

STATISTICAL NEWS

Pennsylvania Department of Health ♦ Bureau of Health Statistics ♦ Vol. 24 No. 6 ♦ November 2001

Births to Mothers with Diabetes Increase

Dramatic Increases Since 1990; Higher Incidence for Older Women

The percentage of resident live births to mothers who were identified on the birth certificate as having had diabetes during their pregnancy has increased dramatically in Pennsylvania during the 1990s. This risk factor for a pregnancy was also more prevalent among older mothers (aged 30 and over).

In 1990, 1.7 percent of all live births to residents indicated diabetes as a risk factor for the mother on the birth certificate. By 1999, this percentage had almost doubled to 3.2. Please note, however, that the information on the birth certificate for diabetes as a risk factor does not further identify the disease as either established diabetes mellitus (insulin-dependent or non-insulin-dependent prior to pregnancy) or gestational diabetes mellitus (as a result of the pregnancy).

Among births to older mothers (aged 30 and over), the percentage with diabetes during pregnancy was 4.4 in 1999, compared to 2.4 for mothers under age 30 – almost twice as high. Please note, however, that diabetes is a condition somewhat more common among older persons and the

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number of births to older mothers has been on the increase. In 1990, 33 percent of all resident live births were to mothers aged 30 and older. By 1999, 41 percent were to mothers aged 30 and over. Yet keep in mind that the percentages of births to younger mothers (under age 30) with diabetes have also been on the rise since 1990.

Data on diabetes during pregnancy by race and ethnicity also show some interesting patterns. Blacks tend to have somewhat lower percentages while whites and Hispanics have similar figures. This is also true for births to younger mothers (under age 30). However, among older mothers (aged 30 and over), the per-

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Tobacco Use Among PA Adults Compared

Significant Differences Seen Among Adults Who Currently, Formerly, and Never Smoked

Overall, 24 percent of Pennsylvania adults are current smokers, 25 percent are former smokers, and 51 percent have never smoked cigarettes. This is according to the Behavioral Risk Factor Surveillance System (BRFSS) telephone survey conducted in Pennsylvania during 2000.

Significant differences were seen for current and former smokers as well as for those who never smoked in terms of their socioeconomic and demographic status. Some of these findings are highlighted in the following and in the chart on page 6.

Current Smokers:

The percentage of current cigarette use is significantly higher among Pennsylvania adults aged 18-29 (34 percent) compared to Pennsylvania adults aged 45-64 (24 percent) and those 65 and older (9 percent). There are also significant differences by education and by income. The percentage of Pennsylvania adults with less than a college education who smoke (29 percent) is significantly higher than the percent-

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age of those Pennsylvania adults with a college degree who smoke (13 percent). Also,

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DEPARTMENT OF HEALTH
...in pursuit of good health

Racial/Ethnic Disparities for Health Risk Data

Study Highlights Disparities Between Pennsylvania Minorities and Whites

More African American and Hispanic adults in Pennsylvania tend to be overweight, obese, unable to afford to see a doctor, not have health insurance, and see themselves at higher risk for HIV, compared to white adults. However, these minority populations also tend to have routine annual health checkups, annual mammograms and clinical breast exams (among women age 40 and older), and Pap tests at higher percentages than white adults in Pennsylvania. Meanwhile, fewer adult Asian and Pacific Islander residents tend to be obese or smoke, compared to whites.

These and other interesting facts were obtained from a special study conducted by the Bureau of Health Statistics. In an attempt to examine the differences in risk prevalence between the state's minority populations and its white population, five years of annual sample survey data as collected by the Behavioral Risk Factor Surveillance System (BRFSS) during the period of 1996-2000 were combined into a new sample data set with new post-

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stratification weights applied based upon the 2000 census. The estimates used for these comparisons were also age-adjusted to account for differences in the age distributions between the minority populations and the white population.

Sample surveys of the general population, like the one conducted annually by the Behavioral Risk Factor Surveillance System (BRFSS), do not do a particularly good job of identifying disparities associated with minority populations because the samples contain so few respondents representing minorities. In Pennsylvania, the largest minority (according to the 2000 census) are African Americans who represent only ten percent of the state's population, with Asians/Pacific Islanders and persons of Hispanic Origin accounting for about two and three percent, respectively. By comparison, African Americans account for twelve percent of the United States 2000 population; Asians/Pacific Islanders, four percent; and, Hispanics, thirteen percent. Additionally, minorities may be

under-represented in a sample survey due to language barriers or to socioeconomic reasons.

