

Tobacco & Alcohol Data for Delaware Adults

*from the Delaware Behavioral
Risk Factor Survey (BRFS)*

DDATA Meeting, Dec. 6, 2011



DELAWARE HEALTH & SOCIAL SERVICES

Division of Public Health

Health Promotion & Disease Prevention

Adult Data from BRFSS



- Behavioral Risk Factor Surveillance System (BRFSS) is a core public health system which gathers data on behavioral risks for leading causes of premature death, disability and illness.
- U. S. Centers for Disease Control and Prevention (CDC) in partnership with all 50 states, D.C., and three territories
- State-based samples
- National core questionnaire, with optional modules and state-added questions



DELAWARE HEALTH AND SOCIAL SERVICES
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Behavioral Risk Factor Survey (BRFS)

- Random-sample telephone interview survey of non-institutionalized adult Delaware residents
- Ongoing survey; data reported on calendar-year basis
- Annual sample size < 4,300 adults age 18 and older
- Stratified by county since 2000, now also Wilmington
- Interviewing conducted by U.D. Center for Applied Demography and Survey Research (CADSR)



BRFS
Turning Information Into Health

Limitations

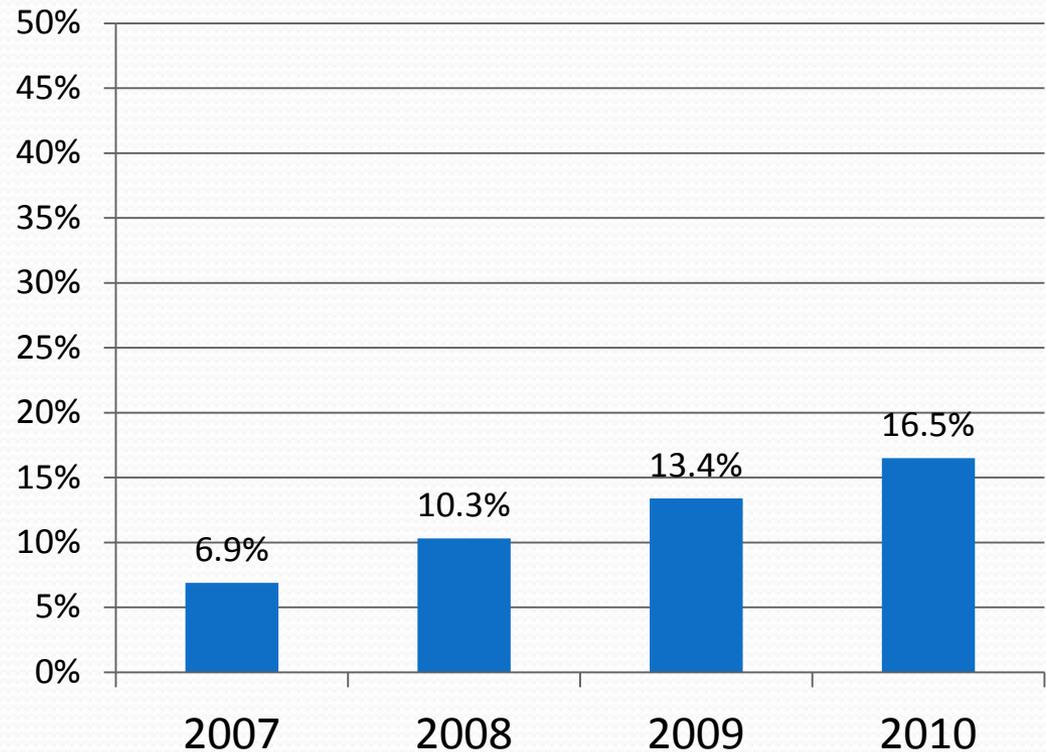


- Does not include institutionalized adults
- Self-reported data
- Declining response rates in all surveys due to social and technological changes
- Landline calls only from 2005 to 2009
- Rapidly increasing proportion of “cell phone only” and “cell phone primarily” households, especially among young and minority populations

Rapidly Changing Trend



Delaware Cell-Phone Only Households



Source: National Center for Health Statistics, National Health Interview Survey, reported in National Health Statistics Reports, 39, April 20, 2011.

