



OBESITY IN THE DISTRICT OF COLUMBIA, 2014

STRIVING TO REDUCE AND PREVENT OVERWEIGHT AND OBESITY AMONG D.C. RESIDENTS



Notice of Non-Discrimination

In accordance with the D.C. Human Rights Act of 1977, as amended, D. C. Code section 2.1401.01 et seq., (“the Act”) the District of Columbia does not discriminate on the basis of race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, familial status, family responsibilities, matriculation, political affiliation, disability, source of income, or place of residence or business. Discrimination in violation of the Act will not be tolerated.

Violators will be subject to disciplinary action.

August 2014

Acknowledgments

GOVERNMENT OF THE DISTRICT OF COLUMBIA

Vincent C. Gray, Mayor

DEPARTMENT OF HEALTH

Joxel Garcia, MD., MBA, Director

PUBLIC INFORMATION OFFICER

Najma Roberts

OFFICE OF THE DIRECTOR

Division of Epidemiology, Disease Surveillance and Investigation

John Davies-Cole, PhD, MPH State Epidemiologist

PREPARED BY

Behavioral Risk Factor Surveillance System

Division of Epidemiology, Disease Surveillance and Investigation

Office of the Director

Tracy Garner, Program Coordinator

Tasha Lewis, Data Analyst

SPECIAL THANKS

Center for Policy, Planning and Evaluation, Department of Health

Fern Johnson-Clarke, PhD, Senior Deputy Director

Community Health Administration, Department of Health

Bureau of Cancer and Chronic Disease Prevention

Jason Brown, MSPH, Bureau Chief

Diabetes and Cardiovascular Health Program, Department of Health

Bureau of Cancer and Chronic Disease Prevention

Community Health Administration

Robin Diggs Outlaw, MPH, Program Manager - Obesity Action Plan Update

Center for Policy, Planning and Evaluation, Department of Health

Research and Analysis Division

Rowena Samala, MPH, Statistician - Mortality Data

State Health Planning and Development, Department of Health

Gerald Lucas, Data Analyst - Hospital Discharge Data

Health Licensing and Regulation Administration, Department of Health

Food and Safety and Hygiene Inspection Services Division

Robert Sudler, MS, Program Manager - Listing of Food Establishments

Government of the District of Columbia

Department of Consumer and Regulatory Affairs (DCRA)

Listing of Food Establishments

Table of Contents

| | |
|--|----|
| Executive Summary | 5 |
| Introduction | 6 |
| Methodology | 7 |
| Demographics | 11 |
| What is Obesity | 12 |
| Global Obesity | 13 |
| Obesity Trends | 14 |
| Disparities | 15 |
| Obesity Economic Consequences | 17 |
| Genetics and Obesity | 18 |
| Obesity in the District of Columbia | 19 |
| Obesity and Chronic Disease | 21 |
| Diabetes and Obesity | 24 |
| Hypertension and Obesity | 26 |
| Arthritis and Obesity | 28 |
| Cancer and Obesity | 30 |
| Stroke and Obesity | 32 |
| Heart Disease and Obesity | 34 |
| Adults Physical Activity | 36 |
| Adult Nutrition | 40 |
| Menu Labeling | 43 |
| Fast Food | 44 |
| Youth Obesity | 47 |
| YRBS Findings | 48 |
| Youth and Physical Activity | 51 |
| Youth and Nutrition | 53 |
| Advertising and Youth | 55 |
| Unhealthy Food Options in Close Proximity to Schools | 56 |
| District of Columbia Obesity Action Plan Update | 65 |

Executive Summary

More than one-third of adults in the United States are obese¹ and approximately 17% of children and adolescents between 2 and 19 years of age are obese.² The annual medical care costs related to obesity was 147 billion dollars in 2008.³ Obese individuals experience medical costs that are \$1,429 higher than those of normal weight individuals. Obese individuals also have an increased risk of developing obesity related chronic diseases like heart disease, stroke, type 2 diabetes and certain cancers (e.g., breast and colon).

In 2012, the District's adult obesity rate was 21.9%, second lowest behind Colorado at 20.5%.⁴ In 2011, the District had the 3rd highest rate of obesity within the 10-17 years of age population, according to the National Survey of Children's Health.⁵

Key Facts:

- There was a 2% decrease among adults who were obese in 2012 compared to 2011 (DC BRFSS)
- African Americans were more likely to have the highest rates of obesity and chronic disease compared to all other race/ethnic groups (DC BRFSS)
- Individuals with less education and lower incomes were more likely to be obese, regardless of race or ward (DC BRFSS)
- Residents who resided in Wards 4, 5, 7 and 8 had the highest rates of obesity, at 28.4%-36.2% (DC BRFSS)
- Arthritis among obese residents decreased by 10.9% from 2011 to 2012 (DC BRFSS)
- Stroke among obese residents decreased by 2.7% from 2011 to 2012 (DC BRFSS)
- Compared to 2011, the percentage of residents that reported a lack of physical activity in 2012 decreased by 9.5% (DC BRFSS); normal weight and overweight residents who ate out at a fast food restaurant or ate carry-out food ≥ 3 times within the past two weeks, at 23.7%. (DC BRFSS)
- In 2012, obese residents were more likely than residents who were of a normal weight or overweight to drink soda three or more times within the past seven days, at 27.6% (DC BRFSS)
- In 2011, 18% of District high school students were overweight and 14.5% were obese (DC YRBS)
- High school students were less likely than middle school students to participate in at least 60 minutes of physical activity on any day (DC YRBS)
- 76.5% of high school students drank a can, bottle or glass of soda or pop during the past seven days (DC YRBS)
- Ward 1 had the most unhealthy food options within 0.4 miles of a DC Public or Charter school (HRLA, DCRA, Google and DC Atlas)

1 CDC – Overweight and Obesity – Adult Obesity Facts <http://www.cdc.gov/obesity/data/adult.html> Accessed November 14, 2013

2 CDC – Overweight and Obesity – Data and Statistics - <http://www.cdc.gov/obesity/data/childhood.html>

3 CDC - Overweight and Obesity. Causes and Consequences. <http://www.cdc.gov/obesity/adult/causes/index.html> Accessed November 14, 2013

4 CDC-BRFSS -www.cdc.gov/brfss - Accessed January 14, 2014

5 National Survey of Children's Health - Data Resource Center for Child & Adolescent Health. <http://www.childhealthdata.org/learn/NSCH> Accessed January 14, 2014

Introduction

There are a variety of factors that contribute to obesity apart from a sedentary lifestyle, unhealthy eating patterns, and genetics. Socioeconomic status, safety, and the built environment can have major implications on the types of food options available within communities and whether residents have adequate space or a designated location to exercise.

Over the past decade our nation's food environment has changed significantly. Most of the foods we consume do not come from nearby farms but are instead transported from other countries or thousands of miles away reducing the freshness of the food. As a result, our foods require more preservatives to maintain freshness. The abundance of fast food restaurants in close proximity to one another offers individuals and families a convenient source of food, but contribute to a higher incidence and mortality of chronic diseases, increased health care expenditures, and loss of personal and work-related productivity that diminishes the quality of life of Americans.

Unhealthy eating patterns and lack of physical activity are the second and third leading preventable causes of death followed by smoking.¹ Despite the strong evidence of the health benefits related to adequate physical activity and healthy eating patterns (e.g., fruits and vegetables)¹, a sedentary lifestyle and unhealthy eating patterns are becoming more commonplace. Each year, obesity contributes to an estimated 112,000 preventable deaths.² As the rates of obesity continue to increase, it is projected that by 2030, health care costs attributable to obesity could range from \$860 billion to \$956 billion.³

In 2012, there was a 2% decrease in obesity rates among adults in the District of Columbia compared to 2011. However, in four of the District's poorest wards (Wards 4, 5, 7 and 8) the change in obesity rates among adults was 3%-7.3%, decreasing in Wards 5, 7 and 8 in 2012 but increased in Ward 4 by 5.2%. Rates in Wards 5, 7 and 8 remain higher than the national average and all U.S. states. Wards 7 and 8 have the highest unemployment rate in the District. All of these factors have contributed to negative health outcomes seen over the past decade.

Below are strategies⁴ for decreasing obesity and obesity-related chronic diseases and increasing healthy eating patterns and an active lifestyle among District residents:

- Increase the availability and affordability of

healthier food and beverage choices in public service venues

- Increase the number of supermarkets/grocery stores in underserved areas (Wards 4, 7 and 8)
- Provide incentives such as tax breaks to food retailers who offer healthier food and beverage choices in underserved areas
- Restrict the availability of less healthy food and beverages in public service venues
- Limit advertisements of unhealthy food and beverages
- Increase support for breastfeeding
- Increase the amount of physical education and activity programs in schools
- Enhance personal safety in areas of the city where individuals are or could be physically active
- Implement zoning restrictions on areas that have a high volume of unhealthy food establishments (e.g., fast food and carry-out restaurants).

A more detailed description of the District's strategies to address obesity is presented in the "District's Obesity Action Plan" on page 65.

This report uses data from the 2011 and 2012 Behavioral Risk Factor Surveillance System (BRFSS) and from the 2003, 2005 and 2011 Youth Risk Behavioral Surveillance System (YRBSS) to examine the following topics:

- Environmental risk factors, socioeconomic status, race, and education and their relationship with overweight and obesity in the District of Columbia
- Relationship between obesity and obesity-related chronic diseases
- Unhealthy food options in close proximity to schools in the District of Columbia
- Mid-review of the District's Obesity Action Plan 2010-2015

¹ CDC Preventing Chronic Disease – The Evolution of the Steps Program, 2003-2010: Transforming the Federal Public Health Practice of Chronic Disease Prevention http://www.cdc.gov/pcd/issues/2012/11_0220.htm

² The Surgeon General's Vision for a Healthy and Fit Nation - <http://www.ncbi.nlm.nih.gov/books/NBK44656/>

³ Trust for America's Health – Fast as Fat 2009: Economic Cost of Obesity Fact Sheet <http://healthyamericans.org/assets/files/CostSheet.pdf>

⁴ Obesity in American – Learn about Consequences and Solutions from World Renowned Adult and Pediatric Faculty <http://www.lpch.org/pdf/cmeBrochures/cmeObesityInAmerica.pdf>

Methodology

All data are current as of July 2013. The following sections explain the data collection methods for each category in greater detail.

Unprepared Food Purchasing Options

Data were obtained from Health Regulation and Licensing Administration, Food Safety, Hygiene Inspection Services (HRLA/FSHIS) and the District of Columbia Consumer and Regulatory Agency (DCRA) and crossed references through Google searches that produced information from the yellow pages on the Internet of dining options located within the District of Columbia. The search for unprepared healthy food purchasing options produced the following results: Giant, Safeway, Murray's, Trader Joe's, Whole Foods, Harris Teeter, YES Organic Market and Farmers Markets. These establishments were grouped into subcategories that were defined as follows:

- Large scale grocery stores: an establishment that primarily sells food items to the public in addition to paper products, toiletries, cooking supplies, and pharmaceutical items.
- Small scale grocery stores: an establishment that sells food items to the public and may not have paper products toiletries, and pharmaceutical items.
- Organic grocery store: an establishment that markets itself as selling primarily organic food items.
- Farmer's markets: an indoor or outdoor market, generally set up in neighborhoods, where farmers sell locally-grown produce.

Prepared Food Purchasing Options

The prepared food purchasing options were defined as establishments that do not provide residents with the option to purchase fresh fruit and vegetables such that the USDA recommendation of fruit and vegetable consumption could be met.

Data obtained for prepared food purchasing options, were defined as food already in meal form intended for immediate consumption on or off site. List was provided by HRLA/FSHIS and DCRA and was crossed referenced using the Google search engine to obtain listings from the yellow book pages. Information from a restaurant chain's website was also used as reference to ensure that all chain restaurants were included. This category was divided into five sub-categories that were defined as follows

- Traditional Fast food restaurants: an establishment that prepares food quickly and specializes in entrees with low nutritional value and high caloric content. Customers pay for food immediately after ordering and have the option to eat in or take the food to go.
- Healthy fast food options: an establishment that prepares food quickly, and specializes in preparing entrees with high nutritional value and low caloric and fat content. Customers pay for food immediately after ordering and have the option to eat in or take the food to go.
- Carry-outs: an establishment that allows customers to purchase food typically with high caloric and low nutritional content intended to be consumed outside of the location from which it was purchased.
- Convenience stores: a small grocery store that primarily sells snack foods and sandwiches, soda, coffee, cigarettes and lottery tickets.
- Gas stations: considered a sub-category to convenience stores since they sell candy, chips, cookies, sugar-sweetened drinks, and soda.

Recreation

Data for recreation and exercise options were obtained from the District of Columbia Parks and Recreation website. A complete listing of all Department of Park and Recreation centers for the District of Columbia can be obtained at www.dpr.dc.gov.

Wards

An overview of each ward and detailed information was obtained from the District of Columbia Office of Planning website <http://planning.dc.gov/planning/cwp/view,a,1400,q,646453.asp>

Advisory Neighborhood Commissions (ANCs)

An overview of ANCs and detailed information was obtained from Council of the District of Columbia's website <http://www.dccouncil.washington.dc.us/neighborhoods>.

School Locations

School data were obtained from the District of Columbia data catalog, which contains complete school information and is verified by the Office of State Superintendent of Education (OSSE). Schools were divided into the

following sub-categories as pre-defined by the District of Columbia school system: charter schools, elementary schools, middle schools, high schools, education campuses, art centers, special education programs, and youth engagement centers.

Census Data

Census data were obtained from the U.S. Census Bureau website. Population estimates from the District of Columbia in 2012 were used.

Data Sources

The Behavioral Risk Factor Surveillance System (BRFSS) is the largest state-based telephone health surveillance system supported by the Centers for Disease Control and Prevention (CDC). The BRFSS is designed to collect national and state level data to assess behaviors and conditions that place adults at risk for chronic disease, injuries, and preventable infectious diseases that are the leading causes of morbidity and mortality in the United States.

During the 2011 survey period, new changes in methodology and data collection were made to increase the integrity, validity, and representativeness of the survey results. Two major changes to the BRFSS were:

- Inclusion of cell phones
- Adoption of an advanced weighting method

BRFSS data on the following topics were used in this report:

- Arthritis
- Overweight/Obesity
- Cancer
- Physical Activity
- Diabetes
- Soda Consumption
- Fast Food
- Stroke
- Heart Disease
- Hypertension

The methodology for conducting BRFSS surveys is standardized by the CDC and described in the 2011 BRFSS Annual Report. (http://doh.dc.gov/doh/frames.as-p?doc=/doh/lib/doh/services/administration_offices/phsa/behavioral_risk/pdf/2007_brfss_annual_report_11_052809.pdf)

Questions used for this report are listed below:

Chronic Diseases

- Have you ever been told by a doctor, nurse or other health professional that you have high

blood pressure?

- Have you ever been told by a doctor, nurse or other health professional that you had angina or coronary heart disease?
- Have you ever been told by a doctor, nurse or other health professional that you had a stroke?
- Have you ever been told by a doctor, nurse or other health professional that you had any other types of cancer?
- Have you ever been told by a doctor, nurse or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus or fibromyalgia?
- Have you ever been told by a doctor, nurse or other health professional that you have diabetes?

Diet/Nutrition

- During the past 7 days, how many times did you drink a can, bottle or lass of soda or pop, such as Coke, Pepsi, or Sprite? Do not include diet soda or diet pop.
- How many times within the past two weeks did you eat out at a traditional fast food restaurant or carryout such as McDonald's, Wendy's, Burger King, Danny's or Yums?
- Would menu labeling make a difference in your future food purchases?

Physical Activity

- What is the main reason you have not engaged in physical activity during the past 30 days?
- During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening or walking for exercise?
- What type of physical activity or exercise did you spend the most time doing during the past month?

The Youth Risk Behavior Surveillance System (YRBSS) monitors six types of health-risk behaviors that contribute to the leading causes of death and disability among youth and adults, including:

- Behaviors that contribute to unintentional injuries and violence
- Sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, including HIV infection
- Alcohol and other drug use
- Tobacco use
- Unhealthy dietary behaviors

- Inadequate physical activity

YRBSS also measures the prevalence of obesity and asthma among youth and young adults.

YRBSS includes a national school-based survey conducted by CDC and state, territorial, tribal, and local surveys conducted by state, territorial, and local education and health agencies and tribal governments.

Data for overweight, obesity, fruit and vegetable consumption, fruit juice consumption, soda consumption, and physical activity for youth under the age of 18 was obtained from 2011 District of Columbia Youth Risk Behavior Surveillance System (YRBSS).

2011 Middle School - Youth Risk Behavior Survey Dietary Behaviors

- How do you describe your weight?
- Have you ever gone without eating for 24 hours or more (also called fasting) to lose weight or to keep from gaining weight?
- Have you ever taken any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight? (Do not include meal replacement products such as Slim Fast.)
- Have you ever vomited or taken laxatives to lose weight or to keep from gaining weight?

Physical Activity

- During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)
- On an average school day, how many hours do you watch TV?
- On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Include activities such as Xbox, PlayStation, Nintendo DS, iPod touch, Facebook, and the Internet.)
- In an average week when you are in school, on how many days do you go to physical education (PE) classes?
- During the past 12 months, on how many sports teams did you play? (Count any teams run by your school or community groups.)

2011 High School - Youth Risk Behavior Survey

- How do you describe your weight?
- During the past 30 days, did you go without eating for 24 hours or more (also called fasting) to lose weight or to keep from gaining weight?
- During the past 30 days, did you take any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight? (Do not include meal replacement products such as Slim Fast.)
- During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?
- During the past 7 days, how many times did you drink 100% fruit juices such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)
- During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)
- During the past 7 days, how many times did you eat green salad?
- During the past 7 days, how many times did you eat other vegetables? (Do not count green salad, potatoes, or carrots.)
- During the past 7 days, how many times did you drink a can, bottle, or glass of soda or pop, such as Coke, Pepsi, or Sprite? (Do not count diet soda or diet pop.)
- During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)
- On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Include activities such as Xbox, PlayStation, Nintendo DS, iPod touch, Facebook, and the Internet.)
- On an average school day, how many hours do you watch TV?
- In an average week when you are in school, on how many days do you go to physical education (PE) classes?

Quality Control

The BRFSS and YRBS data used to develop this report have been cleaned, edited, validated and cleared for use by the CDC and the District of Columbia, respectively.

Geographic Information Systems (GIS)

Mapping Using ESRI GIS 10.2 all addresses for prepared food options, purchased food options, recreation options, healthy food purchase options and schools were obtained from HRLA, DCRA, DPR and OSSE were mapped. The coordinates for the study addresses were retrieved from a website that provides free access to geocoded addresses: <http://geocoder.us/>. Farmers' market locations which were located on cross-section street and did not have a particular point address could not be geocoded and mapped.

All maps used a uniform base map of the District of Columbia divided by wards. The wards were labeled within each map for clarity and better comparisons of distribution within the District. The ESRI shape files were downloaded from <http://dcgis.dc.gov/>. The coordinates of the geocoded addresses were directly used to overlay the data with the Washington, DC base map.

In some cases, the layers were categorized using the map symbology tool, to deliver greater impact. Categories were color-coded and symbols were used when possible to facilitate the interpretation of map data.

Data Analysis

SAS 9.3, Cary, N.C. and IBM SPSS 20 Complex Samples were used to conduct frequency and cross tabulation analyses. Bivariate Pearson Correlation analysis was conducted to assess relationships between residents who were obese in relation to specific risk factors and residents with chronic diseases. Variables used in the analysis were BMI, race, sex, income, education, diabetes, stroke, heart disease, hypertension (2011 only), fruit and vegetable consumption (2011 only), soda consumption, fast food consumption, menu labeling, cancer, arthritis, disability and physical activity. All variables were weighted using the final weight variable to adjust for a non-random sampling method.

Limitations of the Data

Closing and opening of food establishments may not have been updated in the list.

When geocoding addresses, a match rate of <100% occurred and some addressees needed to be manually corrected. As mentioned earlier, some addresses could not be included because cross-streets and intersections could not be geocoded.

As with any survey that involves population sampling, BRFSS data may be affected by sampling error. Sampling error can cause the results to vary from those that would have been obtained from a census of all adults living in telephone-equipped (home or cellular) households. The results of this sample survey could differ from true figures because some households cannot be reached or refuse to participate. Non-responding households may differ from participating households in terms of attributes relevant to the study.

Data from the District of Columbia YRBSS presented in this report only represents the DCPS and not Charter schools within the 2003, 2005, and 2011 survey years. Data for 2013 has not been released, which includes data from DCPS and DCPCS. Overall prevalence rates for the District of Columbia were used, therefore, individuals.

Washington DC Demographics

According to the 2012 Census population estimates, there were 632,323 people living in the District of Columbia. Of this population, 42.9% were White/Caucasian, 50.1% were Black/African American, 3.8% were Asian and 4% were of another race and 9.9% were Hispanic. Of those residents in DC who were 25 or older, 50.5% have earned a bachelor's degree or higher (2007-2011). The median household income is \$61,835 and 18.2% of persons live at or below the poverty level (2007-2011), (Table 1).

The District of Columbia is divided into eight Wards and 40 Advisory Neighborhood Commissions (ANC's). The ANC's are used to advise the District government on neighborhood issues related to zoning, health, police protection, social service programs, parks and recreation and sanitation issue.

Table 1. District of Columbia Population, Race and Income by Ward 2007-2011 US Census

| Ward | Population | Median Income | Caucasian/ White | African American/ Black | Asian | Hispanic* | Native Hawaiian and other Pacific Islander | Some Other Race | Two or More Races |
|-------------|-------------------|--------------------------|-----------------------------|--|--------------|------------------|---|--------------------------------|----------------------------------|
| Ward 1 | 76,197 | 69,083 | 48.4% | 32.5% | 4.1% | 20.8% | 0.1% | 10.3% | 4.0% |
| Ward 2 | 76,197 | 83,989 | 75.4% | 8.8% | 8.9% | 9.5% | 0.1% | 3.5% | 3.1% |
| Ward 3 | 77,152 | 100,652 | 83.5% | 5.0% | 6.7% | 7.5% | 0.0% | 1.5% | 3.0% |
| Ward 4 | 76,207 | 60,689 | 24.5% | 58.7% | 1.6% | 18.7% | 0.1% | 10.7% | 3.9% |
| Ward 5 | 74,528 | 50,882 | 16.5% | 76.0% | 1.4% | 6.3% | 0.0% | 3.0% | 2.7% |
| Ward 6 | 76,288 | 85,421 | 49.1% | 41.9% | 4.3% | 4.8% | 0.1% | 1.5% | 2.8% |
| Ward 7 | 68,768 | 38,535 | 2.0% | 94.6% | 0.2% | 2.7% | 0.0% | 1.2% | 1.7% |
| Ward 8 | 68,549 | 30,705 | 3.6% | 95.6% | 0.4% | 1.8% | 0.0% | 0.5% | 1.7% |

Note: *Hispanics can be of any race.

Source: Prepared by the Office of Planning State Data Center using 2010 Census Redistricting Data adjusted for new ward boundaries as of 6/9/11



Obesity is defined as a Body Mass Index (BMI) of 30 or greater. BMI is calculated from a person's weight and height and provides a credible indicator of body fatness and weight categories that lead to health problems. Behavior, environment and genetic are contributing factors among overweight and obese individuals.¹

$$\text{BMI} = \frac{(\text{Weight (in Kg)})}{(\text{Height in inches})^2 \times 703}$$

Causes of Overweight and Obesity

- Excessive calorie consumption and/or inadequate physical activity
- Combination of genetic, metabolic behavioral environmental cultural and socioeconomic influences
- Sugar-sweetened beverages, such as soda
- Behavioral and environmental factors
- Intake of energy-dense foods that are high in fat, salt and sugars but low in vitamins, minerals and other micronutrients
- Lack of physical activity or a decrease in physical activity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization
- The amount of time spent watching television
- Stress
- Drugs such as steroids and some antidepressants may also cause weight gain.

