Data Sources:

**Behavioral Risk Factor Survey**
- Ongoing mixed-mode telephone survey of adults 18 and older, annual n = ~4,000

**Youth Risk Behavior Survey**
- School-based survey, conducted in odd-numbered years; n = ~3,000 Delaware public high school students
Caveats:

- All data are self-reported.
- The BRFS landline sample does not include adults living in institutions.
- Sample sizes can be an issue. Cells with fewer than 50 respondents are suppressed.
- Correlation does not mean nor imply causation.
BMI was originally described as “appropriate for population studies and inappropriate for individual evaluation.”

It is the best measure for use in telephone surveys.

BMI in phone surveys slightly under-estimates weight due to self-reporting error.

**BMI Categories**

- <18 = underweight
- 18 - ≤25 = normal or healthy weight
- 25> - ≤30 = overweight
- >30 = obese [>35 = very obese]
Delaware’s adult obesity prevalence has been close to the national BRFS median for several years.

- In 2015, Delaware’s adult obesity prevalence was 29.7% (CI = 27.6 – 31.8%).

- In 2015, the national median among all states was 29.8%.

Source: CDC, Behavioral Risk Factor Surveillance System (BRFSS), 2015.
Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, 2015

Source: USPHS, CDC, Behavioral Risk Factor Surveillance System (BRFSS), 2015
Percent of Adult Population in Each Weight Category by BMI, Delaware 2015

- Overweight, 37.2%
- Obese, 29.7%
- Healthy Weight, 31.7%
- Underweight, 1.4%

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
Obesity Among Delaware Adults Doubled Between 1990 and 2007

Some good news – trend level for 9 years

Obesity Among Delaware Adults:
2007 - 2015 Trend

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2007-2015.
Percent of Delaware Adults In Each Weight Category Using BMI, by Age Group, 2015

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
2015 Adult Obesity Prevalence in Delaware
By Race/Ethnicity and Gender

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
Obesity Among Delaware Adults, by Educational Level, 2015

- < H.S. Diploma: 36.9%
- H.S. or G.E.D.: 31.3%
- Some Post H.S.: 29.4%
- College Degree: 25.8%

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
People with disabilities:

- 39.8% of Delaware adults with disabilities are obese,
- compared with 26.8% of adults without disabilities.
Mental health:

- Delaware adults who report being diagnosed with depressive disorders are almost **1.5 times** more likely to be obese than adults without depression.

- **39.7%** of adults with depression report BMIs considered obese, compared to **27.7%** of adults without depression.
Adult Obesity Prevalence By County and Wilmington, Aggregated 2013-2014 BRFS Data

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2013-14.

*Wilmington data estimate combines three ZIP Codes: 19801, 19802 and 19805.
Healthy Weight & Overweight Among Delaware Adults, 2015

- 36.9% = overweight
- 37.2% = healthy weight

There have been no statistically significant changes in prevalence in either category since 2011.
Prevalence trends for diagnosed diabetes parallel obesity trends.
Prevalence of Diagnosed Diabetes Doubled Among Delaware Adults, 1998 - 2013

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 1998-2013.
Prevalence of Diagnosed Diabetes Among Delaware Adults, 2011 - 2015

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2000-2015.
Percentage of DE High School Students Who Were Overweight,* by Sex, Grade, and Race/Ethnicity, 2015

* ≥ 85th percentile but <95th percentile for Body Mass Index, based on sex- and age-specific reference data from the 2000 CDC growth charts

Source: Delaware Health & Social Services, Division of Public Health, Youth Risk Behavior Survey (YRBS), 2015.
Percentage of DE High School Students Who Were Overweight,* 1999-2015

* ≥ 85th percentile but <95th percentile for Body Mass Index, based on sex- and age-specific reference data from the 2000 CDC growth charts

Source: Delaware Health & Social Services, Division of Public Health, Youth Risk Behavior Survey (YRBS), 2015.
Percentage of DE High School Students Who Were Obese,* by Sex, Grade, and Race/Ethnicity, 2015

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Source: Delaware Health & Social Services, Division of Public Health, Youth Risk Behavior Survey (YRBS), 2015.
Percentage of DE High School Students Who Were Obese,* 1999-2015

* ≥ 95th percentile for Body Mass Index, based on sex- and age-specific reference data from the 2000 CDC growth charts.

