

# STATISTICAL NEWS

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## 2007 Top Ten Baby Names and Birth 'Fast Facts'

*Most Popular Names Are Michael & Ava; Complete Name List on Website*

The most popular first name given to female babies born in 2007 was Ava, for the second year in a row. Olivia moved up from fifth place in 2006 to second place in 2007. Emma moved from fourth place into third... [Continue reading this article>>>](#)

## Healthy People 2010: Breast & Cervical Cancer Deaths

*Obj 3-03 - Reduce female breast cancer deaths....Target: 22.3 deaths per 100,000*

*Obj 3-04 - Reduce cervical cancer deaths....Target: 2.0 deaths per 100,000*

Age-adjusted rates for female breast cancer deaths are higher among Black residents compared to Whites and, especially, to Hispanics. Between 2002 and 2006, the annual age-adjusted breast cancer death rate... [Continue reading this article>>>](#)

# Pennsylvania's 2008 Synar Survey Results

## *Fewer Pennsylvania Cigarette Retailers Are Selling Cigarettes to Minors*

An estimated four to seven percent of Pennsylvania's cigarette retailers sold cigarettes to minors in 2008 according to the latest Pennsylvania Synar Survey. This violation rate estimate was based on attempts by underage youth volunteers to purchase cigarettes from a sample of outlets that sell cigarettes.

The Synar survey is federally-mandated and involves volunteer students between the ages of 15 and 17 attempting to purchase cigarettes at randomly selected cigarette retailers. If a retailer sells to the minor, it is considered a violation. The survey violation rate is used to estimate the actual violation rate for the entire state.

The 2008 sample was selected from a list of outlets that purchased a license to sell cigarettes. The outlets were selected in such a way that each known cigarette outlet in the state had a non-zero probability of selection. The most prevalent type of outlets selected belongs to the Convenience-Grocery category. This category included independently owned convenience stores, grocery stores, country stores, corner stores, local markets and outdoor produce markets. These outlet types sold at a rate of five percent (95% Confidence Interval:  $\pm 3\%$ ). Table 1 shows the sale or violation rates of all the different outlet categories. There was not a significant difference between the sale rates of the different outlet types. In other words, we can't say that one type of outlet sold cigarettes to underage youth more (or less) than any other.

In 2008, there were 571 outlets surveyed by males and 597 surveyed by females. Five percent (CI:  $\pm 2\%$ ) of the outlets

sampled sold to males while six percent (CI:  $\pm 2\%$ ) sold to females. There was not a significant difference between the male and female violation rates in 2008.

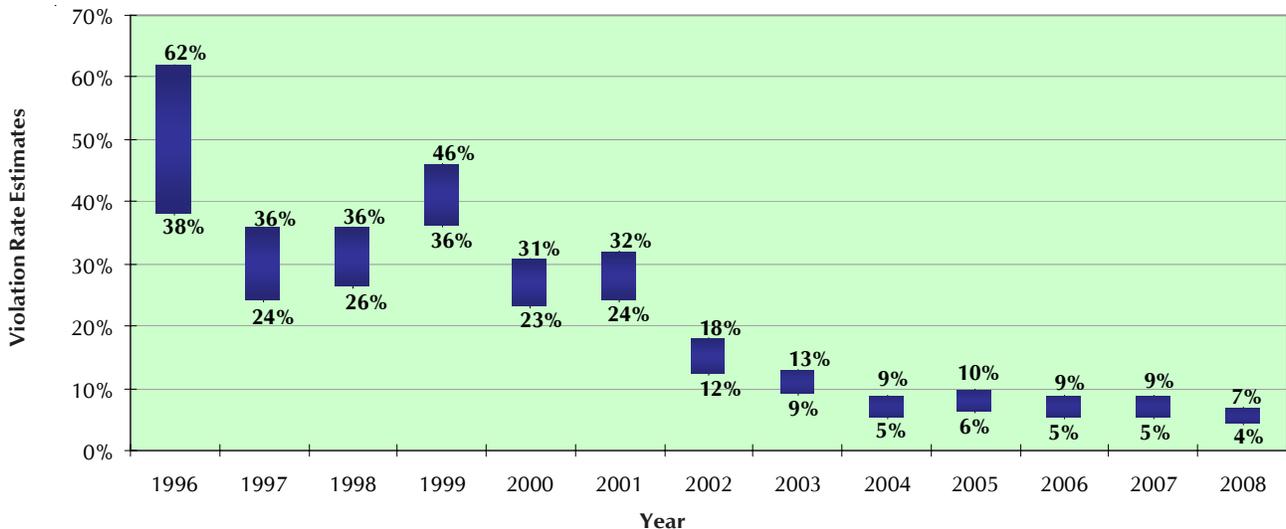
There were 554 outlets surveyed by fifteen year-olds, 608 by sixteen year-olds and six by seventeen year-olds in 2008. Three percent (CI:  $\pm 2\%$ ) of the outlets sold to fifteen