What is Obesity

Risk Factors²

- High blood pressure (hypertension)
- High LDL cholesterol (bad cholesterol)
- Low HDL cholesterol (good cholesterol)
- High triglycerides
- High blood glucose (sugar)
- Family history of premature heart disease
- Physical inactivity
- Cigarette smoking

Consequences of Overweight and Obesity³

- Coronary heart disease
- Type 2 diabetes
- Cancers (endometrial, breast, and colon)
- Hypertension (high blood pressure)
- Dyslipidemia (for example, high total cholesterol or high levels of triglycerides)
- Stroke
- Liver and Gallbladder disease
- Sleep apnea and respiratory problems
- Osteoarthritis (a degeneration of cartilage and its underlying bone within a joint)
- Gynecological problems (abnormal menses, infertility)

Prevention

- Eat healthy meals and snacks
- Exercise regularly
- Reduce stress
- Improve sleep
- Limit unhealthy food
- Limit television time, screen time or sit time

² National Heart, Lung and Blood Institute. Aim for a Healthy Weight/ Risk Factors
http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/risk.htm

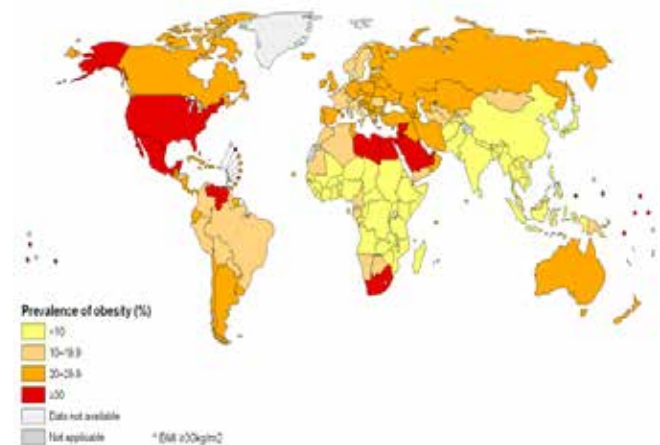
³ Centers for Disease Control and Prevention. Overweight and Obesity – Causes and Consequences. <http://www.cdc.gov/obesity/adult/causes/index.html> Accessed July 9, 2013



Global Obesity

Figure 1 shows the impact of global obesity among adults in 2008.

Figure 1. Global Adult Obesity, 2008



Source: World Health Organization - <http://www.hsph.harvard.edu/obesity-prevention-source/map-of-global-obesity-trends/>. Accessed August 19, 2013

Since 1980, global obesity rates have more than doubled.¹ Sixty-five percent of the world's population live in countries where being overweight/obesity kills more people than being underweight.¹ Once considered a problem solely in wealthy countries, obesity has impacted every region around the world. Figure 1 shows the prevalence of obesity among adults around the world in 2008. Even though the United States had the highest rate of overweight and obesity, globally more than 1.4 billion adults aged 20 years and older were overweight/obese. Of those, over 200 million men and nearly 300 million women were obese.¹ More than 40 million children under the age of five were overweight in 2010.¹

Today, many low and middle-income countries are facing a double burden of disease.² According to the World Health Organization (WHO), it is not uncommon to find under-nutrition and obese individuals existing within the same country, community and household.²

¹<http://www.who.int/mediacentre/factsheets/fs311/en/index.html>

²Harvard School of Public Health – The Obesity Prevention Source – Physical Activity
<http://www.hsph.harvard.edu/obesity-prevention-source/obesity-causes/physical-activity-and-obesity/pidemic>.

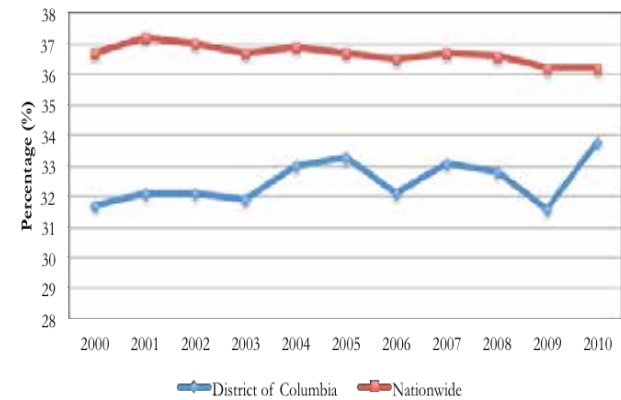


In the United States, one-third of adults are obese (35.7%).¹ Nearly 25% of youth aged 6-19 years old are obese.² Among obese children aged 5-10 years old, 61% have one or more risk factors for heart disease and 27% have two or more.² Nationally, rates among overweight individuals continue to fluctuate and obesity rates continue to see a steady increase (Figures 2 and 3). Typically, males are more likely to be overweight and females are more likely to be obese.

The proportion of overweight District residents have increased over the past decade, reaching its peak in 2010 (Figure 2). The proportion of obese District residents have not changed significantly over the past decade, generally ranging from 20-24%.

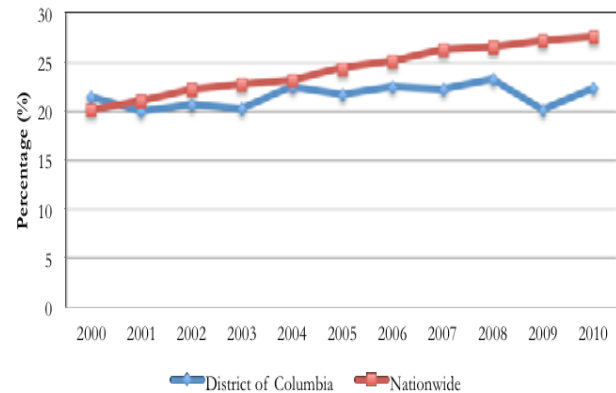
Obesity Trends

Figure 2. Overweight Nationwide and District of Columbia 2000 - 2010



SOURCE: DC BRFSS

Figure 3. Obesity Nationwide and District of Columbia 2000-2010



SOURCE: DC BRFSS

¹Source: CDC Overview

²Source: CDC The Power of Prevention. Chronic Disease.. The Public Health Challenge of the 21st Century.



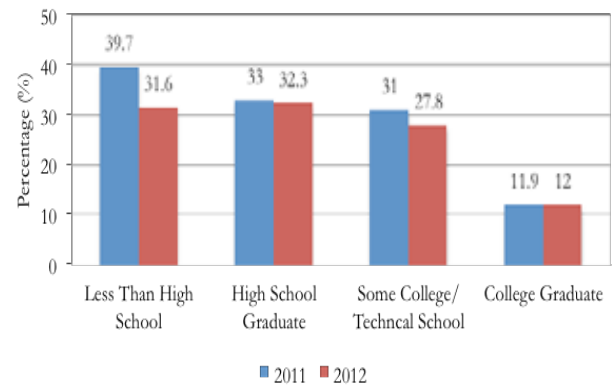
Several studies show that adult obesity rates are linked to an individual's socioeconomic status and educational background. Higher rates of obesity are more likely to occur among those who have lower incomes and less education. Since obesity is associated with many health risks, the higher rates of obesity lead to a greater burden of chronic diseases in these populations.

According to the 2011 and 2012 DC BRFSS, residents with lower incomes and less education were more likely to be obese and have chronic diseases (Figures 4 and 5). With the exception of cancer, high rates of chronic disease were more likely to occur among residents who have a high school diploma or less and have a household income of $\leq \$24,999$ (Figures 6-9).

Note: Some cancers are associated with obesity, however, the 2011 and 2012 BRFSS survey did not include questions that would specify the type of cancer.

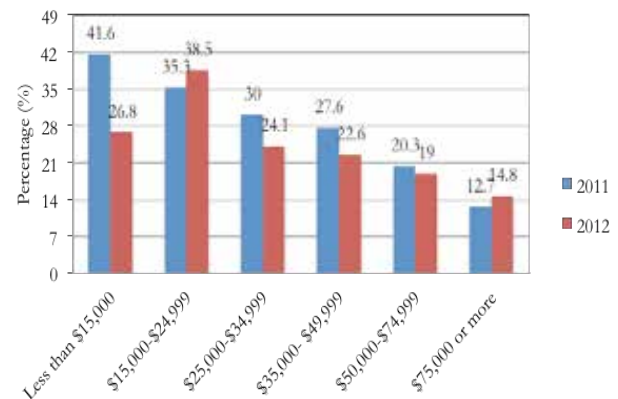
Disparities

Figure 4. Obesity Disparities by Education, District of Columbia



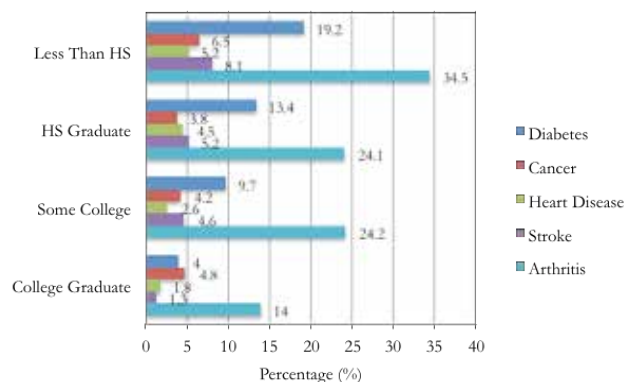
SOURCE: DC BRFSS

Figure 5. Obesity Disparities by Income, District of Columbia



SOURCE: DC BRFSS

Figure 6. Chronic Disease Disparities by Education, District of Columbia, 2011



SOURCE: DC BRFSS

Figure 7. Chronic Disease Disparities by Education, District of Columbia, 2012

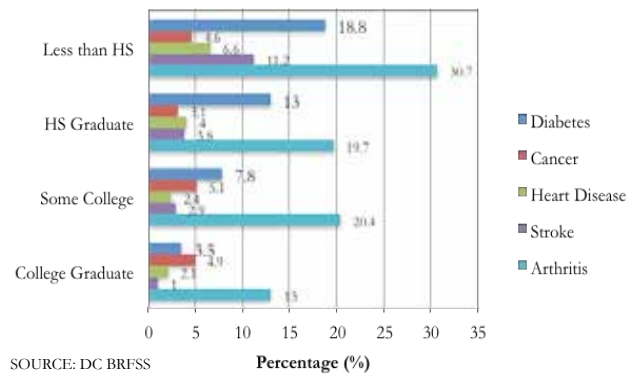


Figure 9. Chronic Disease Disparities by Income, District of Columbia, 2012

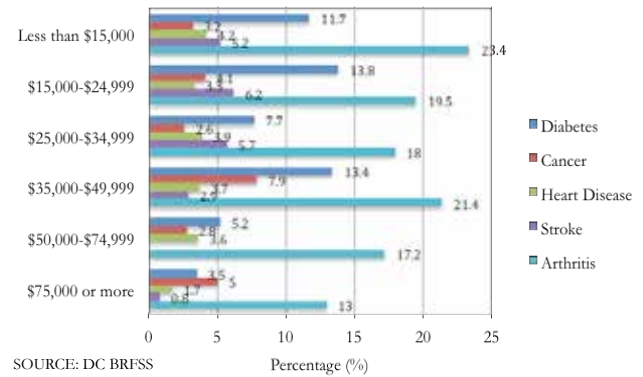
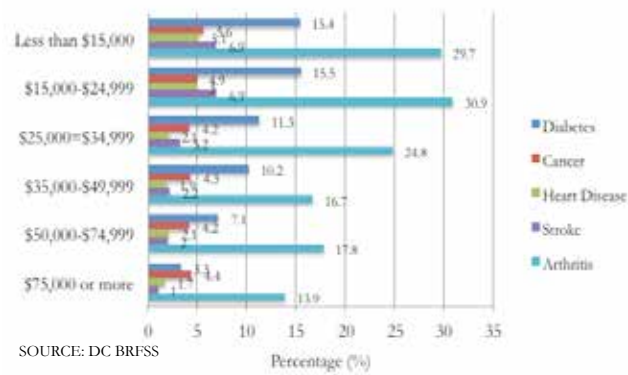
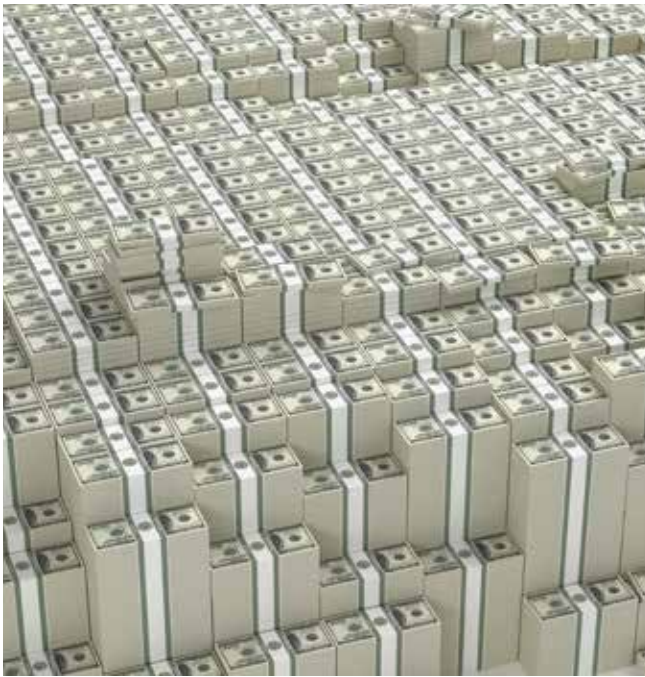


Figure 8. Chronic Disease Disparities by Income, District of Columbia, 2011





More than 75% of the U.S. health care spending is spent on individuals with chronic health conditions.¹ Since 1990, the U.S. health care spending has tripled.¹ The amount of resources the U.S. spends each year for health care is higher than any other nation.¹ Nevertheless, those resources have not translated into health equity or increased quality of life. In fact, the U.S. average life expectancy ranks 26th in the world yet other countries spend less on health care for their citizens.¹ Chronic diseases (e.g., diabetes, cardiovascular disease, and certain forms of cancers) often develop as a result of weight gain, thus obesity is a major contributor to the high rates seen over time.

Escalating expenses and health problems associated with overweight and obesity has had a significant impact on the U.S. health care system. In 2008, medical care costs related to obesity in the U.S. were about \$147 billion and in 2006, the health care expenditures were over \$7,000 per person, more than twice the average of 29 other developed countries.²

Identifying direct costs associated with obesity has been much easier to link than indirect costs. Direct medical costs may include preventive, diagnostic, and treatment services related to obesity.² Indirect costs are linked to morbidity and mortality and defined as the value of income lost from decreased productivity, limited activity, absenteeism, and future income lost by premature death.²

Obesity Economic Consequences

The Chronic Disease Price Tag³

Estimated Annual Direct Medical Expenditures*

Cardiovascular disease and stroke** 313.8 billion in 2009

Cancer 89 billion in 2007

Smoking 96 billion in 2004

Diabetes 116 billion in 2007

Arthritis 80.8 billion in 2003

Obesity 61 billion in 2000

* Different methodologies were used in calculating costs.

** Includes heart diseases, coronary heart disease, stroke, hypertensive disease, and heart failure combined.

*** Average annual expenditure, 2001–2004.

¹Source: Leadership for Healthy Communities – Advancing Policies to Support Healthy Eating and Active Living – Obesity Prevention on a Budget: Low – and No-Cost Policy Options to Increase Healthy Eating and Active Living www.leadershipforhealthycommunities.org

²CDC. Overweight and Obesity. Causes and Consequences. What causes overweight and obesity. <http://www.cdc.gov/obesity/adult/causes/index.html> Accessed June 20, 2013

³Source: CDC At A Glance. Power of Prevention <http://www.cdc.gov/chronicdisease/pdf/2009-Power-of-Prevention.pdf>



Genetics and Obesity

Eating patterns within the household can be a predictor of obesity.

A gene is the basic physical and functional unit of heredity.¹ Genes give the body instructions for responding to changes in its environment.² It has been scientifically proven for most chronic diseases such as diabetes, cancer and heart disease that genetics play a vital role in an individual's risk of that particular disease and obesity is no different.³

According to the Yale Rudd report, obesity is highly inheritable at 60%.² An individual with the obesity gene is more likely than the person without the gene to become obese.

Eating patterns within the household can also be a predictor of obesity. For example, if a parent feeds their children processed foods, sodas and snacks on a consistent basis, the likelihood of the child continuing the same eating patterns into adulthood is relatively high.

¹ National Institute of Health (NIH) <http://ghr.nlm.nih.gov/handbook/basics/gene>

² Yale Rude report

³ Obesity and Genetics May 23, 2013 <http://www.cdc.gov/features/obesity/>³



According to the BRFSS survey, there was a 1.9% decrease in obesity among District residents in 2012 compared to 2011 (Figure 10). Obesity rates have decreased 1.1% among Whites and 3% among African Americans but there was an 11.6% increase among Hispanics (Figure 11). Obesity was prevalent among adults aged 40-64 years (Figure 12). Notable decreases were seen among residents who resided in Wards 7 (decrease by 3%) and 8 (decrease by 7.1%); however, Ward 4 saw an increase in obesity by 5.2% (Figures 13 and 14).

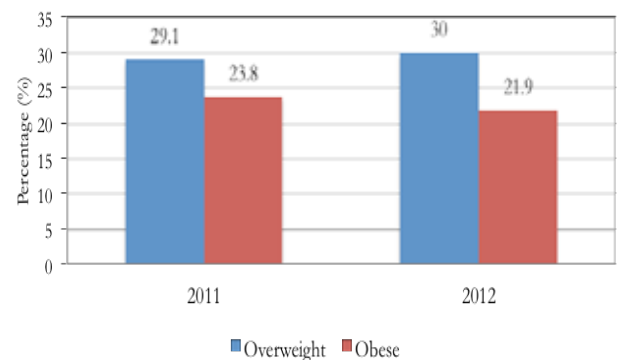
The District ranks 2nd lowest in obesity rates; Colorado¹ ranks number one. However, in the District, Wards 5, 7 and 8 have obesity rates higher than the national average and all U.S. states. These wards also have the highest chronic disease rates, lowest median income, and a large minority population.

Obesity rates have
decreased by
1.9% since 2011

¹ Centers for Disease Control and Prevention - Behavioral Risk Factor Surveillance System. www.cdc.gov/brfss

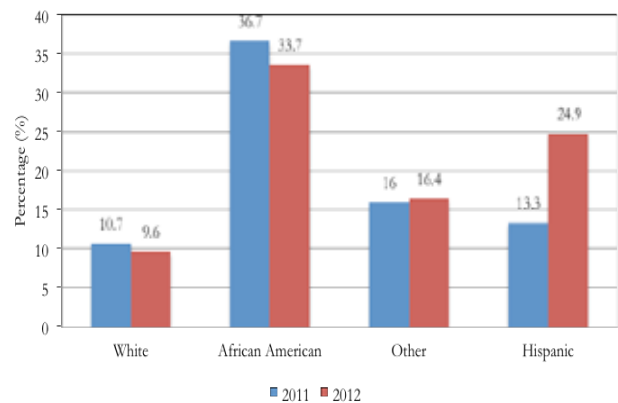
Obesity in the District of Columbia

Figure 10. Overweight and Obesity in the District of Columbia, 2011 and 2012



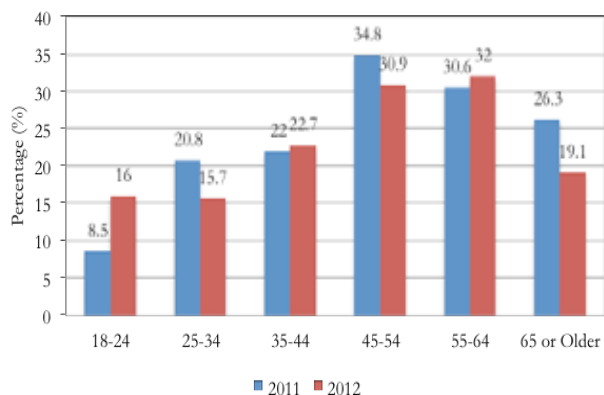
SOURCE: DC BRFSS

Figure 11. Obesity by Race, District of Columbia



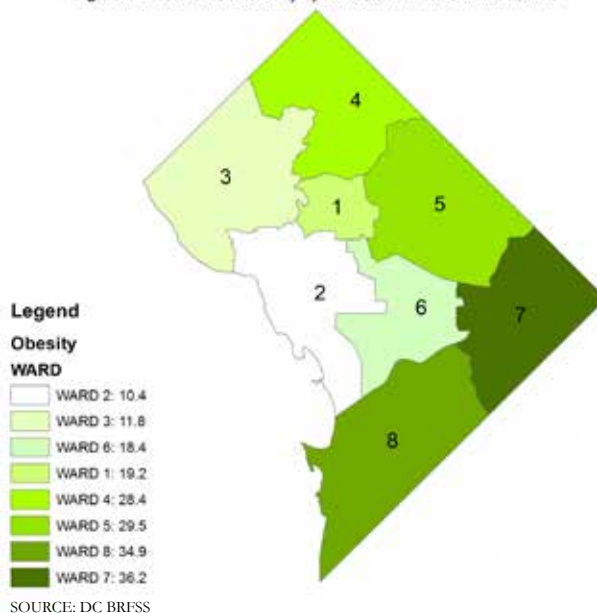
SOURCE: DC BRFSS

Figure 12. Obesity by Age, District of Columbia



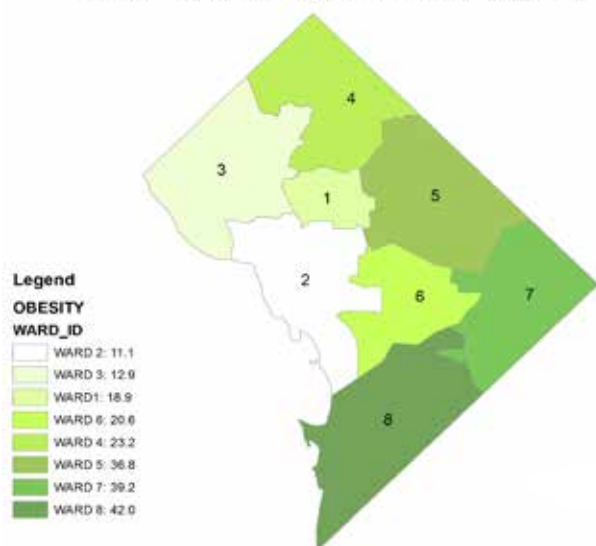
SOURCE: DC BRFSS

Figure 14. Prevalence of Obesity by Ward, District of Columbia, 2012



SOURCE: DC BRFSS

Figure 13. Prevalence of Obesity by Ward, District of Columbia 2011





Seven out of 10 deaths among Americans each year are from chronic diseases.¹ In 2005, 133 million Americans, almost one out of every two adults had at least one chronic disease.¹

Even though chronic diseases are among the most common and expensive health problems to treat and manage they are also among the most preventable. The health consequences of obesity increases the risk of over twenty-six chronic diseases.¹ Today, more individuals are living longer with the assistance of medication to stabilize their chronic health condition. The lack of physical activity, poor nutrition, tobacco use, and excessive alcohol use are also responsible for much of the illness, disability and premature death related to chronic diseases over the past decade.¹ According to the District of Columbia 2011 mortality data, obesity related diseases ranked in the top 10 leading causes of death (heart disease, stroke, diabetes and certain forms of cancer), (Table 2).

According to the DC BRFSS, chronic diseases such as obesity, diabetes, stroke, heart disease, cancer and arthritis have decreased from 2011 to 2012 by 1 to 2% with notable decreases by ward (Tables 3 and 4). With the exception of cancer, high rates of chronic diseases and obesity were more likely to occur among residents who had a high school education or less and a household income of less than \$24,999 (Tables 3 and 4).

¹Source: Public Health Law Center Access to Healthy Food: Challenges and Opportunities (2012). www.publichealthlawcenter.org

Overweight and Obesity Related Chronic Diseases

Table 2. Leading Causes of Death in The District of Columbia

| Age-Adjusted Rate Per 100,000 Population | | | | |
|--|------------------------------------|-------|-------|------------------|
| DC Rank ¹ | Cause of Death | 2009 | 2010 | Preliminary 2011 |
| 1 | Heart Disease | 231.4 | 221.4 | 191.9 |
| 2 | Malignant Neoplasms (Cancer) | 190.2 | 177.1 | 179.8 |
| 3 | Cerebrovascular Diseases | 34.3 | 32.4 | 34.1 |
| 4 | Accidents | 35.1 | 34.9 | 26.8 |
| 5 | Chronic Lower Respiratory Diseases | 24.2 | 25.5 | 25.5 |
| 6 | Diabetes | 23.0 | 24.9 | 25.7 |
| 7 | Alzheimer's Disease | 16.0 | 18.7 | 19.7 |
| 8 | Homicide/Assault | 20.5 | 17.1 | 15.4 |
| 9 | Influenza and Pneumonia | 13.0 | 13.6 | 15.4 |
| 10 | HIV/AIDS | 23.6 | 20.4 | 14.4 |
| 10 | Septicemia | 15.0 | 15.3 | 16.1 |

¹Rank based on number of District of Columbia resident deaths in 2011.

