



## Hawaii

### *State Nutrition, Physical Activity, and Obesity Profile*

Obesity has important consequences on our nation's health and economy. It is linked to a number of chronic diseases, including coronary heart disease, stroke, diabetes, and some cancers (NIH Clinical Guidelines, 1998). Among adults, the medical costs associated with obesity are estimated at 147 billion dollars (Finkelstein, 2009). Many American communities are characterized by unhealthy options when it comes to diet and physical activity. We need public health approaches that make healthy options available, accessible, and affordable for all Americans.

# Hawaii - State Nutrition, Physical Activity, and Obesity Profile

CDC's Division of Nutrition and Physical, and Obesity (DNPAO) supports the nation's capacity to address public health in all policies and establish successful and sustainable interventions to support healthy eating and active living. The Division provides support (i.e., implementation and evaluation guidance, technical assistance, training, surveillance and applied research, translation and dissemination, and partnership development) to states, communities and national partners to implement policy, system, and environmental strategies. The goal is to improve dietary quality, increase physical activity and reduce obesity across multiple settings—such as child care facilities, workplaces, hospitals and medical care facilities, schools, and communities.

## State Population of Hawaii

Estimated Total Population 2010<sup>(1)</sup>  
= 1,360,301

Adults age 18 and over<sup>(2)</sup>  
= 77.7% of the total population in 2010

Youth under 18 years of age<sup>(1)</sup>  
= 22.3% of the total population in 2010

<sup>(1)</sup> U.S. Census Bureau. State and County QuickFacts. 2011. Available online at <http://quickfacts.census.gov/qfd/index.html>

<sup>(2)</sup> Calculated estimated = 100% minus percent of the total population under 18 years old, using State and County QuickFacts, 2010 data from the U.S. Census.

## Adult Overweight and Obesity

### Overweight and Obesity<sup>(3)</sup>

- 56.4% were overweight, with a Body Mass Index of 25 or greater.
- 22.7% were obese, with a Body Mass Index of 30 or greater.

### Dietary Behaviors<sup>(4)</sup>

- 32.9% of adults reported having consumed fruits at the recommended level of 2 or more times per day.
- 26.8% of adults reported having consumed vegetables at the recommended level of 3 or more times per day.

### Physical Activity<sup>(5)</sup>

- 52.4% of adults achieved at least 300 minutes a week of moderate-intensity aerobic physical activity or 150 minutes a week of vigorous-intensity aerobic activity (or an equivalent combination).
- 19.6% of adults reported that during the past month, they had not participated in any physical activity.

### Source of Adult Obesity Data:

<sup>(3)</sup> CDC. Behavioral Risk Factor Surveillance System: Prevalence and Trend Data—Overweight and Obesity, U.S. Obesity Trends, Trends by State 2010. Available online at <http://www.cdc.gov/brfss/>

### Source of Adult Fruit and Vegetable Data:

<sup>(4)</sup> CDC. *MMWR* September 2010 State-Specific Trends in Fruit and Vegetable Consumption Among Adults United States, 2000–2009. Available online at <http://www.cdc.gov/mmwr/pdf/wk/mm5935.pdf>

### Source of Adult Physical Activity Data:

<sup>(5)</sup> CDC. BRFSS Behavioral Risk Factor Surveillance System: Prevalence and Trend Data—Physical Activity, U.S. Physical Activity Trends by State 2009–2010. Available online at <http://www.cdc.gov/brfss/>

## Adolescent Overweight and Obesity

### Overweight and Obesity<sup>(6)</sup>

- 14.0% were overweight ( $\geq 85^{\text{th}}$  and  $< 95^{\text{th}}$  percentiles for BMI by age and sex, based on reference data).
- 14.5% were obese ( $\geq 95^{\text{th}}$  percentile BMI by age and sex, based on reference data).

### Unhealthy Dietary Behaviors<sup>(6)</sup>

- **Fruit consumption:** 75.6% ate fruits or drank 100% fruit juice less than 2 times per day during the 7 days before the survey (100% fruit juice or fruit).
- **Vegetable consumption:** 85.3% ate vegetables less than 3 times per day during the 7 days before the survey (green salad; potatoes, excluding French fries, fried potatoes, or potato chips; carrots; or other vegetables).
- **Sugar-sweetened beverage consumption:** 20.8% drank a can, bottle, or glass of soda or pop (not including diet soda or diet pop) at least one time per day during the 7 days before the survey.