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**Table 1**  
**Sale Attempts, Sales, and Sale Rate**  
**(with 95% Confidence Intervals) by Outlet Type,**  
**Pennsylvania Synar Survey, 2008**

Outlet Type	Sale Attempts	Sales	Sale Rate	95% Confidence Lower	95% Confidence Upper
Bar/Tavern	26		Unreliable Estimate		
Beer Distributor	71	0	0.0	0.0	4.2
Convenience-Chain	210	12	5.6	2.4	8.8
Convenience-Grocery	305	13	5.1	2.1	8.1
Deli	39		Unreliable Estimate		
Drug Store	78	1	1.3	0.0	3.9
Gas Station/Auto	159	10	6.5	1.2	11.7
News Outlet	11		Unreliable Estimate		
Restaurant/eatin	25		Unreliable Estimate		
Restaurant/takeout	36		Unreliable Estimate		
Supermarket	106	3	3.7	0.0	8.6
Tobacco	41		Unreliable Estimate		
Other	61	7	10.9	1.3	20.4

**Chart 1**  
**95% Confidence Intervals for Violation Rate Estimates**  
**Pennsylvania Synar Survey, 1996-2008**



Continued...

# Pennsylvania's 2008 Synar Survey Results

year-olds and seven percent (CI:  $\pm 3\%$ ) sold to sixteen year olds. A chi-square test (chi-square value=9.325, probability difference is due to sampling error=0.0094 or .94%) provided evidence that there was a statistical difference between the rate that outlets sell cigarettes to sixteen year-olds and the rate that outlets sell to fifteen year olds.

The annual Synar survey has shown significant decreases in the statewide violation rate since it was first conducted in 1996. During the early years of the survey, the violation rates were very high (1996 estimate= 50 percent (CI:  $\pm 12\%$ )). By 2002, the violation rates had changed significantly (2002 estimate= 15 percent (CI:  $\pm 3\%$ )). It is believed that this change was a direct result of increased enforcement efforts, public awareness campaigns, merchant education and Act 112 of 2002 which amended our youth access law and provided fine structures for retailers and clerks including license revocation or suspension. The significantly different rate in 2002 demonstrated the success of the first prevention efforts, but the fact that the estimates have remained low since 2002 is a testament to these continuing efforts. The 2008 violation rate is not significantly different from the results of the previous four years of the Synar surveys, but it is significantly lower than the federal requirement of 20 percent. Chart 1 depicts the 95% confidence intervals for the annual violation rates since the Synar survey was first implemented in 1996.

The 2008 Synar survey had to meet certain federal requirements such as conducting random, unannounced in-

**The annual Synar survey has shown significant decreases in the statewide violation rate since it was first conducted in 1996.**

spections of cigarette selling outlets. The 2008 survey also employed a stratified and clustered design with a two-stage sampling method. Stage one involved the selection of clusters with the probability of selection proportional to size and then in stage two the outlets were randomly selected from within the chosen cluster. The federal government also requires that the survey's statewide standard error is less than or equal to 1.82 and the final statewide violation rate is less than 20 percent. The survey error for the 2008 Pennsylvania Synar survey is less than 1.82 (survey error = .08) and the rate is less than 20% (rate=5.1%). Table 2 shows the statewide and stratum results of the 2008 survey.