Source: D.C. Department of Health, Center for Policy, Planning, and Evaluation, Data Management and Analysis Division.

The World Health Organization (WHO) has estimated that if the major risk factors for chronic diseases were eliminated, at least 80% of all heart disease, stroke, and type 2 diabetes would be prevented, and more than 40% of cancer cases would be prevented.

Table 3. BRFSS Chronic Diseases by Demographics and Ward, 2011

| | Obesity | Diabetes | Hypertension | Cancer | Heart Disease | Stroke | Arthritis |
|-------------------------------|-------------------|-----------------|---------------------|---------------|----------------------|---------------|------------------|
| | Percent(%) | | | | | | |
| NATIONAL | 27.8 | 9.5 | 30.8 | 6.6 | 4.1 | 2.9 | 24.4 |
| DC TOTAL | 23.8 | 9.1 | 30.0 | 4.7 | 3.0 | 3.7 | 20.9 |
| GENDER | | | | | | | |
| Male | 18.6 | 9.3 | 30.3 | 3.6 | 3.6 | 3.2 | 17.5 |
| Female | 28.4 | 9.0 | 29.8 | 5.6 | 2.4 | 4.1 | 23.9 |
| AGE | | | | | | | |
| 18-39 | 17.1 | * | 11.8 | * | * | * | 5.5 |
| 40-64 | 30.7 | 11.9 | 37.7 | 5.6 | 3.3 | 4.4 | 26.3 |
| 65+ | 26.3 | 22.6 | 64.4 | 14.3 | 10.1 | 10.7 | 53.0 |
| RACE/ETHNICITY | | | | | | | |
| Caucasian/White | 10.7 | 2.8 | 20.4 | 4.3 | 1.9 | 1.2 | 13.9 |
| African American/Black | 36.7 | 15.0 | 40.4 | 5.3 | 3.6 | 5.5 | 27.9 |
| Other | 16.0 | 8.6 | 25.7 | 4.5 | 5.0 | 3.8 | 14.6 |
| Hispanic | 13.3 | 5.4 | 15.8 | 2.9 | 3.4 | 4.4 | 15.4 |
| EDUCATION | | | | | | | |
| Less than High School | 39.7 | 19.2 | 47.1 | 6.5 | 5.2 | 8.1 | 34.5 |
| High School Graduate | 33.0 | 13.4 | 38.6 | 3.8 | 4.5 | 5.2 | 24.1 |
| Some College/Technical School | 31.0 | 9.7 | 29.7 | 4.2 | 2.6 | 4.6 | 24.2 |
| College Graduate | 11.9 | 4.0 | 21.2 | 4.8 | 1.8 | 1.3 | 14.0 |
| INCOME | | | | | | | |
| Less than \$15,000 | 41.6 | 15.4 | 41.6 | 5.6 | 5.1 | 6.9 | 29.7 |
| \$15,000-\$24,999 | 35.3 | 15.5 | 43.4 | 4.9 | 5.0 | 6.9 | 30.9 |
| \$25,000-\$34,999 | 30.0 | 11.3 | 33.0 | 4.2 | 2.1 | 3.2 | 24.8 |
| \$35,000-\$49,000 | 27.6 | 10.2 | 29.3 | 4.3 | 1.9 | 2.2 | 16.7 |
| \$50,000-\$74,999 | 20.3 | 7.1 | 24.4 | 4.2 | 2.1 | 2.0 | 17.8 |
| \$75,000 or more | 12.7 | 3.3 | 21.8 | 4.4 | 1.7 | 1.0 | 13.9 |
| WARD | | | | | | | |
| Ward 1 | 18.9 | 4.8 | 26.7 | 4.8 | 1.4 | 2.8 | 17.5 |
| Ward 2 | 11.1 | 4.0 | 22.3 | 4.0 | 2.9 | 1.8 | 21.9 |
| Ward 3 | 12.9 | 4.4 | 20.2 | 5.0 | 3.8 | 1.9 | 17.6 |
| Ward 4 | 23.2 | 9.6 | 33.2 | 5.0 | 4.3 | 3.7 | 25.4 |
| Ward 5 | 36.8 | 12.6 | 39.3 | 4.8 | 3.8 | 5.3 | 24.3 |
| Ward 6 | 20.6 | 8.4 | 29.6 | 4.8 | 1.9 | 3.2 | 21.7 |
| Ward 7 | 39.2 | 13.5 | 41.5 | 7.0 | 2.4 | 6.7 | 27.9 |
| Ward 8 | 42.0 | 20.4 | 40.4 | 5.5 | 5.0 | 5.8 | 28.7 |

Note: *= Relative standard error (RSE) >30 and/or numerator <20

Source: DC BRFSS, 2011

Table 4. BRFSS Chronic Diseases by Demographics and Ward, 2012

| | Obesity | Diabetes | Cancer | Heart Disease | Stroke | Arthritis |
|-------------------------------|-------------|----------|--------|---------------|--------|-----------|
| | Percent (%) | | | | | |
| NATIONAL | 27.8 | 9.5 | 6.6 | 4.1 | 2.9 | 24.4 |
| DC TOTAL | 21.9 | 8.2 | 4.6 | 3.1 | 3.2 | 18.2 |
| GENDER | | | | | | |
| Male | 17.9 | 8.1 | 4.3 | 3.8 | 2.8 | 15.0 |
| Female | 25.5 | 8.3 | 4.8 | 2.5 | 3.6 | 21.0 |
| AGE | | | | | | |
| 18-39 | 16.6 | * | * | * | * | 3.7 |
| 40-64 | 30.5 | 11.4 | 4.7 | 2.8 | 4.4 | 24.0 |
| 65+ | 19.1 | 20.9 | 15.8 | 11.9 | 10.0 | 51.5 |
| RACE/ETHNICITY | | | | | | |
| Caucasian/White | 9.6 | 2.2 | 4.6 | 1.9 | .8 | 11.9 |
| African American/Black | 33.7 | 14.2 | 4.9 | 4.2 | 5.5 | 25.2 |
| Other | 16.4 | * | * | * | * | 16.7 |
| Hispanic | 24.9 | * | * | * | * | 13.1 |
| EDUCATION | | | | | | |
| Less than High School | 31.6 | 18.8 | 4.6 | 6.6 | 11.2 | 30.7 |
| High School Graduate | 32.3 | 13.0 | 3.1 | 4.0 | 3.8 | 19.7 |
| Some College/Technical School | 27.8 | 7.8 | 5.1 | 2.4 | 2.9 | 20.4 |
| College Graduate | 12.0 | 3.5 | 4.9 | 2.1 | 1.0 | 13.0 |
| INCOME | | | | | | |
| Less than \$15,000 | 26.8 | 11.7 | 3.2 | 4.2 | 5.2 | 23.4 |
| \$15,000-\$24,999 | 38.5 | 13.8 | 4.1 | 3.3 | 6.2 | 19.5 |
| \$25,000-\$34,999 | 24.1 | 7.7 | 2.6 | * | * | 18.0 |
| \$35,000-\$49,000 | 22.6 | 13.4 | 7.9 | 3.7 | 2.9 | 21.4 |
| \$50,000-\$74,999 | 19.0 | 5.2 | 2.8 | 3.6 | - | 17.2 |
| \$75,000 or more | 14.8 | 3.5 | 5.0 | 1.7 | .8 | 13.0 |
| WARD | | | | | | |
| Ward 1 | 19.2 | 8.0 | * | * | * | 16.0 |
| Ward 2 | 10.4 | 5.6 | 5.1 | * | * | 19.8 |
| Ward 3 | 11.8 | 3.8 | 8.0 | 3.4 | * | 20.3 |
| Ward 4 | 28.4 | 8.8 | 5.8 | 3.0 | * | 20.4 |
| Ward 5 | 29.5 | 14.4 | 5.5 | 5.4 | 4.9 | 24.2 |
| Ward 6 | 18.4 | 7.2 | 4.2 | * | * | 16.5 |
| Ward 7 | 36.2 | 14.1 | 3.8 | * | 4.6 | 23.9 |
| Ward 8 | 34.9 | 14.0 | 3.5 | 5.7 | 5.4 | 25.7 |

Note: *= Relative standard error (RSE) >30 and/or numerator <20

Source: DC BRFSS, 2011



Diabetes is a disease in which blood glucose levels are above normal. Most of the foods we eat are turned into glucose, or sugar, for the body to use for energy.¹

In 2011, diabetes was the 6th leading cause of death and in 2010, ranked seventh in hospital admissions in the District of Columbia.² It was also the seventh leading cause of death in the United States in 2011. Of the 25.8 million U.S. adults who had diabetes in 2010, 12.6 million were women and 1.9 million new cases of diabetes were diagnosed in persons aged 20 years or older.³

Although both diabetes and obesity risk factors are often associated with age, race, and family history, studies have shown that an individual's personal lifestyle choices² (e.g., consuming high calorie foods, lack of physical activity and lack of fruits and vegetable consumption), along with environmental factors contribute to the development of these diseases.³

Of the people diagnosed with type II diabetes, about 80 to 90 percent were also classified as obese.

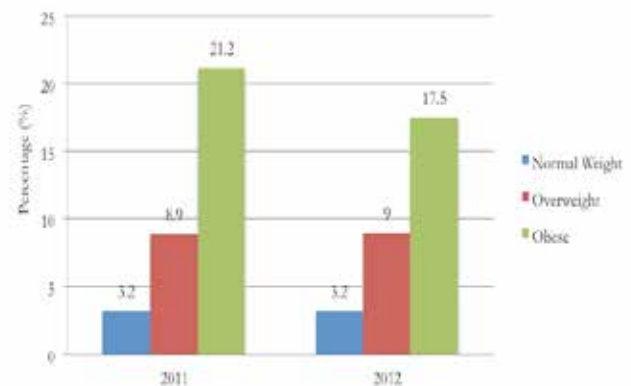
Source: CDC

Diabetes and Obesity

Overall, there was a slight decrease (1%) in the prevalence of diabetes from 2011 to 2012. African Americans were more likely than all other race/ethnic groups to be diagnosed with diabetes (Figure 15). The percentage of diabetics who were obese decreased by 3.7% from 2011 to 2012 according to data from the DC BRFSS survey (Figure 16).

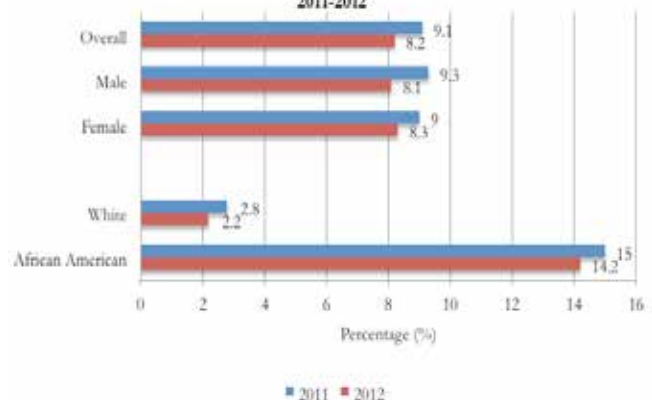
Despite the decrease in obesity and diabetes rates, older residents, African Americans, individuals with less education and residents of Wards 5, 7 and 8 continue to have the highest risk chronic disease (Tables 3 and 4).

Figure 15. Prevalence of BMI and Respondents Diagnosed with Diabetes, District of Columbia 2011 and 2012



SOURCE: DC BRFSS

Figure 16. Diabetes by Gender and Race, District of Columbia, 2011-2012



SOURCE: DC BRFSS

Risk Factors⁴

- People of any age - more common among age 45 and older group
- People with a family history of diabetes
- Being overweight
- Sedentary lifestyle
- Having high blood pressure
- Having low HDL, also known as “good” cholesterol and/or high levels of triglycerides
- Certain racial and ethnic groups (e.g., Non-Hispanic Blacks, Hispanic/Latino Americans, Asian Americans and Pacific Islanders, and American Indians and Alaska Natives)
- Women who had gestational diabetes, or who have had a baby weighing 9 pounds or more at birth

Prevent Overweight and Obesity, Prevent Diabetes⁵

- Eating healthy
- Engage in physical activity
- Watch your weight

¹Source: CDC. Diabetes Public Health Resource. How are women especially affected by diabetes? <http://www.cdc.gov/diabetes/consumer/groups.htm>

² District of Columbia Department of Health Center for Policy, Planning and Evaluation. Research and Analysis Division

³Source: CDC Diabetes Public Health Resource – What is diabetes <http://www.cdc.gov/diabetes/consumer/learn.htm>

⁴Source: CDC Diabetes Public Health Resource. What are the symptoms of diabetes? <http://www.cdc.gov/diabetes/consumer/learn.htm>

⁵American Diabetes Association. Diabetes Basics. Your Risk. <http://www.diabetes.org/diabetes-basics/prevention/risk-factors/>



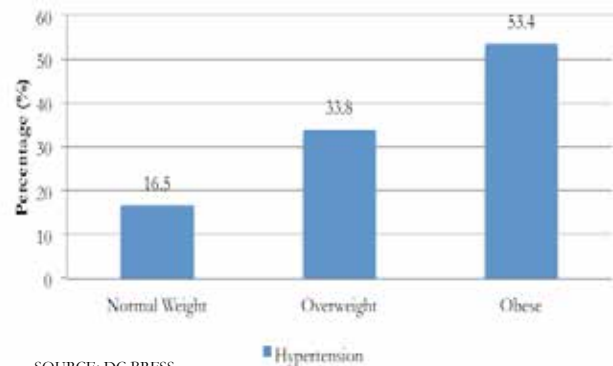
High blood pressure is known as the “silent killer” because it often has no warning signs or symptoms and many individuals are not aware they have it.¹ An estimated 68 million U.S. adults have high blood pressure.² High blood pressure (also known as hypertension) increases your risk for heart disease and stroke, which are the leading causes of death in the U.S.²

The relationship between overweight or obesity and hypertension is complex. Extensive evidence supporting a relationship between the two conditions indicate that hypertension is not a set consequence of obesity.³ Approximately, 65 and 75 percent of the cases of hypertension in women and men, respectively, are directly associated with being overweight or obese.⁴

According to the DC BRFSS 2011 survey (Figure 17), residents who were diagnosed with hypertension were more likely to be obese (53.4%) than overweight (33.8%) or normal weight (16.5%). Males, adults aged 65 years and older, African Americans, residents with less than a high school education, residents with an income of \$15,000-\$24,999, and residents living in Ward 7 were more likely to have hypertension (Table 3 and Figure 18).

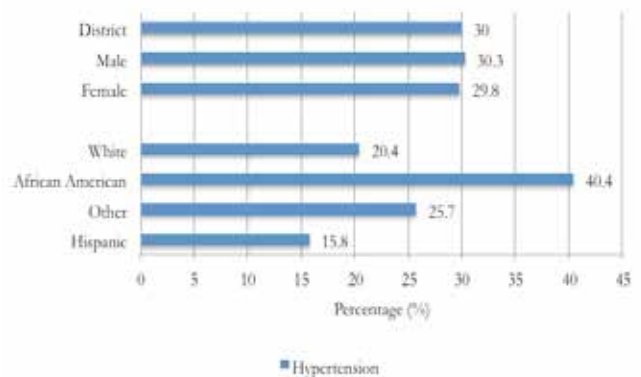
Hypertension and Obesity

Figure 17. Prevalence of BMI and respondents diagnosed with hypertension, 2011



SOURCE: DC BRFSS

Figure 18. Hypertension by Gender and Race, District of Columbia, 2011



SOURCE: DC BRFSS

Risk Factors

Some health conditions, as well as lifestyle and genetic factors, can put people at a higher risk for developing high blood pressure such as:

- Conditions – pre-hypertension and diabetes
- Behavior – diet, weight, physical inactivity, alcohol use and tobacco use, prehypertension
- Heredity – age, race or ethnicity, diabetes, family history
- Sodium - Most of the sodium consumed is in the form of salt, and the vast majority of sodium consumed is in processed and restaurant foods

Prevention

- Eat a healthy diet
- Eat lots of fresh fruits and vegetables
- eat foods that are low in saturated fat and cholesterol
- Avoid sodium by limiting the amount of salt you add to your food many processed foods and restaurant
- Maintain a healthy weight
- Be physically active. Physical activity can help lower blood pressure. The Surgeon General recommends adults engage in moderate-intensity exercise for 2 hours and 30 minutes every week

¹ Source: Centers for Disease Control and Prevention. High Blood Pressure. <http://www.cdc.gov/bloodpressure/> Accessed July 9, 201

² Source: CDC. High Blood Pressure. <http://www.cdc.gov/bloodpressure/>

³ Source: Invited Review, May 2004 edition of the American Journal of Physiology-Regulatory, Integrative, and Comparative Physiology. The journal is one of 14 published each month by the American Physiological Society (APS) (<http://www.the-aps.org>).

⁴ Source: The journal is one of 14 published each month by the American Physiological Society (APS) (<http://www.the-aps.org>).

⁵ Source: CDC. High Blood Pressure. Risk Factors. http://www.cdc.gov/bloodpressure/risk_factors.htm

⁶ Source: CDC. High Blood Pressure. How to Prevent High Blood Pressure. http://www.cdc.gov/bloodpressure/what_you_can_do.htm



Arthritis and Obesity

Arthritis Among Obese Residents Decreased by 10.9% from 2011 to 2012

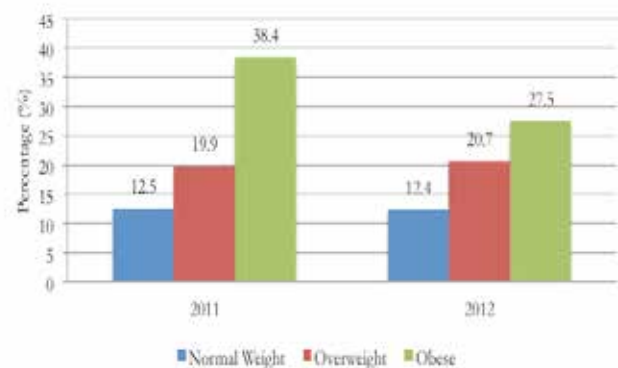
Source: DC BRFSS

Arthritis is the most common cause of disability in the U.S., limiting the activities of nearly 21 million adults.¹

Obesity and arthritis are serious health conditions with high prevalence and medical costs.² Studies have shown that obesity is common among individuals with arthritis and is a risk factor associated with the progression of arthritis-related limitations and disabilities.² Individuals who have arthritis and are obese are more likely to deal with health effects and limitations that have a major impact on their daily lives such as taking a bath, going up and down stairs, or walking.²

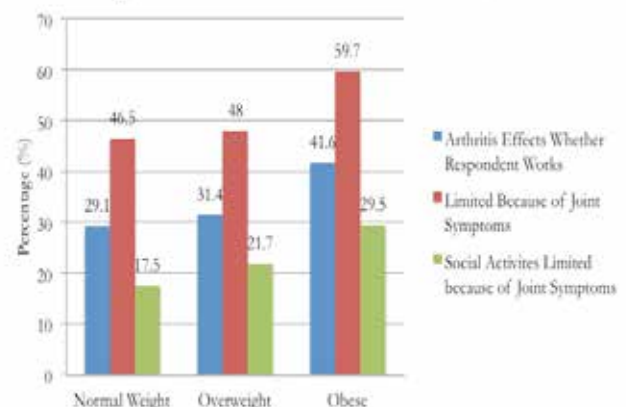
According to the DC BRFSS survey, residents who have been diagnosed with arthritis remain prevalent among residents who were obese but rates have declined by 10.9% from 2011 to 2012 (Figure 19). Residents who were obese were more likely than residents who were overweight or normal weight to be limited in their activities due to joint symptoms, at 59.7% (Figure 20). In 2011 and 2012 females were more likely to have arthritis (Figure 21). As age increased, so did the likelihood that individuals would be diagnosed with arthritis. African Americans, residents of low income households, residents with less education, and residents living in Ward 8 were more likely to have arthritis (Tables 3 and 4).

Figure 19. Prevalence of BMI and respondents diagnosed with arthritis, 2011 and 2012



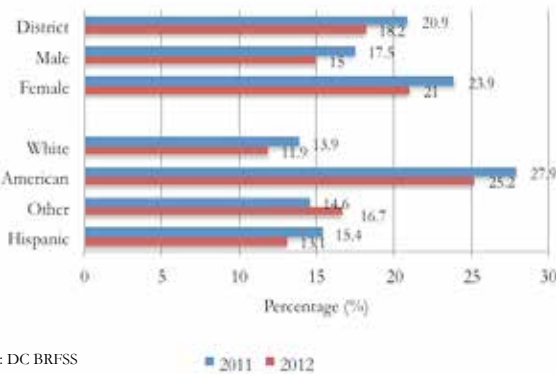
SOURCE: DC BRFSS

Figure 20. Prevalence of BMI and Arthritis Effects, 2011



SOURCE: DC BRFSS

Figure 21. Arthritis by Gender and Race, District of Columbia, 2011-2012



SOURCE: DC BRFS

repetitive knee bending and squatting are associated with osteoarthritis of the knee

Arthritis Types³

- Childhood Arthritis
- Fibromyalgia
- General
- Gout
- Osteoarthritis
- Rheumatoid Arthritis
- Systemic lupus erythematosus (SLE or lupus)

Risk Factors³

Certain factors have been shown to be associated with a greater risk of arthritis. Some of these risk factors are modifiable while others are not.

Non-modifiable risk factors

- Age: The risk of developing most types of arthritis increases with age
- Gender: Most types of arthritis are more common in women; 60% of all people with arthritis are women. Gout is more common in men
- Genetic: Specific genes are associated with a higher risk of certain types of arthritis, such as rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), and ankylosing spondylitis

Modifiable risk factors³

- Overweight and Obesity: Excess weight can contribute to both the onset and progression of knee osteoarthritis
- Joint Injuries: Damage to a joint can contribute to the development of osteoarthritis in that joint
- Infection: Many microbial agents can infect joints and potentially cause the development of various forms of arthritis
- Occupation: Certain occupations involving

¹Centers for Disease Control and Prevention – Arthritis <http://www.cdc.gov/arthritis/>

²Centers for Disease Control and Prevention – Morbidity and Mortality Weekly Report – Prevalence of Obesity Among Adults with Arthritis – United States, 2003- 2009 <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6016a4.htm> ³CDC.Arthritis. Arthritis types. <http://www.cdc.gov/arthritis/basics/types.htm>

³Source: Centers for Disease Control and Prevention – Risk Factors http://www.cdc.gov/arthritis/basics/risk_factors.htm



Cancer and Obesity

en by the wording of the survey questions. The question, “Have you ever been diagnosed by a doctor, nurse or health professional that you have skin cancer?” and “Have you been diagnosed with another type of cancer?” All cancers are not associated with obesity and specifying the type of cancer could produce different results.

