

# STATISTICAL NEWS

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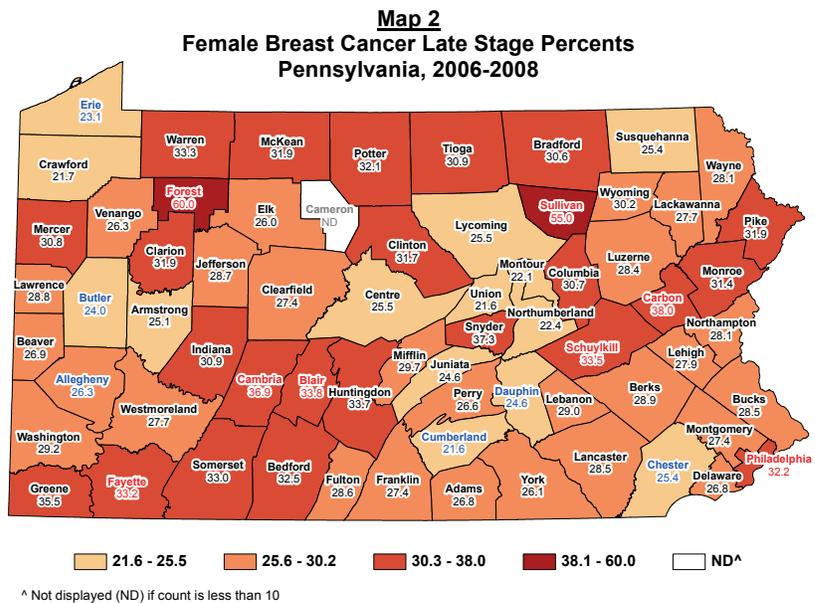
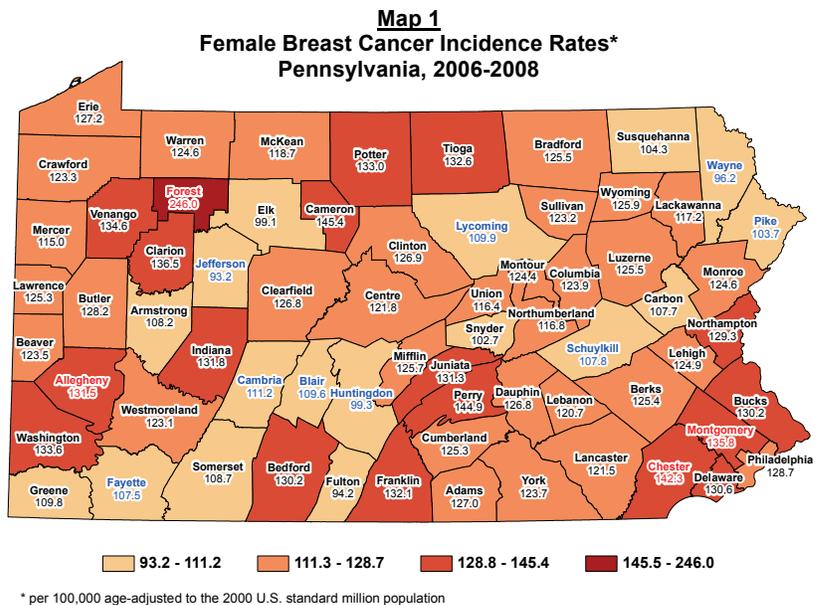
# Breast Cancer Incidence, Late Stage, and Mortality

## October is National Breast Cancer Awareness Month

In recognition of October being National Breast Cancer Awareness Month, the following statistics were assembled to show the burden of female breast cancer across Pennsylvania. From 2004 to 2008, the incidence rates for female breast cancer have been increasing at the state level, however, the mortality rates have been decreasing. On the three maps which accompany this article, counties with statistically significant differences from the state rate/percent have their names and rates/percents shown in color. Values shown in red are significantly higher, while values in blue are significantly lower. Values which are shown in gray are for counties where rates/percents were not displayed (ND), due to there being too few cases to calculate a reliable rate/percent.

### Breast Cancer Incidence

The age-adjusted incidence rate for breast cancer among all female Pennsylvania residents has increased over the last five reported years. The state rate for the most recent three year period, 2006-2008, was 125.9 per 100,000. The five highest rates among Pennsylvania's counties in 2006-2008 were in Forest, Cameron, Perry, Chester, and Clarion Counties (see Map 1). The five lowest rates were in Jefferson, Fulton, Wayne, Elk, and Huntingdon Counties. Four counties had rates which were statistically significantly higher than the state rate, and nine had rates which were statistically significantly lower than the state rate. Forest and Chester Counties were both among the counties with the highest rates, which were also significantly higher than the state rate. Jefferson, Wayne, and



Huntingdon were among those with the lowest rates that were also significantly lower than the state rate.

