STATISTICAL NEWS

Pa. Department of Health ◆ Bureau of Health Statistics and Research ◆ Vol. 37 No. 3 ◆ 3rd Quarter 2014

In this issue...

Birth Statistics by Race Using Old and New Methods

A Comparison Using Historical Data

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Continue reading this article >>>

Premature Mortality Due to Cancer in Pennsylvania

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Continue reading this article >>>

Rising Tide of Unintentional Injury Deaths

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Injury death rates in Pennsylvania have been increasing in recent years, which is alarming since death rates in general have been decreasing during that same time. With homicide rates generally decreasing and suicide rates mostly remaining stable over the past 20 years, this trend is driven by a steady increase in fatal unintentional injuries (accidents). The three most common causes of unintentional injury deaths are...

Continue reading this article >>>

Pennsylvania Gambling Prevalence Review

Chronic Drinkers and Current Smokers Are More Likely to Have Gambled

Approximately 4.2 million Pennsylvania adults, 42 percent of those ages 18 and older, have gambled in the past 12 months. This value stems from gambling rates collected by the Pennsylvania Department of Health via the 2012 Behavioral Risk Factor Surveillance System survey and the application of those gambling rates to the 2012 state population. In Pennsylvania, slot casinos have been in operation since November 2006...

Continue reading this article >>>

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Birth Statistics by Race Using Old and New Methods

A Comparison Using Historical Data

The Bureau of Health Statistics and Research (BHSR) is planning to begin using new race categories in its official statistical reports. Beginning with 2013 data, the category "Multi-Race" will be reported. It will be important to understand how the new race categories compare to the race categories used in past reports so that changes in statistics by race over time can be put in proper context. This article will concentrate on the birth dataset, which has historical data available for both methods. The article will attempt to answer two major questions. First, how does the new method for determining the race of mother compare to the old method used for past reports? Secondly, how would the statistics compare to past reports if the BHSR had used the new method instead?

Since 2003, the Pennsylvania Certificate of Birth has asked for the mother's self-reported race in two separate sections. In one section, the mother must choose only one of fourteen races, or choose "Other," "Don't Know / Not Sure" or "Refused." In creating birth statistics reports since 2003, the BHSR has used the mother's selection from this list and filtered it into one of five larger race categories. The five categories have typically been as follows: white, black, Asian or Pacific Islander, Other and Unknown. We will call this the old method, or method 1. A full listing of the race selections and their corresponding race categories for this method are shown in Table 1.

Table 1
Mother's Race Selection from Birth Certificate and Corresponding Race Categories, Method 1

Race Selection (can only choose one)	Reported Race Categories Based on Race Selection				
	White	Black	Asian / PI [1]	Other	Unknown
White	✓				
Black or African-American		✓			
American Indian or Alaskan Native				✓	
Asian Indian			✓		
Chinese			✓		
Filipino			✓		
Japanese			✓		
Korean			✓		
Vietnamese			✓		
Other Asian			✓		
Native Hawaiian			✓		
Guamanian or Chamorro			✓		
Samoan			✓		
Other Pacific Islander			✓		
Other				✓	
Don't Know / Not Sure					✓
Refused					✓

[1] Pacific Islander.

In the other section of the certificate that asks for the mother's self-reported race, the mother can choose "Yes" or "No" to any of the same fourteen races. Unlike the previous section, however, this section does not limit her choice to only one race. The BHSR is planning to use these selections and first filter them into one or more of six larger race categories: white, black, Asian, Pacific Islander, Other and Unknown. For the purposes of categorization for most publications, the race American Indian or Alaskan Native will be placed into the Other group, but will be available to health data researchers

Table 2
Mother's Race Selection(s) from Birth Certificate and Corresponding Race Categories, Method 2

Race Selection (can choose more than one)	Reported Race Categories Based on Race Selection(s)				
	White	Black	Asian / PI [1]	Other	Unknown
White	Yes				No
Black or African-American		Yes			No
American Indian or Alaskan Native				Yes	No
Asian Indian			See Note 1		No
Chinese					No
Filipino					No
Japanese					No
Korean					No
Vietnamese					No
Other Asian					No
Native Hawaiian			See Note 1		No
Guamanian or Chamorro					No
Samoan					No
Other Pacific Islander					No

[1] Pacific Islander.
Note 1: If a mother has "Yes" selections in only the Asian subsection (Asian Indian through Other Asian) or only the Pacific Islander subsection (Native Hawaiian through Other Pacific Islander), she will be placed into the Asian or Pacific Islander race category. If she has race selections in both subsections, she is placed into a sixth category, Multi-Race.
Note 2: If the mother's race selections place her into two or more other race categories, or if she is placed in Asian or Pacific Islander and at least one other category, then she is also placed into the Multi-Race category.

Continue reading this article >>>

Continued ...

Birth Statistics by Race Using Old and New Methods

or users who need it. If a mother ends up in two or more of these race categories, she will instead be placed into a multiple-race category, which we are calling "Multi-Race". Finally, the Asian and Pacific Islander race categories will be combined. Any mother who is Asian only or Pacific Islander only will end up in this combined Asian or Pacific Islander race category. We will call this the new method, or method 2. The process used to group the race selections into these six categories is shown in Table 2 (see Page 2). Obviously, the major difference between these two methods is the addition of the multiple-race category in the new method. It is possible that multiple-race mothers in the past were placed into single-race categories, while they would have been placed into the multiple-race category had the BHSR used the new method. Because the necessary data from the certificates is available, we can calculate the number of births by race using the new method and compare them to reports that were made in the past using the old method.