Individuals who are obese and exhibit unhealthy eating patterns, and lead a sedentary lifestyle are estimated to contribute to one-third of all cancer deaths in the U.S.¹ Studies have shown that obesity increases an individual’s risk of colon and rectal cancer and may be linked to cancers of the pancreas, endometrium, and breast (in women past menopause).¹

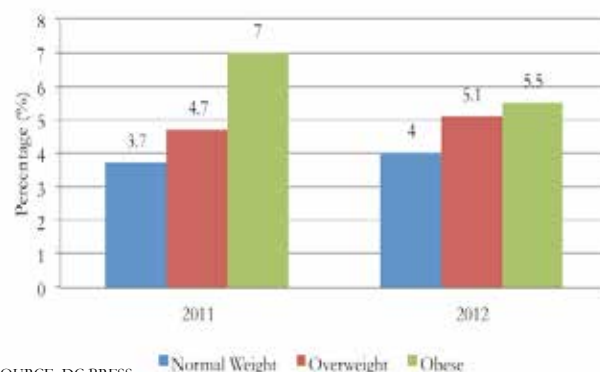
According to the CDC and the DC Vital Records Division, in 2011, cancer was the second leading cause of death in the D.C. and in the U.S. In 2010, cancer was the sixth leading cause of hospital discharges in the D.C.²

A study using data obtained from the National Cancer Institutes Surveillance, Epidemiology, and End Results (SEER) program, estimated that in 2007, in the U.S., about 34,000 new cases of cancer in men (4%) and 50,500 in women (7%) were due to obesity.³ The percentage of cases attributed to obesity varied widely for different cancer types but was as high as 40% for some cancers, particularly endometrial cancer and esophageal adenocarcinoma.³

Data from the DC BRFSS 2011 and 2012 surveys showed that cancer remains prevalent among residents who were obese and has increased among residents who were overweight and diagnosed with cancer (Figure 22 and Tables 3 and 4). Females and African Americans were more likely to state they had cancer (Figure 23). It is important to note that the type of cancer is not specified but as weight increases so does the likelihood of getting cancer. Correlation analysis showed no significant association between cancer and obesity but this result could be driv-

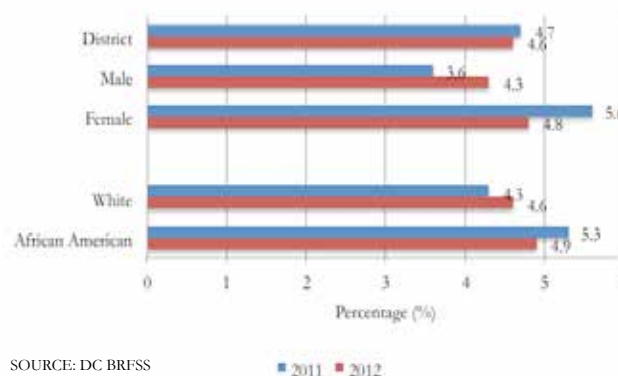
¹Source: Public Health Law Center Access to Healthy Food: Challenges and

Figure 22. Prevalence of BMI and respondents told they have cancer (excluding skin cancer), 2011 and 2012



SOURCE: DC BRFSS

Figure 23. Respondents Who Were Told They Have Cancer (excluding skin cancer), District of Columbia, 2011 and 2012



SOURCE: DC BRFSS

Risk Factors⁴

Being overweight or obese is clearly linked with an increased risk of many cancers, including cancers of the:

- Breast (in women past menopause)
- Colon and rectum
- Endometrium (lining of the uterus)
- Esophagus
- Kidney
- Pancreas

Being overweight or obese also likely raises the risk of other cancers, such as:

- Gallbladder
- Liver
- Non-Hodgkin lymphoma
- Multiple myeloma
- Cervix
- Ovary
- Aggressive forms of prostate cancer

Prevention⁵

- Screening (annual check-up)

Other Ways to Reduce Cancer Risk:

- Maintaining a Healthy Weight
- Avoiding Tobacco
- Limiting Alcohol Intake
- Protecting Your Skin from the Sun
- Getting Tested for Hepatitis C

Opportunities (2012). www.publichealthlawcenter.org

²District of Columbia Department of Health. District of Columbia Research and Analysis Division (Vital Records) and State Health Development Planning Agency (Hospital Discharge Analysis). Center for Policy, Planning and Evaluation.

³National Cancer Institute at the National Institutes of Health. Obesity and Cancer Risk <http://www.cancer.gov/cancertopics/factsheet/Risk/obesity>

⁴American Cancer Society. Body Weight and Cancer Risk. <http://www.cancer.org/cancer/cancercauses/dietandphysicalactivity/bodyweightandcancerrisk/body-weight-and-cancer-risk-effects>

⁵CDC. Cancer Prevention and Control. Other Ways to Reduce Cancer Risk. <http://www.cdc.gov/cancer/dcpc/prevention/other.htm>



A stroke, sometimes called a brain attack, occurs when a clot blocks the blood supply to the brain or when a blood vessel in the brain bursts. Strokes can cause death or disability, such as paralysis, speech difficulties, and emotional problems.¹

Excessive weight gain puts a strain on the entire circulatory system. Each year in the U.S., 800,000 people die from cardiovascular disease and stroke.¹ In 2011, stroke was the fourth leading cause of death in the U.S.¹, the third leading cause of death in DC, and the ninth leading cause of hospital discharges in DC 2010.²

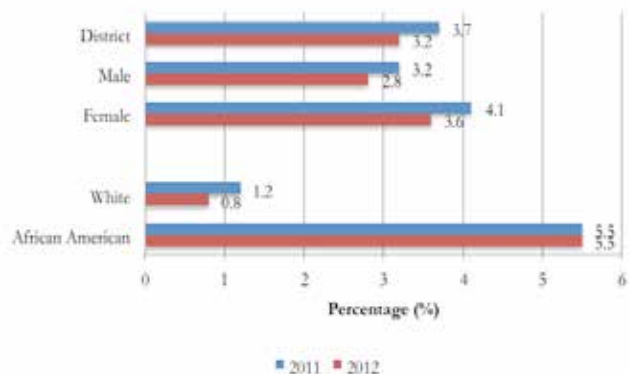
According to the DC BRFSS, residents who were obese were more likely to have had a stroke but rates have decreased from 2011 to 2012 by 2.7% (Figure 24). There was an overall decrease in the percentage of residents who had a stroke from 2011 to 2012, particularly among residents who were obese. African Americans were more likely than all other racial/ethnic groups to have had a stroke (Figure 25).

Stroke and Obesity

Figure 24. Prevalence of BMI and respondents told they had a stroke District of Columbia, 2011 and 2012



Figure 25. Resident Who Have Had a Stroke by Gender and Race, District of Columbia, 2011 and 2012



Stroke Among Obese Residents Decreased by 2.7% from 2011 to 2012

Source: DC BRFSS

Risk Factors³

- High blood pressure and cholesterol, heart disease, diabetes, overweight and obesity, previous stroke or transient ischemic attack
- Tobacco use, alcohol use, physical inactivity
- Family history, age and gender, race and ethnicity

Prevention⁴

- Eat a healthy diet
- Maintain a healthy weight
- Be active
- Don't smoke
- Limit alcohol use

¹CDC. Stroke. <http://www.cdc.gov/stroke/>. Accessed June 20, 2013

² DC Department of Health, Center for Policy, Planning and Evaluation, Research and Analysis Division

³CDC. Stroke. Stroke Heredity. <http://www.cdc.gov/stroke/heredity.htm> June 20, 2013

⁴National Stroke Association. Obesity. Controllable Risk Factors – Obesity <http://www.stroke.org/site/PageServer?pagename=dietexercise>



In the U.S., the most common type of heart disease is coronary artery disease (CAD), which can lead to a heart attack.¹ Consuming too many calories, saturated fat, and trans fat can cause blood cholesterol levels to increase and increase an individual's risk of heart disease.²

According to the CDC and the DC Vital Records Division, in 2011, heart disease was the leading cause of death in the U.S. and in D.C.³ In 2010, heart disease was the second leading cause of hospital discharges in DC.⁴

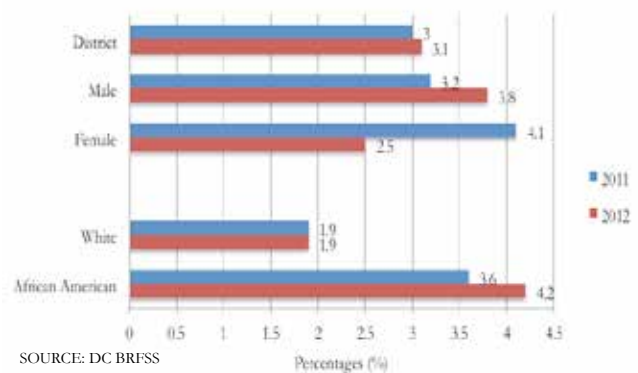
According to data from the 2011 and 2012 DC BRFSS surveys, a higher weight was associated with a higher probability of having heart disease. There was a 1.5% decrease in heart disease among residents who were obese in 2012 compared to 2011 (Figure 26). However, rates have not changed among residents who had heart disease from 2011 to 2012. African Americans were more likely to have heart disease, 2011 and 2012 (Figure 27). Males were more likely to have heart disease in 2012 compared to 2011 when women had higher rates.

Heart Attack and Obesity

Figure 26. Prevalence of BMI and Respondents told they have Heart Disease, 2011 and 2012



Figure 27. Respondents Who Have Heart Disease by Gender and Race, District of Columbia, 2011 and 2012



There was a 1.5% Decrease among Residents who Were Obese and had Heart Disease

Source: DC BRFSS

Heart Attack Risk Factors⁴

- High blood pressure
- Diabetes mellitus
- High blood cholesterol levels
- Tobacco Use
- Diet
- Physical Inactivity
- Obesity
- Alcohol Consumption
- Heredity

Prevention⁵

- Eat a healthy diet
- Maintain a healthy weight
- Exercise regularly
- Don't smoke
- Limit alcohol use

¹CDC. Heart Disease. <http://www.cdc.gov/heartdisease/> Accessed June 20, 2013

²American Heart Association. Obesity Information. http://www.heart.org/HEARTORG/GettingHealthy/WeightManagement/Obesity/Obesity-Information_UCM_307908_Article.jsp

³Department of Health. Center for Policy, Planning and Evaluation. Research and Analysis Division. State Health Planning and Development Agency, 2010

⁴CDC. Heart Disease. Heart Disease Risk Factors. http://www.cdc.gov/heartdisease/risk_factors.htm Accessed June 20, 2013

⁵CDC. Heart Disease. Prevention: What You Can Do. http://www.cdc.gov/heartdisease/what_you_can_do.htm Accessed June 20, 2013



Physical activity refers to any body movement that burns calories, whether it's for work or play, daily chores, or the daily commute. Exercise is a subcategory of physical activity and refers to “planned, structured, and repetitive” activities aimed at improving physical fitness and health.¹

How often an individual engages in physical activity or exercise can impact one's risk of developing chronic diseases such as diabetes, cardiovascular disease, hypertension and certain forms of cancers.¹ These diseases are also related to nutritional intake in some capacity.

According to the DC BRFSS 2012 survey, lack of physical activity decreased by 9.5% among District residents from 2011 (Table 5). Residents who did not participate in any physical activity were more likely to be obese (Figure 28). Residents who were 65 years old or older, African American, had less than a high school education, household income less than \$15,000, and lived in Ward 8 were least likely to engage in physical activity within the past 30 days. Wards 7 and 8 had the highest obesity rate and Wards 2 and 3 had the lowest obesity rate (Figures 30 and 31). Residents who resided in Wards 7 and 8 also had the highest chronic disease rates. As age increased so did the likelihood that residents were less likely to exercise.

In 2011, residents were more likely to exercise at a private gym or at home. In 2012, residents were still more likely to exercise at a private gym or at home but there was an increase among residents who exercised at the school gym, parks and recreation facilities, parks, sidewalks and

Physical Activity

some other location where cost was less likely to be a factor (Figure 29).

With the exception of residents stating some other reason for not engaging in physical activity, there was a 2.5% increase from 2011 to 2012, among residents who stated that a health condition or disability prevented them from engaging in any type physical activity (Figure 32).

Figures 33 and 34 show physical activity resources that are available for residents to take advantage of such as DC Parks and Recreation Centers throughout the city. Although the Bike Sharing program has a cost associated to participate, it also provides residents with an additional source of transportation and could be utilized as an effective model to stay fit.

In 2012 Lack of Physical Activity Decreased by 9.5% Compared to 2011

Source DC BRFSS

Benefits of Physical Activity¹

- Physical activity increases people's total energy expenditure, which can help them stay in energy balance or even lose weight, as long as they don't eat more to compensate for the extra calories they burn.
- Physical activity decreases fat around the waist and total body fat, slowing the development of abdominal obesity.
- Weight lifting, push-ups, and other muscle-strengthening activities build muscle mass, increasing the energy that the body burns throughout the day—even when it's at rest—and making it easier to control weight.
- Physical activity reduces depression and anxiety, and this mood boost may motivate people to stick with their exercise regimens over time.

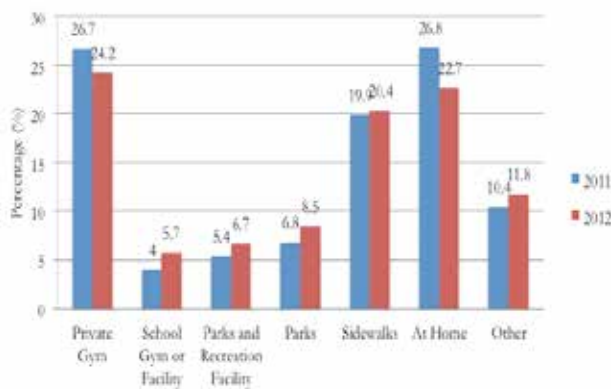
Being moderately active for at least 30 minutes a day on most days of the week can help lower the risk of chronic disease. But to stay at a healthy weight, or to lose weight, residents need to incorporate a healthy diet in addition to their daily physical activity.

Figure 28. Prevalence of BMI and Respondents who Did Not Participate in any Physical Activity, 2011



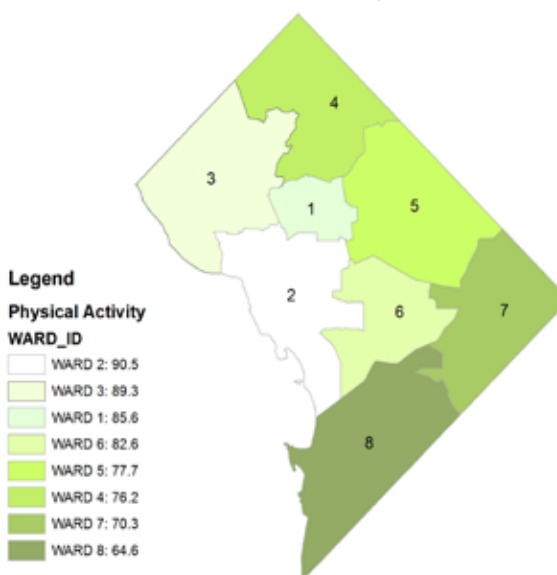
SOURCE: DC BRFSS

Figure 29. Residents Location of Exercise in the District of Columbia 2011 and 2012



SOURCE: DC BRFSS

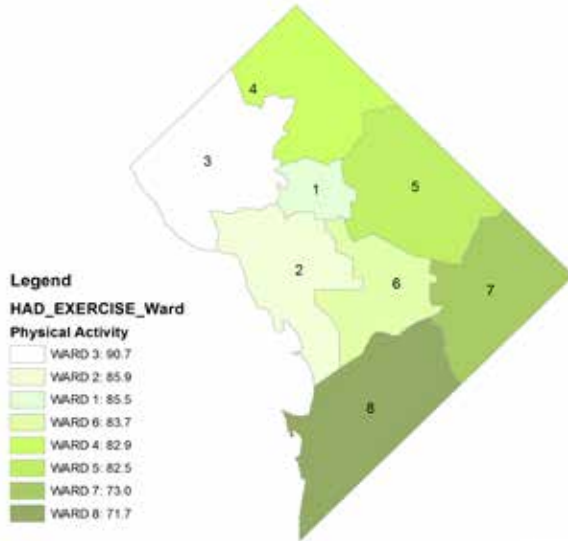
Figure 30. Prevalence of Residents who Participated Physical Activity by Ward, District of Columbia, 2011



SOURCE: DC BRFSS

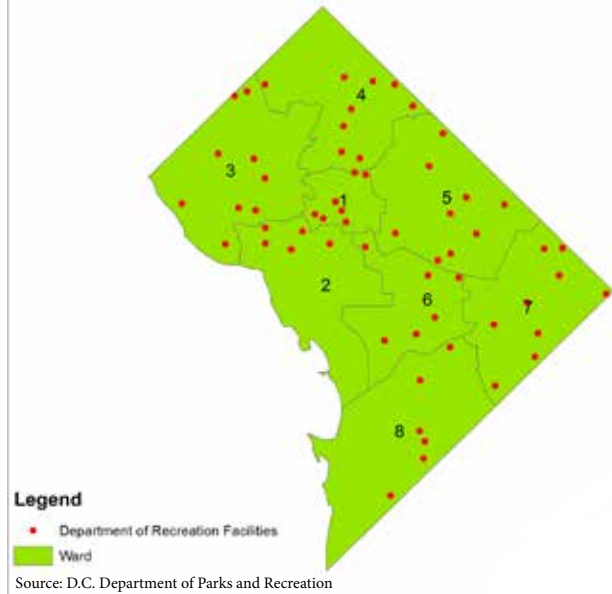
Harvard School of Public Health – The Obesity Prevention Source – Physical Activity
<http://www.hsph.harvard.edu/obesity-prevention-source/obesity-causes/physical-activity-and-obesity/pidemic>.

Figure 31. Prevalence of Residents Who Participated in Physical Activity by Ward, District of Columbia, 2012



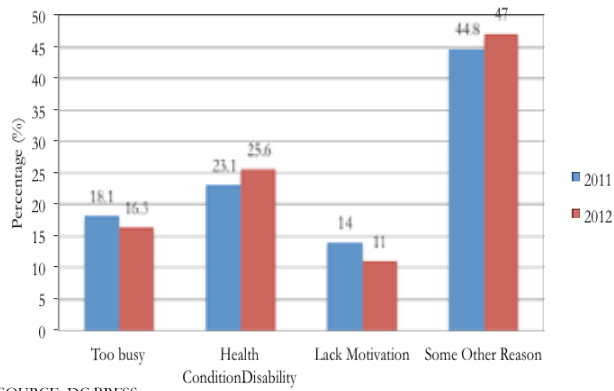
SOURCE: DC BRFSS

Figure 33. District of Columbia Park and Recreation Facilities, 2013



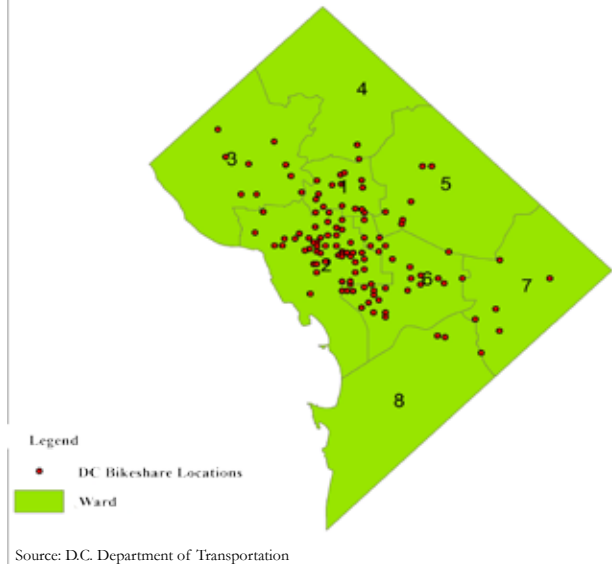
Source: D.C. Department of Parks and Recreation

Figure 32. Residents Reasons for Not Engaging in Exercise in the District of Columbia, 2011 and 2012



SOURCE: DC BRFSS

Figure 34. Capital Bikeshare Locations in the District of Columbia, 2013



Source: D.C. Department of Transportation

Table 5. BRFSS Physical Activity by Demographics and Ward in the District of Columbia, 2011 and 2012

| | N | No Physical Activity 2011 (%) | N | No Physical Activity 2012 (%) |
|-------------------------------|-------------|----------------------------------|-------------|----------------------------------|
| Total | 4560 | 18.8 | 3817 | 17.6 |
| Gender | | | | |
| Male | 1741 | 16.9 | 1529 | 17.6 |
| Female | 2819 | 20.5 | 2288 | 17.3 |
| Age | | | | |
| 18-24 | 130 | 8.3 | 137 | 13.4 |
| 25-34 | 457 | 14.2 | 397 | 9.2 |
| 35-44 | 629 | 17.7 | 537 | 14.0 |
| 45-54 | 783 | 21.8 | 637 | 21.9 |
| 55-64 | 1117 | 24.1 | 872 | 21.2 |
| 65 or older | 1444 | 28.8 | 1237 | 31.3 |
| Race/Ethnicity | | | | |
| Caucasian/White | 1998 | 8.3 | 1660 | 6.6 |
| African American/Black | 2034 | 26.4 | 1720 | 28.0 |
| Other | 247 | 20.4 | 202 | 16.9 |
| Hispanic | 184 | 22.7 | 139 | 14.4 |
| Education | | | | |
| Less than High School | 293 | 33.0 | 262 | 35.9 |
| High School Graduate | 780 | 26.5 | 672 | 26.8 |
| Some College/Technical School | 712 | 20.1 | 587 | 17.0 |
| College Graduate | 2756 | 10.5 | 2276 | 8.3 |
| Income | | | | |
| Less than \$15,000 | 487 | 31.1 | 384 | 28.2 |
| \$15,000-\$24,999 | 494 | 29.9 | 417 | 26.6 |
| \$25,000-\$34,999 | 283 | 20.7 | 227 | 24.0 |
| \$35,000-\$49,999 | 372 | 23.5 | 337 | 17.7 |
| \$50,000-\$74,999 | 485 | 14.4 | 394 | 11.1 |
| \$75,000 or more | 1873 | 9.7 | 1556 | 8.1 |
| Ward | | | | |
| Ward 1 | 328 | 13.7 | 272 | 14.5 |
| Ward 2 | 363 | 9.2 | 282 | 14.1 |
| Ward 3 | 722 | 10.5 | 615 | 9.3 |
| Ward 4 | 595 | 23.1 | 493 | 17.1 |
| Ward 5 | 470 | 21.1 | 430 | 17.5 |
| Ward 6 | 497 | 16.9 | 399 | 16.3 |
| Ward 7 | 464 | 26.7 | 358 | 27.0 |
| Ward 8 | 377 | 33.2 | 317 | 28.3 |

SOURCE: DC BRFSS



According to the United States Department of Agriculture (USDA), individuals should consume at least 1 to 2 cups of fruits and vegetables per day. However, fewer than 1 in 3 adults and even a lower proportion of adolescents eat the recommended amount of vegetables each day. Lack of portion control of high calorie foods, sugar-sweetened drinks and consumption of processed foods, such as meat, contribute to overweight and obesity.¹

Studies have shown that processed foods such as meats increase one's risk of colorectal, kidney and stomach cancer. Processed meats include hot dogs, bologna, sausage, ham, and other packaged lunch meats.¹ These high-calorie meats usually contain large amounts of saturated fat and sodium.¹

A number of factors affect a person's ability to eat a healthy and nutritious diet, stay physically active, and achieve or maintain a healthy weight. The built environment has had a major impact on behaviors that influence health. For example, residents of Wards 7 and 8 have the highest rates of chronic diseases, lowest consumption of fruits and vegetables, lowest rates of physical activity, and least access to healthy food options, such as grocery stores, with the exception of Ward 4, which has the same amount of grocery stores as Ward 7 and ranks 4th among DC wards for the highest rates of obesity, Ward 5 ranks 3rd. In Ward 7, there are two large scale grocery stores and two small grocery stores. In Ward 8, there is only one large grocery store and one small scale grocery store.²

Nutrition

In all of the other wards, there are at least four grocery stores where residents can go to purchase healthy foods.

According to the 2011 BRFSS survey, residents living in Ward 4 were more likely to eat two or more cups of dark green vegetables per day and residents living in Ward 3 were more likely to eat two or more cups of fruit per day (Figures 35 and 36).

Residents who ate fruit or dark green vegetables two or more times per day were more likely to be normal weight than resident who ate these foods less frequently (Figures 37 and 38).

According to the 2011 and 2012 BRFSS surveys, residents who were overweight or obese were more likely than residents who were normal weight to drink soda two or more times within a seven day time period (Figures 39 and 40). Residents living in Wards 7 and 8 were more likely than residents of other wards to drink soda two or more times within the past seven days (Figures 42 and 43).