### Late Stage Breast Cancer

The percent of late stage female breast cancer cases among Pennsyl-

vanians has decreased over the last five reported years and was shown to be 28.1 percent for 2006-2008. The five counties with the highest percents of late stage breast cancer in 2006-2008 were Forest, Sullivan,

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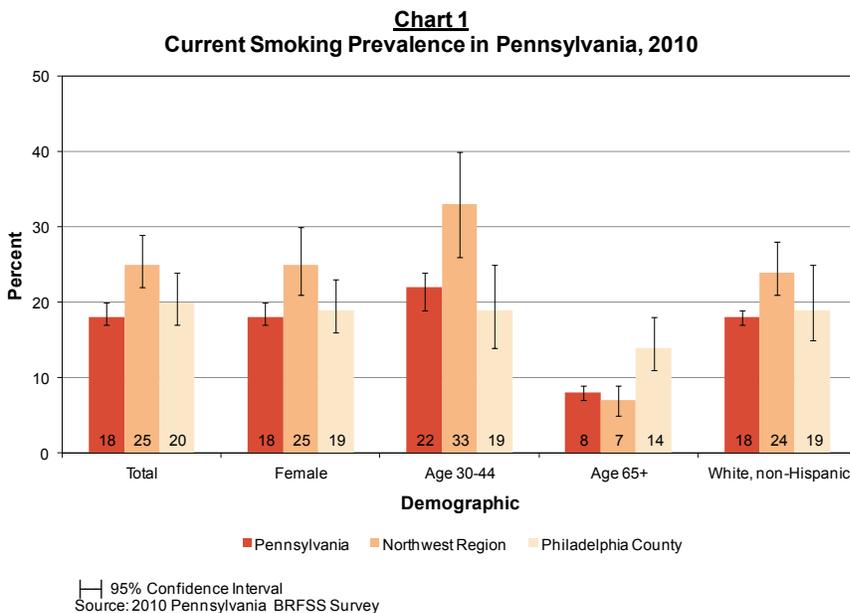
# The Behavioral Risk Factor Surveillance System

## Program Background and Potential Use of the Estimates

The Behavioral Risk Factor Surveillance System (BRFSS) is a cooperative effort of the Centers for Disease Control and Prevention (CDC) and participating states. The CDC develops a core questionnaire to gather comprehensive, standard information about the population aged 18 and over nationwide. The Pennsylvania Department of Health develops supplemental questions (or modules) for inclusion in the annual survey and responds to requests for data. The BRFSS, funded mainly by the CDC, includes all 50 states, three territories, and the District of Columbia, and is the largest ongoing telephone health survey in the world.

Estimates from the BRFSS survey provide valuable tools in measuring health trends, assessing chronic disease risk, and monitoring the effectiveness of public health policies, programs, and awareness campaigns. The information obtained from the data is used to guide health policy decisions, monitor progress toward achieving Healthy People 2020 objectives, propose and support legislation, develop public awareness strategies, and identify critical areas for future attention.

The BRFSS survey consists of telephone interviews using randomly selected telephone numbers to determine the households contacted. The standardized questions asked concern health status, access to health care, health awareness, use of preventive services, and knowledge and attitude assessment. BRFSS interviewers ask questions related to behaviors that are associated with preventable chronic diseases, injuries, and infectious diseases.



For the survey in 2010, Pennsylvania was divided into eight strata. These strata consisted of eight regional areas: the six Pennsylvania health districts, Allegheny County, and Philadelphia County. An advantage to dividing the sample into eight different strata is that it can be determined which areas have a higher or lower prevalence of behavioral risks.

For example, each year, smoking-related questions are included among the core questions determined by the CDC. These questions include:

- Have you smoked at least 100 cigarettes in your entire life?
- Do you now smoke cigarettes every day, some days, or not at all?
- During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?
- How long has it been since you last smoked cigarettes regularly?

From questions such as these, it can be estimated, at a 95% confi-

dence level, what percentage of the adult population of Pennsylvania and the regional populations currently smoke, are former smokers, or are attempting to quit smoking. By comparing regional and county estimates to Pennsylvania estimates, it can be determined which areas have a significantly different prevalence, which can provide potentially valuable information to the Department's Bureau of Health Promotion and Risk Reduction on where to focus more localized anti-smoking campaigns.