Finally, an annual report is submitted to the Center for Substance Abuse Prevention (CSAP) as part of the federal requirements. The Pennsylvania 2008 "Annual Synar Report" was submitted to CSAP in December 2008. The report included the statewide violation rate with a detailed explanation of its calculation along with an explanation and descrip-

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**Table 2**  
**Outlets Selected and Surveyed, Clusters Sampled, Sales and Sale Rate**  
**(with Standard Error and 95% Confidence Interval)**  
**Pennsylvania Synar Survey, 2008**

Stratum	Outlets	Outlets	Clusters	Sales	Sale Rate	Standard Error	95% CI for Mean *	
	Selected	Surveyed	Sampled				Lower	Upper
Statewide	1846	1168	422	54	5.1	0.8	3.5	6.7
North Central	115	85	6	2	2.5	1.6	0.0	6.5
North East	252	160	12	9	5.5	2.6	0.0	11.2
North West	149	78	6	4	5.1	1.6	1.0	9.3
South Central	240	131	10	4	3.0	1.2	0.2	5.8
South East	348	209	16	17	8.1	2.7	2.4	13.8
South West	227	144	11	2	1.4	0.9	0.0	3.5
Allegheny	130	106	106	0	0.0	0.0	0.0	2.8 **
Delaware	60	39	39	3	Unreliable Estimate		***	
Erie	100	59	59	2	3.4	2.4	0.0	8.1
Philadelphia	225	157	157	11	7.0	2.0	3.0	11.0

\* Bounds calculated with SAS which uses the t-distribution and calculates the degrees of freedom (df) by subtracting the total strata from the total clusters. For example, the df for North Central is 5 because there are 6 clusters and 1 stratum.

\*\* Since Sales = 0, the "Rule of Three (3/n)" was used to calculate the upper bound.

\*\*\* Sample error exceeds that produced by a SRS of n = 50

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Continued...

# Pennsylvania's 2008 Synar Survey Results

tion of the sampling frame. A detailed description of sampling methodology is included with cluster and strata descriptions along with an explanation of the weighting methodology and the analytical program coding used for the 2008 survey. Detailed explanations of survey protocol, inspector characteristics and sample are included along with descriptions of all formulae and calculations used in the report. Data tables summarizing inspection results are also included in this annual report.

For additional information about the Synar survey, you can visit the Synar website at <http://prevention.samhsa.gov/tobacco/default.aspx>. This website is maintained by the United States Department of Health and Human Services.

For questions regarding this article or the Pennsylvania Synar survey, please contact the Bureau of Health Statistics and Research at 717-783-2548.

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# Cesarean Section Deliveries Continue to Rise

## *Dramatic Increases Observed Even Among Low-Risk Mothers*

A review of recent birth statistics shows that cesarean delivery rates are still on the rise nationally and in Pennsylvania, even among low-risk mothers giving birth for the first time. Preliminary 2007 data show that nationally the cesarean delivery rate rose two percent, from 31.1 percent in 2006 to 31.8 percent in 2007, marking the 11<sup>th</sup> consecutive year of increase which is a record high for the United States. The same trend can be seen among Pennsylvania residents where the cesarean delivery rate has been rising for ten consecutive years, from 19.3 percent in 1997 to 29.9 percent in 2007. However, the cesarean delivery rate for Pennsylvania, rising one percent from 2006 (29.6 percent) to 2007 (29.9 percent), is still slightly lower than the U.S. rate.

The proportion of cesarean sections for low-risk first-time mothers is following the same pattern — increasing steadily in recent years, from 16.8 percent in 1997 to 27.6 percent in 2007 among Pennsylvania residents and increasing from 18 percent in 1998 to 25 percent in 2005 (most recent year available) nationally. The national Healthy People 2010 (HP2010) Objective #16-09a is to decrease the percent of low-risk first-time mothers giving birth by cesarean section to 15 percent.

