



## North Carolina

### *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.

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.

# North Carolina - State Nutrition, Physical Activity, and Obesity Profile

## State Population of North Carolina

- Estimated Total Population 2010<sup>(1)</sup>  
= 9,535,483
- Adults age 18 and over<sup>(2)</sup>  
= 76.1% of the total population in 2010
- Youth under 18 years of age<sup>(1)</sup>  
= 23.9% 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>

- 64.9% were overweight, with a Body Mass Index of 25 or greater.
- 27.8% were obese, with a Body Mass Index of 30 or greater.

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

- 25% of adults reported having consumed fruits at the recommended level of 2 or more times per day.
- 27.5% of adults reported having consumed vegetables at the recommended level of 3 or more times per day.

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

- 42.8% 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).
- 26.4% of North Carolina's 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>

- 14.6% were overweight ( $\geq 85^{\text{th}}$  and  $< 95^{\text{th}}$  percentiles for BMI by age and sex, based on reference data)
- 13.4% were obese ( $\geq 95^{\text{th}}$  percentile BMI by age and sex, based on reference data)

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

- **Fruit consumption:** 72.4% 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:** 90.9% 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:** 32.5% 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 24.1% 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:** data not available on the percent of students attending physical education classes 5 days during an average week when they go to school.

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

- **No activity:** 15.4% 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:** 36.2% watched television 3 or more hours per day on an average school day.

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

- 42.1% did not sell less nutritious foods and beverages anywhere outside the school food service program.
- 8.3% 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.
- 49.1% 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.

- 67.3% of infants were Ever Breastfed.
- 37.0% of infants were Breastfed for at least 6 months.

### ✦ Body Mass Index<sup>(9)\*</sup>

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

- 16.2% were overweight (85th to < 95th percentile BMI-for-Age)
- 15.5% were obese ( $\geq$  95th 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.

## North Carolina's Response to Obesity

### ✦ Eat Smart, Move More NC

Eat Smart, Move More NC is a statewide movement that promotes increased opportunities for healthy eating and physical activity wherever people live, learn, earn, play and pray. The PAN Branch serves as a member of the Eat Smart, Move More NC (ESMM) Leadership Team, comprised of more than 60 partners working together to increase opportunities for healthy eating and physical activity. Eat Smart, Move More: North Carolina's Plan to Prevent Overweight, Obesity and Related Chronic Diseases 2007-2012 outlines evidence-based strategies any setting can put into practice. To learn more, visit [www.eatsmartmovemorenc.com](http://www.eatsmartmovemorenc.com).

### ✦ Faithful Families Eating Smart and Moving More

Faith-based organizations implement individual, interpersonal, policy and environmental strategies to promote physical activity and healthy eating in

seven (7) NC counties. The PAN Branch, in partnership with NC Cooperative Extension Expanded Food and Nutrition Education Program (EFNEP), is working to train Extension and health department staff in order to expand the Faithful Families ESMM Program throughout the state.

### ✦ Eat Smart Move More Community Grants

The Eat Smart Move More Community Grants Program supports local health departments and their community partners to develop community-based interventions that promote physical activity and healthy eating. Robert Wood Johnson Foundation funding will assist staff in evaluating the impact of the ESMM Community Grant Program on the physical activity levels of youth ages 9-14 during fiscal years 2011 and 2012.

### ✦ Statewide Health Promotion

The NC Statewide Health Promotion Program provides funding to 85 local health departments and districts to support community-based programs promoting policy and environmental changes that will support increased physical activity, healthy eating and tobacco cessation.

### ✦ Worksite Wellness Collaborative Initiative

North Carolina is supporting the development of a Worksite Wellness Collaborative, providing direct technical assistance to businesses and will lead state policy efforts to support businesses offering comprehensive worksite wellness programs. This effort aligns with recommendations from the North Carolina Institute of Medicine's 2009 *Prevention Action Plan* and is supported by American Recovery and Reinvestment Act of 2009 funding.

### ✦ Healthy Environments Initiative

The Healthy Environments Initiative consists of three main elements:

- Conducting state level policy analysis and defining a specific process for promoting physical activity through land use and transportation planning. This includes creation of a program inventory and gap analysis.
- Partnering with local pilot communities to inform state policy efforts. This involves selection of pilot communities, training local implementation, and including these community leaders in focus groups.
- Implementing marketing and media strategies to promote change within communities and the administrations that serve them.



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The initiative is led by the Healthy Environments Collaborative comprised of the NC Departments of Health and Human Services, Transportation, Commerce, and Environment and Natural Resources, working closely with partners from the University of North Carolina and North Carolina State University. The Collaborative's mission is to integrate and influence interdepartmental efforts to improve the health of North Carolina's people, environments, and economy.

### North Carolina Sustainable Local Food Advisory Council

The State Health Director within the Division of Public Health, North Carolina Department of Health and Human Services serves as one of 27 members of the NC Sustainable Local Food Advisory Council. The Council was signed into law in August 2009. Created within the NC Department of Agriculture and Consumer Services, the purpose of the Council is to contribute to building a local food economy that increases consumer access to fresh and nutritious foods while providing greater food security for all North Carolinians.

### 21st Century Farmers' Markets Program

Aimed at increasing debit, credit and Electronic Benefits Transfer (EBT) use by NC Food and Nutrition Services (i.e., Food Stamp) clients at selected Farmers' Markets, this innovative policy, environmental change and social marketing program is directly supported by PAN Branch staff. Results of a statewide survey of FNS clients coordinated by PAN is being used to craft promotional, marketing and nutrition education campaign materials

### USDA Fresh Fruit and Vegetable Program

The North Carolina PAN Program is collaborating with the NC Department of Public Instruction to assist Child Nutrition program staff in 106 elementary schools to implement the USDA's Fresh Fruit and Vegetable Program and to purchase more locally-sourced fruits and vegetables.

### Contact Information

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### 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.