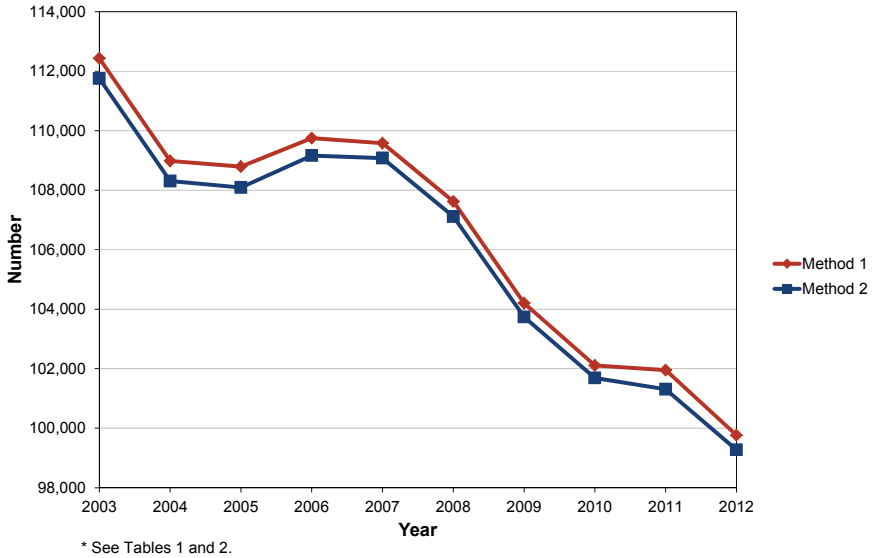
We will only compare the number of births between the two methods among white, black and Asian or Pacific Islander races. These are the three race categories that one would expect to be fairly consistent between the two methods. The results for the years 2003 through 2012 are show in Table 3 and in the three charts that follow. All tabular data supporting Charts 1 through 3 are found on Table 3, broken out by the race groups. The difference in the number of births to white mothers in Pennsylvania by year is small between the two methods. The new method would have arrived at between 0.4 and 0.6 percent fewer births to white mothers for every year between 2003 and 2012 compared to the old method that was used for past reports. The difference between the two methods for births to black mothers is larger: between 4.0 and 5.0 percent less using the new method. Finally, the difference for Asian or Pacific Islanders is also

Table 3
Number of Births by Race of Mother and Race Method*
Pennsylvania Residents, 2003-2012

Year	White		Black		Asian / PI [1]	
	Method 1	Method 2	Method 1	Method 2	Method 1	Method 2
2003	112,433	111,753	19,895	19,065	4,584	4,590
2004	108,986	108,306	19,943	19,014	4,848	4,879
2005	108,795	108,094	20,402	19,469	5,078	5,069
2006	109,749	109,167	21,535	20,487	5,766	5,289
2007	109,584	109,080	22,060	21,112	5,541	5,609
2008	107,623	107,112	22,430	21,535	5,402	5,475
2009	104,201	103,737	21,998	21,087	5,469	5,551
2010	102,111	101,689	21,632	20,674	5,396	5,507
2011	101,952	101,308	21,395	20,325	5,483	5,546
2012	99,766	99,276	21,436	20,461	6,010	6,132

* See Tables 1 and 2.
[1] Pacific Islander.

Chart 1
Number of Births to White Mothers, by Race Method*
Pennsylvania Residents, 2003-2012



* See Tables 1 and 2.

Continue reading this article >>>

Continued ...

Birth Statistics by Race Using Old and New Methods

fairly small, if you ignore the outlier that is found in 2006: between 0.2 percent less and 2.1 percent more for the new method.

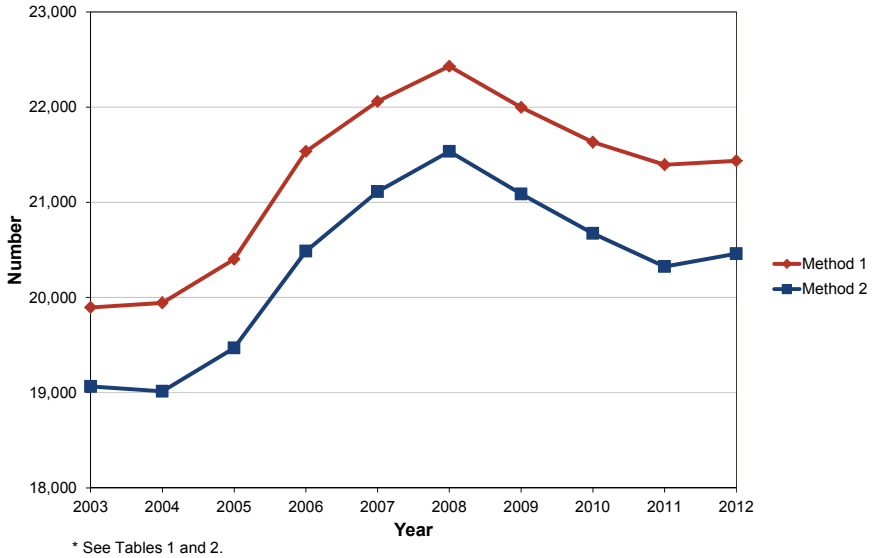
According to these statistics, the difference in the number of births by mother's race calculated using the old and new methods on past data is not large, with the possible exception of black mothers. It will be up to the individual researcher to decide whether it is appropriate to use statistics derived from both methods together or to use them separately. Regardless, it is understood that the new method will be a more accurate representation of the population, resulting in improved statistical reporting.

Currently, we are planning to begin releasing all major datasets using the new method, including the race category Multi-Race, starting with the 2013 data year. Preparations have been made to ensure that this will be a smooth transition, and all datasets will transition beginning with 2013 data. As population data created using this new method will be available, rate calculations will be possible for all datasets. This will allow for continued trend analysis across the data years, with a simple notation explaining the change in methods.

If you have any questions about the information presented in this article, please contact the BHSR at 717-783-2548. Additional birth statistics for Pennsylvania can be obtained from the Birth, Death, and Other Vital Statistics Web page and from EpiQMS, our online interactive data dissemination tool.

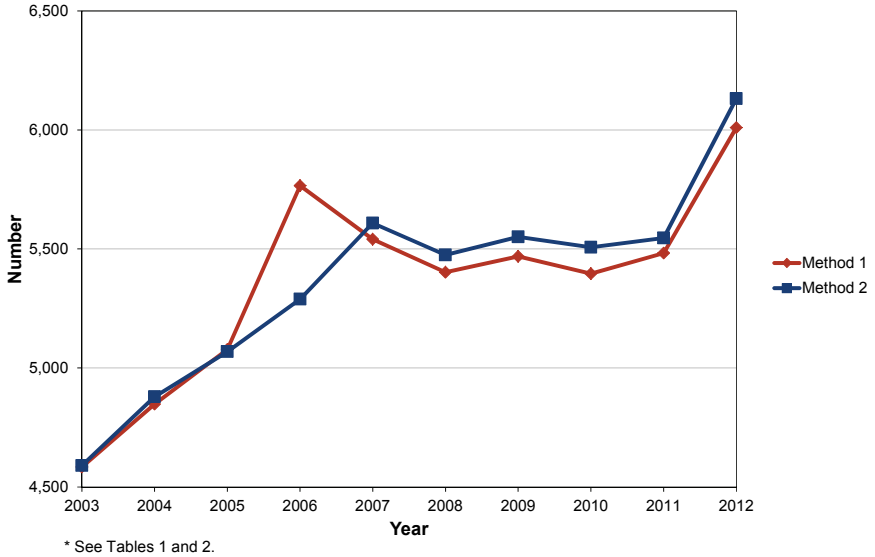
Return to list of articles >>>

Chart 2
Number of Births to Black Mothers, by Race Method*
Pennsylvania Residents, 2003-2012



* See Tables 1 and 2.

