes, heart disease, and cancer (World Health Organization 2011).

Healthy eating and physical exercise are crucial for proper emotional and cognitive development in children and adolescents. Two main reasons for the rise in obesity over the past few decades are change in diets and decline in physical activity. Food portion sizes have increased, sugary drinks and foods high in saturated fats are more common, and young people are less active on average (Ogden et al. 2002; Ogden et al. 2006).

Federal and state health education programs are one of the primary means of relaying fitness and nutrition information to children (Barton and Coley 2009). This information is transmitted through nutrition education; physical education and opportunities for physical activity;

school nutrition policies that govern school lunch, breakfast, and snack nutrition content; and funding or support for school-based activities to promote student health and wellness. Legislating new programs, promulgating food service provider regulations, and developing standards for state education agency teachers and staff have affected nutrition and physical education policies in recent decades.

Increasing concerns about health issues and dietary considerations in the Pacific Region reveal a need to study education programs that disseminate information about health, physical activity, and nutrition. Recent WHO data show that 7 of the 10 countries with the highest prevalence of overweight people are Pacific Island nations, and the WHO cautions that children in these nation-states are at increased risk of developing Type 2 diabetes and other noncommunicable diseases (World Health Organization 2010, 2011).<sup>2</sup>

This study responds to regional requests for information on health issues and dietary considerations in the Pacific Region by providing relevant statistics and references to health education programs, policies, and practices in secondary schools<sup>3</sup> in Hawaii, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the Republic of the Marshall Islands, the Federated States of Micronesia (Pohnpei, Kosrae, Chuuk, and Yap), and the Republic of Palau.<sup>4</sup>

This study is guided by eight research questions:

- What are the current policies for student wellness, physical education, food service, and nutrition education in secondary schools in the seven Pacific Region jurisdictions?
- What percentage of secondary schools in the seven Pacific Region jurisdictions teach a required health education or physical education course?
- What percentage of lead health education teachers in secondary schools in the seven Pacific Region jurisdictions are offered professional development in nutrition and dietary behavior or physical activity and fitness? What percentage of physical education teachers are certified?
- What percentage of secondary schools in the seven Pacific Region jurisdictions offer certain types of healthy or unhealthy foods for purchase?
- What percentage of secondary schools in the seven Pacific Region jurisdictions implement specific strategies to promote healthy eating?
- What percentage of secondary schools in the seven Pacific Region jurisdictions have some type of health council?
- What percentage of secondary schools in the seven Pacific Region jurisdictions encourage family and community involvement in health topics?
- What percentage of secondary schools in the Pacific Region use some type of evaluation instrument to assess physical activity or nutrition?

Key findings include:

- The most common nutrition and physical education policies in secondary schools in

the seven Pacific Region jurisdictions are physical education curriculum standards (six jurisdictions), student wellness policies (five jurisdictions), and school foods policy (five jurisdictions).

- Fewer than half the jurisdictions have nutrition education curriculum standards, provide nutrient content for school meals to students and parents, or require physical education in every grade. Only one jurisdiction, Hawaii, has a nutrition or health advisory council.
- American Samoa is the only jurisdiction that reported 100 percent of secondary schools requiring a health education course in grades 6–12, and the Republic of Palau is the only jurisdiction that reported requiring a physical education course in all secondary schools in grades 6–12.
- All jurisdictions reported that more than 75 percent of their secondary schools' physical education staff members are certified in physical education.
- Only American Samoa (11.5 percent) and the Commonwealth of the Northern Mariana Islands (14.3 percent) reported double-digit percentages of secondary schools that allow students to purchase fruits or nonfried vegetables in vending machines or school stores. Guam and the Republic of Palau reported that no schools in their jurisdictions offer such products for sale to students.
- More than half of secondary schools in Guam and Hawaii prohibit advertising and promoting candy, fast food, and sodas

in school buildings, on school grounds, on school buses or other vehicles used to transport students, in school publications, and through sponsorship of school events on school premises.

- Across the Pacific Region, 83 percent of secondary schools have someone who oversees or coordinates school health and safety programs.
- Approximately 83 percent of secondary schools in the Republic of Palau help students' families develop or implement policies and programs related to physical activity and nutrition and healthy eating, while 24 percent of secondary schools in Hawaii and 18 percent of secondary schools in Guam do.
- The Commonwealth of the Northern Mariana Islands and the Republic of Palau are the only two jurisdictions in which more than 70 percent of secondary schools use some type of self-evaluation instrument to assess physical activity or nutrition policies, activities, and programs.