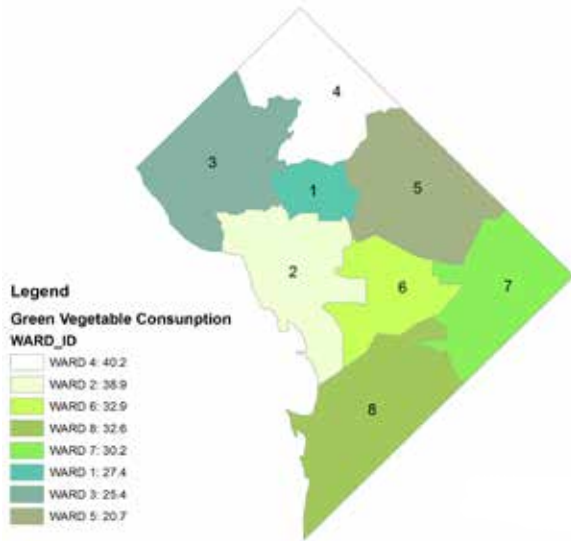
Currently there are a total of 38 large grocery stores in the District of Columbia.² Safeway has the largest number of grocery stores in the District (Figure 41). In the District, the population is approximately equally distributed across the 8 wards, $\pm 8,000$ residents per ward.³ Each ward would have at least four large grocery stores providing affordable and nutritious foods to its residents if three additional grocery stores were introduced in Ward 8 and two additional grocery stores in Wards 4 and 7 (Figure 44).

¹About.com. Nutrition. What are Processed Foods <http://nutrition.about.com/od/askyournutritionist/f/processedfoods.htm>

² DC Department of Health. Health Licensing and Regulations. Food and Safety and Hygiene Inspection Services Division.

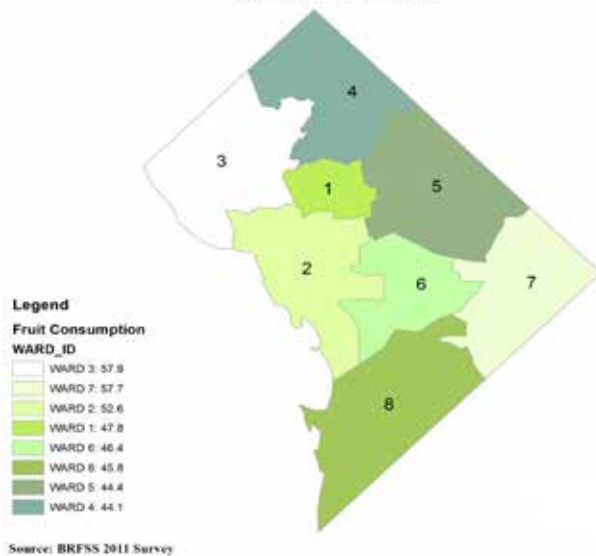
³ District of Columbia Office of Planning - www.op@dc.gov

Figure 35. Residents Who Ate Two or More Servings of Green Vegetables Per Day by Ward, District of Columbia, 2011



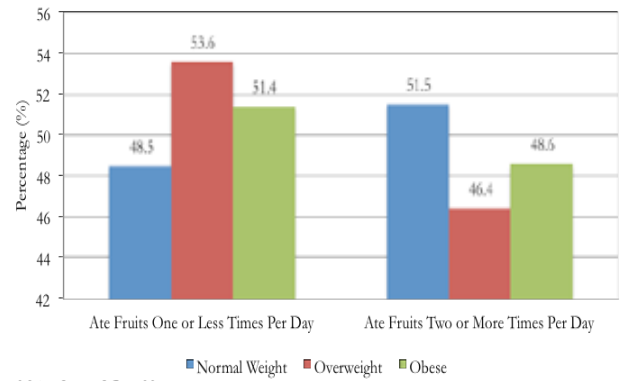
SOURCE: DC BRFSS

Figure 36. Residents Who Consumed Two or More Fruits Per Day, District of Columbia, 2011



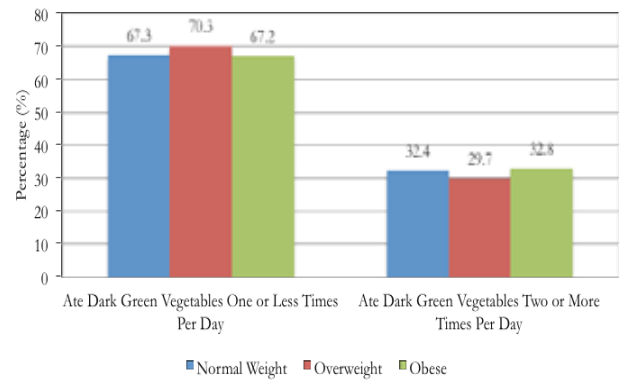
Source: BRFSS 2011 Survey

Figure 37. Weight Status and Fruit Consumption in the District of Columbia, 2011



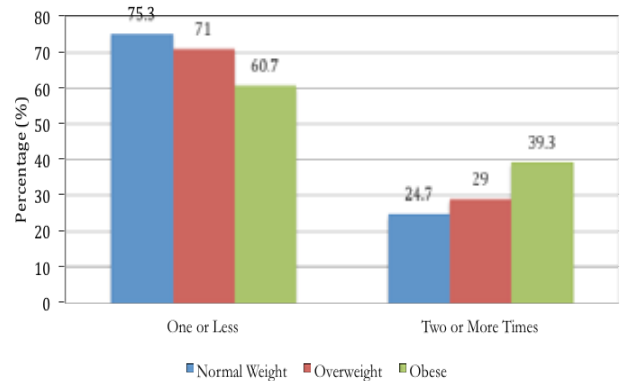
SOURCE: DC BRFSS

Figure 38. Weight Status and Dark Green Vegetable Consumption in the District of Columbia, 2011



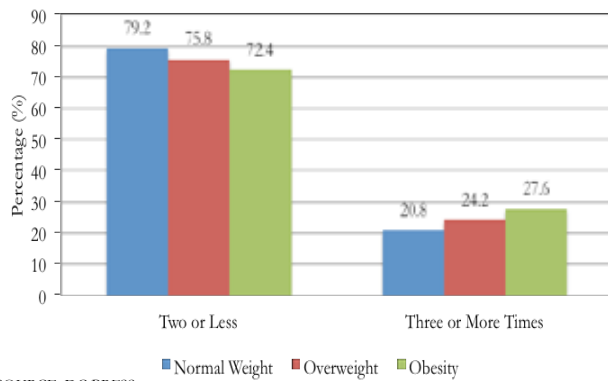
SOURCE: DC BRFSS

Figure 39. Weight Status and Soda Consumption in the District of Columbia, 2011



SOURCE: DC BRFSS

Figure 40. Weight Status by Soda Consumption in the District of Columbia, 2012



SOURCE: DC BRFSS

Figure 41. Grocery Stores in the District of Columbia 2009 and 2013

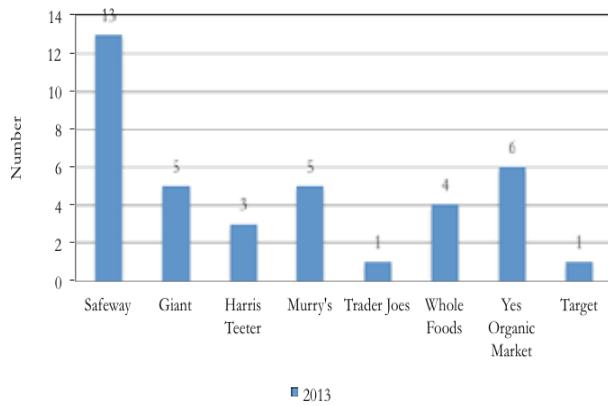
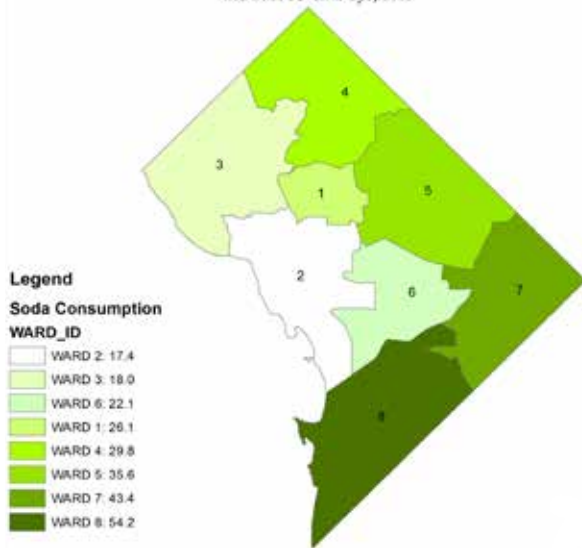
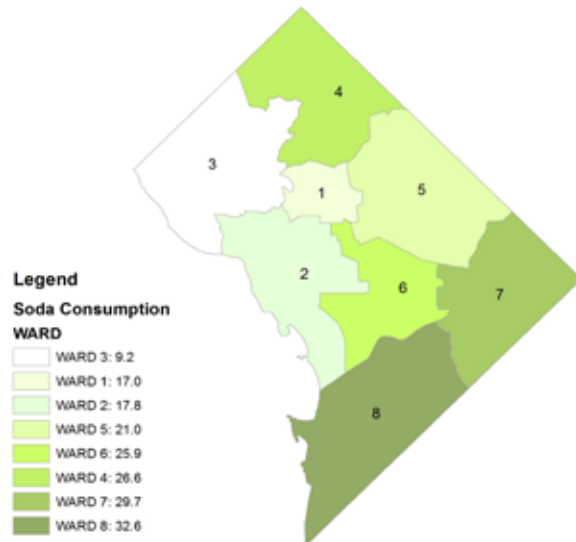


Figure 42. District Residents Who Drank Soda Two or More Times Within the Past Seven Days, 2011



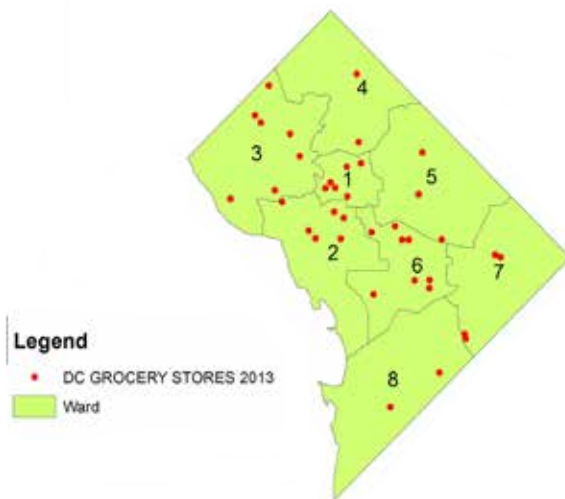
SOURCE: DC BRFSS

Figure 43. Residents Who Drank Soda Two or More Time Within the Past Seven Days by Ward, District of Columbia, 2012



SOURCE: DC BRFSS

Figure 44. Grocery Stores in the District of Columbia, 2013



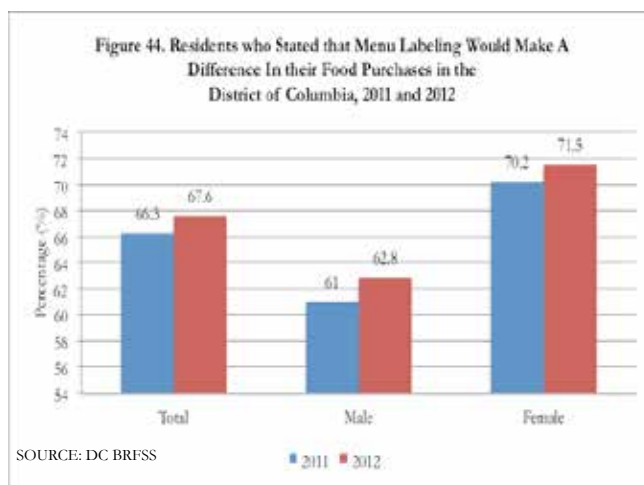


The Food and Drug Administration (FDA) is working to finalize national menu labeling regulations based on requirements under the Patient Protection and Affordable Care Act, which requires chain restaurants with 20 or more outlets to list calories and other nutrition information on menus and menu boards.¹

Menu labeling is a vital element to decision making before an individual purchases a food item. Often times individuals assume they are eating healthy based on specific wording such as “fat free” or “low fat”. However, a more detailed assessment of the nutritional information often reveals that the food item is not as healthy as advertisements or the package claims.

According to the 2011 and 2012 BRFSS surveys, 66.3% and 67.6%, respectively, of District residents stated that menu labeling would make a difference in their food purchases.

Menu Labeling



¹ Robert Wood Johnson. Impact of Menu Labeling on Consumer Behavior: 2008-2012 Update. Research Review, June 2013. Healthy Eating Research. <http://www.rwjf.org/en/research-publications/find-rwjf-research/2013/06/impact-of-menu-labeling-on-consumer-behavior.html> accessed August 20, 2013

²Christina A. Roberto, MS, Peter D. Larsen, MPhil. Research and Practice. American Journal of Public Health. Evaluating the Impact of Menu Labeling on Food Choices and Intake. Published 2009.



Fast food restaurants have been around in some capacity for most of human civilization.¹ Once known as a convenience that catered to the traveler, fast food¹ is now a part of the everyday eating experience and often times the first choice for many.

The term “fast food” refers to food that can be prepared and served quickly but does not necessarily mean that the customer takes their food to go. Various fast food restaurants provide sit down options for customers such as McDonald’s, Wendy’s and Pizza Hut. Over the years the surge of kiosks and mobile food trucks have become popular and while they provide no shelter or seating they are referred to as fast food because of their quick service.¹

The U.S. has the largest fast food industry in the world, with American fast food restaurants located in over 100 countries. Globally, McDonald’s and Subway have the largest number of fast food restaurants (Figure 46).

In the U.S., Subway has the largest number of locations (24,722) and is considered a healthier fast food option. McDonald’s ranks second with 14,098 locations and is considered an unhealthy fast food option (Figure 47).² McDonald’s ranks number one in revenue at \$34,172,000,000 compared to Subway at \$11,400,000,00. According to Business Insider War, in 2008, the District of Columbia had 665 fast food restaurants based on the definition fast food.

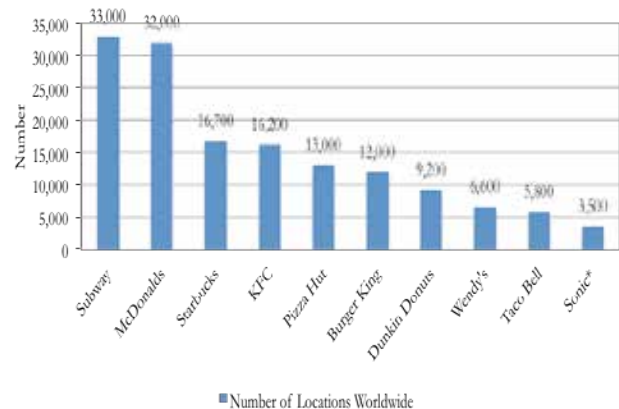
Based on listings of food establishments obtained from District of Columbia Consumer and Regulatory Affairs

Fast Food

(DCRA) and Health Regulation and Licensing Administration (HRLA), in 2013, there was an estimated 74 Starbucks and 69 Subway locations compared to 28 McDonald’s locations in the District of Columbia (Figures 48 and 49).

According to the 2011 and 2012 BRFSS surveys, residents with a normal weight were less likely to consume fast food two or more times per week compared to residents who were overweight and obese (Figures 50 and 51). Residents living in Wards 5, 7 and 8 were more likely than residents living in other wards to eat out at a fast food restaurant three or more times within the past two weeks (Figures 52 and 53).

Figure 45. Worlds Largest Fast Foods Chains 2011

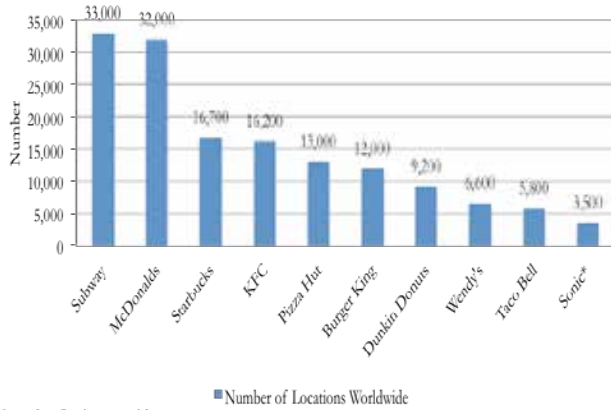


SOURCE: Business Insider

Read more: <http://www.businessinsider.com/this-interactive-map-shows-exactly-how-many-fast-food-restaurants-there-are-in-every-state-2012-1#ixz-z2Lvhupfqm>

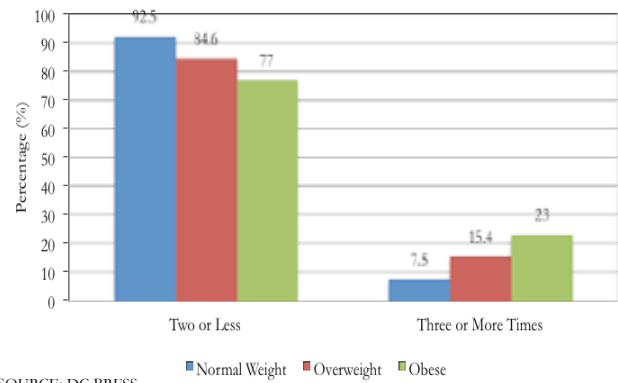
<http://www.businessinsider.com/this-interactive-map-shows-exactly-how-many-fast-food-restaurants-there-are-in-every-state-2012-1>

Figure 46. Worlds Largest Fast Foods Chains 2011



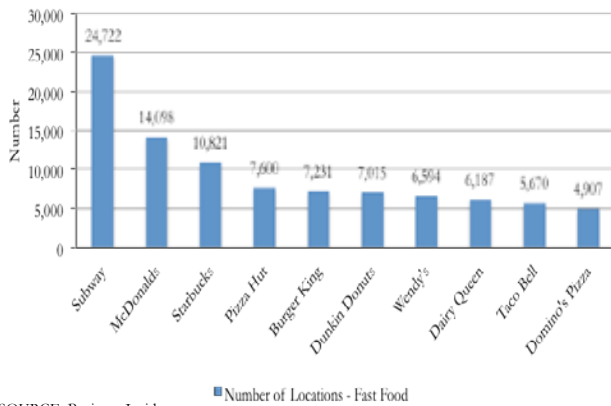
SOURCE: Business Insider

Figure 49. Weight Status and Fast Food Consumption in the District of Columbia, 2011



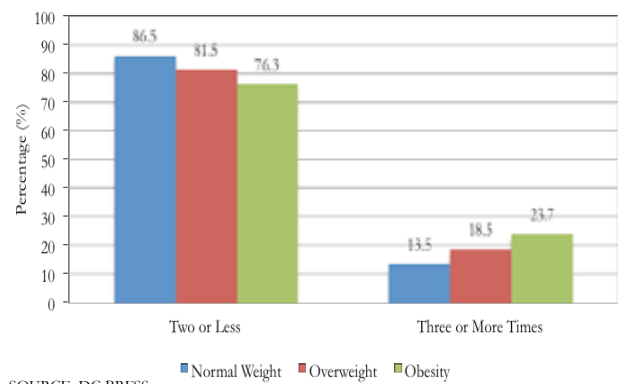
SOURCE: DC BRFS

Figure 47. Biggest Fast Food Chains in the United States, 2011



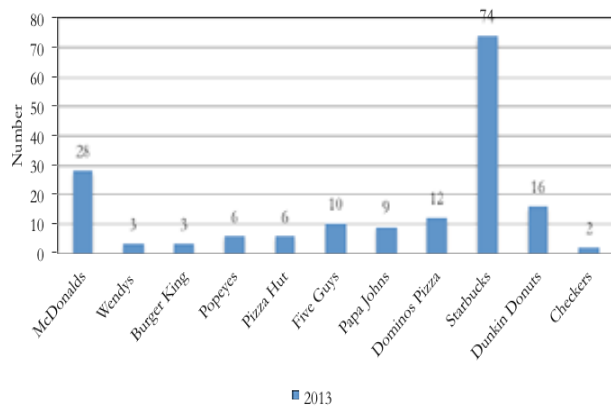
SOURCE: Business Insider

Figure 50. Weight Status and Fast Food Consumption in the District of Columbia, 2012



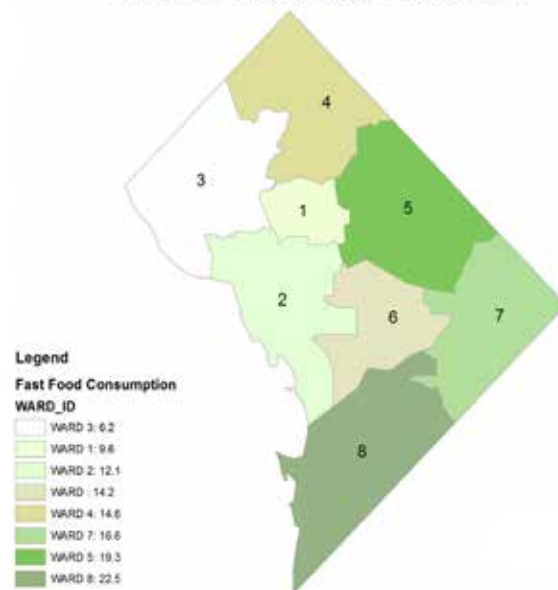
SOURCE: DC BRFS

Figure 48. Fast Food Restaurants in the District of Columbia, 2013



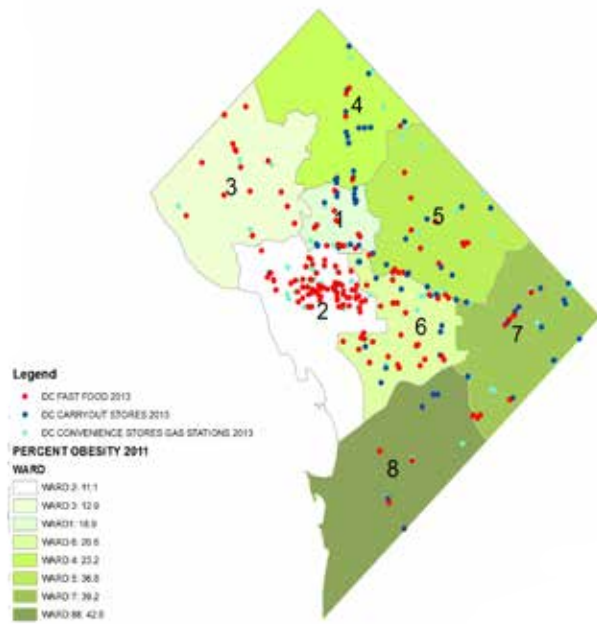
SOURCE: DCRA and HRLA

Figure 51. Residents who Ate Out at a Fast Food Restaurant or Carryout Within the Past Two Weeks, District of Columbia by Ward, 2011



SOURCE: DC BRFS

Figure 52. Fast Food, Carryout and Convenience Stores by Obesity and Ward, District of Columbia, 2013



SOURCE: DCRA and HRLA



According to the CDC, 70% of obese youth had at least one risk factor for cardiovascular disease. In 2009, childhood obesity alone was responsible for \$14.1 billion in direct costs (Chatterjee, 2009).¹ Childhood obesity has increased the risk of children entering their adult years plagued with chronic diseases and disabilities normally found in aging adults.² Children who are obese are more than twice as likely to die before the age of 55 compared to children whose BMI is in the healthy range (Hanson, 2010).

The National Survey of Children's Health stated in 2011 DC youth 10-17 years old ranked third among states with youth who were obese, 21.4%.

Body Mass Index (BMI) for Children³

Although, the BMI number is calculated the same way for children and adults, the criteria used to interpret the meaning of the BMI number for children and teens are different from those used for adults (CDC, 2013). For children and teens, BMI age and sex-specific percentiles are used for two reasons:

- The amount of body fat changes with age.
- The amount of body fat differs between girls and boys.

The CDC BMI-for-age growth charts take into account these differences and allow translation of a BMI number into a percentile for a child's sex and age (CDC, 2013). For adults, BMI is interpreted through categories that do not take into account sex or age (CDC, 2013).

Youth and Obesity

According to the YRBSS national survey, 13% of high school children were obese and 15% were overweight (CDC, 2011). Sixty-nine percent of high school students did not engage in physical activity or attend physical education classes. Eleven percent participated in unhealthy dietary patterns by drinking a can, bottle, or glass of soda or pop three or more times per day within the past seven days.