The risk factors shown in the table constructed for this study (see opposite page) are based on questions that were asked in each of the five years that were combined into the sample. If the 95 percent confidence bounds of the age-adjusted prevalence estimate for the risk factor of the minority population did not overlap those of the white population, then it was considered to be a HIGHER or LOWER risk, compared to whites. If the 95 percent confidence bounds between the minority population and whites overlapped, the risk was defined as NO DIFFERENCE. When the amount of sample error was so large that no reasonable estimate was possible, it was considered an UNRELIABLE ESTIMATE and no conclusion was made.

...fewer adult Asian and Pacific Islander residents tend to be obese or smoke, compared to whites.

In addition to the racial/ethnic differences in health risk behaviors mentioned at the beginning of this article, more African American adults also tend to be diagnosed as diabetic, smoke cigarettes, and consider their general health to be fair or poor, compared to whites. Among the sixteen risk factors examined in the study,

Asian/Pacific Islander adults had no identifiable higher risks, compared to white adults.

In the sixteen risk comparisons between African Americans and whites, eight or half were considered to be higher among African Americans, four were lower, and four showed no difference. Between Hispanics and whites, five or almost one-third of the risks were considered to be higher, nine or over half were no different, and two were determined to be unreliable estimates for comparison. There were no lower risks found among Hispanics compared to whites for these sixteen factors.

...more African American adults also tend to be diagnosed as diabetic, smoke cigarettes, and consider their health to be fair or poor, compared to whites.

Almost half or seven of the sixteen risk comparisons between Asian/Pacific Islanders and whites were either lower (among Asian/Pacific Islanders) or no different. However, reliable comparisons could not be made for nine (over half) of the risk factors associated with these two racial groups. For the reasons mentioned previously, sample

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Racial/Ethnic Disparities for Health Risk Data

survey data collected for Asian/Pacific Islanders are often too small in number for reliable analysis/comparison.

Using the Behavioral Risk Factor Surveillance System to examine health disparities among most Pennsylvania minorities has limited utility. Many questions are not asked in consecutive years reducing

the opportunity to combine many years of data. Even when the questions are asked in consecutive years, many of the behaviors and conditions that would be of interest in examining minorities are only of interest for a small segment of the population, further constricting the available sample. Although multiple years of

BRFSS data can be used to identify many problems unique to Pennsylvania's African Americans, the ability to identify health disparities among Pennsylvania's Hispanic population is minimal, and for Asians/Pacific Islanders, nearly impossible. In order to adequately examine the health disparities among Hispanics

and Asians/Pacific Islanders using BRFSS data in Pennsylvania, it would be necessary to get many more respondents into the sample from these groups.

If you have any questions about the statistics presented in this article, please contact the Bureau of Health Statistics at 717-783-2548.

Comparison of Age-Adjusted Prevalence Estimates for Health Risks Selected Racial/Ethnic Minorities Compared to White Population Pennsylvania Behavioral Risk Factor Surveillance System (BRFSS), 1996-2000

<u>RISK FACTOR</u>	<u>African American</u>	<u>Asian and Pacific Islander</u>	<u>Hispanic Origin</u>
Overweight & Obese (NIH Clinical Guidelines)	HIGHER	Unreliable	HIGHER
Obese (NIH Clinical Guidelines)	HIGHER	LOWER	HIGHER
Diagnosed Diabetic	HIGHER	Unreliable	No Difference
Current Cigarette Smoker	HIGHER	LOWER	No Difference
General Health is Fair or Poor	HIGHER	Unreliable	No Difference
Could Not Afford to See Doctor in Past Year	HIGHER	No Difference	HIGHER
No Routine Checkup in Past Year	LOWER	No Difference	No Difference
Ages 18-64 and No Health Insurance	HIGHER	No Difference	HIGHER
Women 40+ and No Mammogram in Past Year	LOWER	Unreliable	No Difference
Women 40-49 and Never Had a Mammogram	No Difference	Unreliable	Unreliable
Women 50+ and No Mammogram in Past 2 Years	No Difference	Unreliable	Unreliable
No Pap Test in Past 3 Years	LOWER	No Difference	No Difference
Women 40+ and No CBE* in Past Year	LOWER	Unreliable	No Difference
Perceive Risk for HIV as Medium or High	HIGHER	No Difference	HIGHER
One or More Days Physical Health Not Good in Past Month	No Difference	Unreliable	No Difference
One or More Days Mental Health Not Good in Past Month	No Difference	Unreliable	No Difference

*Clinical Breast Examination

NOTES: Prevalence estimates age-adjusted to 2000 standard million U.S. population. Comparisons based on 95 percent confidence bounds.