Chart 3
Number of Births to Asian or Pacific Islander Mothers, by Race Method*: Pennsylvania Residents, 2003-2012



* See Tables 1 and 2.

Premature Mortality Due to Cancer in Pennsylvania

An Analysis of Potential Years of Life Lost

You may have heard that cancer was a leading cause of death in 2011 among Pennsylvania residents, including those under 75 years of age. However, because most cancer deaths occur among the elderly, analyzing cancer mortality rates alone does not tell the full story of the burden that impacts Pennsylvania's population. A different metric is needed to examine premature mortality. Potential Years of Life Lost (PYLL) represents the number of additional years a person would have lived if he or she had not died before a user-selected, predetermined age (75 is commonly used). For example, if a 40 year-old resident dies from cancer this would be counted as 35 years of potential life lost. In this measure, deaths among the young are given more weight than deaths among older persons. Using 75 years of age as our baseline age, in 2011, cancer was responsible for a total of 196,163 potential years of life lost among Pennsylvania residents.

Chart 1 shows the trend in the rate of potential years of life lost from cancer among all Pennsylvania residents from 2000 to 2011. The rate is computed by dividing the total PYLL for those under 75 by the total population for those under 75. Over this period, the rate has had a few ups and downs but has overall had a decreasing trend. This can be seen by observing the linear trend line on the chart. During this 12-year period, the rate hit a high in 2001, when there were 1,762.9 years of life lost per 100,000 residents. By 2011, there were 1,667.9 years of life lost due to cancer per 100,000 residents – the lowest annual figure recorded between 2000 and 2011. Therefore, not only has the number of cancer deaths decreased overall since 2000 (dropping from 29,989 in 2000 to 28,637 in 2011), but the rate for premature death from cancer has decreased as well. This decrease in the premature death rate translates to an additional 2,741 years (combined) that Pennsylvania residents diagnosed with cancer lived up to age 75 in 2011 compared to 2000.

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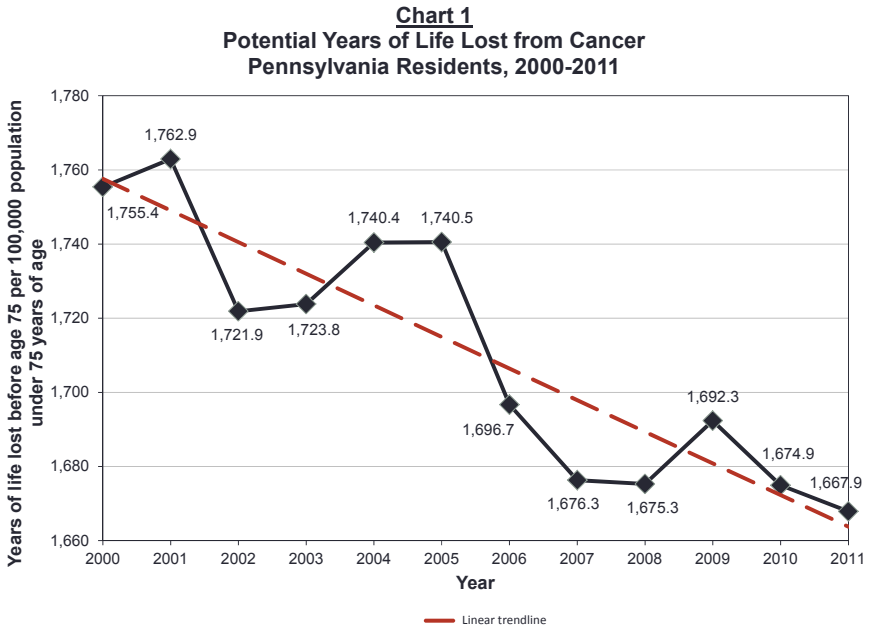

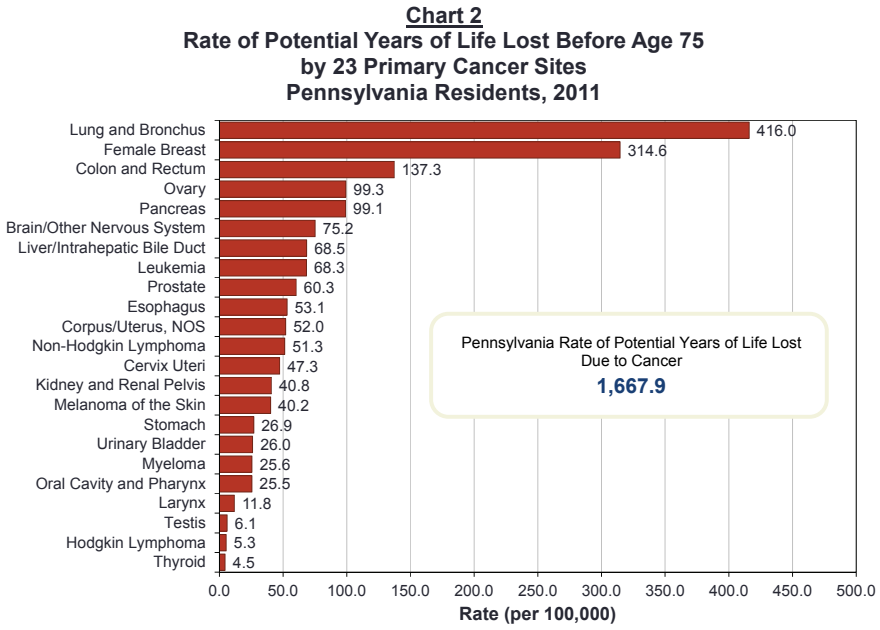

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Premature Mortality Due to Cancer in Pennsylvania

Chart 2 (see page 5) shows the rate of potential years of life lost for each of the 23 primary cancer sites in 2011. The rates are computed by dividing the total PYLL for those under 75 years of age for each cancer site by the total population for those under 75. The top three cancer sites with the highest rates of potential years of life lost are lung and bronchus cancer (416.0), female breast cancer (314.6) and colon and rectum cancer (137.3). In 2011, these three cancer sites accounted for approximately 52 percent of all potential years of life lost due to cancer in Pennsylvania. Among the 23 primary site cancers, thyroid cancer (4.5), Hodgkin lymphoma (5.3) and testicular cancer (6.1) had the lowest rates of potential years of life lost due to cancer, accounting for only 1.0 percent of all PYLL from cancer deaths – meaning that premature deaths caused by these types of cancer are quite rare.