How the BRFSS is Adapting

- We tested cell phone interviewing in 2009, and began regular cell phone sampling in 2010
- Other methods are being explored and tested, including:
 - Web-based follow-up survey
- New method of “weighting” the data to make it conform more closely with the real population of Delaware, based on 2010 census.
 - From standard weights to “raking” weights

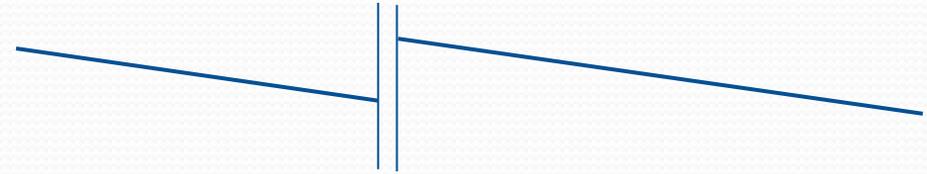


Changeover This Year

- Multi-mode survey with start of this decade
- 2011 data – to be released early in 2012 – will all be reported with combined modes and new weights.



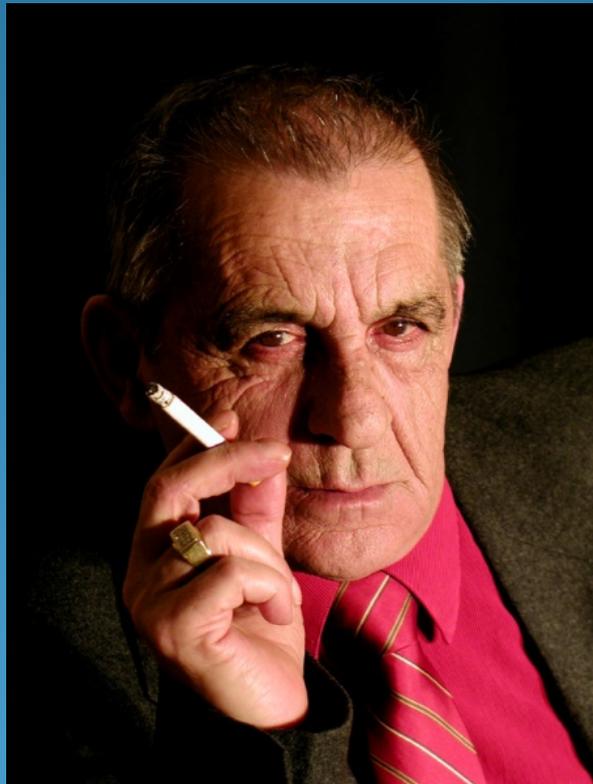
What These Changes Will Mean



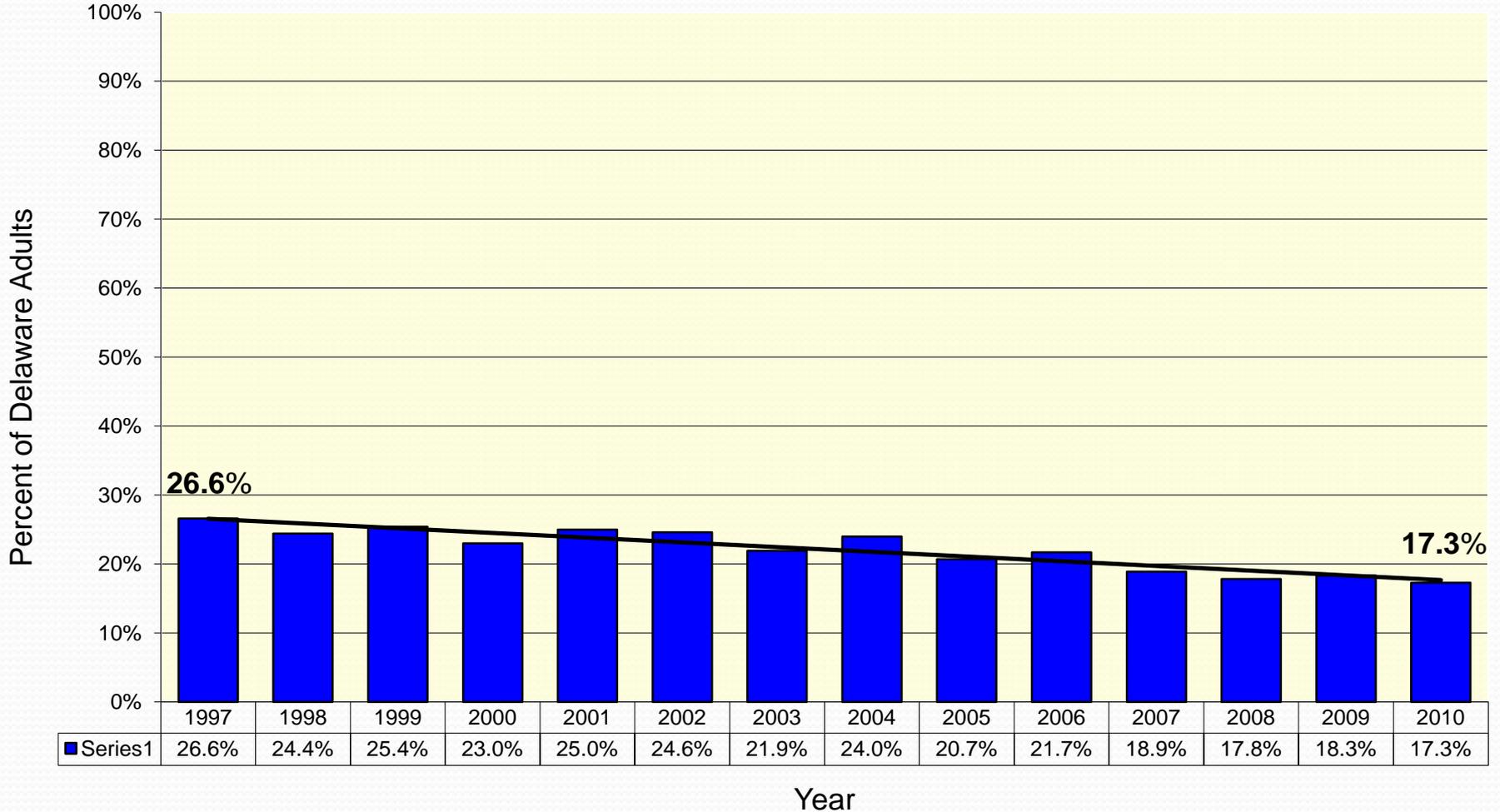
- Break in trend lines
- 2011 will be new baseline
- Data will more accurately reflect the population
 - Young adults, males, and minorities will be more accurately represented
- Some prevalence rates will change significantly
 - *e.g.* Smoking prevalence and health insurance status

Delaware Adult Tobacco Use

from the BRFSS