Continued from Page 1...

Mothers with Diabetes

centages are higher among blacks (compared to whites) and even higher among Hispanics.

The following is a review of statistics on diabetes during pregnancy for the years 1990-1999, by race and ethnicity, and by age. A data table and related charts appear on the right.

Trends for 1990-1999:

As can be seen in Figure 1 on the right, the percentage of births to mothers with diabetes during pregnancy has consistently increased for all births and for both younger and older mothers between 1990 and 1999. In fact, the percentages have doubled or almost doubled over those ten years.

Between 1990 and 1999, the percentage of births to mothers under age 30 with diabetes went from 1.2 to 2.4. Among mothers aged 30 and older, the percentage increased from 2.5 to 4.4. For all births, it grew from 1.7 to 3.2.

The data table on the right shows trends by age and race of mother for the last five years – 1995-1999. While the percentages for whites showed rather consistent increases, the figures for both blacks and Hispanics showed no real trends. This could be related to the

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fact that most of the increase in the numbers of older women giving birth (especially for the first time) has occurred among whites and diabetes morbidity increases with age.

Age and Race of Mother:

As mentioned earlier, older mothers (aged 30+) had percentages of diabetes during pregnancy almost twice as high as for younger mothers. Also, as previously mentioned, percentages (for all births and births to younger mothers) among blacks are lower (compared to whites and Hispanics) and whites and Hispanics have experienced somewhat similar percentages.

However, percentages by age and race show dramatic differences among the older mothers (aged 30 and over). Older Hispanic mothers have the highest percentages. Percentages for older black mothers are higher than for whites but are not as high as for Hispanics. In 1999, 7.2 percent of live births to Hispanic mothers aged 30 and over mentioned diabetes, compared to 5.3 per-

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FIGURE 1
Percent of Births to Mothers with Diabetes Listed as a Risk Factor, By Age
Pennsylvania Residents, 1990-99

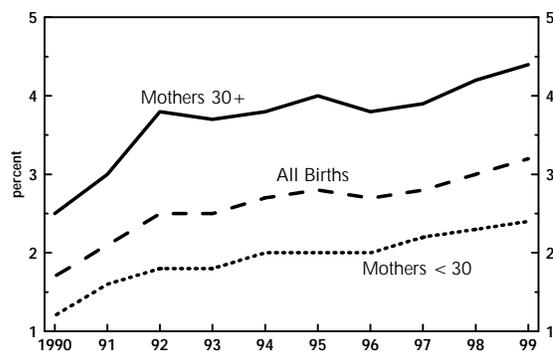
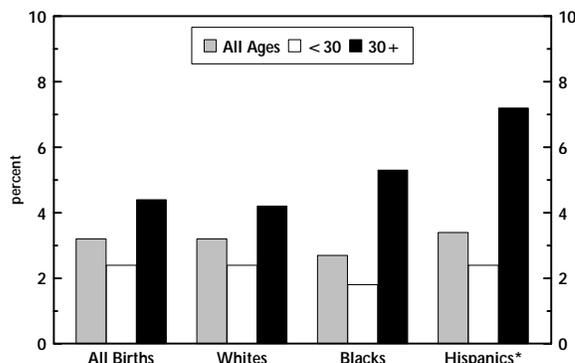


FIGURE 2
Percent of Births to Mothers with Diabetes Listed as a Risk Factor, By Race/Ethnicity and Age
Pennsylvania Residents, 1999



**Percent Live Births with Diabetes Listed as a Risk Factor
All Births, By Race/Ethnicity, and By Age
Pennsylvania Residents, 1995-1999**

	1999	1998	1997	1996	1995
All Births	3.2	3.0	2.8	2.7	2.8
Births to Mothers < 30	2.4	2.3	2.1	2.0	2.0
Births to Mothers 30+	4.4	4.2	3.9	3.8	4.0
Whites	3.2	3.0	2.9	2.7	2.8
Births to Mothers < 30	2.4	2.3	2.2	2.0	2.1
Births to Mothers 30+	4.2	4.0	3.7	3.5	3.7
Blacks	2.7	2.8	2.5	2.6	2.6
Births to Mothers < 30	1.8	2.1	1.7	1.8	1.6
Births to Mothers 30+	5.3	5.2	4.8	5.0	5.6
Hispanics*	3.4	3.7	3.3	2.8	3.2
Births to Mothers < 30	2.4	2.6	2.4	2.0	2.2
Births to Mothers 30+	7.2	8.3	6.8	6.2	7.3

*Hispanics can be of any race.