According to the American Psychological Association (APA), advertising has become a contributing factor of childhood obesity.⁴ The food industry advertising that targets children and youth has been linked to the increase of childhood obesity in children younger than age 5. The 2011 Pediatric Nutrition Surveillance report indicated that nationally 79% and in the District 76% of children <5 years of age spent more than two hours in a day watching television.

¹Trasande L. and Chatterjee S. "The Impact of Obesity on Health Service Utilization and Costs in Childhood." *Obesity*, 17(9):1749-54, 2009.

²U.S. Centers for Disease Control and Prevention. (CDC) Youth Risk Behavior Surveillance -- United States, 2011. *Morbidity and Mortality Weekly Report*, MMWR 61(SS 4): 1-162, 2012

³Center for Disease Control http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html and http://www.cdc.gov/healthyyouth/yrbs/pdf/us_overview_yrbs.pdf Accessed March 25, 2013

⁴American Psychological Association (2009). Resolution on promotion of healthy active lifestyles and prevention of obesity and unhealthy weight control behaviors in children and youth. Washington, DC: Author. Retrieved from <http://www.apa.org/about/governance/council/policy/chapter-12b.aspx#active-lifestyle>.



The Youth Risk Behavioral Surveillance System (YRBSS) is a self-reported national and state level survey that provides prevalence data on health risk behaviors. The survey is administered with separate survey questionnaires to middle (6th-8th grade) and high school students (9th-12th) on various topics such as: tobacco use, unhealthy dietary behaviors, inadequate physical activity and sexual behavior.

Data from the 2011 DC YRBSS found that 18% of high school youth (9th -12th grade) were overweight and 14.5% were obese. Females were more likely than males to be overweight and obese at 19.5 % and 15.5%, respectively (Table 6). Since 2005, obesity rates have slightly increased among all high schools students by 2% and male obesity rates have decreased by 3.7% (Table 6).

Since 1997, high school students were more likely than middle schools students to describe themselves as slightly or very overweight, (Figure 54).

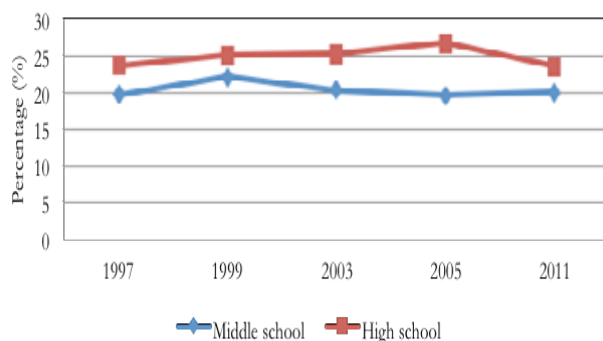
- Overall, in 2011, female middle school students were more likely than males to describe themselves as slightly or very overweight, 21.3% versus 18.9%, though female middle school students rates have decrease since 2003 males have since increased (Table 7).
- Although rates have decreased among female middle school students since 2003, in 2011 female middle school students were more likely than males to have gone without eating for 24

Youth Risk Behavioral Surveillance System

hours or more (Table 8).

- Rates have decreased among all middle school students since 2003. In 2011, male middle school students were more likely than females to take diet pills, powders, or liquids to lose weight or to keep from gaining weight without doctors' advice, 5.3% and 4.3%, respectively (Table 9).
- In 2011, male middle school students were more likely than females to vomit or take laxatives to lose weight or to keep from gaining weight, 6.9% and 5.9% respectively; however, female middle school students rates have increased since 2005 (Table 10).
- In 2011, high school females were more likely than males to participate in some sort of physical activity for at least 60 minutes per day on less than 5 days during the 7 days before the survey, 87% versus 79% (Table 11).
- In 2011, there was no difference between gender for high school students who went without eating for 24 hours or more to lose weight or to keep from gaining weight, 14.4% and 14.9% respectively, male high school students' rates have increased since 2005 by 3% (Table 12).
- Since 2003, rates have fluctuated among all high school students; however in 2011 male high school students were more likely than females to take diet pills, powders or liquids to lose weight or to keep from gaining weight, 6.5% versus 3.8% (Table 13).

Table 53. Middle and High School Students Who Describe Themselves as Slightly or Very Overweight, District of Columbia



SOURCE: YRBS

Table 6. Percentage of high school students who were overweight or Obese in the District of Columbia

| | 2005 | | 2005 | | 2011 | |
|--------|------------|-------|------------|-------|------------|-------|
| | Overweight | Obese | Overweight | Obese | Overweight | Obese |
| Male | 16.2 | 15.4 | 21.5 | 12.0 | 16.4 | 13.4 |
| Female | 17.2 | 11.2 | 19.6 | 8.0 | 19.5 | 15.5 |
| Total | 16.7 | 13.3 | 20.5 | 10.0 | 18.0 | 14.5 |

SOURCE: YRBS

Table 7. Percentage of middle school students who describe themselves as slightly or very overweight in the District of Columbia

| | 2003 | 2005 | 2011 |
|--------|------|------|------|
| Male | 16.5 | 16.3 | 18.9 |
| Female | 24.6 | 23.0 | 21.3 |
| Total | 20.5 | 19.7 | 20.1 |

SOURCE: YRBS

Table 8. Percentage of middle school students who went without eating for 24 hours or more to lose weight or to keep from gaining, District of Columbia

| | 2003 | 2005 | 2011 |
|--------|------|------|------|
| Male | 18.7 | 18.4 | 14.1 |
| Female | 19.6 | 21.5 | 18.2 |
| Total | 19.2 | 19.9 | 16.1 |

SOURCE: YRBS

Table 9. Percentage of middle school students who took diet pills, powders, or Liquids to lose weight or to keep from gaining weight without doctors' advice, District of Columbia

| | 2003 | 2005 | 2011 |
|--------|------|------|------|
| Male | 7.3 | 6.9 | 5.3 |
| Female | 5.9 | 5.4 | 4.3 |
| Total | 6.6 | 6.1 | 4.9 |

Source: District of Columbia Youth Risk Behavior Survey

Table 10. Percentage of middle school students who vomited or took laxatives to lose weight or to keep from gaining weight, District of Columbia

| | 2003 | 2005 | 2011 |
|--------|------|------|------|
| Male | 9.4 | 7.6 | 6.9 |
| Female | 7.7 | 4.7 | 5.9 |
| Total | 8.5 | 6.1 | 6.4 |

Source: District of Columbia Youth Risk Behavior Survey

Table 11. Percentage of students participating in some sort of physical activity for at least 60 minutes per day on less than 5 days during the 7 days before the survey, District of Columbia

| | 2011 |
|--------|------|
| Male | 79.0 |
| Female | 87.0 |
| Total | 71.6 |

Source: District of Columbia Youth Risk Behavior Survey

Table 12. Percentage of high school students who went without eating for 24 hours or more to lose weight or to keep from gaining weight, District of Columbia

| | 2003 | 2005 | 2011 |
|--------|------|------|------|
| Male | 13.4 | 11.4 | 14.4 |
| Female | 14.4 | 17.3 | 14.9 |
| Total | 13.9 | 14.4 | 14.7 |

Source: District of Columbia Youth Risk Behavior Survey

Table 13. Percentage of high school students who took diet pills, powders or liquids to lose weight or to keep from gaining weight

| | 2003 | 2005 | 2011 |
|--------|------|------|------|
| Male | 10.9 | 4.1 | 6.5 |
| Female | 7.2 | 5.7 | 3.8 |
| Total | 9.0 | 4.9 | 5.0 |

Source: District of Columbia Youth Risk Behavior Survey

Table 14. Percentage of high school students who vomited or took laxatives to lose weight or to keep from gaining weight

| | 2003 | 2005 | 2011 |
|--------|------|------|------|
| Male | 7.1 | 3.9 | 5.1 |
| Female | 6.2 | 4.4 | 5.6 |
| Total | 6.6 | 4.1 | 5.7 |

Source: District of Columbia Youth Risk Behavior Survey



Evidence suggest that being physically active is one of the most important steps to maintaining health. Schools are an ideal setting to teach children how to adopt and maintain a healthy and active lifestyle.

According to the District of Columbia Board of Education and the Office of State Superintendent of Education (OSSE), their goal is to provide 225 minutes of physical education to middle and high school students as recommended by the National Association for Sport and Physical Education(NASBE). The Centers for Disease Control and Prevention (CDC), recommends 45 minutes, five days per week.

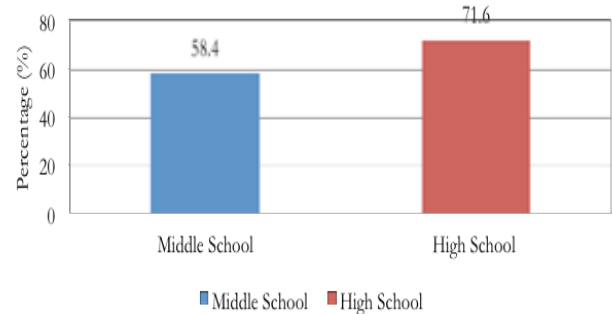
According to the 2011 YRBSS survey, high school students were more likely than middle school students to engage in physical activity at least 60 minutes per day on less than five days (Figure 55).

- High school students were less likely to participate in at least 60 minutes of physical activity on any day (Figure 56).
- There was an increase among middle and high school students who did not attend physical education classes on an average week when they were in school from 2005 to 2011 (Figure 57).
- There was a decline among middle and high school students who watched television;

Youth and Physical Activity

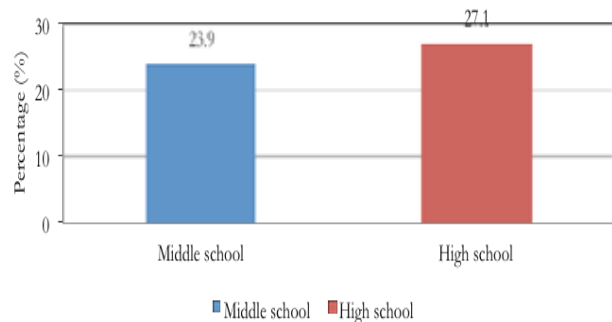
however, their were no differences among students that used computers three or more hours per day for something else unrelated to school work (Figures 58 and 59).

Figure 54. Middle and High School Students Who Were Physically Active at Least 60 Minutes Per Day on Less than Five Days, District of Columbia, 2011



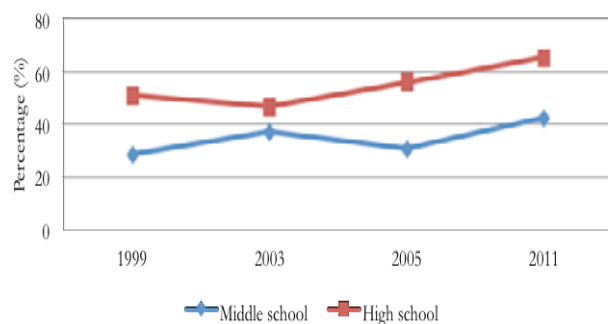
SOURCE: YRBS

Table 55. Middle and High School Students Who Did Not Participate in at Least 60 Minutes of Physical Activity on Any Day, District of Columbia, 2011



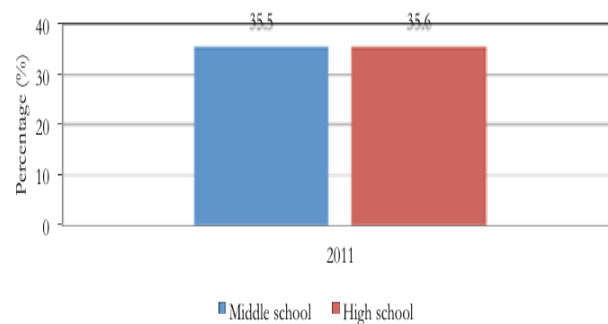
SOURCE: YRBS

Table 56. Middle and High school Students Who Did Not Attend Physical Education Classes in an Average Week When They Were in School, District of Columbia



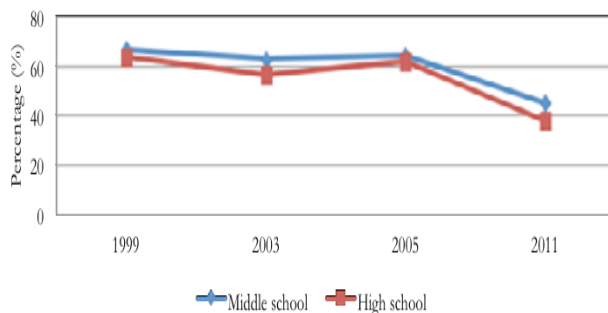
SOURCE: YRBS

Table 58. Middle and High School Students Who Used Computers Three or More Hours Per Day, Something That Was Not School Work, District of Columbia, 2011



SOURCE: YRBS

Table 57. Middle and High School Students Who Watched Television Three or More Hours Per Day on an Average School Day, District of Columbia



SOURCE: YRBS



Consumption of high calorie foods and sugar-sweetened beverages among children has increased dramatically since the 1970's and has been linked to the high rates of overweight and obesity seen in children. Eating the proper servings of fruits and vegetables helps to promote healthy bones, good heart health, and decrease one's chance of developing a chronic disease.¹

According to data from the DC YRBSS survey, 76.5% of high school students drank a can, bottle, or glass of soda or pop, not counting diet soda or diet pop during the past seven days. In 2011, there was a decline in the percentage of high school student who did not eat other vegetables (Figure 60).

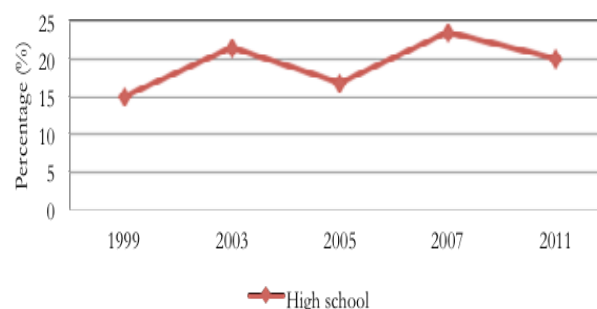
Since 1999, there has been no change in the percentage of high school students who did not eat a green salad within the past seven days (Figure 61). The percentage of high school students who did not eat fruit within the past seven days has declined over the years (Figure 62).

Since 1999, the percentage of high school students who did not drink 100% fruit juice within the past seven days has increased steadily over time (Figure 63).

Clarke, Philippa. (2010). Impact of Childhood Obesity Goes Beyond Health. University Of Michigan. Retrieved from <http://www.npr.org/templates/story/story.php?storyId=128804121> Accessed: August 27, 2013
 Dietz, W. (1998). Health consequences of obesity in youth: Childhood predictors of adult disease. *Pediatrics*, 101(2), 518-525. Retrieved from http://www.pediatricsdigest.mobi/content/101/Supplement_2/518.full Accessed: April 17, 2013.

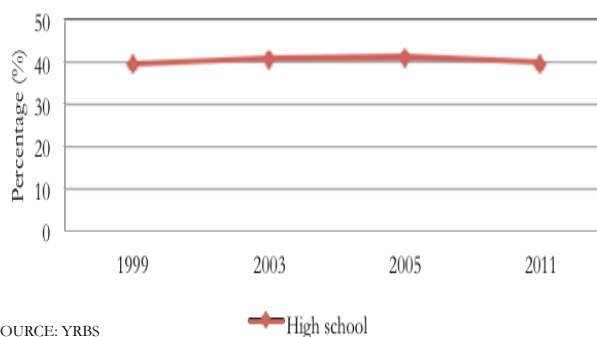
Youth and Nutrition

Table 59. High School Students Who Did Not Eat Other Vegetables (excluding green salad, potatoes, or carrots), District of Columbia



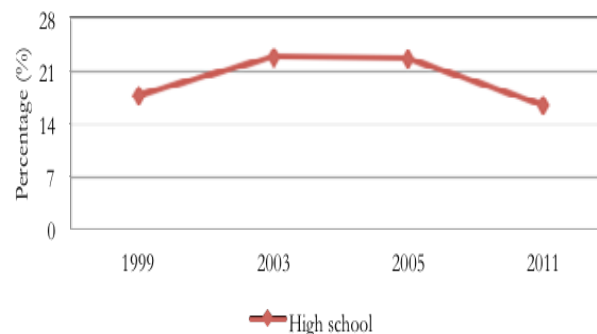
SOURCE: YRBS

Table 60. High School Students Who Did Not Eat Green Salad Within the Past Seven Days, District of Columbia



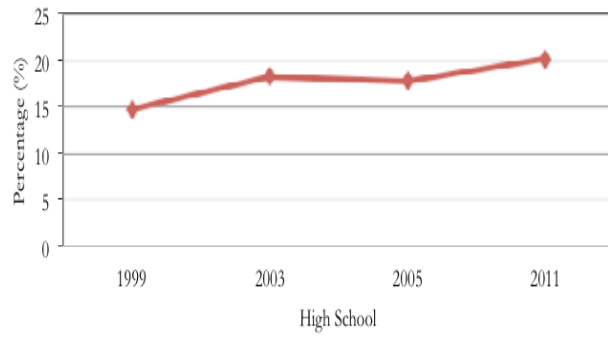
SOURCE: YRBS

Table 61. High School Students Who Did Not Eat Fruit Within the Past Seven Days, District of Columbia



SOURCE: YRBS

Table 62. High School Students Who Did Not Drink 100% Fruit Juices Within the Past Seven Days, District of Columbia



SOURCE: YRBS



The fast food industry continues to use creative marketing techniques to influence food purchasing decisions. The promotion of toys in kid's meals is one of the tactics used by the food industry because it can impact food purchasing decisions made by the parent/guardian.

According to the Federal Trade Commission, in 2010, marketers spent \$3.4 billion on food advertisements to appear on popular children's websites.² In 2009, marketers spent \$1.79 billion on youth marketing, a 19.5% drop in inflation-adjusted expenditures compared to 2006.¹

Cell phones have become another way advertisers are able to reach youth and adults by text or the user who uses their mobile device to access the Internet. According to data from the Kaiser Family Foundation (Table 15) more than half of children 11-18 years old owned a cell phone in 2009. In 2009, 54.6% of youth ages 13-17 years old responded to a food advertisement using their mobile device compared to 27.5% in 2007-- a 27.1% increase (Table 16).

Advertising

Table 15. Mobile Advertising

| Year | Ages | No. of mobile subscribers | % of subscribers receiving at least 1 food Ad | % of subscribers receiving at least 1 restaurant Ad | % Who responded to a food Ad |
|------|-------|---------------------------|---|---|------------------------------|
| 2007 | 13-17 | 16,732,605 | 0.37% | 0.63% | 54.57% |
| 2009 | 13-17 | 18,196,197 | 1.63% | 1.06% | 27.45% |

Source: Kaiser Family Foundation

Table 16: Children that owned cell phones in 2009

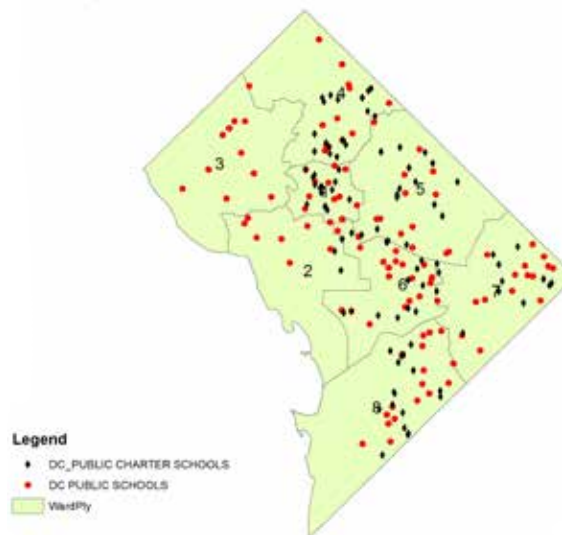
| Age | Percentage (%) |
|-------|----------------|
| 8-10 | 31% |
| 11-14 | 69% |
| 15-18 | 85% |

Source: Kaiser Family Foundation



Schools in Close Proximity to Unhealthy Food Options

Figure 63. District of Columbia Public and Charter Schools, 2013



The District of Columbia Public School system involves a network of modern public schools and established independent public chartered schools. There are 58 different Local Education Agencies (LEAs) and 237 school campuses serving approximately 80,000 pre-kindergarten-12th grade students in the District1 (Figure 64).

In 2010, the Healthy Schools Act was passed by City Council of the District of Columbia designed to promote and improve health and wellness, while reducing hunger among DC public and public charter school students. Areas that aid in achieving this goal are nutrition, health education, physical education, physical activity, farm to school programs, school gardens among other wellness topics.²

Children spend an average of 8 to 10 hours a day in school, including before and after care, and recreational/sporting activities. Although schools provide breakfast, lunch, and snack, school officials are often challenged with making healthy food options appealing to children to eat. The decision about which foods are healthy for students is controversial. Furthermore, many schools in the District have unhealthy food options located within less than 0.1 miles of the schools.

The District of Columbia Department of Health, Behavioral Risk Factor Surveillance System program conducted an assessment of the proximity of the District's public and public charter schools to unhealthy food establishments, such as carry-outs, convenience stores, fast food restaurants, and gas stations. The eight wards of the Dis-

trict were divided and categorized by ANC subdivisions. The assessment showed that there are an estimated 23 schools within less than 0.1 miles of unhealthy food establishments.

Note: Over the years the grade level structures particularly in DCPS has changed from 6th grade being in elementary to middle school. Unless noted 6th grade is located within middle school.

1 Schlicker, Sandra. Deputy Superintendent. Office of the State Superintendent of Education July 16, 2013

2 Office of state superintendent of education (OSSE) Accessed July 17, 2013 <http://osse.dc.gov/service/healthy-schools-act>

Ward 1

Table 17 shows the number of unhealthy food options located within less than ½ mile from public and charter schools in the District by ward and ANC.

Meridian Public Charter School, located within ANC 1B, has a total of 27 unhealthy food options located within a ½ mile of the school. Youth Build LAYC, located in ANC 1A has five unhealthy food options located within less than 0.1 mile from the school.

Table 17. Schools Less than ½ mile from Category B Options by ANC in Ward 1

| DC PUBLIC SCHOOLS | ANC | <0.1 Miles | 0.1 Miles | 0.2 Miles | 0.3 Miles | 0.4 Miles | Total |
|--------------------------------------|------------|--------------------------|----------------------|----------------------|----------------------|----------------------|--------------|
| Washington Metropolitan School | 1B | 0 | 0 | 1 | 4 | 4 | 9 |
| Columbia Heights Education Campus | 1A | 0 | 5 | 6 | 5 | 8 | 24 |
| Cardozo Senior High School | 1B | 0 | 0 | 0 | 6 | 11 | 17 |
| Benjamin Banneker Senior High School | 1B | 1 | 0 | 5 | 1 | 1 | 8 |
| DC PUBLIC CHARTER SCHOOLS | | | | | | | |
| Youth Build LAYC | 1A | 5 | 1 | 4 | 6 | 3 | 19 |
| Booker T. Washington | 1B | 0 | 0 | 7 | 11 | 4 | 22 |
| Meridian Public Charter School | 1B | 0 | 7 | 11 | 2 | 7 | 27 |
| Next Step/El Proximo Paso | 1A | 1 | 2 | 8 | 3 | 7 | 21 |
| Cesar Chavez PCS | 1A | 0 | 1 | 6 | 2 | 14 | 23 |
| Prep/Kenyon Street | | | | | | | |
| Howard University Middle School | 1B | 0 | 0 | 4 | 0 | 2 | 6 |
| Oyster-Adams Bilingual | 1C | 1 | 1 | 2 | 4 | 11 | 19 |
| E.L. Haynes | 1A | 0 | 3 | 8 | 6 | 4 | 21 |

Note: Depending on direction of travel, some schools could be closer or further away from unhealthy options

Source: DC Public and Charter Schools, Google and DC Atlas

Ward 2

Table 18 shows the number of unhealthy food options located within less than ½ mile from the public and charter schools in the District by ward and ANC.

Basis DC Public Charter School, located within ANC 2A, has a total of 32 unhealthy food options located within a ½ mile of the school. School Without Walls located in ANC 2A, Center City Shaw campus located in ANC 2C and Basis DC PCS located in ANC 2A have one unhealthy food option located within less than 0.1 miles from the school.