Delaware Adult Smoking Prevalence: Declining from 1997 to 2010



Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 1997-2010.

Current Smoking x Income & Education

2010 BRFSS Income Level	Smoking Prevalence
\$15,000 - \$24,999	29.6%
\$25,000 - \$34,999	29.5%
\$35,000 - \$49,999	19.9%
\$50,000 - \$74,999	18.4%
\$75,000 +	9.7%
2010 BRFSS Educational Level	Smoking Prevalence
High School or G.E.D.	24.6%
Some Post-High School	17.9%
College Graduate or Higher	7.3%

Source: DHSS, Division of Public Health, Behavioral Risk Factor Survey (BRFSS), landline sample only, 2010.

Other 2010 Tobacco Information

- **59.9%** of adult Delaware smokers have tried to quit during the past year (2010 BRFSS)
- **3.2%** of adult males use chewing tobacco, snuff, or snus either every day or some days (2010 BRFSS)
 - Compared with 0.2% of adult females
 - More likely white, poorly educated, and young
- Among adults who do not smoke cigarettes, about **2.6%** use other tobacco products. (2010 ATS)

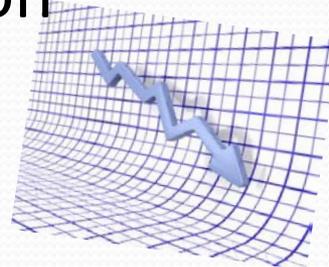


Change In Smoking Initiation?