Updated Reports Available in Print/Web Site

Reports on Behavioral Health Risks and Cancer Incidence/Mortality

On the right is a list of health statistics reports updated by the Bureau of Health Statistics that have been recently either added to our web site or made available in print (hard copy). Please note that most of our reports appear on our web site weeks or months before they are available in print.

All of these reports on the web are in portable document or PDF file format which requires Adobe Acrobat Reader software to view and download. This free software can be downloaded from the Internet and we provide links to do that on our web pages.

2000 Behavioral Health Risks of Pa Adults:

This updated report continues the series based on sample data obtained via telephone surveys of Pennsylvania adults, as part of the Behavioral Risk Factor Surveillance System or BRFSS. Seventeen topics are covered and include the following:

Recently updated reports now available...

<p><u>on Web Site:</u></p> <p>2000 Behavioral Health Risks of Pennsylvania Adults</p>	<p><u>in Print:</u></p> <p>2000 Behavioral Health Risks of Pennsylvania Adults</p> <p>Cancer Facts and Figures Pennsylvania 2001</p>
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- Health Status
- Health Care Access
- Asthma
- Diabetes
- Care Giving
- Exercise
- Tobacco Use
- Overweight
- Weight Control & Nutrition
- Breast Cancer Screening
- Pap Tests
- HIV/AIDS
- Cardiovascular Disease
- Vitamin/Folic Acid Use
- Prostate Cancer Screening
- Osteoporosis
- Health Education

There is also a section on the "Synthetic Estimation Process for Local Data" as well as a complete list of all the questions asked in the 2000 survey

Cancer Facts and Figures Pennsylvania 2001:

This is the fifth update for this annual brochure that supplies a diverse amount of statistics and information on cancer incidence and mortality. Some of the data/information highlights include the following:

- Age-Adjusted Cancer Incidence (1988-1998)

- and Mortality Rates (1989-1999) by Sex/Race
- Percent of Cancer Cases by Stage of Diagnosis by Sex and Race, 1988 and 1998
- Selected Cancer-Related Behavioral Risk Factors by Race, 2000
- Trends, Risk Factors, Treatment and Survival Information on the Top Four Cancer Sites
- 2001 Projected Cancer Cases by Site and Sex
- 2001 Projected Cancer Deaths by Site and Sex
- 2001 Projected Cancer Cases and Deaths by County
- Guidelines for Early Detection of Cancer

Continued from opposite page...

Mothers with Diabetes

cent for blacks, and 4.2 percent for whites (see Figure 2 on page 4).

There are also interesting results in the percentage differences between younger and older mothers within all three racial/ethnic groups. The percentage of births to white older mothers with diabetes during pregnancy in 1999 (4.2) was

almost twice as high as for white younger mothers (2.4). However, among both blacks and Hispanics, the percentages for older mothers was three times higher than the percentages for younger mothers.

If you have any questions regarding the data presented here on the incidence of diabetes as a risk factor for women

...among older mothers (aged 30 and over), the percentages (with diabetes during pregnancy) are higher among blacks (compared to whites) and even higher among Hispanics.

giving birth, please contact the Bureau at 717-783-2548.

Please go to our main web page at www.health.state.pa.us/stats/ to access these reports and many other reports and data, as well as to find links to other health-related data sites and to use our interactive site, the Data Table Generator.

Please contact the Bureau at 717-783-2548 if you would like a hard copy of any of the reports mentioned here.

Tobacco Use Among Adults Compared

Pennsylvania adults with incomes less than \$50,000 are significantly more likely to be current smokers compared to those earning \$50,000 or more.

Males were significantly more likely to be former smokers ... (and) non-Hispanic whites had a significantly higher percentage of former smokers compared to Hispanics.