Source: Delaware Health & Social Services, Division of Public Health, Youth Risk Behavior Survey (YRBS), 2015.
Weight estimates for younger children

Estimates vary; and there are few data sources available for children below high school age. *Most data are not current.*

- Youth Risk Behavior Surveys – 2015
  Middle & High School overweight/obese combined = *31.6%*

  Ages 10-17 overweight/obese combined = *32%*

- Nemours Children’s Health Survey – 2011
  Ages 2-17 overweight/obese = *40%*

- Delaware Public Schools FitnessGram® testing – 2012
  grades 6-8 overweight/obese combined = ~*44.1%*
  grades K-5 overweight/obese combined = ~*42.5%*
Recommended:

5 or more vegetables and fruits a day
2 hours of leisure screen time per day
1 hour of moderate to vigorous physical activity per day, at least 5 days a week
0 or almost no sugar-sweetened beverages
So . . .

How are we doing with these healthy behavior goals?
Delaware Adult Fruit and Vegetable Consumption, 2015

- Two or More Fruits Daily: 16.3%
- Three or More Veggies Daily: 14.3%

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
Other sugar-sweetened beverages include:
- Fruit drinks
- Lemonade
- Sweet tea
- Energy & sports drinks

Percent of Delaware Adults Who Drink Sugar-Sweetened Beverages, 2015

- Drink Both, 37.2%
- No Sugar-Sweetened Drinks, 31.0%
- Drink Other S-S Beverages Only, 14.0%
- Drink Regular Soda Only, 17.8%

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
Percent of Adult Delaware Residents Who Drink No Sugar-Sweetened Beverages, or ≤1 a Day, 2015

- **Sugar-Sweetened Sodas**
  - Never: 44.8%
  - ≤1 A Day: 8.8%

- **Other S-S Beverages**
  - Never: 48.8%
  - ≤1 A Day: 9.4%

- **All Sugar-Sweetened Beverages**
  - Never: 31.0%
  - ≤1 A Day: 13.3%

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
Percent of Delaware Adults Who Meet CDC Guidelines for Physical Activity, 2015

- Did **Not** Meet Guidelines, 41.7%
- Met Aerobic Guidelines, 28.0%
- Met Both Guidelines, 20.2%
- Met Strengthening Guidelines, 10.1%

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
Delaware adults who did not meet recommendations for physical activity (i.e. both strength-building and aerobic) are almost twice as likely to have a BMI considered obese, compared to those who met the recommendations.

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2015.
Walking, Running or Bicycling as Primary or Secondary Source of Leisure-Time Physical Activity in Delaware, 2013

- Bicycling: 3.6% [~ 24,500 adults]
- Running or Jogging: 12.2% [~ 85,400 adults]
- Walking: 41.2% [~ 288,000 adults]

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2013.
Percentage of Delaware Middle School Students Who Were Physically Active at Least 60 Minutes Per Day on 5 or More Days,*

by Gender, Grade, and Race/Ethnicity, 2015

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</table>

*Doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey.

Source: University of Delaware, Center for Drug and Health Studies, M.S. Youth Risk Behavior Survey (YRBS), 2015.
Percentage of Middle School Students Who Were Physically Active at Least 60 Minutes Per Day on 5 or More Days,* 2009-2015

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Source: University of Delaware, Center for Drug and Health Studies, M.S. Youth Risk Behavior Survey (YRBS), 2015.
Percent of Delaware H.S. Students Who Were Physically Active at Least 60 Minutes Per Day on 5 or More Days,*

by Gender, Grade, and Race/Ethnicity, 2015

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Source: Delaware Health & Social Services, Division of Public Health, Youth Risk Behavior Survey (YRBS), 2015.
Percent of Delaware H.S. Students Who Were Physically Active at Least 60 Minutes Per Day on 5 or More Days,* 2011-2015

*Doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey

Source: Delaware Health & Social Services, Division of Public Health, Youth Risk Behavior Survey (YRBS), 2015.
Percentage of Delaware Middle School Students Who Watched Television 3 or More Hours Per Day,* 2007-2015

Source: University of Delaware, Center for Drug and Health Studies, Middle School Youth Risk Behavior Survey (YRBS), 2015
Percentage of Delaware M.S. Students Who Played Video/Computer Games or Used a Computer 3 or More Hours Per Day,* 2009-2015

30.0 34.9 41.8 46.0

Source: University of Delaware, Center for Drug and Health Studies, Middle School Youth Risk Behavior Survey (YRBS), 2015.

*For something that was not school work on an average school day
Percentage of DE High School Students Who Watched Television 3 or More Hours Per Day,* 1999-2015†

*On an average school day

Source: Delaware Health & Social Services, Division of Public Health, Youth Risk Behavior Survey (YRBS), 2015.
Percentage of DE High School Students Who Played Video/Computer Games or Used a Computer 3 or More Hours Per Day,* 2007-2015

*For something that was not school work on an average school day

Source: Delaware Health & Social Services, Division of Public Health, Youth Risk Behavior Survey (YRBS), 2015
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- Division of Population Health, Center for Chronic Disease Prevention and Health Promotion, U.S. Centers for Disease Control and Prevention (CDC)
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