- According to the YRBS, about **13.3%** of public high school seniors are current regular smokers.
- According to the BRFSS, about **18%** of 18-24 year olds are current smokers.
- **Why the gap?**
 - Higher smoking prevalence among school drop-outs
 - Marketing to college-age adults by tobacco industry
 - Initiation by adults in their twenties
- *It may no longer be true that “if you haven’t started by 18 you’re not likely to start smoking.”*

What's the problem?

- The prevalence rate is ***higher than reported for the past few years.***
- Probable reasons include:
 - Cell phones – better sample
 - New tobacco products
 - Changing tobacco use patterns
 - Economic recession



Comparing Landline v. Combined

Delaware BRFS 2009 Data	Landline Only, Standard Weights	Landline + Cell, Raking Weights
No Health Ins. <65	11.5%	15.5%
Current Smokers	18.3%	22.7%
Obese	27.6%	29.6%
Overweight	36.1%	36.6%

Current adult smoking prevalence increases by 4 percentage points with more young adults, males, and Hispanics in the sample.

Combined Data Breakdowns

2009 DE BRFS Smoking	Landline Only, Standard Weights	Landline + Cell, Raking Weights
Total Smokers	18.3%	22.7%
18-34 Years Old	25%	28.9%
White (Non-Hispanic)	19%	23%
Black (Non-Hispanic)	15.8%	21.6%
Hispanic	N/A	19.3%
< H.S. Education	37.5%	42.3%
H.S. or G.E.D.	26%	26.2%
Post-HS or College	12.8%	15.4%

Alcohol Use and Abuse

Among Delaware adults (BRFS)



Alcohol Use Among DE Adults

- Nearly 60% of Delaware adults drink alcoholic beverages.
 - *They report having had at least one alcoholic drink during the past month.*

Delaware Adults Drinking During Past Month, 2010



Total Adults	59.3% (57.1-61.5%)
Males	68.3% (65.2-71.4%)
Females	51.1% (48.6-53.6%)
White (non-Hispanic)	63.8% (61.6-66%)
African American	42.3% (35.6-49%)

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), landline sample, 2010.

Drinking Decreases With Age

Past Month Alcohol Use Among Delaware Adults, 2010

18-24 Years Old	66.2% (57-75.4%)
25-34 Years Old	63.7% (57.4-70%)
35-44 Years Old	68.4% (63.9-72.9%)
45-54 Years Old	60.9% (56.8- 65%)
55-64 Years Old	55.1% (51.2-59%)
65 + Years Old	44.5% (41.4-47.6%)

*Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010.
Landline data only, so young adult prevalence is probably under-reported.*

But Flip-Flops with Education



Delaware Adult Alcohol Use by Educational Level, 2010

High School or G.E.D.	50.4% (46.5-54.3%)
Some Post High School Education	57.7% (53.2-62.2%)
College Degree or Higher	69% (65.9-72.1%)

*Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010.
Landline data only.*

“Binge” or Acute Drinking

- **18.8%** (ci 16.6-21%) of Delaware adults report binge drinking during the past month
 - **26.4%** (22.5-30.2%) of males
 - **12%** (10-13.9%) of females
- Slightly higher than the national median of **15.1%**
- *For this survey, “binge” drinking is defined as males having five or more drinks on one occasion, females having four or more drinks on one occasion.*



Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010. Landline sample only.

Binge Drinking by Race & Education – *a somewhat different picture*

“Binge” Drinking Among Delaware Adults, 2010

White (non-Hispanic)	20.8% (18.4-23.2%)
African American	10.3% (4.2-16.3%)
Hispanic	N/A
High School or G.E.D. Education	19.2% (15.4-23.0%)
Some Post High School Education	19% (14.2-23.8)
College Degree or Higher	17.8% (14.8-20.8)

Binge drinking also increases somewhat with income, from 11% (< \$15,000/year) to 22.5% (over \$50,000/year).