A further review of Pennsylvania's cesarean section rates for low-risk first-time mothers compared to the U.S. shows that Pennsylvania's age-specific cesarean section rates are all slightly higher than the corresponding U.S. rates by age group. Comparing the cesarean section rates for low-risk mothers by race for Pennsylvania (2007) and the United States (2005) show the state rate for Whites (27.9), Asian/Pacific Islanders (29.4) and Hispanics (25.1) being higher than the U.S. rates of 25, 27, and 23 percent respectively. The latest available Pennsylvania rate for Black residents was lower than the U.S. rate (26.3 vs. 28).

A further review of Pennsylvania's cesarean section rates for low-risk first-time mothers between 2003 and 2007, by race/ethnicity, educational status, and age follows.

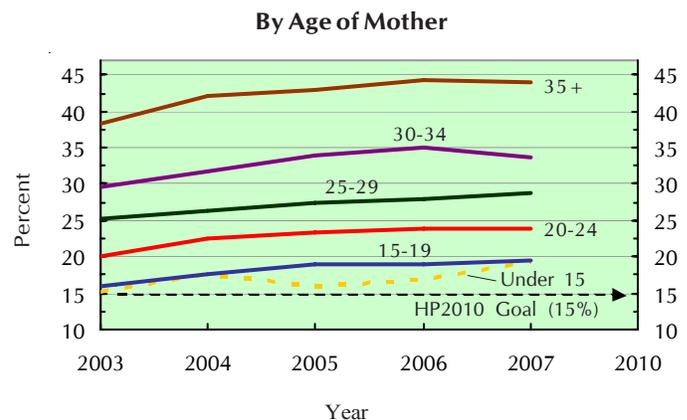
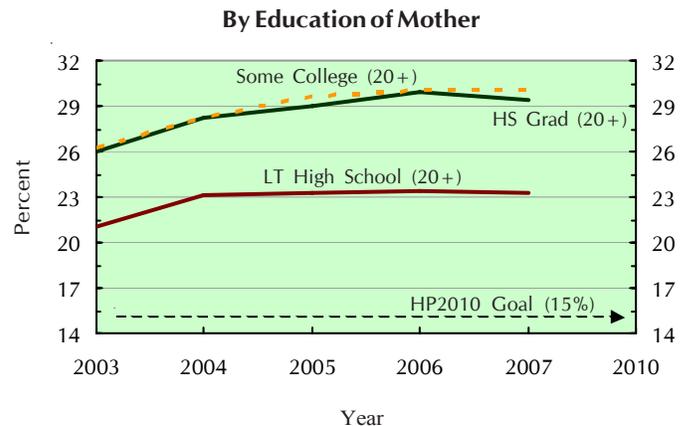
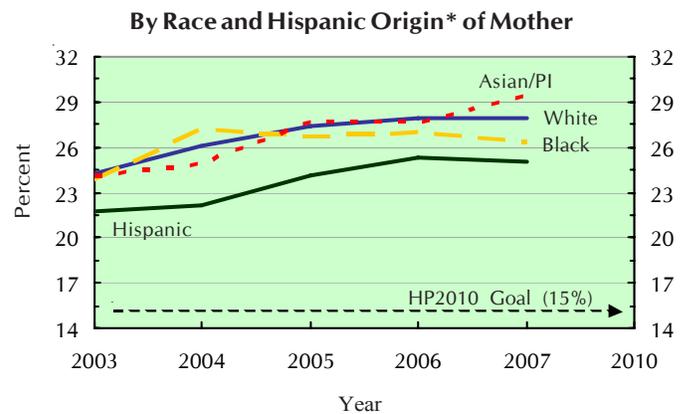
### **Race/Ethnicity of Mother:**

Between 2003 and 2007, the cesarean section rates for all race/ethnicity groups have generally increased. In 2007, Asian/Pacific Islander and White mothers had the highest rates,

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**...among Pennsylvania residents...  
the cesarean delivery rate has been rising  
for ten consecutive years, from 19.3 percent  
in 1997 to 29.9 percent in 2007.**

**Charts 1-3**  
**Cesarean Section Delivery Rates per 100 (Percent)**  
**Pennsylvania Resident Live Births to**  
**Low-Risk First-Time Mothers, 2003-2007**



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Continued...