Table 1
Potential Years of Life Lost Before Age 75
By 23 Primary Cancer Sites
Pennsylvania Residents, 2000 and 2011

Primary Site	PYLL		Rate*		Rate Change	
	2000	2011	2000	2011	Percent	Years^
Liver/Intrahepatic Bile Duct	5,023	8,060	44.3	68.5	54.6%	24.2
Pancreas	9,262	11,651	81.7	99.1	21.2%	17.3
Corpus/Uterus, NOS	2,571	3,080	44.8	52.0	16.1%	7.2
Esophagus	5,319	6,250	46.9	53.1	13.2%	6.2
Prostate	3,081	3,521	55.1	60.3	9.4%	5.2
Melanoma of the Skin	4,167	4,726	36.8	40.2	9.3%	3.4
Urinary Bladder	2,720	3,060	24.0	26.0	8.4%	2.0
Kidney and Renal Pelvis	4,449	4,796	39.3	40.8	3.9%	1.5
Thyroid	352	525	3.1	4.5	43.7%	1.4
Myeloma	2,772	3,007	24.5	25.6	4.5%	1.1
Oral Cavity and Pharynx	3,232	2,998	28.5	25.5	-10.6%	-3.0
Brain/Other Nervous System	8,868	8,843	78.3	75.2	-3.9%	-3.1
Larynx	1,747	1,384	15.4	11.8	-23.7%	-3.7
Stomach	3,546	3,167	31.3	26.9	-14.0%	-4.4
Testis	612	356	10.9	6.1	-44.3%	-4.8
Leukemia	8,380	8,037	74.0	68.3	-7.6%	-5.6
Cervix Uteri	3,039	2,801	52.9	47.3	-10.6%	-5.6
Ovary	6,089	5,878	106.1	99.3	-6.4%	-6.8
Hodgkin Lymphoma	1,902	618	16.8	5.3	-68.7%	-11.5
Colon and Rectum	17,239	16,150	152.1	137.3	-9.7%	-14.8
Non-Hodgkin Lymphoma	7,966	6,036	70.3	51.3	-27.0%	-19.0
All Other Sites	25,394	23,665	224.1	201.2	-10.2%	-22.9
Female Breast	19,519	18,628	340.1	314.6	-7.5%	-25.4
Lung and Bronchus	51,655	48,926	455.9	416.0	-8.7%	-39.9
All Cancer Sites	**198,904**	**196,163**	**1,755.4**	**1,667.9**	**-5.0%**	**-87.5**

* Rates are per 100,000
^ Change in years of life lost per 100,000

Table 1 shows a comparison of PYLL due to cancer in Pennsylvania, separated according to the primary cancer sites, between 2000 and 2011. The number of potential years of life lost among Pennsylvania residents due to cancer decreased from 198,904 years of life in 2000 to 196,163 years of life in 2011. Though the rate among all combined cancer sites decreased five percent over this period, the trends among individual cancer sites varied considerably. Lung and bronchus cancer contributed the most to the decrease in the total 2011 PYLL rate, a rate decrease of 39.9 years of life lost per 100,000. At the same time, liver and intrahepatic bile duct cancer contributed most to offsetting the decrease in the total PYLL rate with a rate increase of 24.2 years of life lost per 100,000. The rate for pancreatic cancer also had a notable increase during this period, rising 17.3 years of life lost per 100,000 from 81.7 in 2000 to 99.1 in 2011.

The primary site that had the largest percentage decrease in the 2011 rate compared to 2000 was Hodgkin lymphoma, which decreased 68.7 percent from 16.8 per 100,000 in 2000 to 5.3 in 2011. The rate for testicular cancer also decreased considerably during this period, from 10.9 in 2000 to 6.1 in 2011, a 44.3 percent drop. In addition to experiencing the largest increase in the number of potential years of life lost between 2000 and 2011, cancer of the liver and intrahepatic bile duct also showed the largest percentage increase. The rate increased 54.6 percent from 44.3 in 2000 to 68.5 in 2011. Additionally, in 2000, liver cancer had the thirteenth highest rate of PYLL of the 23 primary cancer sites, and by 2011, its ranking surpassed leukemia as the seventh highest rate among primary sites. The 43.7 percent increase in the rate for cancer of the thyroid between 2000 and 2011 is also noteworthy.

Another way to analyze cancer deaths is with the average PYLL. Although this measurement does not represent the total burden, it does give us an idea of how premature

Continue reading this article >>>

Continued ...

Premature Mortality Due to Cancer in Pennsylvania

deaths are for a given type of cancer. Average PYLL for each of the 23 primary cancer sites can be seen in Chart 3. The average PYLL is the average loss of years per cause of death. It is computed by dividing the total PYLL for those under 75 for each cancer site by the total number of deaths caused by that cancer for those less than 75 years of age. A higher average PYLL indicates that individuals are dying at younger ages for particular causes. On average, in Pennsylvania, 13.1 potential years of life are lost due to cancer. Chart 3 indicates that the PYLL for deaths