## Notes

1. Overweight in adults is defined as a body mass index (BMI) of 25.0–29.9. Obese is defined as having a BMI of 30.0 or greater. BMI is a standardized ratio of body weight in relation to height. It is calculated as weight in kilograms divided by height in meters squared (National Institutes of Health 2008). Overweight in children is defined using growth charts.
2. The seven Pacific Island nations are Nauru (96.9 percent of men and 93.0 percent of women are overweight), Cook Islands (93.4 percent of men and 90.3 percent of women), the Federated States of Micronesia (93.1 percent of men and 91.1 percent of women), Tonga (91.4 percent of men and

92.1 percent of women are overweight), Samoa (81.1 percent of men and 84.1 percent of women), Niue (80.9 percent of men and 86.7 percent of women), and the Republic of Palau (77.2 percent of men and 84.5 percent of women). Two of these countries (Federated States of Micronesia and the Republic of Palau) are part of the Regional Educational Laboratory Pacific Region and are included in this report's analysis.

3. "Secondary school" is defined as a school that instructs at any grade between 6 and 12.
4. Throughout this report, these jurisdictions are discussed in the following order: U.S. state (Hawaii), U.S. territories (American Samoa and Guam), U.S. commonwealth (the Commonwealth of the Northern Mariana Islands), and sovereign nations in free association with the United States (the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau).

## References

- Barton, P., and Coley, R. (2009). Those persistent gaps. *Educational Leadership*, 67(4), 18–23.
- Lin, B.H., Guthrie J, and Frazao E. (2001). American children's diets not making the grade. *Food Review*, 24(2), 8–17. Retrieved March 3, 2008, from <http://ers.usda.gov/publications/FoodReview/May2001/FRV24I2b.pdf>.
- Ogden C.L., Carroll M.D., Curtin L.R., McDowell M.A., Tabak C.J., and Flegal K.M. (2006). Prevalence of overweight and obesity in the United States, 1999–2004. *Journal of the American Medical Association*, 295(13), 1549–55.
- Ogden, C.L., Flegal, K.M., Carroll, M.D., and Johnson, C.L. (2002). Prevalence and trends in overweight among U.S. children and adolescents, 1999–2000. *Journal of the American Medical Association*, 288(14), 1728–1732.
- Telljohann, S.K., Symons, C.W., and Pateman, B. (2007). *Health education: elementary and middle school applications*. New York: McGraw-Hill.
- WHO (WHO (World Health Organization)). (2000). *Obesity: preventing and managing a global epidemic* (Technical Report Series 894). Geneva: World Health Organization.
- WHO (World Health Organization). (2010). WHO Global Info Database. Retrieved January 12, 2011, from [https://apps.who.int/infobase/Comparisons.aspx?l=&NodeVal=WGIE\\_BMI\\_5\\_cd.0704&DO=1&DDLReg=ALL&DDLSex=1&DDLAgeGrp=15-100&DDLYear=2010&DDLMethod=INTMDCTM&DDLCateNum=6&TxtBxCtmNum=20,35,50,65,80&CBLC1=ON&CBLC3=ON&CBLC4=ON&CBLC6=ON&CBLC8=ON&CBLC10=ON&DDLMapsize=800x480&DDLMapLabels=none&DDLtmpRangBK=0&DDLtmpColor=-3342388](https://apps.who.int/infobase/Comparisons.aspx?l=&NodeVal=WGIE_BMI_5_cd.0704&DO=1&DDLReg=ALL&DDLSex=1&DDLAgeGrp=15-100&DDLYear=2010&DDLMethod=INTMDCTM&DDLCateNum=6&TxtBxCtmNum=20,35,50,65,80&CBLC1=ON&CBLC3=ON&CBLC4=ON&CBLC6=ON&CBLC8=ON&CBLC10=ON&DDLMapsize=800x480&DDLMapLabels=none&DDLtmpRangBK=0&DDLtmpColor=-3342388).
- WHO (World Health Organization). (2011). *Obesity and overweight* (Factsheet 311). Retrieved March 3, 2008, from [www.who.int/mediacentre/factsheets/fs311/en/index.html](http://www.who.int/mediacentre/factsheets/fs311/en/index.html).