# Cesarean Section Deliveries Continue to Rise

29.4 and 27.9, respectively. From 2006 to 2007, the cesarean section rates slightly decreased for Blacks (27.0 vs. 26.3) and Hispanics (25.3 vs. 25.1), with Hispanic mothers having the lowest rate in 2007. (Please note that Hispanics can be of any race.) Among the four race/ethnic groups, all of the cesarean section rates are much higher than the national HP2010 goal of 15 percent.

## **Education of Mother:**

The rate of low-risk first-time cesarean sections by education of the mother (aged 20+) shows that the rate for births to mothers with less than a high school education was the closest to the HP2010 goal in 2001 (16.9) but has since significantly increased to 23.2 in 2007. The rate for mothers with less than a high school education is closer to the HP2010 goal compared to the rate for high school graduates (29.4), and mothers with at least some college education (30.1 – the highest rate for 2007). However, the cesarean section rates have been on the increase since 2003 for all three educational groups, with the sharpest increase (almost 15%) seen among the best educated mothers (at least some college). All three education groups are moving further away from meeting the HP2010 goal of 15 percent.

## **Age of Mother:**

In 2007, among low-risk first-time mothers, the oldest mothers (ages 35+) had the highest rate (43.9)—over two times higher than the lowest rate for any age group (19.2 for mothers under age 15). Mothers ages 20-24 had a 24.0 cesarean section rate

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**Among the four race/ethnic groups, all of the 2007 cesarean section rates are much higher than the national HP2010 goal of 15 percent.**

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in 2007, compared to 28.7 for mothers ages 25-29, and 33.7 for mothers ages 30-34. The cesarean section delivery rates for all age groups increased between 2003 and 2007. Low-risk first-time mothers aged 35+ had the largest increase between 2003 and 2007, from 38.2 in 2003 to 43.9 in 2007. Mothers ages 30-34 and ages under age 15 had the next largest increases followed by mothers ages 20-24. Mothers ages 15-19 had the smallest increase. The 2007 cesarean section rates for the under 15 and 15-19 age groups (19.2 and 19.4, respectively) are the closest to the national goal of 15 percent, but are also on the rise.

For questions about this article, please contact the Bureau of Health Statistics and Research at 717-783-2548. The charts in this article provide visual displays of the cesarean section delivery trends in Pennsylvania. Additional statistics can be produced with our interactive web tool, EpiQMS, located at [www.health.state.pa.us/stats](http://www.health.state.pa.us/stats).

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# 2007 Top Ten Baby Names and Birth 'Fast Facts'

*Most Popular Names Are Michael & Ava; Complete Name List on Website*

The most popular first name given to female babies born in Pennsylvania in 2007 was Ava, for the second year in a row. Olivia moved up from fifth place in 2006 to second place in 2007. Emma moved from fourth place into third, and Madison dropped from third place into fourth place. Abigail moved up from seventh to fifth place. Isabella remained in sixth place for the second year. Emily dropped from second to seventh place. Sophia moved from eleventh place in 2006 to eighth place in 2007, and Hannah dropped from eighth to ninth place. Finishing in tenth place was Sarah, which moved down from ninth place in 2006.

There were 14,772 different first names given to baby girls in 2007. The following were a few of the more unique and interesting ones – Poem, Forever, Laken, Hyacinth, Nittany, Story, Amaryllis, Beauty, Timber, Gypsy, Windy, and Irish.

In 2006, for the first time in thirty years, Michael had dropped from first place to second place. In 2007, Michael is back as the number one most popular first name given to baby boys. Jacob dropped down to second place. Ryan, Logan, and Matthew were in third, fourth, and fifth place, respectively. Ethan moved up from ninth place to sixth. Joseph dropped from fourth place to seventh place. Andrew moved up from eleventh place in 2006 to eighth, and Anthony dropped from eighth place to ninth. Joshua dropped down from seventh place in 2006 to tenth place in 2007.