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010.
Landline data only.

Binge Drinking by Age

Delaware Adult Binge Drinking by Age, 2010

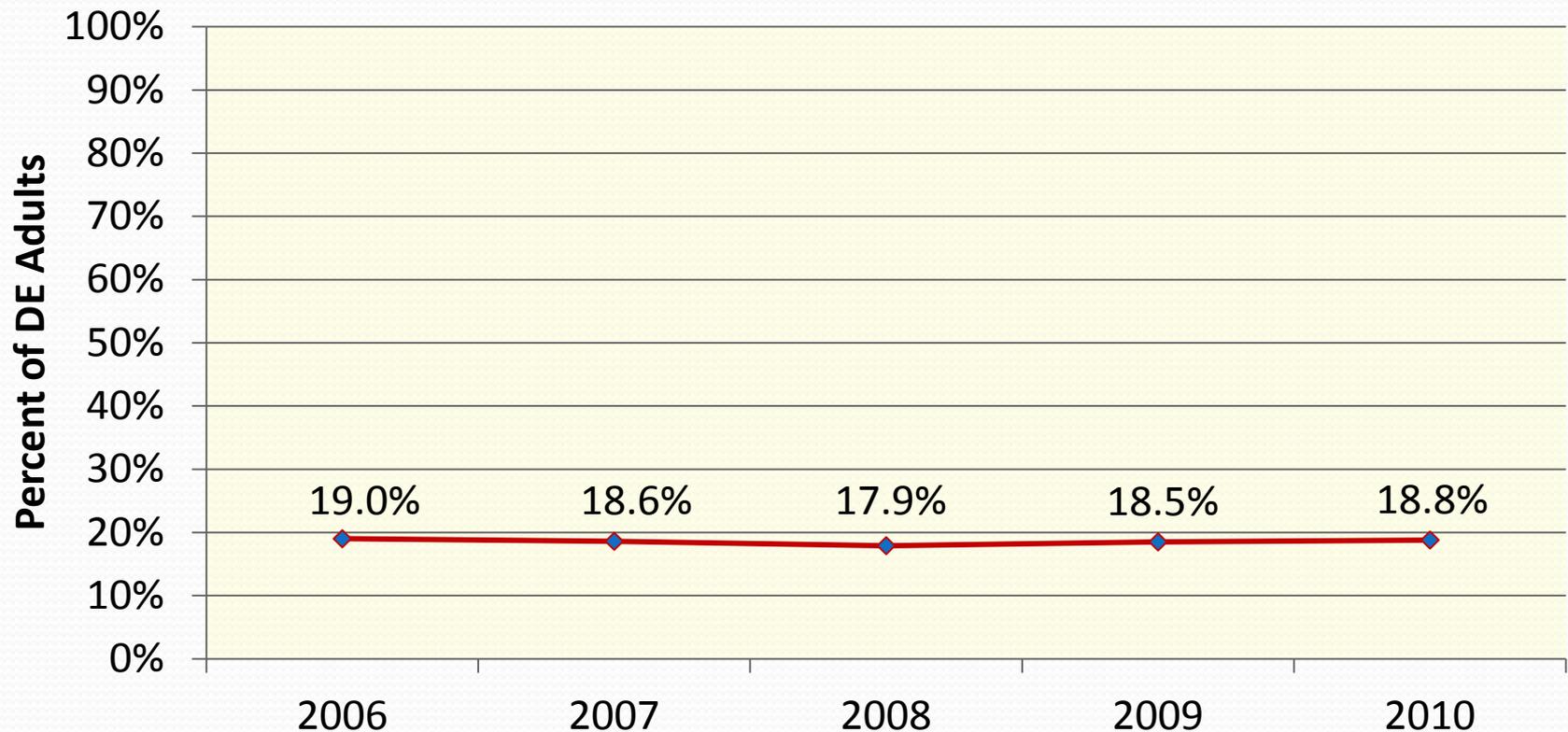
18-24 Years Old	N/A*
25-34 Years Old	25.8% (19.3-32.3%)
35-44 Years Old	19.7% (15.6-23.8%)
45-54 Years Old	19.5% (16-23%)
55-64 Years Old	13.1% (10.2-16%)
65 +	3.5% (2.3-4.7%)

* BRFSS suppression rules remove cells that contain less than 50 observations or which have a confidence interval with a half-width greater than 10. However, this is undoubtedly the group with highest prevalence, based on looking at combined data.