### Physical Activity<sup>(6)</sup>

- **Achieved recommended level of activity:** Only 18.1% were physically active\* for a total of at least 60 minutes per day on each of the 7 days prior to the survey.
- **Participated in daily physical education:** 11.4% of adolescents attended daily physical education classes in an average week (when they were in school).

### Physical Inactivity<sup>(6)</sup>

- **No activity:** 18.3% did not participate in at least 60 minutes of physical activity on any day during the 7 days prior to the survey.
- **Television viewing time:** 30.1% watched television 3 or more hours per day on an average school day.

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## ✦ The 2010 Hawaii School Health Profiles assessed the school environment, indicating that among high schools<sup>(7)</sup>

- 75.8% did not sell less nutritious foods and beverages anywhere outside the school food service program.
- 1.4% always offered fruits or non-fried vegetables in vending machines and school stores, canteens, or snack bars, and during celebrations whenever foods and beverages were offered.
- 67.7% prohibited all forms of advertising and promotion of candy, fast food restaurants, or soft drinks in all locations. All school-related locations were defined as in school buildings; on school grounds, including on the outside of the school building, on playing fields, or other areas of the campus; on school buses or other vehicles used to transport students; and in school publications.

### Sources of Adolescent Obesity, Fruit and Vegetable, Sugar-sweetened Beverages, and Physical Activity Data:

\* Physical activity defined as “any kind of physical activity that increases your heart rate and makes you breathe hard some of the time.”

<sup>(6)</sup> CDC, Division of Adolescent and School Health. The 2009 Youth Risk Behavior Survey. Available online at <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>

<sup>(7)</sup> CDC, Division of Adolescent and School Health. The 2010 School Health Profiles. Available online at <http://www.cdc.gov/healthyyouth/profiles/index.htm>

## Child Overweight and Obesity

### ✦ Breastfeeding<sup>(8)</sup>

Increasing breastfeeding initiation, duration, and exclusivity is a priority strategy in CDC's efforts to decrease the rate of childhood obesity throughout the United States.

- 85.0% of infants were Ever Breastfed.
- 52.4% of infants were Breastfed for at least 6 months.

### ✦ Body Mass Index<sup>(9)\*</sup>

Among Hawaii's children aged 2 years to less than 5 years\*

- 12.5% were overweight (85<sup>th</sup> to < 95<sup>th</sup> percentile BMI-for-Age).
- 9.1% were obese (≥ 95<sup>th</sup> percentile BMI-for-Age).

### Sources of Breastfeeding Data:

<sup>(8)</sup> CDC. Division of Nutrition, Physical Activity, and Obesity Breastfeeding Report Card 2011. Centers for Disease Control and Prevention National Immunization Survey, Provisional Data, 2008births. Available online at <http://www.cdc.gov/breastfeeding/data/reportcard2.htm>

### Sources of Child Obesity Data:

<sup>(9)</sup> CDC. Division of Nutrition, Physical Activity, and Obesity. 2010 Pediatric Nutrition Surveillance System, Table 6 (PedNSS). [http://www.cdc.gov/pednss/pednss\\_tables/tables\\_health\\_indicators.htm](http://www.cdc.gov/pednss/pednss_tables/tables_health_indicators.htm)

\* BMI data only includes low-income children from the PedNSS sample and do not represent all children.

\* BMI data is based on 2000 CDC growth chart percentiles for BMI-for-age for children 2 years of age and older.

## Hawaii's Response to Obesity

### ✦ The Healthy Hawaii Initiative (HHI)

Launched in 2000, the HDOH Healthy Hawaii Initiative (HHI) is an ongoing statewide effort to encourage healthy lifestyles and the environments that support them. The Prevention Programs in the Initiative seek to increase rates of physical activity, fruits and vegetables consumption, breastfeeding, and to reduce rates of smoking, sedentary screen time, and the consumption of sugar-sweetened beverage consumption and energy dense food. Prevention programs are organized into five interrelated component areas: School Health, Community Intervention; Public and Professional Education, Supplemental Nutrition Assistance Program – Education Connection (SNAP-Ed), and the Science and Research Group (SRG). For more information, please visit the Healthy Hawaii Initiative's website at: [www.healthyhawaii.com](http://www.healthyhawaii.com).