Former Smokers:

The percentages for former smokers shows significant differences by sex, age, and race/ethnic origin. Males were significantly more likely to be former smokers (28 percent) than females (22 percent). Age also seemed to a significant factor in terms of being a former smoker. For every age group, the age group above it was significantly more likely to have former smokers. In addition, non-Hispanic whites had a significantly higher percentage of former smokers (26 percent) compared to Hispanics (11 percent).

Never Smoked:

Pennsylvania adults who never smoked also showed some significant differences in their percentages. Women were significantly more likely to never have smoked (55 percent) than men (47 percent). College graduates had a significantly higher percentage of never smoking than those with less education. Higher income Pennsylvanians, especially those with incomes of \$50,000

The percentage of current cigarette use is significantly higher among adults aged 18-29 compared to adults aged 45-64 and 65+.

There are also significant differences by education and by income.

or more, had a significantly higher percentage of never smoking than those earning less income. Hispanics had a significantly higher percentage of never smoking (66 percent) compared to non-Hispanic whites (50 percent).

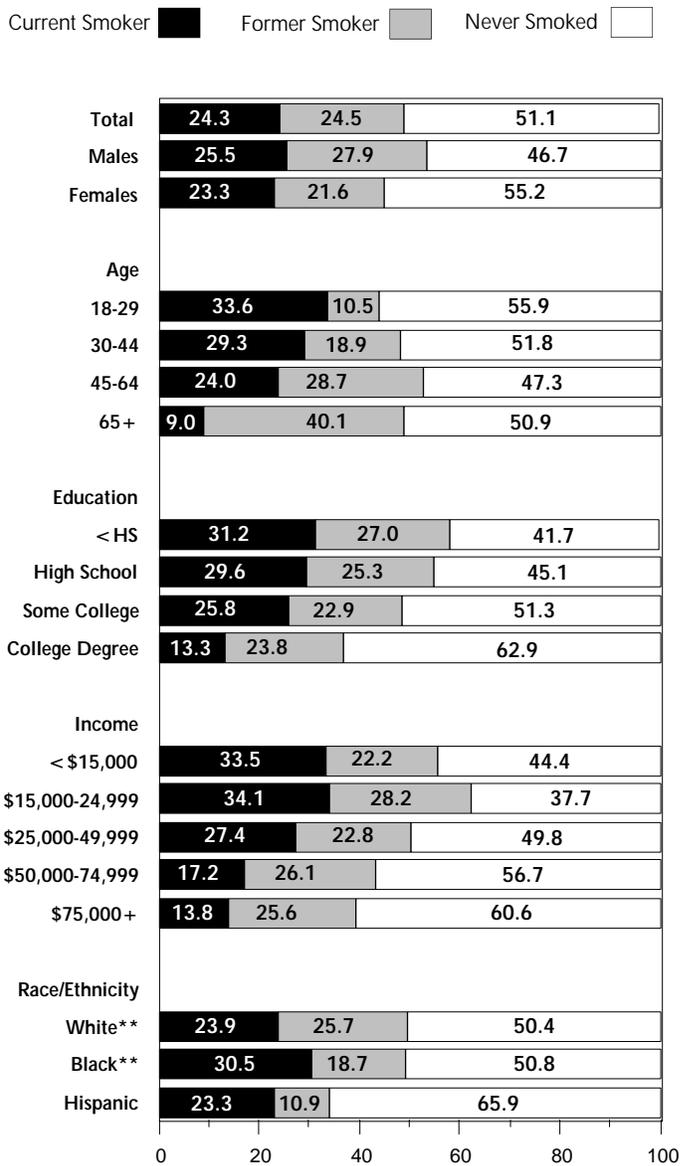
The chart on the right shows the percentages of tobacco use among adults who are current smokers, are former smokers, and have never smoked by sex, age, educational status, income, and race/ethnicity.

Women were significantly more likely to never have smoked ... (as well as adults with higher education and incomes)... and Hispanics, compared to non-Hispanic whites.

The percentage of current and former smokers and those never smoking has not significantly changed in the past five years.

Please contact the Bureau of Health Statistics at 717-783-2548 if you have any questions about the data presented here.

Tobacco Use
Percent of Current and Former Smokers and Adults Who Never Smoked
By Selected Demographic Characteristics
Pennsylvania Adults, 2000 BRFSS*



*Behavioral Risk Factor Surveillance System

**Non-Hispanic

NOTE: Percents may not add to 100.0 due to rounding.