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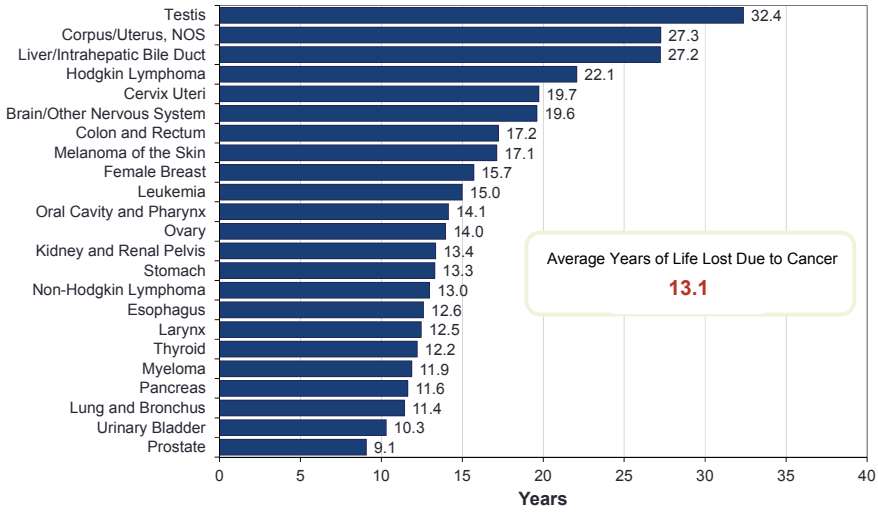
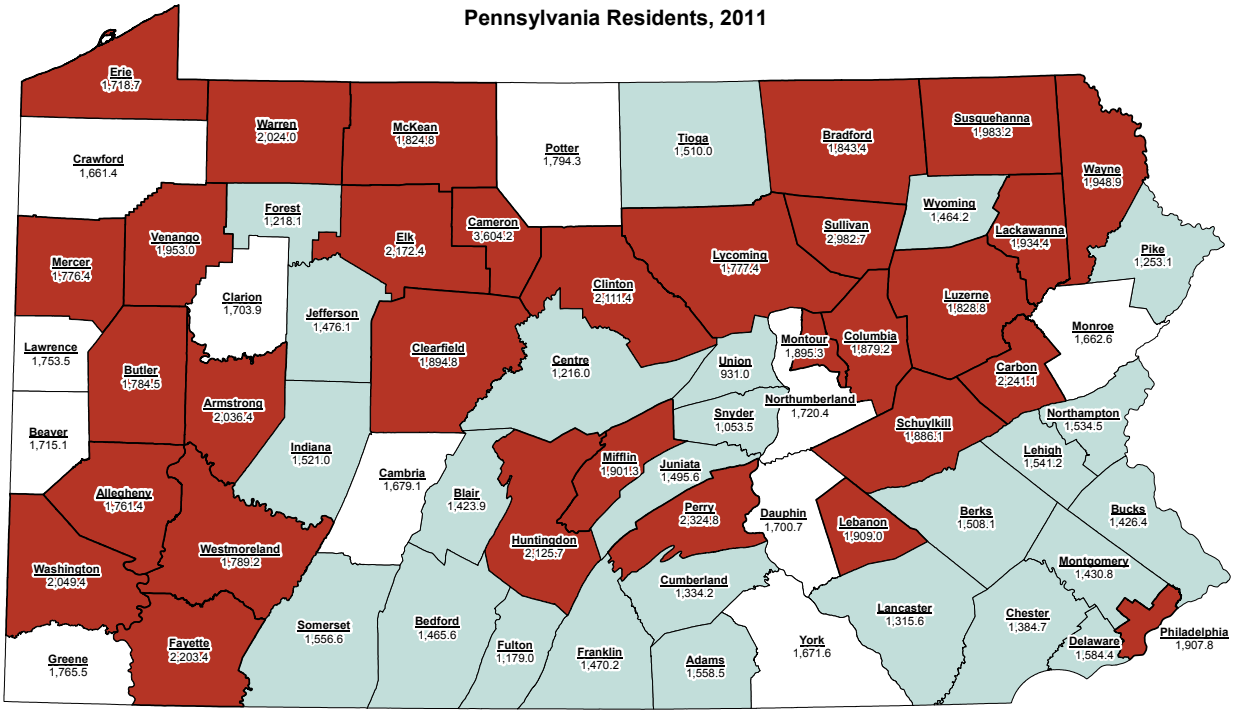
Chart 3
Average Years of Life Lost Before Age 75
Per Person Dying of Cancer, by 23 Primary Cancer Sites
Pennsylvania Residents, 2011



Map 1
Significant Differences Between County and Statewide
Rates* of Potential Years of Life Lost from Cancer
Pennsylvania Residents, 2011



Significantly Higher than Pennsylvania | **Significantly Lower than Pennsylvania** | **Not Significantly Different than Pennsylvania**

* Rates per 100,000 and significant differences computed at the 95% confidence level

Pennsylvania Rate
1,667.9 per 100,000 residents

Continued ...

Premature Mortality Due to Cancer in Pennsylvania

due to testicular cancer (32.4 years), uterine cancer (27.3 years) and liver/intrahepatic bile duct cancer (27.2 years) have much higher average PYLLs than residents dying of causes such as prostate cancer (9.1 years), bladder cancer (10.3 years), and lung and bronchus cancer (11.4 years). While testicular cancer had a high average PYLL, the number of testicular cancer deaths is actually very low. That is why the PYLL rate in Chart 2 (6.1) was very low in comparison to the average PYLL.

To observe geographic variations in PYLL from cancer in Pennsylvania, a test of significance (at the 95% confidence level) was performed for each county's rate compared to the overall statewide rate. Map 1 (see page 7) shows the counties in Pennsylvania that had a significantly higher (shown in red) and a significantly lower (shown in blue) rate of PYLL compared to the state rate. Of Pennsylvania's 67 counties, 31 had PYLL rates that were statistically significantly higher than the overall Pennsylvania rate of 1,667.9 potential years of life lost from cancer per 100,000 residents. Twenty-five counties had a rate that was statistically significantly lower than the Pennsylvania rate, and 11 counties had a rate that was not statistically significantly different. Cameron (3,604.2), Sullivan (2,982.7), Perry (2,324.8), Carbon (2,241.1) and Fayette (2,203.4) counties had the five highest PYLL rates in the state. The five lowest PYLL rates occurred in Union (931.0), Snyder (1,053.5), Fulton (1,179.0), Centre (1,216.0) and Forest (1,218.1) counties. Several geographic differences within Pennsylvania can be observed. Areas of high PYLL are predominately found in the northern and western regions of the state, while most of the counties in the south central and southeastern regions have lower rates of PYLL than the state.

While Potential Years of Life Lost is not a measure that we regularly publish, it can be a valuable calculation when analyzing cancer statistics. As shown through this analysis, digging further into the data can help to give us a better overall understanding of the situation.