### ✦ HHI Partnerships

Through partnerships HHI works toward implementing policies and environmental and systems changes that will increase opportunities for residents to start and maintain healthy behaviors. Healthy Hawaii Initiative funds assist in building public health capacity through a partnership with the University of Hawaii, Department of Public Health Sciences (UH DPHS).

### ✦ Environmental Community Interventions

The public's ability to engage in a recommended level of physical activity is influenced by the design of neighborhoods, cities, transportation systems, parks, trails, and other public recreational facilities. Likewise, the availability and accessibility of healthy foods in the workplace, school, or neighborhood impacts food choices. With a renewed emphasis on environmental interventions, HHI provides technical assistance and resources to build community capacity that works toward state and local policy, systems, and built environment changes:

- **Nutrition and Physical Activity Coalitions (NPACs):** NPAC supports state and county coalitions to mobilize partnerships and convenes partners to educate them on strategies to increase physical activity, with an emphasis on the built environment.
- **Baby Friend Hawaii Project:** Partnering with the Breastfeeding Coalition of Hawaii to increase hospital support for breastfeeding by improving maternity care practices statewide.
- **The Built Environment:** Providing training opportunities to inform and educate stakeholders to change social norms and understand how built environment designs, policies, and systems limit or support healthy behaviors.

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- **Community Pilot Projects:** Providing technical assistance and resources for pilot programs by communities to achieve sustainable physical activity and healthy eating interventions.
- **Community-based Nutrition Education:** Working with community health centers to expand culturally tailored and integrated nutrition education modules for families with low health literacy

## School Health Interventions

Schools have been identified by HHI as the single most important institution with potential to improve educational and health outcomes for young people. HHI partners with the Hawaii State Department of Education (HDOE), the University of Hawaii (UH), and other external partners to implement the following strategies:

- **Model School Project:** Supporting implementation of school policy changes with for-credit professional development workshops, technical assistance, and resources
- **School Foods Service Project:** Developing school based lunch recipes using fresh vegetables with a leading culinary chef instructor, and training for school food service managers on the new recipes to increase adoption
- **Garden to Table Classroom Project:** Providing technical assistance to schools that develop garden to table nutrition education projects
- **After-School Project:** Supporting implementation of nutrition education in after-school programs with qualified schools serving low-income families
- **School Health Survey Committee:** Monitoring, coordinating, and funding youth surveillance studies – Youth Risk Behavioral Surveillance Study, Youth Tobacco Survey, and Alcohol, Tobacco and Other Drugs Survey – in partnership with the Hawaii Department of Education and the University of Hawaii. HHI also created the Safety and Wellness Survey to track school level implementation of the state Wellness Guidelines.

## Start Living Healthy Public Education Campaign

HHI's Start Living Healthy media campaign uses television, radio, a variety of print ads, and web-based materials to encourage Hawaii's adults and youth to engage in the recommended levels of physical activity and eat healthy foods. Based on the Stages of Change model, Hawaii's campaigns have focused on moving the audience out of Precontemplation with "You Gotta Start Somewhere" (2003), and on moving Contemplators into Action with "1% or Less is Best Milk campaign" (2004 & 2005), "Step It Up Hawaii" (2007 & 2008), and "Fruits and Veggies. Good Choice!" (2007 & 2008). HHI uses a social marketing approach and works with partners to have health promotion messages promoted in communities throughout the state.

## Hawaii Health Data Warehouse Project

The Hawaii Health Data Warehouse Project was created to standardize the collection, management, and reporting of state health data. The HHI Science and Research group compiles data from the HDOH and others, and makes it available online to professionals and the public by topic or surveillance data set (<http://hhdw.org>); by context, comparing community health data to state and national data ([www.hawaiihealthmatters.org](http://www.hawaiihealthmatters.org)); and by project, with evaluation data published through a partnership with the University of Hawaii, Department of Public Health Sciences (UH DPHS).

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[www.healthyhawaii.com](http://www.healthyhawaii.com)

## References

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Finkelstein, EA, Trogon, JG, Cohen, JW, and Dietz, W. Annual medical spending attributable to obesity: Payer- and service-specific estimates. Health Affairs 2009; 28(5): w822-w831.