A total of 10,495 different first names were given to baby boys in 2007. The following were some of the more unusual – Wisely, Freedom, Bobo, Bright, Dragon, Creek, Quest, Diesel, Guru, Espn, Zebulon, and Shamrock.

## Fast Facts for Resident Live Births Pennsylvania, 2007

2007 Total Resident Live Births:	150,322
Date Most Births Occurred:	July 3 (565 births)
Date Fewest Births Occurred:	March 4 (229 births)
Month Most Births Occurred:	August (13,416 births)
Month Fewest Births Occurred:	February (11,271 births)
Median* Age of Mothers:	28 years (8,780 births)
County with Most Live Births:	Philadelphia (23,570 births)
County with Fewest Live Births:	Forest (42 births)
Median* Birth Weight:	7 lbs. 5 oz. (3,485 births)

## Top Ten Most Popular Baby Names By Sex Pennsylvania Live Births, 2007

Males	Females
Michael	Ava
Jacob	Olivia
Ryan	Emma
Logan	Madison
Matthew	Abigail
Ethan	Isabella
Joseph	Emily
Andrew	Sophia
Anthony	Hannah
Joshua	Sarah

The top ten 2007 baby names by sex are shown above. Complete lists (in order by frequency) by sex can be accessed as PDF files (requires the free software Adobe Acrobat Reader) on the Health Statistics web page. Go to [www.health.state.pa.us/stats](http://www.health.state.pa.us/stats) and select 'Vital Statistics'.

## 2007 RESIDENT BIRTH 'FAST FACTS'

There were a total of 150,322 resident live births in Pennsylvania in 2007. Of those births, 77,024 were males and 73,298 were females. The county with the most resident live births was Philadelphia (23,570) and the county with the fewest resident live births was Forest (42). The median birth weight of the 2007 resident births was 7 lbs. 5 oz. (3,485 births).

The month during which most births occurred was August (13,416 births) and the month in which the fewest births occurred was February (11,271 births). However, the 2007 date on which the most births occurred was July 3 (565 births) and the date on which the fewest births occurred was March 4 (229 births). The median age of the Pennsylvania mothers who had a live birth in 2007 was 28 (8,780 births). A chart with the 'Fast Facts' is shown to the left.

If you have any questions about this article, please contact the Bureau of Health Statistics and Research at 717-783-2548. Additional birth statistics for Pennsylvania, as well as data at the county and municipality levels, can be obtained from the Health Statistics web pages at [www.health.state.pa.us/stats](http://www.health.state.pa.us/stats) and select 'Birth & Death Statistics'. Pennsylvania live birth statistics are also available on EpiQMS, our interactive data dissemination web tool.

\* The figure in an ordered set of values in which 50 percent of the values fall above it and 50 percent fall below it.

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# Update: Healthy People 2010 Objectives

## Focus Area 3: Cancer

**3-03 - Reduce the female breast cancer death rate.....HP2010 Target: 22.3**

**3-04 - Reduce the cervical cancer death rate.....HP2010 Target: 2.0**

### Breast Cancer Deaths:

Age-adjusted rates for female breast cancer deaths are higher among Black residents compared to Whites and, especially, to Hispanics.

Between 2002 and 2006, the annual age-adjusted breast cancer death rate among all Pennsylvania female residents has been lower in recent years (27.7 per 100,000 U.S. standard million 2000 population in 2002, compared to a low of 24.8 in 2005), mirroring the trend for White females. During this five-year period, a decline in the death rate was also seen for Black female residents. Among Hispanic residents, rates were not calculated in 2005 and 2006 due to the small number of deaths that occurred during these years. Also, the Hispanic death rates for 2002-2004 are difficult to interpret due to the small numbers of annual deaths recorded.