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010.

No Change in Recent Years

DE Adult Binge Drinking, 2006-2010



Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010.
Landline sample only.

Where to DE Adults Binge?

From **2009** module on binge drinking:

- Where respondents were when they did most of the drinking on their last binge:
 - At home = **45.1%**
 - At another person's home = **23.6%**
 - Bar or club = **18.5%**
 - Restaurant/banquet hall = **6.5%**
 - Public place / other = **6.3%**
- **10%** of the binge drinkers said they drove a motor vehicle within a couple of hours after this occasion.





Chronic Heavy Drinking

- **5.9%** (4.7-7.1%) of Delaware adults report heavy drinking.
 - *“Heavy drinking” is defined for this survey, as more than 2 drinks per day for men, and more than 1 drink per day for women.*
- **6.7%** (4.7-8.7%) of males
- **5.1%** (3.9-6.3%) of females
- Delaware’s prevalence is about the same as the national median of **5%**.

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010.
National data from CDC, Behavioral Risk Factor Surveillance System (BRFSS), 2010. Landline samples only.

Heavy Drinking by Race & Education

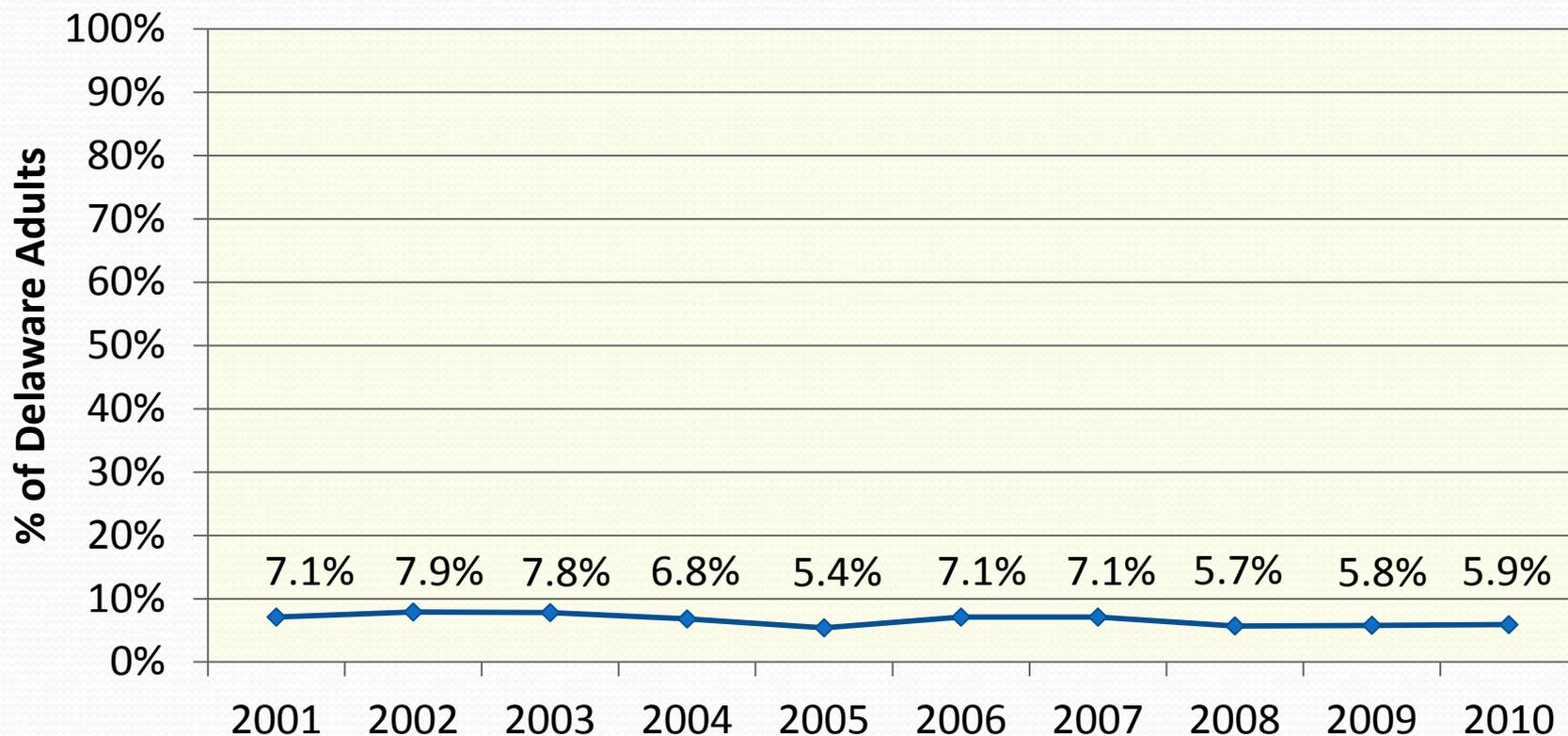
Delaware Adults: Heavy Drinking, 2010

White (non-Hispanic)	6.8% (5.4-8.2%)
African American	1.8% (0.2-3.4%)
Other Races (non-Hispanic)	4.3% (0.6-8%)
Hispanic	6.8% (0-15.8%)
Educational Level	
Less Than High School Education	9.7% (2.6-16.8%)
High School or G.E.D.	6.4% (4.2-8.6%)
Some Post High School Education	5.8% (3.3-8.3%)
College Degree or Higher	5% (3.6-6.4%)

Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010.
Landline sample only.

Little Change in Adult Heavy Drinking During Past Decade in Delaware

Delaware Adult Heavy Drinking: Trend 2001-2010



Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), landline 2001-2010.



Drinking and Driving

- **5.2%** of Delaware adults in 2010 reported driving with “perhaps too much to drink” one or more times during the past month.
 - More than 20,800 adults driving after drinking.
- **11.3%** of 18-24 year olds reported driving “with perhaps too much to drink” one or more times during the past month.
 - More than 6,300 young adults driving after drinking



Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2010.