If you have any questions about this article, please contact the Bureau of Health Statistics and Research at 717-783-2548. Additional cancer statistics for Pennsylvania can be obtained from the Health Statistics web pages at www.health.state.pa.us/stats (select "Cancer"). Pennsylvania cancer statistics are also available on EpiQMS, our interactive data dissemination tool.

Return to list of articles >>>

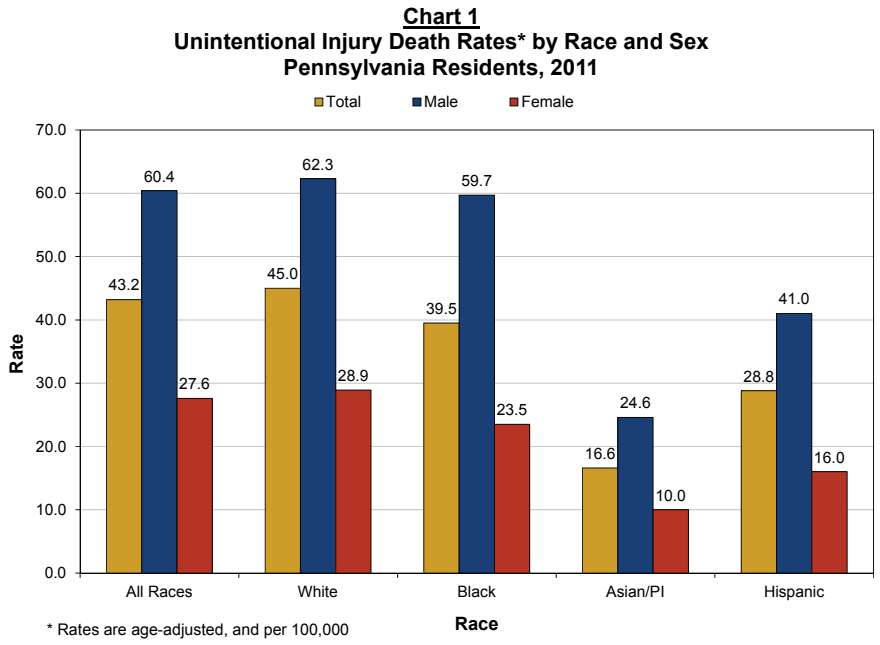
Rising Tide of Unintentional Injury Deaths

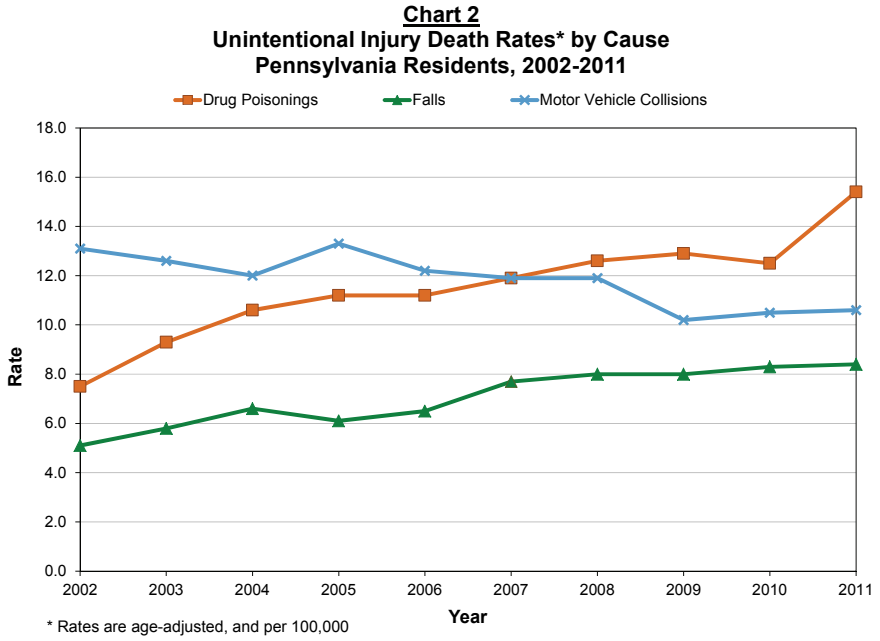
Injury Death Rates Are Increasing Overall in Pennsylvania

Injury death rates in Pennsylvania have been increasing in recent years, which is alarming since death rates in general have been decreasing during that same time. With homicide rates generally decreasing and suicide rates mostly remaining stable over the past 20 years, this trend is driven by a steady increase in fatal unintentional injuries (accidents). The three most common causes of unintentional injury deaths are drug poisonings, falls and motor vehicle collisions.

In 2011, there were 6,062 unintentional injury fatalities in Pennsylvania, an age-adjusted death rate of 43.2 per 100,000 residents. Since 2002, the age-adjusted rate for unintentional injury fatalities has increased 23 percent from 35.1 per 100,000 to 43.2 per 100,000 residents. The three most common causes of unintentional fatal injuries were drug poisonings (31 percent of unintentional injury deaths), falls (24 percent), and motor vehicle collisions (23 percent). Combined, these three causes accounted for 78 percent of all unintentional injury fatalities in 2011.

Males were more than twice as likely as females to die of an unintentional injury. Unintentional injury mortality rates among males increased from 50.3 per 100,000 in 2002 to 60.4 in 2011, an increase of 20 percent. Among females, this rate increased 28 percent, from 21.6 per 100,000 to 27.6. Looking at the data by race showed that, in 2011, whites had the highest overall unintentional injury mortality rate among the four race/ethnicity groups reviewed, while Asians/Pacific Islanders had the lowest rate (see Chart 1).