Table 18. Schools Less than ½ mile from Category B Options by ANC in Ward 2

| DC PUBLIC SCHOOLS | ANC | <0.1 Mile | 0.1 Mile | 0.2 Miles | 0.3 Miles | 0.4 Miles | Total |
|----------------------------------|------------|-------------------------|---------------------|----------------------|----------------------|----------------------|--------------|
| Francis-Stevens Education Campus | 2A | 0 | 0 | 2 | 5 | 4 | 11 |
| Schools Without Walls | 2A | 1 | 3 | 5 | 7 | 10 | 26 |
| Duke Ellington School of the Art | 2E | 0 | 0 | 1 | 3 | 2 | 6 |
| Hardy Middle School | 2E | 0 | 0 | 0 | 2 | 6 | 8 |
| DC PUBLIC CHARTER SCHOOLS | | | | | | | |
| Center City Shaw Campus | 2C | 1 | 0 | 3 | 6 | 4 | 14 |
| Basis DC Public Charter School | 2A | 1 | 2 | 4 | 14 | 11 | 32 |

Note: Depending on direction of travel some schools could be closer or further away from unhealthy options
Source: DC Public and Charter Schools, Google and DC Atlas

Ward 3

Table 19 shows the number of unhealthy food options located within less than ½ mile from the public and charter schools in the District by ward and ANC.

Wilson Senior High School, which is located within ANC 3F has a total of 13 unhealthy food options located within ½ mile of the school but there are six unhealthy food options located within 0.1 mile of the school.

Table 19. Schools Less than ½ mile from Category B Options by ANC in Ward 3

| DC PUBLIC SCHOOLS | ANC | <0.1 Mile | 0.1 Mile | 0.2 Miles | 0.3 Miles | 0.4 Miles | Total |
|---------------------------|-----|--------------|-------------|--------------|--------------|--------------|-------|
| Alice Deal Middle School | 3E | 0 | 0 | 0 | 5 | 5 | 10 |
| Wilson Senior High School | 3F | 0 | 6 | 0 | 5 | 2 | 13 |

Note: There are no charter schools located in Ward 3

Depending on direction of travel some schools could be closer or further away from unhealthy options.

Source: DC Public and Charter Schools, Google and DC Atlas

Ward 4

Table 20 shows the number of unhealthy food options located within less than ½ mile from the public and charter schools in the District by ward and ANC (Table 20).

Raymond Education Campus, which is located within ANC 4C has a total of 24 unhealthy food options located within a ½ mile of the school. Center City Brightwood campus located in ANC 4A and McFarland Middle School located in ANC 4C have one unhealthy food option located less than 0.1 mile from the school.

Table 20. Schools Less than ½ mile from Category B Options by ANC in Ward 4

| DC PUBLIC SCHOOLS | ANC | <0.1 Mile | 0.1 Mile | 0.2 Miles | 0.3 Miles | 0.4 Miles | Total |
|----------------------------------|------------|-------------------------|---------------------|----------------------|----------------------|----------------------|--------------|
| Brightwood Education Campus | 4A | 0 | 0 | 5 | 1 | 3 | 9 |
| Coolidge Senior High School | 4B | 0 | 0 | 0 | 0 | 5 | 5 |
| LaSalle-Beckus Education Campus | 4B | 0 | 0 | 1 | 3 | 1 | 5 |
| Takoma Education Campus | 4B | 0 | 0 | 1 | 3 | 3 | 7 |
| Whittier Education Campus | 4B | 0 | 0 | 0 | 0 | 4 | 4 |
| McFarland Middle School | 4C | 1 | 0 | 9 | 7 | 6 | 23 |
| Raymond Education Campus | 4C | 0 | 1 | 4 | 7 | 12 | 24 |
| Roosevelt Senior High | 4C | 0 | 5 | 4 | 3 | 10 | 22 |
| West Education Campus | 4C | 0 | 0 | 1 | 10 | 2 | 13 |
| Truesdell Education Campus | 4D | 0 | 0 | 5 | 6 | 2 | 13 |
| DC PUBLIC CHARTER SCHOOLS | | | | | | | |
| Ideal North Capitol Campus | 4B | 0 | 1 | 0 | 0 | 2 | 3 |
| Paul Public Charter School | 4B | 0 | 0 | 5 | 1 | 7 | 13 |
| Capital City School Middle/Upper | 4B | 0 | 1 | 0 | 0 | 2 | 3 |
| Roots Main Campus | 4B | 0 | 0 | 0 | 2 | 4 | 6 |
| Center City Brightwood Campus | 4A | 1 | 1 | 4 | 5 | 1 | 11 |
| Community Academy Online | 4A | 0 | 0 | 5 | 1 | 3 | 9 |
| Washington Latin High School | 4C | 0 | 0 | 3 | 2 | 0 | 5 |
| Washington Latin Middle School | 4C | 0 | 0 | 3 | 2 | 3 | 8 |
| E. L Haynes PCS- High school | 4D | 0 | 0 | 4 | 9 | 3 | 16 |
| Center City Petworth Campus | 4C | 0 | 0 | 4 | 5 | 2 | 11 |

Note: Depending on direction of travel, some schools could be closer or further away from unhealthy options

Source: DC Public and Charter Schools, Google and DC Atlas

Ward 5

Table 21 shows the number of unhealthy food options that are located within a ½ mile from the public and charter schools in the District by ward and ANC.

Center City Trinidad campus and Wheatley Education Campus, located within ANC 5B, has a total of 24 unhealthy food options located within a ½ mile of the school. Luke Moore High School, located in ANC 5A, has three unhealthy food options located within less than 0.1 miles of the school. Washington, Math Science and Technology has two unhealthy food options located within less than 0.1miles from the school and Noyes Education Campus, Elsie Whitlow has one unhealthy food option located less than 0.1 mile from the schools.

Table 21. Schools Less than ½ mile from Category B Options by ANC in Ward 5

| DC PUBLIC SCHOOLS | ANC | <0.1 Miles | 0.1 Miles | 0.2 Miles | 0.3 Miles | 0.4 Miles | Total |
|---|-----|---------------|--------------|--------------|--------------|--------------|-------|
| Brookland Education Campus | 5A | 0 | 0 | 0 | 0 | 1 | 1 |
| Browne Education Campus | 5A | 0 | 0 | 0 | 3 | 2 | 5 |
| Luke Moore Academy Senior High | 5A | 3 | 0 | 3 | 2 | 2 | 10 |
| Dunbar Senior High | 5C | 0 | 0 | 3 | 8 | 8 | 19 |
| McKinley Technology High School/ Langley Campus | 5C | 0 | 0 | 0 | 1 | 10 | 11 |
| Wheatley Education Campus | 5B | 0 | 1 | 1 | 11 | 11 | 24 |
| Burroughs Education Campus | 5B | 0 | 1 | 0 | 2 | 1 | 4 |
| CHOICE Academy | 5B | 0 | 0 | 2 | 6 | 2 | 10 |
| Langdon Education Campus | 5B | 0 | 0 | 0 | 2 | 1 | 3 |
| Noyes Education Campus | 5B | 1 | 2 | 2 | 1 | 4 | 10 |
| Phelps Architecture, Construction and Engineering High School | 5B | 0 | 0 | 2 | 5 | 0 | 7 |
| DC PUBLIC CHARTER SCHOOLS | | | | | | | |
| Perry Street Prep | 5C | 0 | 0 | 0 | 1 | 0 | 1 |
| Mary McLeod Bethune | 5A | 0 | 0 | 0 | 4 | 7 | 11 |
| Potomac Lighthouse Charter School | 5A | 0 | 0 | 0 | 2 | 2 | 4 |
| DC Preparatory PCS- Edgewood Middle | 5B | 0 | 0 | 1 | 4 | 6 | 11 |
| Center City Trinidad Campus | 5B | 0 | 1 | 1 | 1 | 21 | 24 |
| Tree Life Charter School | 5B | 0 | 0 | 0 | 2 | 6 | 8 |
| Washington, Math, Science and Technology | 5B | 2 | 4 | 0 | 2 | 1 | 9 |
| Friendship Woodbridge Academy | 5A | 0 | 0 | 1 | 4 | 5 | 10 |
| Elsie Whitlow Stokes Community Freedom | 5A | 1 | 3 | 5 | 0 | 1 | 10 |

Note: Depending on direction of travel, some schools could be closer or further away from unhealthy options

Source: DC Public and Charter Schools, Google and DC Atlas

Ward 6

Table 22 shows the number of unhealthy food options located within less than ½ mile from the public and charter schools in the District by ward and ANC.

Stuart-Hobson middle school, which is located within ANC 6C has a total of 26 unhealthy food options located within a ½ mile of the school. Two Rivers middle school located in ANC 6C has four unhealthy food options, Center City and Walker Jones Education campus have two unhealthy food options located less than 0.1 mile from the school.

Table 22. Schools Less than ½ mile from Category B Options by ANC in Ward 6

| DC PUBLIC SCHOOLS | ANC | <0.1 Mile | 0.1 Mile | 0.2 Miles | 0.3 Miles | 0.4 Miles | Total |
|--|------------|-------------------------|---------------------|----------------------|----------------------|----------------------|--------------|
| Eastern Senior High School | 6A | 0 | 0 | 2 | 1 | 0 | 3 |
| Elliot-Hine Middle School | 6A | 0 | 0 | 2 | 2 | 2 | 6 |
| Stuart-Hobson Middle School | 6C | 0 | 2 | 3 | 11 | 10 | 26 |
| Walker-Jones Education Campus | 6C | 2 | 0 | 0 | 5 | 8 | 15 |
| Jefferson Middle School | 6D | 0 | 0 | 0 | 6 | 4 | 10 |
| DC PUBLIC CHARTER SCHOOLS | | | | | | | |
| WILL Academy | 6D | 1 | 1 | 3 | 3 | 2 | 14 |
| Richard Wright PCS | | 1 | 1 | 0 | 1 | 9 | 12 |
| Options Charter School | 6A | 1 | 0 | 1 | 7 | 9 | 18 |
| Center City Capitol Hill Campus | 6B | 2 | 2 | 0 | 0 | 1 | 5 |
| Cesar Chavez Capitol Hill Campus High School | 6B | 0 | 2 | 5 | 5 | 1 | 13 |
| Friendship Chamberlain Campus | 6B | 1 | 1 | 4 | 1 | 2 | 9 |
| Two River Middle School | 6C | 4 | 1 | 6 | 3 | 0 | 14 |

Note: Depending on direction of travel, some schools could be closer or further away from unhealthy options

Source: DC Public and Charter Schools, Google and DC Atlas

Ward 7

Table 23 shows the number of unhealthy food options located within less than ½ mile from the public and charter schools in the District by ward and ANC.

Friendship Collegiate Academy, which is located within ANC 7D has a total of 18 unhealthy food options located within less than ½ mile of the school. Friendship Junior Academy, which is located within ANC 7D has three unhealthy food options located within less than 0.1 mile from the school.

Table 23. Schools Less than ½ mile from Category B Options by ANC in Ward 7

| DC PUBLIC SCHOOLS | ANC | <0.1 Mile | 0.1 Mile | 0.2 Miles | 0.3 Miles | 0.4 Miles | Total |
|---|------------|-------------------------|---------------------|----------------------|----------------------|----------------------|--------------|
| Sousa Middle School | 7A | 0 | 0 | 0 | 0 | 2 | 2 |
| Kelly Miller Middle School | 7C | 0 | 0 | 0 | 0 | 8 | 8 |
| HD Woodson Senior High School | 7E | 0 | 0 | 1 | 1 | 0 | 2 |
| DC PUBLIC CHARTER SCHOOLS | | | | | | | |
| Arts and Technology Academy | 7C | 0 | 0 | 0 | 0 | 1 | 1 |
| Integrated Design and Electronic Academy (IDEA) | 7C | 0 | 0 | 1 | 4 | 2 | 7 |
| Maya Angelou Evans Campus | 7C | 0 | 0 | 0 | 4 | 1 | 5 |
| Cesar Chavez Parkside Campus | 7D | 0 | 1 | 0 | 1 | 7 | 9 |
| Friendship Collegiate Academy Woodson Campus | 7D | 0 | 2 | 4 | 4 | 8 | 18 |
| Friendship Junior Academy Blow Pierce Campus | 7D | 3 | 1 | 2 | 3 | 5 | 14 |
| SEED | 7A | 0 | 0 | 0 | 1 | 5 | 6 |
| KIPP-DC Key Academy | 7A | 0 | 0 | 0 | 0 | 4 | 4 |

Note: Depending on direction of travel some schools could be closer or further away from unhealthy options.

Source: DC Public and Charter Schools, Google and DC Atlas

Ward 8

Table 24 shows the number of unhealthy food options located within less than ½ mile from the public and charter schools in the District by ward and ANC.

Friendship Tech Campus located within ANC 8C and National Collegiate Preparatory which is located within ANC 8E has a total of nine unhealthy food options located within less than ½ mile of the school. Thurgood Marshall Academy located in ANC 8C has two unhealthy food options located within a less than 0.2 mile from the school.

Table 24. Schools Less than ½ mile from Category B Options by ANC in Ward 8

| DC PUBLIC SCHOOLS | ANC | <0.1 Mile | 0.1 Mile | 0.2 Miles | 0.3 Miles | 0.4 Miles | Total |
|----------------------------------|------------|-------------------------|---------------------|----------------------|----------------------|----------------------|--------------|
| Anacostia Senior High School | 8A | 0 | 0 | 2 | 1 | 0 | 3 |
| Kramer Middle School | 8A | 0 | 0 | 0 | 0 | 3 | 3 |
| Ballou Senior High School | 8C | 0 | 0 | 0 | 2 | 2 | 4 |
| Hart Middle School | 8E | 0 | 0 | 0 | 1 | 2 | 3 |
| Johnson Middle School | 8E | 0 | 0 | 0 | 3 | 03 | 3 |
| DC PUBLIC CHARTER SCHOOLS | | | | | | | |
| Howard Road Academy Main Campus | 8C | 0 | 0 | 0 | 1 | 2 | 3 |
| Kipp DC AIM Academy | 8A | 0 | 0 | 1 | 0 | 0 | 1 |
| KIPP DC College Preparatory | 8A | 0 | 0 | 1 | 0 | 0 | 1 |
| Center City-Congress Heights | 8C | 0 | 0 | 0 | 2 | 2 | 4 |
| Friendship Tech Prep | 8C | 1 | 0 | 6 | 1 | 1 | 9 |
| Thurgood Marshall Academy | 8C | 2 | 0 | 1 | 0 | 0 | 3 |
| Achievement Preparatory Academy | 8E | 0 | 1 | 0 | 1 | 4 | 6 |
| National Collegiate Preparatory | 8E | 0 | 0 | 3 | 2 | 4 | 9 |

Note: Depending on direction of travel, some schools could be closer or further away from unhealthy options.

Source: DC Public and Charter Schools, Google and DC Atlas



As the DC Overweight and Obesity Action Plan 2010-2015 enters its mid-way point in 2013, much has been accomplished, yet much remains to be done.

New District-sponsored legislation as well as significant multi-year Federal grants have helped to turn a corner with regards to implementation of healthy eating/active living strategies in the District of Columbia.

Below we highlight the progress made and outstanding challenges in eight key settings: (1) Schools and Child Care Facilities; (2) Medical and Health Services; (3) Food Retail and Food Service Establishments; (4) Physical Activity; (5) Worksites; (6) Faith-Based Institutions; (7) Overarching Support Systems and (8) Infrastructure.

Two over-arching national developments are worth mentioning in this introduction as they cut across settings discussed in this Plan.

First, Let's Move is a comprehensive obesity initiative launched by the First Lady in 2010. The District became a Let's Move City early on, and will be re-dedicating this commitment soon, with the new Let's Move goal

D.C. OVERWEIGHT AND OBESITY ACTION PLAN 2010-2015 FALL 2013 UPDATES

promoting healthy communities.

Second, in 2013, all States (including the District of Columbia) have been awarded a five-year grant from the Centers for Disease Control and Prevention (CDC) known as "State and Public Actions to Prevent and Control Diabetes, Heart Disease, and Associated Risk Factors and Promote School Health." This grant is game-changing, both nationally and locally, for the first time integrating adult chronic disease prevention with children and school health. The five-year DOH CDC grant involves day care, schools, workplaces, medical services, physical activity, and more.

In sum, the District can be proud of progress made towards implementing its Overweight and Obesity Action Plan, thus far while re-committing government and community efforts towards reaching goals and implementing strategies defined in this Plan by 2015.

SCHOOLS AND CHILD CARE FACILITIES

UPDATE: In May 2010, the D.C. Council passed the DC HEALTHY SCHOOLS ACT, landmark legislation designed to improve the health and wellness of children in DC public and public charter schools. This law is one of the most far-reaching in the nation and has ongoing significant positive impact on the District of Columbia Overweight and Obesity Action Plan's goals and objectives described herein. For more info, visit: dchealthyschools.org and osse.dc.gov, wellness and nutrition services.

The Healthy Schools Act does not include child care facilities; however, the HEALTHY TOTS ACT OF 2013 has been introduced (Leg # B20-0407), co-sponsored by a majority of City Council members, with provisions similar to the Healthy Schools Act 2010, including resources for implementation. The District did receive a 3-year "I Am Happy, I Am Healthy" USDA grant (2010-2013) under OSSE, resulting in improved meals and physical activities, in addition to wellness policies in participating centers as a result of the grant. Note: the Healthy Schools Act also does not include after school programs.

GOAL 1: District of Columbia children and young adults are able to maintain healthy eating and physical activity to support a healthy weight while in schools, child care facilities, and after-school programs.

OBJECTIVE 1.A: Recommended Change from Original 2010 Objective: All District schools will meet and regularly evaluate the nutrition and physical education/physical activity standards outlined in the 2010 DC Healthy Schools Act. Nutrition and physical education/activity policies will be appropriately adapted from the DC Healthy Schools Act, implemented, and regularly evaluated for all District child care facilities and District after-school programs.

ORIGINAL OBJECTIVE: To Be Replaced by Above: Schools, child care facilities, and after-school programs will implement and regularly evaluate a comprehensive wellness policy that meets or exceeds that developed by DC Public Schools.

| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
|---|--------------------|---------|-------------|-------------|---------|-----------|
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| A.1 Conduct outreach to children, parents, teachers, administrators, and school board members to increase awareness of school wellness policies. UPDATE: Under the 2010 DC Healthy Schools Act, the DC Office of State Superintendent of Education (OSSE) receives additional city resources annually, strengthening the agency's ability to improve wellness services and awareness of wellness policies in DC schools. In addition, Healthy Youth & Schools Commission (HYSC) has been established. The Commission has been working to increase awareness of the wellness policies in the Healthy Schools Act via monthly "info graphics" and other outreach mechanisms. | | | | X | | |
| 1. A.2 Engage and use children, parents, teachers, and administrators in child care facilities and schools to oversee and implement the wellness policies for the school or child care facility. | | | | X | | |

| | | | | | | |
|--|--|---|--|--|--|--|
| 1. A.3 Encourage the use of health impact assessments when new facilities are designed or built. | | X | | | | |
|--|--|---|--|--|--|--|

| OBJECTIVE 1.B: Children will have access to and select healthy meals and integrated, evidence-based nutrition education in schools, child care facilities, and after-school programs. | | | | | | |
|---|--------------------|---------|-------------|-------------|---------|-----------|
| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 1.B.1 Optimize participation in the USDA National School Lunch Program, School Breakfast Program, Summer Food Program, After School Snack and Supper Program, Child and Adult Care Food Program, and Fresh Fruit and Vegetable Snack Program. | | | | | X | |
| 1. B.2 Improve the capacity of food service personnel at schools and child care facilities to prepare healthy meals with good student acceptance. UPDATE: To be implemented via support from new five-year DOH CDC grant. | | | | X | | |
| B.3 Provide standardized, well-supervised nutrition education to children and adults in numerous community settings. UPDATE: Is being implemented through various mechanisms, including via the SNAP-Ed program and the Senior Farmer's Market Nutritional Program (SFMNP). | | | | | X | |
| B.4 Increase the number of schools and child care facilities with opportunities for safe gardening. UPDATE: schools are increasing opportunities for school gardens via support from the Healthy Schools Act, with 38 school gardens as of September 2013. | | | | | X | |

| | | | | | | |
|--|--|--|--|--|---|---|
| 1. B.5 Require schools and child care facilities to specify in contracts with food vendors that all meals served meet nutritional standards. | | | | | | X |
| 1. B.6 Establish farm-to-school and explore farm-to-child care facilities with regional farms that support the purchase of local produce and nutrition education. UPDATE: This strategy is part of the Healthy Schools Act. Child care facilities are implementing as feasible. | | | | | X | |

| OBJECTIVE 1.C: Children will be physically active on a regular basis to meet the Physical Activity Guidelines for Americans.. | | | | | | |
|---|---------------------------|----------------|--------------------|--------------------|----------------|------------------|
| STRATEGIES | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 1. C.1 Require that all children receive the recommended amounts of physical education at school (150 minutes/week for elementary students; 225 minutes/week for middle school students) and child care (120 minutes/day). UPDATE: PE minutes are now required in schools via the Healthy Schools Act; no official requirement yet in child care facilities. Significant challenges exist with meeting the PE/PA requirements in schools, which is the case for school systems across the nation. The HYSC is submitting recommendations to the City Council by the end of 2013 to address this problem. | | | | X | | |
| 1.C.2 Adopt policies and programs to train teachers and staff from child care centers, public, charter, and independent schools on how to incorporate physical activity into routine daily activities. UPDATE: This strategy will be increasingly implemented via support from the five-year DOH CDC grant, and may be included in HYSC's December 2013 City Council recommendations. | | | X | | | |
| 1. C.3 Establish partnerships among educational programs and community-based organizations to share resources and offer physical activity to District children. | | | | X | | |

| | | | | | | |
|--|--|---|--|---|--|--|
| <p>1. C.4 Adopt policies that require after-school programs to have a structured physical activity component.</p> <p>UPDATE: some after-school programs are adopting a structured PA component, but there is no official policy to date.</p> | | X | | | | |
| <p>1.C.5 Open school buildings, school grounds, parks, and/or recreational facilities for use solely by District residents through use of amended joint-use agreement regulations.*</p> <p>UPDATE: Join use legislation is pending in City Council. The strategy is integrated into DOH's Community Transformation Grant.</p> | | | | X | | |
| <p>1. C.6 Amend the District of Columbia Board of Education Graduation Requirements to increase to 2.5 Carnegie units the amount of physical education students in District schools must complete to graduate.</p> <p>UPDATE: In December, 2012, the DC State Board of Education proposed revisions to high school graduation requirements including an increase to 2.5 units of PE. The requirement consists of 3 components, including 225 minutes of PA/week. As of 8/13, the requirement is pending final rule-making.</p> | | X | | | | |

| OBJECTIVE 1.D: Children and young adults from high-need neighborhoods will gain and use the knowledge needed to purchase and prepare healthy, affordable food through expanded educational opportunities. | | | | | | |
|--|---------------------------|----------------|--------------------|--------------------|----------------|------------------|
| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 1. D.1 Expand standardized, well-supervised nutrition education and physical education activity programs available to District residents of all ages through existing educational and community settings. UPDATE: Implementation taking place via various mechanisms, including the SNAP-Ed program, in the schools via the DC Healthy School Act requirements, the DC Healthy Corner Stores-DC Central Kitchen pilot program, and other initiatives. | | | | X | | |
| 1. D.2 Optimize WIC participation by extending its model of nutrition education, nutritional counseling and breastfeeding to address overweight and obesity in the wider District population. DISCONTINUED: (expansion of WIC specifically not feasible at this time) | X | | | | | |

Medical and Health Services

| UPDATE: The Affordable Care Act (ACA), which begins implementation as of October 1, 2013, includes game-changing provisions to promote preventive care, including provider reimbursement opportunities for healthy eating/active living/obesity prevention and reduction patient support. | | | | | | |
|--|--------------------|---------|-------------|-------------|---------|-----------|
| GOAL 2: District of Columbia residents have access to breastfeeding opportunities and integrated high quality weight management care. | | | | | | |
| OBJECTIVE 2.A: Women will breastfeed their children through the first 6-12 months of life. | | | | | | |
| STRATEGIES | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| <p>2.A.1 Develop a city-wide program that supports and promotes breastfeeding among residents who are lowest adapters through peer counseling, lactation centers, a breastfeeding campaign, and encouragement from physicians or through District employers who currently must provide employees with opportunities to breastfeed.</p> <p>UPDATE: In the summer of 2013, a comprehensive breastfeeding promotion bill was introduced into D.C. City Council, including: resources for a promotion campaign, ongoing resources for a breastfeeding hotline, and more. Hearings on this legislation is slated for the fall 2013. In addition, with support from a DOH Community Transformation Grant (CTG), the DC Breastfeeding Coalition (DCBFC) has launched an initiative to expand number of baby-friendly hospitals in DC through the use of the globally recognized Baby Friendly Hospital Initiative (BFHI). DCBFC is also involved with the promotion of workplace lactation centers and other activities. Resources for a breastfeeding campaign are not currently available, but legislation mentioned above may change that. DCBFC supports breastfeeding via specific media promotions whenever possible.</p> | | | | X | | |