Update: Healthy People 2010 Objectives

Focus Area 3 - Cancer

3-11b - Increase the proportion of women aged 18+ who received a Pap test within past three years.

2010 Target: 90%

All Females and Non-Hispanic White Females:

The percentages of all females and non-Hispanic white females aged 18 and older who had had a Pap test in the previous three years were the same during the five-year period of 1996-2000. These percentages have increased rather consistently during that time period, from 79 percent in 1996 to 84 percent in 2000 (see data table below).

Non-Hispanic Blacks:

The percentage of non-Hispanic black females aged 18 and older who had had a Pap test in the previous three years has shown some decline between 1996 and 2000. In 1996, the percentage stood as high as 91 percent which is just above the HP2010 goal of 90 percent. However, by 2000, it had declined to 86 percent.

Rural vs. Urban:

The percentages of females aged 18 and older living in urban and rural areas who had had a Pap test in the previous three years showed increases between 1996 and 2000. However, the 1996-2000 percentages for those in rural areas were usually somewhat lower than for those in urban areas (82 percent compared to 85 percent in 2000).

Education:

The percentages for females aged 25 and older with a high school education showed some increases during 1996-2000, going from 77 to 84 percent. However, percentages for females aged 25 and older with less than a high school education and at least some college showed virtually no change. Also, the percentages were much lower for those with less than a high school education.

**Percent* Women 18+ With Pap Test in Past 3 Years
Total & Selected Demographics, Pennsylvania, 1996-2000**

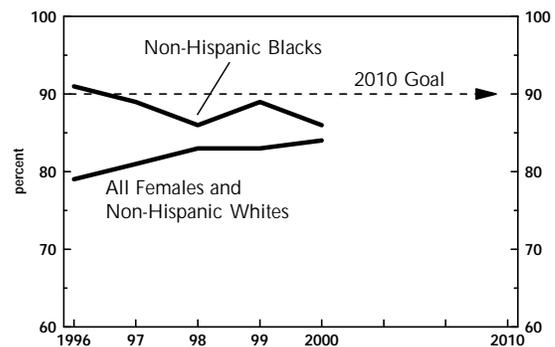
	2000	1999	1998	1997	1996
All Females 18+	84%	83%	83%	81%	79%
Whites** 18+	84%	83%	83%	81%	79%
Blacks* 18+	86%	89%	86%	89%	91%
Urban 18+	85%	84%	82%	82%	80%
Rural 18+	82%	80%	84%	79%	76%
< High School 25+	72%	72%	78%	68%	71%
High School 25+	84%	81%	80%	81%	77%
At least some college 25+	87%	87%	88%	85%	86%

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

**non-Hispanic

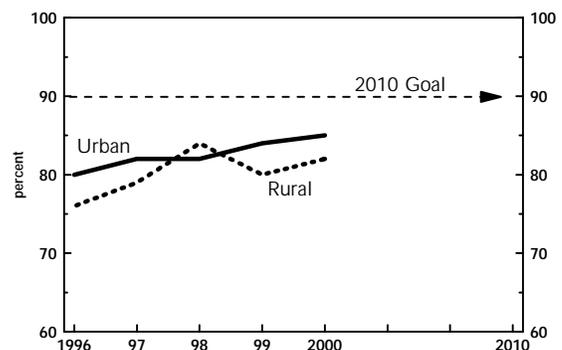
NOTE: Data for Hispanics are not reported due to unreliability (small numbers).

**Percent* Women 18+ With Pap Test in Past 3 Years
Total and by Race, Pennsylvania, 1996-2000**

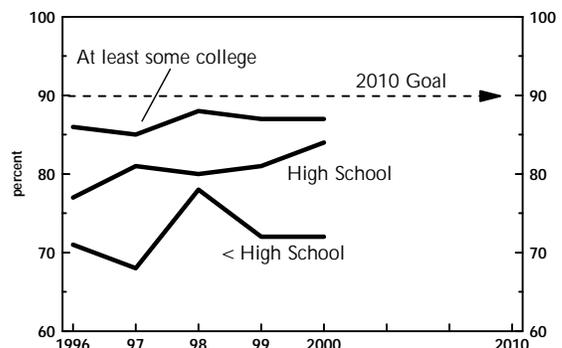


*age-adjusted to 2000 standard million U.S. population

By Rural and Urban, Pennsylvania, 1996-2000



By Education Aged 25+, Pennsylvania, 1996-2000



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