In 2011 there were 2,307 unintentional poisoning deaths for an average of six deaths per day. In the 10 years between 2002 and 2011, unintentional poisoning death rates more than doubled from 7.8 deaths per 100,000 to 16.3. Unintentional drug poisonings accounted for 94 percent of unintentional poisoning fatalities. Unintentional drug poisonings have increased so rapidly that they passed motor vehicle collisions as the leading cause of unintentional

Continue reading this article >>>

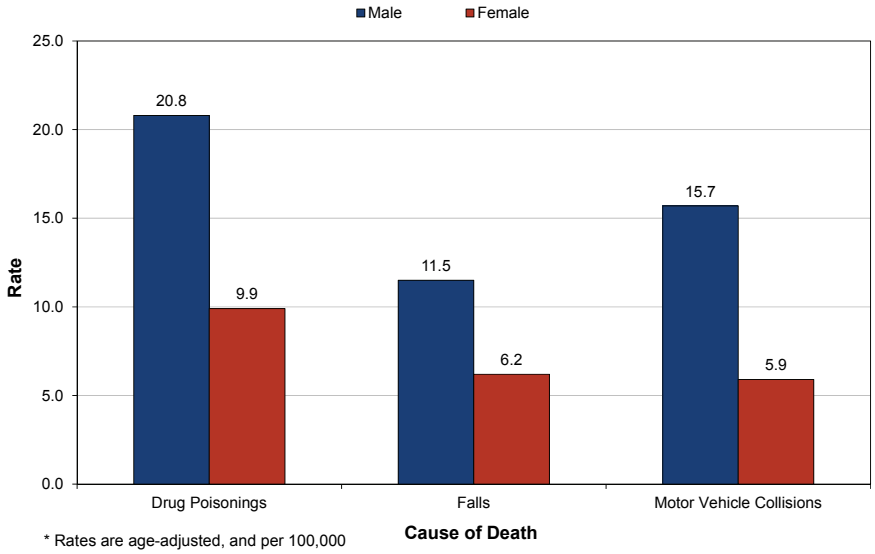
Continued ...

Rising Tide of Unintentional Injury Deaths

injury death in 2008 (see Chart 2, page 9). While the rates for falls are showing a slow increase, that cause of death remained consistently below drug poisonings and motor vehicle collisions. When reviewing the causes of death by sex, drug poisoning rates were approximately twice as high for males as they were for females (see Chart 3). Similar patterns can be seen for all unintentional injury death rates, where males tend to have much higher rates than females. Motor vehicle collisions had the largest disparity, with males being more than two and a half times as likely to die as females.

Deaths from falls nearly doubled in the last 10 years (750 in 2002 and 1,429 in 2011), though death rates only increased 65 percent. Fall injuries tend to increase in an older population, so the rise in deaths from falls may be related to the increase in older population in the state. The majority of fatal falls are typically among older residents who are over the age of 65. In 2011, 44 percent of fall fatalities were among adults over the age of 85, and 85 percent were among adults over the age of 65. Men had higher rates of fall deaths compared to females among all age groups.

Chart 3
Selected Unintentional Injury Death Rates* by Sex
Pennsylvania Residents, 2011



Not all mechanisms of unintentional injury show the same upwards trend. In 2002, motor vehicle collisions were the number one cause of unintentional injury fatalities. However, motor vehicle death rates have decreased 19 percent from 13.1 deaths per 100,000 in 2002 to 10.6 in 2011.

Since unintentional injury deaths are mostly preventable, it is concerning that the rates for these types of deaths are increasing. The Department of Health's Violence and Injury Prevention Program continues to review these types of deaths in order to implement prevention strategies and efforts to stop this increasing trend. For more information and data on injuries and injury deaths in Pennsylvania, see the Injury Statistics Web page on the Department's website.

Return to list of articles >>>

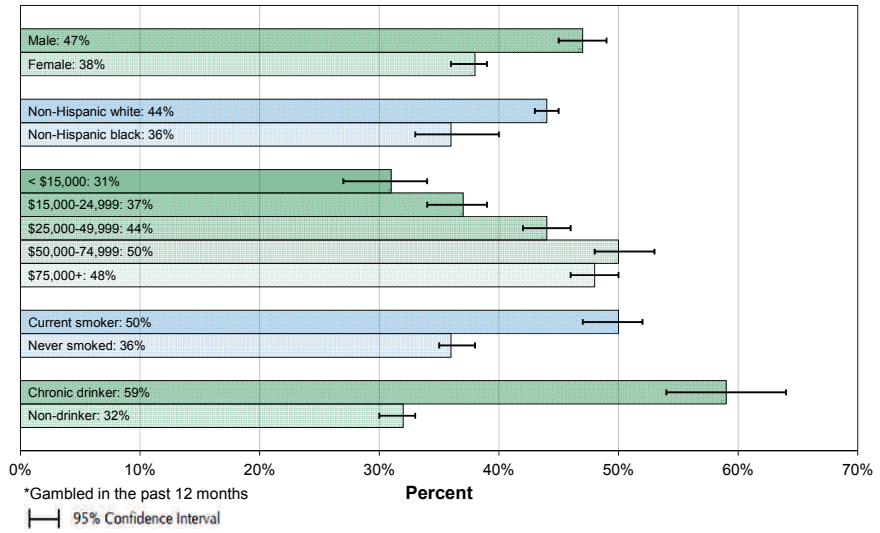
Pennsylvania Gambling Prevalence Review

Chronic Drinkers and Current Smokers Are More Likely to Have Gambled

Approximately 4.2 million Pennsylvania adults, 42 percent of those ages 18 and older, have gambled in the past 12 months. This value stems from gambling rates collected by the Pennsylvania Department of Health (DOH) via the 2012 Behavioral Risk Factor Surveillance System (BRFSS) survey and the application of those gambling rates to the 2012 state population. In Pennsylvania, slot casinos have been in operation since November 2006, with table games added in July 2010. With these changes come increased opportunities to gamble. Because gambling may develop into a harmful behavior and/or addiction, it is important to watch the trends and prevalence of gambling in Pennsylvania. The impact of laws, new casino licensures and newly-opened operations can have an impact on citizens' gambling actions.

The state-added BRFSS gambling questions in 2012 were preceded by a statement explaining gambling activities. The script read: "Now I would like to ask you some questions about gambling. The term gambling includes any game of chance or skill where you wager cash to win a prize. These games of skill or chance include, but are not limited to, purchasing lottery tickets, casino games, card games, playing bingo for money, betting on racing or sporting event outcomes, and internet gambling." After this explanation, those surveyed were then asked, "have you gambled in the past 12 months?" Of all Pennsylvania adults age 18 and older, it is estimated that 42 percent (95% Confidence Interval [CI]: 41-43) gambled in the past 12 months. Males gambled at a significantly higher rate than females (47 percent, CI: 45-49 and 38 percent, CI: 36-39, respectively). Regarding race, 44 percent (CI: 43-45) of non-Hispanic whites gambled in the past 12 months, which was significantly higher than the 36 percent (CI: 33-40) for non-Hispanic blacks. Gambling peaked among those with household incomes between $50,000 and $74,999 at 50 percent (CI: 48-53). This rate was not significantly different from the 48 percent (CI: 46-50) of those with income of $75,000 or more but was significantly higher than the 44 percent (CI: 42-46) of those with income between $25,000 and $49,999, the 37 percent (CI: 34-39) of those with income between $15,000 and $24,999 and the 31 percent (CI: 27-34) of those with income less than $15,000.