### Cervical Cancer Deaths:

Pennsylvania's age-adjusted rate for cervical cancer deaths has not changed much during the 2002 to 2006 period. The national Healthy People 2010 goal is to reduce the cervical cancer death rate to no more than 2.0 (per 100,000 U.S. standard million 2000 population). The age-adjusted rates among Whites were at or below the national goal during 2003-2005, but were slightly higher in 2002 and 2006. The age-adjusted death rates among Black residents have not shown any trend from 2002 to 2006 but were consistently higher than Whites. Cervical cancer death rates were not calculated for Hispanic residents due to the small numbers of events.

To meet the goal, the cervical cancer death rate needs to decline by 20 percent among Whites and by 56 percent among Black residents.

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### Female Breast & Cervical Cancer Deaths Age-Adjusted Rate\* by Race/Ethnicity Pennsylvania Residents, 2002-2006

Female Breast	2002	2003	2004	2005	2006
All Females	27.7	27.1	27.5	24.8	25.0
Whites	26.8	26.7	27.2	24.3	24.7
Blacks	41.4	34.3	31.7	33.6	31.0
Hispanics**	20.6	21.9	15.3	DSU	DSU

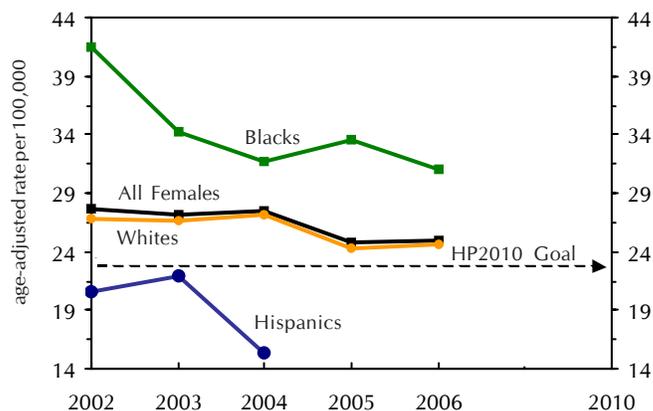
Uterine Cervix	2002	2003	2004	2005	2006
All Females	2.5	2.1	2.3	2.1	2.6
Whites	2.3	1.9	1.9	2.0	2.5
Blacks	5.5	3.6	5.7	3.9	4.5
Hispanics**	DSU	DSU	DSU	DSU	DSU

\*age-adjusted to 2000 standard million U.S. population (per 100,000)

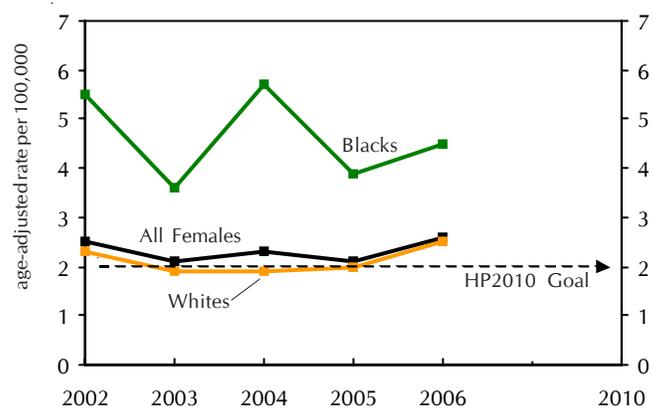
\*\*Hispanics can be of any race.

NOTE: DSU = data statistically unreliable (small numbers).

Age-Adjusted Death Rates\* for Female Breast Cancer  
Pennsylvania Residents, 2002-2006



Age-Adjusted Death Rates\* for Cervical Cancer  
Pennsylvania Residents, 2002-2006



\*age-adjusted to 2000 standard million U.S. population

### HP2010 State and County Data on the Web

To access the Department of Health's web page of Healthy People 2010 statistics for the state and counties, go to [www.health.state.pa.us/stats](http://www.health.state.pa.us/stats). The latest available statistics as well as trend data are shown. You can view data for the state, all counties, a specific demographic element (age, sex, race, etc.) or just for a specific county. Complete data sets for the state and counties can be downloaded. There is also a link to the national HP2010 web site.