Cell Phone Impact

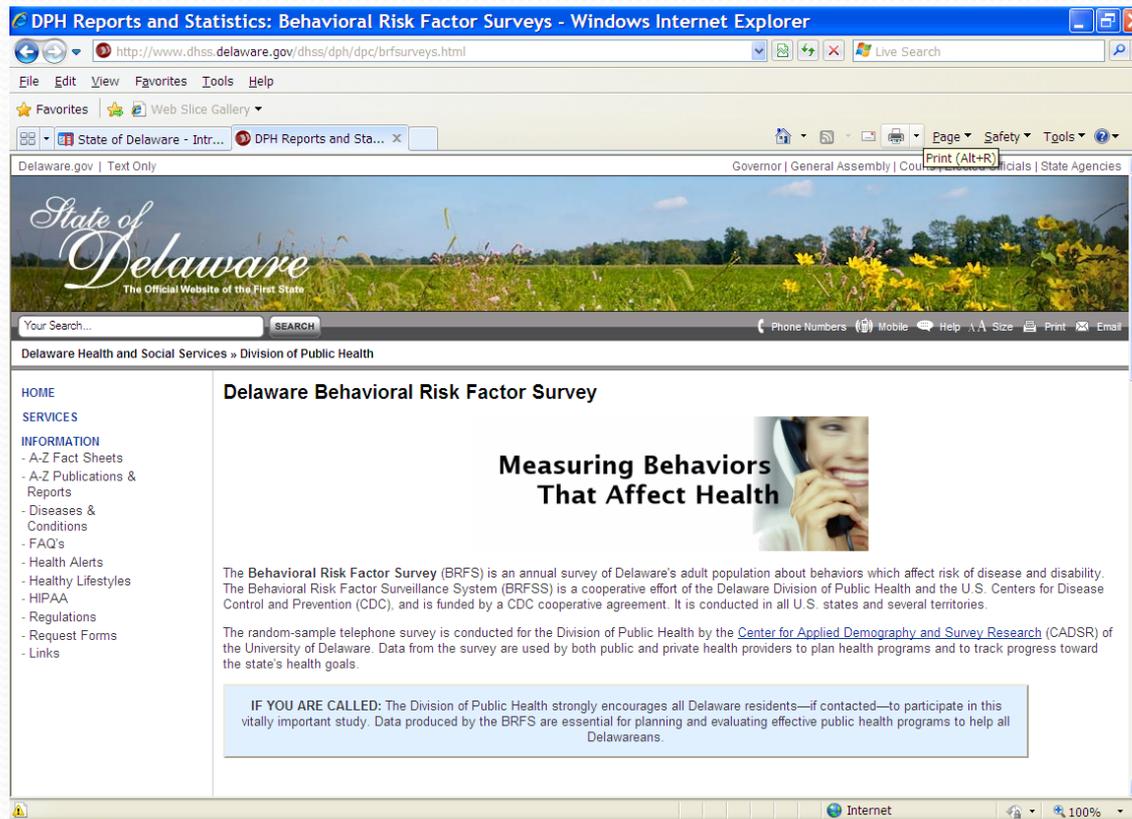
- Addition of the cell phone sample in 2010 had essentially no impact on the overall prevalence rate for **binge drinking**:
 - Landline = **18.8%**; LLCP/new weights = **18.7%**
- The impact on prevalence of **heavy drinking** was insignificant:
 - Landline = **5.9%**; LLCP/new weights = **6.3%**
- Prevalence of **Drinking and Driving**:
 - Landline = **5.2%**; LLCP/new weights = **6%**



Source: DHSS, Division of Public Health, Behavioral Risk Factor Survey (BRFSS), combined data, 2010.

BRFSS Data on the Web

dhss.delaware.gov/dph/dpc/brfsurveys.html



The screenshot shows a Windows Internet Explorer browser window displaying the Delaware Behavioral Risk Factor Survey website. The browser's address bar shows the URL <http://www.dhss.delaware.gov/dhss/dph/dpc/brfsurveys.html>. The website header features the State of Delaware logo and navigation links for Governor, General Assembly, Courts, Officials, and State Agencies. A search bar is located below the header. The main content area is titled "Delaware Behavioral Risk Factor Survey" and includes a sub-heading "Measuring Behaviors That Affect Health" accompanied by an image of a woman on a telephone. The text describes the Behavioral Risk Factor Survey (BRFS) as an annual survey of Delaware's adult population, a cooperative effort of the Delaware Division of Public Health and the U.S. Centers for Disease Control and Prevention (CDC). It also mentions the Center for Applied Demography and Survey Research (CADSR) at the University of Delaware. A call-to-action box at the bottom encourages Delaware residents to participate in the study.

Delaware Behavioral Risk Factor Survey

Measuring Behaviors That Affect Health

The **Behavioral Risk Factor Survey (BRFS)** is an annual survey of Delaware's adult population about behaviors which affect risk of disease and disability. The Behavioral Risk Factor Surveillance System (BRFSS) is a cooperative effort of the Delaware Division of Public Health and the U.S. Centers for Disease Control and Prevention (CDC), and is funded by a CDC cooperative agreement. It is conducted in all U.S. states and several territories.

The random-sample telephone survey is conducted for the Division of Public Health by the [Center for Applied Demography and Survey Research \(CADSR\)](#) of the University of Delaware. Data from the survey are used by both public and private health providers to plan health programs and to track progress toward the state's health goals.

IF YOU ARE CALLED: The Division of Public Health strongly encourages all Delaware residents—if contacted—to participate in this vitally important study. Data produced by the BRFS are essential for planning and evaluating effective public health programs to help all Delawareans.