Chart 1
Gambling* Among Pennsylvania Residents Age 18 and Older
Significant Differences by Selected Categories
Pennsylvania BRFSS 2012 Survey



Among current smokers, 50 percent (CI: 47-52) had gambled in the past 12 months. This rate was significantly higher than the 36 percent (CI: 35-38) among those who had never smoked. Chronic drinkers, defined as those who had more than 60 drinks in the past 30 days, gambled at a rate of 59 percent (CI: 54-64). This was significantly higher than the rate of 32 percent (CI: 30-33) among non-drinkers. In fact, this is one of the largest disparities among the groups found in the survey.

Chart 1 depicts differences in gambling for the demographics outlined above. Other significant differences found (but not shown on the chart) are those for age, education, marital status, veteran status, asthma status, body mass index (BMI), and health care status. Those between 45 and 64 years of age had a gambling rate of 48 percent (CI: 46-49), which was significantly higher than those 18-29 years of age (37 percent, CI: 34-41), 30-44 years of age (41 percent, CI: 39-44) and those 65 or older (39 percent, CI: 37-41). Those who did not obtain a high school

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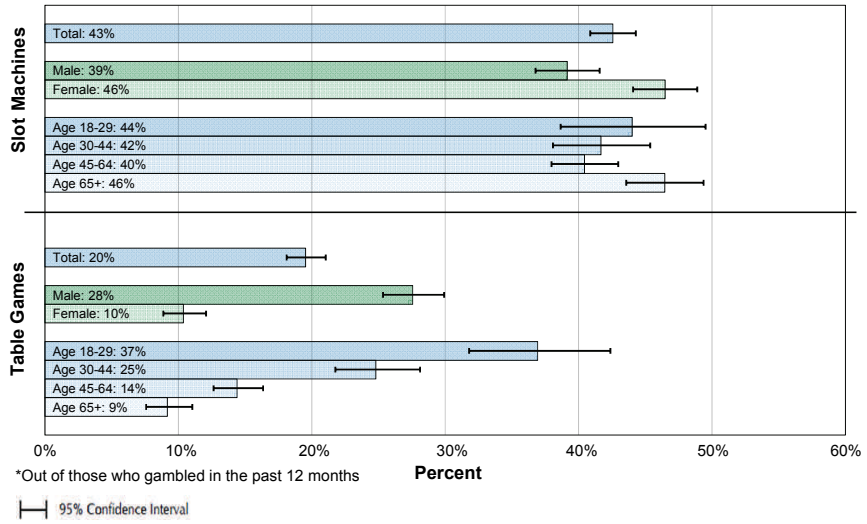
degree gambled at a significantly lower rate (31 percent, CI: 27-35) than those whose highest level of education was completing a high school degree (43 percent, CI: 41-44), some college or technical school education (46 percent, CI: 43-48) or those with a college degree (44 percent, CI: 42-46). Widows gambled at a significantly lower rate (36 percent, 34-39) than those married (44 percent, CI 42-45) and those divorced or separated (45 percent, CI 42-47) but did not differ from those who never married (39 percent, CI:37-42). Veterans gambled at a significantly higher rate (50 percent, CI: 47-53) than non-Veterans (41 percent, CI: 40-43), and current asthmatics gambled at a significantly lower rate (35 percent, CI: 32-39) than those not asthmatic (43 percent, CI: 42-44). Those considered obese (BMI ≥ 30) and those considered overweight (25 ≤ BMI < 30) gambled at higher rates (47 percent, CI: 45-49 and 44 percent, CI: 43-46, respectively) than respondents who were neither overweight nor obese (37 percent, CI: 35-39).

The Pennsylvania Departments of Health and Drug and Alcohol Programs are particularly interested in how the introduction and continued operation of slot machines and table games have affected Pennsylvanian gamblers. To monitor such an effect, we asked those who have gambled in the past 12 months if their gambling activities included "play[ing] a slot machine" and placing a "bet on table games like poker, blackjack, other card games, roulette, craps, other dice games, baccarat, backgammon, or dominos." Of adult Pa. residents who gambled, 43 percent (CI: 41-44) played slot machines in the past 12 months. Females played slots at a higher rate (47 percent, CI: 44-49) than males (39 percent, CI: 37-42). This difference led to the calculation that females were 1.4 times more likely to have played slots than males. Those 65 and older played a slot machine at a significantly higher rate (47 percent, CI: 44-49) than those 30-44 (42 percent, CI: 38-45) and those 45-64 (40 percent, CI: 38-43). Those 65 and older were 1.2 times more likely to play slots than those 30-44 and 1.3 times more likely than those 45-64.

Chart 2
Gambling* Among Pennsylvania Residents Age 18 and Older Who Played Slot Machines and Table Games by Sex and Age
Pennsylvania BRFSS 2012 Survey



Among adult Pa. residents who gambled, 20 percent (CI: 18-21) bet on table games. Males bet on table games at a higher rate (28 percent, CI: 25-30) than females (10 percent, CI: 9-12). In fact, males were 3.3 times more likely to have bet on table games in the past 12 months than females. This stands out as one of the largest disparities among the groups shown. All four age groups bet on table games at significantly different rates. Those 18-29 bet at a 37 percent rate (CI: 32-42); those 30-44 bet at a 25 percent rate (CI: 22-28); those 45-64 bet at a 14 percent rate (CI: 13-16); and those 65 and older bet at a 9 percent rate (CI: 8-11). Regarding table game bets, those age 18-29 were 1.8 times more likely to have bet than those age 30-44, 3.5 times more likely to have bet than those age 45-64, and 5.8 times more likely to have bet than those age 65 and older. It's clear that table games appeal mainly to younger, male gamblers. Chart 2 shows differences in age and sex for slot machine use and table game betting.

Additional information on the BRFSS survey can be found on the Behavioral Health Risks of Pennsylvania Adults Web page or through EpiQMS, our online data dissemination system. Contact the Bureau of Health Statistics at 717-783-2548 with any questions.

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