OBJECTIVE 2.B: Patients will have weight assessments and participate in weight management programs deemed medically necessary and clinically appropriate.

| STRATEGIES | DEVELOPMENT STATUS | | | | | |
|---|--------------------|---------|-------------|-------------|---------|-----------|
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| <p>2. B.1 Develop and implement evidence-based core measures for primary care providers that address assessment, prevention, and management of overweight individuals.</p> <p>UPDATE: Strategy will be implemented via five-year DOH CDC grant, and supported by provisions within Affordable Care Act (ACA).</p> | | | X | | | |
| <p>2. B.2 Engage the school health nurse or other school health provider in facilitating health promotion classes, providing case management, and providing direct nursing services to District school children.</p> <p>UPDATE: This strategy is not currently feasible; the specific roles and functions of the school health nurse are strictly defined under a contractual arrangement; there are currently no resources for significant expansion of the school health nurse's function as envisioned with this strategy.</p> | X | | | | | |
| <p>2.B.3 Revise health benefit packages to provide reimbursement to physicians who document the use of core measures related to overweight and obesity during patient visits.</p> <p>MODIFIED: Develop and distribute provider training tools on appropriate use of Medicaid codes and ACA provisions to facilitate provider reimbursement for use of core measures utilized during patient visits related to overweight and obesity.</p> | | | X | | | |
| <p>2. B.4 Provide Medicaid, Medicare, and private reimbursement to health professionals and institutions offering evidence-based weight management through nutrition and physical activity.</p> <p>UPDATE: Strategy to be utilized via ACA, promoted by DC DOH and other stakeholders</p> | | | X | | | |

| | | | | | | |
|--|--|---|---|---|--|--|
| <p>2. B.5 Incorporate Quality Measures of Performance related to prevention into health plans available to District residents.</p> <p>UPDATE: This strategy will be implemented as part of the ACA.</p> | | X | | | | |
| <p>2. B. 6 Collaborate with Medicaid Managed Care Organizations (MCOs) to encourage adoption of evidence based obesity prevention/reduction interventions as part of their plans' scope of services for children and adults, including children with special needs. (New)</p> <p>UPDATE: Evidence-based national "WE CAN!" initiative aimed at obesity prevention reduction is currently Implemented in approximately ten Unity Health Clinics, with partial Medicaid reimbursement. The District's new MCOs on board as of summer 2013 express interest in incorporating obesity-related interventions.</p> | | | X | | | |
| <p>2. B.7 Implement Park Rx Program: Promote the use of parks as strategy to prevent/reduce childhood obesity recommended by the American Academy of Pediatrics (AAP).</p> <p>UPDATE: "Parks Prescription Program" has been adopted by the DC Chapter of AAP, to be launched by Unity Health Care with support from DOH. A tool will be launched that any physician can use in office to locate quality and safe outside space near patient's home, including: how to get there, all the activities it has to offer, and accessibility for people with disabilities. The physician can share the info with the patient, and schedule follow-up visits to monitor the progress of "prescribing nature."</p> | | | | X | | |

Food Retail and Food Service Establishments

| <p>UPDATE: THE FEED DC ACT was passed by the D.C. City Council in 2010. The Food, Environment, and Economic Development (FEED) Act has three goals: (1) to improve access to healthy foods in low-income neighborhoods; (2) to encourage green technology in food stores; and (3) to create good jobs in areas with very high levels of unemployment. The Act sets up a structure for grants and loans to eligible grocery store projects, helps small grocers (“corner stores”) sell fresh produce and other healthy foods. The Healthy Food Retail Program, housed in the DC Department of Small and Local Business Development (DSLBD), provides assistance to existing corner stores, farmers markets, and other small retailers to sell fresh produce and other healthy foods.</p> | | | | | | |
|--|--------------------|---------|-------------|-------------|---|-----------|
| <p>GOAL 3: District of Columbia residents consume a diet consistent with the Dietary Guidelines for Americans.</p> | | | | | | |
| <p>OBJECTIVE 3.A: Residents with limited access to healthy food will have access to and use food retailers that sell healthy, affordable foods in their communities.</p> | | | | | | |
| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| <p>3. A.1 Amend the tax code and zoning regulations to encourage food retailers to locate in high-need neighborhoods.</p> <p>UPDATE: The FEED DC Act builds on and targets the District’s Supermarket Tax Exemption to create a package of incentives and assistance for new and existing grocery stores in low-income parts of the city.</p> | | | | | X (zoning must be monitored on an ongoing basis) | X |
| <p>3. A.2 Provide support to existing and new Certified Business Enterprise (through the Department of Small and Local Business Development) food retailers selling healthy, affordable foods in neighborhoods with limited food access.</p> <p>UPDATE: implemented with support via the DC Feed Act.</p> | | | | | X | |
| <p>3. A.3 Ensure public transportation is available to residents to reach grocery stores and supermarkets.</p> <p>UPDATE: Discontinuing this strategy due to lack of realistic means to accomplish. Focus shifted to improving access to healthy foods in all neighborhoods.</p> | X | | | | | |

| | | | | | | |
|--|--|--|--|---|---|--|
| <p>3. A.4 Investigate and adopt best practices to promote increased access to fresh produce and healthy foods.</p> <p>UPDATE: Many initiatives are underway in addition to DC Feed Act, such as: Farmers Market Nutrition Program (FMNP), Seniors Farmers Market Nutrition Program (SFMNP), Produce Plus, Freggie Bucks, and more. Additional investigation of best practices nationally will continue.</p> | | | | | X | |
| <p>3.A.5 Identify and implement policies that expand opportunities for residents to become involved in healthy food businesses as a vehicle for increasing economic development, green jobs and healthy food access in targeted neighborhoods.</p> <p>UPDATE: One pilot project is the Fresh Produce Mobile Cart initiative with the goal of supporting low-income DC residents to become healthy food vendors. However the pilot project is not a policy and is limited in terms of duration and participation.</p> | | | | X | | |

| OBJECTIVE 3.B: Residents with limited access to healthy food will have access to and use farmer's markets, urban gardens, and mobile food vendors that sell healthy, affordable food in their communities. | | | | | | |
|---|---------------------------|----------------|--------------------|--------------------|----------------|------------------|
| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| <p>3. B.1 Permit farmers markets, produce carts, and/or community supported agriculture programs to operate in government, commercial mixed-use and residential districts and to use federal nutrition programs.</p> | | | | X | | |
| <p>3. B.2 Maximize participation in and use of federal assistance programs at farmer's markets and other food retail outlets.</p> <p>UPDATE: Federal Farmers Market and SFMNP and other federal assistance programs in food retail outlets are being implemented.</p> | | | | | X | |

| | | | | | | |
|--|--|--|--|---|--|--|
| 3. B.3 Target new District street vending licenses to vendors who sell healthy food in neighborhoods with limited food access. UPDATE: In process of being implemented via the DC Fresh Produce Mobile Cart initiative. | | | | X | | |
|--|--|--|--|---|--|--|

OBJECTIVE 3.C: Residents with limited access to healthy food will have access to and use restaurants and food services that sell healthy, affordable foods in their communities.

| STRATEGIES | DEVELOPMENT STATUS | | | | | |
|--|--------------------|---------|-------------|-------------|---------|-----------|
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 3. C.1 Require that menus and menu boards in all food establishments provide appropriate nutrition information. UPDATE: In the Spring of 2013, the U.S. Food and Drug Administration (FDA) issued two proposed regulations that would ensure calorie labeling on menus and menu boards in chain restaurants, retail food establishments, and vending machines with 20 or more locations. Venues with less than 20 locations can choose to “opt in”. After period of public comment, final action had been scheduled for 9/2013. | | | | X | | |
| 3. C.2 Enhance utilization of senior nutrition meal programs, nutrition education, and exercise classes. UPDATE: DC Office on Aging (DCOA) has many ongoing nutrition and PA fitness programs for seniors. Also SFMNP is being implemented. | | | | | X | |
| 3. C.3 Provide support to existing and new Certified Business Enterprise (through the Department of Small and Local Business Development) food establishments serving healthy foods in neighborhoods with limited food access. UPDATE: Implemented via support from DC Feed Act, Healthy Corner Stores/DC Central Kitchen. | | | | | X | |

| | | | | | | |
|--|---|--|---|---|--|--|
| <p>3. C.4 Establish a saturation index that limits food establishments offering unhealthy menu options and fosters food establishments that offer healthy menu options.</p> <p>UPDATE: After research and focus groups with DC underserved communities via the RWJ Healthy Kids/Healthy Communities Partnership 2008-2012, this strategy was deemed inappropriate. Community members voiced complaints that underserved communities with limited restaurants would have even fewer options.</p> | X | | | | | |
| <p>3. C.5 Establish and enforce guidelines for all foods sold and/or distributed at Department of Park and Recreation sites.</p> <p>UPDATE: City Council adopted legislation to establish nutritional standards for food and beverages provided, offered, or sold at parks and recreational facilities and to limit the marketing of unhealthy products to children at parks and recreation facilities. Although passed, implementation may not yet have started.</p> | | | X | | | |
| <p>3. C.6 Amend the home-delivered meal program policies to match the number of meals served with community need.</p> <p>UPDATE: (Note: The Home-Delivered Meal Program is a federal program, funded in part by the Older Americans Act, administered by the DC Office on Aging --DCOA, with grants to vendors to bring meals to seniors). Early in 2012, there was a wait list of more than 260 seniors. With a new vendor (Mom's Meal with Catholic Charities), the wait list was reduced and food quality improved. The 2014 Budget includes an additional \$1.9 million dollars to expand the Home-Delivered Meals Program. However, this additional funding not allocated as of 8/2013 for 2015 budget.</p> | | | | X | | |

Physical Activity

| GOAL 4: District of Columbia residents are physically active on a regular basis consistent with the Physical Activity Guidelines for Americans. | | | | | | |
|--|--------------------|---------|-------------|-------------|---------|-----------|
| OBJECTIVE 4.A: Residents will use non-motorized forms of transportation to get to school, work, place of worship, and retail establishments. | | | | | | |
| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 4. A.1. Develop and adopt policies that encourage walking and biking. UPDATE: Efforts to implement such policies are underway via DC's CDC funded Community Transformation grants (CTG), through the DC Office of Planning, and the Department of Transportation. | | | | X | | |
| 4. A.2. Repair and maintain sidewalks and bike lanes with adequate lighting, signage, landscaping, and/or surveillance in neighborhoods where resident participation in physical activity on a regular basis is limited. UPDATE: Efforts to implement this strategy are underway through the DC Office of Planning and the DC Department of Transportation. | | | | X | | |
| 4. A.3. Amend the tax code and/or zoning regulations to encourage establishment of Certified Business Enterprise (through the Department of Small and Local Business Development) fitness businesses in neighborhoods where resident participation in physical activity on a regular basis is limited. | X | | | | | |

OBJECTIVE 4.B: Residents of all ages and abilities will have access to, and will use, safe and clean opportunities to be physically active.

| STRATEGIES | DEVELOPMENT STATUS | | | | | |
|---|--------------------|---------|-------------|-------------|---------|-----------|
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| <p>4.B.1. Enhance the capacity of government agencies to serve as leaders in the promotion of physical activity and healthy eating.</p> <p>UPDATE: In process via new five year DOH CDC grant and other initiatives.</p> | | | | X | | |
| <p>4.B.2. Increase the frequency with which public recreational facilities, parks, and open spaces are patrolled by security organizations.</p> <p>UPDATE: Refer to strategy 4.B. 3</p> | X | | | | | |
| <p>4.B.3. Coordinate regular disposal of trash and litter from parks and recreational facilities, engaging neighborhood residents and youth when possible.</p> <p>MODIFIED: A new public-private DC OUTDOORS FOR HEALTH COALITION was launched in 2013 to promote use of outdoors—particularly national and District parks and the Anacostia River. The Coalition has organized a Leadership Team consisting of top management representatives from government agencies such as the National Park Service, Department of Parks and Recreation, and CBOs (such as SHIRE, DCPCA, and Groundwork DC). One goal of the Outdoors for Health Coalition is to establish, fund and implement a “Park Ambassadors” program, using evidence-based best practices nationwide, with youth and seniors paid not only to keep park areas and the River clean, but to promote its use. The Park Ambassadors concept has generated significant D.C. City Council interest as of 2013.</p> | MODIFIED | | X | | | |

| | | | | | | |
|--|---|--|---|---|--|--|
| <p>4. B.4. Ensure flexible hours of operation and adequate transportation for residents to access parks and recreational facilities.</p> <p>UPDATE: Expanding hours for national/local parks and expanding transportation to parks is unrealistic strategies at this point in time.</p> | X | | | | | |
| <p>4.B.5. Open school buildings, school grounds, parks, and/or recreational facilities for use solely by District residents through use of amended joint-use agreement regulations.</p> <p>UPDATE: Joint use legislation is currently (9/13) pending in D.C. City Council.</p> | | | X | | | |
| <p>4. B.6. Develop and distribute model joint-use agreements that can be used by recreational facilities and faith-based organizations, workplaces, child care programs, and other community-based organizations.</p> <p>UPDATE: Joint use legislation pending in D.C. City Council.</p> | | | X | | | |
| <p>4. B.7. Promote the use of parks as Strategy to prevent/reduce childhood obesity recommended by the American Academy of Pediatrics (AAP). REFER TO Section 2 B.7 under Medical & Health Services, for update on the Parks Recreation Program.</p> | | | | X | | |

Worksites

UPDATE: The DC City Council introduced the “Workplace Wellness Act of 2013” (B-20-0049) to “establish a workplace wellness policy for the District government; to provide for healthier options in vending machines, and to permit a healthy retail food vendor in the (Wilson) Building.” The bill states that the Office of the City Administrator, with the assistance of DHR, DOH, and other District agencies, shall develop and adopt a workplace wellness policy for the District government on or before December 31, 2013. No official action has been taken on this Bill as of 8/2013.

GOAL 5: District of Columbia residents are able to maintain healthy eating and physical activity at their place of employment to support a healthy weight.

OBJECTIVE 5.A: All District of Columbia agencies and organizations doing business in the District of Columbia will develop and implement comprehensive worksite wellness programs that will provide healthy foods, encourage regular physical activity, and support preventive health services for their employees.

UPDATE: Implementation for this objective will be supported via new five year DOH CDC grant.

| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
|--|--------------------|---------|-------------|-------------|---------|-----------|
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| <p>5.A.1 Develop evidence-based worksite wellness programs and develop policies to support the health and well-being of all employees.</p> <p>UPDATE: DCHR has initiated several worksite wellness programs for DC government agencies. In 2011, an agency-wide physical activity competition—the “Thrive Across America Campaign” was implemented via a virtual online wellness event. In 2012, DCHR kicked off another wellness event promoting District government employees to eat more fruits and veggies. Since 2012, DCHR has expanded its Wellness Day events by direct coordination with DC agencies where DC government health care insurers conduct various activities (such as lunch and learn sessions).</p> <p>District-wide worksite wellness official policies have not been established to date, nor have there been efforts to promote worksite wellness among non-DC government employers. Efforts to continue and expand via DOH CDC Grant</p> | | | | | | |

| | | | | | | |
|---|--|---|--|---|---|--|
| <p>5.A.2 Provide technical assistance to agencies in an effort to develop evidence-based worksite wellness policies and programs.</p> <p>UPDATE: DCHR has provided worksite wellness TA to District government agencies outline below. Efforts have not yet begun to non D.C. government agencies, but will be initiated via the new DOH CD grant.</p> <p>D.C. Government Agencies: As of 2012 DCHR has expanded its wellness day events by partnering with District government agencies in hosting employee wellness events. In April 2012, DCHR sent an agencies-wide email blast asking agency HR Advisors to identify agency volunteers to serve as their agency's "Wellness Champions" role includes communicated wellness activities to employees, encouraging employee participation, collaborating with agency Directors, participating in quarterly meetings with other agency wellness Champions to provide feedback to guide future plans.</p> | | | | X | | |
| <p>5. A.3 Encourage the use of health impact assessments when new facilities are designed or built.</p> | | X | | | | |
| <p>5.A.4 Encourage employers to support changes in the workplace by designating space for wellness activities including exercise.</p> <p>UPDATE: DCHR has worked with agency HR Advisors in 2011-2012 to secure designated conference rooms or common space to hold employee wellness related events.</p> | | | | | X | |
| <p>5.A.5 Improve access to healthier foods in the workplace: encourage business to make available healthy snacks/foods at catered events, in vending machines, in employee Cafeterias.</p> <p>UPDATE: Efforts as of fall 2013 have focused on DC government agencies. DOH has expanded its healthy snack options in vending machines. DCHR has offered a sampling of seasonal fruits to its employees for four months and was extended to agency winners of the "Mix-It-Up" competition (DOH, DMH, Office of Planning, and DCPS). Efforts to continue to expand Workplace Wellness efforts will continue via DOH five year CDC grant.</p> | | | | | X | |

| OBJECTIVE 5.B: District of Columbia businesses (including public and private employers) will implement evidence-based worksite wellness programs. | | | | | | |
|--|--------------------|---------|-------------|-------------|---------|-----------|
| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 5. B.1 Urge the adoption of evidence-based worksite wellness programs, through contract negotiations with insurers to offer lower or reduced premiums to business with comprehensive prevention programs. | X | | | | | |
| 5. B.2 Provide incentives to employers that implement evidence-based wellness programs. | X | | | | | |
| 5. B.3 Encourage all District unions to promote contract language that supports comprehensive worksite wellness benefits when renewing or negotiating contracts. UPDATE: The Metropolitan Washington AFL-CIO, the umbrella organization representing DC unions in private and government workplaces, is interested in the promotion of workplace wellness. Future collaboration with DOH can assist with implementation of this strategy. | | X | | | | |
| 5. B.4 Encourage the use of health impact assessments when new facilities are designed or built. | | X | | | | |

Faith Based Institutions

| GOAL 6: District of Columbia residents are able to maintain healthy eating and physical activity at their faith-based institutions to support a healthy weight. | | | | | | |
|---|--------------------|---------|-------------|-------------|---------|-----------|
| OBJECTIVE 6.A: Faith-based institutions will promote healthy eating and physical activity. | | | | | | |
| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 6. A.1 Develop and implement sustainable wellness programs and policies in faith based institutions. | | X | | | | |
| 6. A.2 Encourage the use of health impact assessments when new facilities are designed or built. | X | | | | | |
| 6. A.3 Extend to non-members in the community access to healthy living activities and recreational spaces through joint use agreements. | | | | X | | |
| 6.A.4 Enhance the ability of faith-based communities to form partnerships with health Professionals to deliver preventive services to residents. STRATEGY MODIFIED: Establish organized and sustainable vehicle for the faith based community and DOH to partner and collaborate effectively towards promoting healthy eating/active living in District neighborhood with highest rates of health disparities. UPDATE: New DOH partnership with targeted faith based community in Wards 5, 7,8 to promote healthy eating/active living will be explored in fall 2013, with potential kick-off in January 2014. | | | X | | | |

Overarching Support Systems and Infrastructure

GOAL 7: District of Columbia Government agencies collaborate to ensure that residents at risk of overweight and obesity have access to healthy foods, opportunities to be physically active, and information to regularly make healthy choices.

OBJECTIVE 7.A: The District of Columbia will develop, update and promote an inventory of resources available to residents that promote healthy eating and active living.

| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
|--|--------------------|---------|-------------|-------------|---------|-----------|
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 7. A.1 Provide information on health professionals, healthy food establishments, opportunities for physical activity, and nutrition-education programs. UPDATE: The strategy's feasibility, cost and effectiveness (due to ever changing resources, and more) have been questioned. DPR may revise their website to include more info on opportunities for physical activity to include community events. | X | | | | | |

OBJECTIVE 7.B: Key coalitions of stakeholders and community residents will emerge to implement nutrition and physical activity strategies in The DC Overweight and Obesity Action Plan.

| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
|---|--------------------|---------|-------------|-------------|---------|-----------|
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 7. B.1 Help form and engage resident groups in each ward that will promote healthy weight management programs, policies, and legislation. UPDATE: Strategy modified to proceed on a limited basis, with DOH 2013 Preventive Health grant funding in one ward. | X MODIFIED | | | | | |
| 7. B.2 Help form and engage stakeholder groups to provide input on progress implementing The DC Overweight and Obesity Action Plan. UPDATE: Although this specific strategy is discontinued, it is possible that a related strategy to support the District's participation as an official Let's Move City may be implemented. | X MODIFIED | | | | | |

OBJECTIVE 7.C: The District of Columbia will coordinate the development and maintenance of a 5-year communication program that effectively motivates residents to eat healthy food and be physically active every day.

| STRATEGIES | DEVELOPMENT STATUS | | | | | |
|---|--------------------|---------|-------------|-------------|---------|-----------|
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| <p>7. C.1 Plan and conduct with partners a multi-year, behavior changing information campaign that reaches target audience and motivates healthier eating and more physical activity.</p> <p>UPDATE: Live Well DC campaign addressing 10 prevention concepts was implemented 2011-2012. As of fall 2013, no additional information wellness campaign is planned.</p> | X | | | | | |
| <p>7.C.2 Design and implement a social marketing campaign to promote healthy eating, using both conventional approaches and “new media” targeted to youth (internet, Twitter, etc.)</p> <p>UPDATE: One Preventive Health Grant has been awarded in 2013/2014.</p> | | X | | | | |
| <p>7. C.3 Identify policies that might be targeted to limit the promotion of unhealthy foods to children using evidence based best practices from across the country.</p> <p>UPDATE: This strategy is a “hot topic” being discussed nationally by a wide range of public and non-profit organizations advocating on behalf of child obesity prevention. As of fall 2013, no specific plans to implement this strategy locally are in place.</p> | | X | | | | |

| GOAL 8: The District of Columbia Government obtains current and critical data sets that describe the health status of residents and track implementation of The DC Overweight and Obesity Action Plan. | | | | | | |
|---|---------------------------|----------------|--------------------|--------------------|----------------|------------------|
| OBJECTIVE 8.A: The District of Columbia will broaden its data collection and evaluation efforts to collect, analyze, and report information related to implementation and progress of The DC Overweight and Obesity Action Plan. | | | | | | |
| STRATEGIES: | DEVELOPMENT STATUS | | | | | |
| | Discontinued | On-Hold | Not Started | In Progress | Ongoing | Completed |
| 8. A.1 Establish a set of core indicators to evaluate progress towards reducing and preventing overweight and obesity. UPDATE: This strategy will be explored as part of DOH's Chronic Disease Prevention five-year plan, with the process scheduled to begin in the fall of 2013. | | X | | | | |
| 8. A.2 Establish a set of evaluation methods to track progress in implementing the strategies included in The DC Overweight and Obesity Action Plan. | X | | | | | |
| 8. A.3 Establish a sustainable, city-wide data tracking system that will document health-related parameters by wards. UPDATE: DOH currently houses a system for data tracking and documenting some key health indicators by wards. The establishment of a sustainable system for tracking childhood obesity rates by ward will be explored as a goal and strategy. | X MODIFIED | | | | | |
| 8. A.4 Require that all projects and research funded by the District of Columbia Department of Health be evaluated. | | | | | | X |
| 8. A.5 Create an inventory that identifies on-going obesity-related research at District government agencies, universities, hospitals, and community-based organizations. | X | | | | | |

Government of the District of Columbia
Department of Health
Division of Epidemiology - Disease Surveillance and Investigation
Office of the Director

BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM
899 North Capitol Street NE
Washington, DC 20002
Website: www.doh.dc.gov

Data presented in this report, should not be used to develop online
web query systems or dashboards without the written consent of
the BRFSS Program Coordinator