Chart 1 displays 2010 estimates from Pennsylvania, the Northwest Region and Philadelphia County for those who indicated they were current smokers. Several demographic groups had significantly higher differences when compared to Pennsylvania. They include the following: Northwest Region adults at 25 percent (95% confidence interval (CI): 22-29) compared to all Pennsylvania

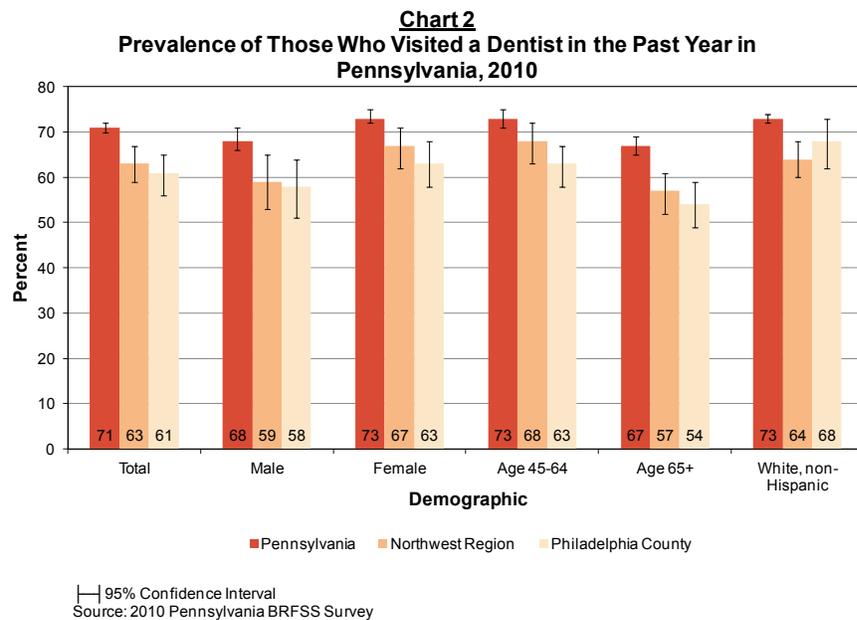
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## The Behavioral Risk Factor Surveillance System

adults at 18 percent (CI: 17-20); Northwest Region women at 25 percent (CI: 21-30) compared to Pennsylvania women at 18 percent (CI: 17-20); Northwest Region adults age 30-44 at 33 percent (CI: 26-40) compared to Pennsylvania adults age 30-44 at 22 percent (CI: 19-24); and Northwest Region White, non-Hispanic adults at 24 percent (CI: 21-28) compared to Pennsylvania White, non-Hispanic adults at 18 percent (CI: 17-19). A significantly higher difference can also be seen in Philadelphia County among adults age 65 and older at 14 percent (CI: 11-18) compared to Pennsylvania adults age 65 and older at 8 percent (CI: 7-9). Initiatives can be introduced to target these areas and these specific demographics in an attempt to lower the rate of people who currently smoke.

Another example comes from the Oral Health core questions released by the CDC. The following question was asked in 2010: How long has it been since you last visited a dentist or a dental clinic for any reason? To determine areas that may be of concern for oral health care, those regions and demographics with significantly lower differences should be noted. Chart 2 shows 2010 estimates from Pennsylvania, the Northwest Region and Philadelphia County for those adults who indicated they visited a dentist in the past year. Several demographic groups were found to have visited a dentist at rates significantly lower than the overall rate for Pennsylvania. They include the following: Northwest Region adults at 63 percent (CI: 59-67) and Philadelphia County adults at 61 percent (CI: 56-65) compared



to Pennsylvania adults at 71 percent (CI: 70-72); Northwest Region males at 59 percent (CI: 53-65) and Philadelphia County males at 58 percent (CI: 51-64) compared to Pennsylvania males at 68 percent (CI: 66-71); Northwest Region females at 67 percent (CI: 62-71) and Philadelphia County females at 63 percent (CI: 58-68) compared to Pennsylvania females at 73 percent (CI: 72-75); Philadelphia County adults age 45-64 at 63 percent (CI: 58-67) compared to Pennsylvania adults age 45-64 at 73 percent (CI: 71-75); Northwest Region adults age 65 and older at 57 percent (CI: 52-61) and Philadelphia County adults age 65 and older at 54 percent (CI: 49-59) compared to Pennsylvania adults age 65 and older at 67 percent (CI: 65-69); and Northwest Region White, non-Hispanic adults at 64 percent (CI: 60-68) compared to Pennsylvania White, non-Hispanic adults at 73 percent (CI: 72-74).

Judging by the significantly lower estimates, it can be determined that areas such as these could be the subject of greater focus when it comes to meeting needs for proper dental care. Department of Health programs can use these estimates to target these areas by formulating policies and developing programs to improve access to oral health services.

[BRFSS reports](#) are created from results of the annual BRFSS surveys. These results are also posted on the Department's interactive web tool, [Epidemiologic Query and Mapping System \(EpiQMS\)](#).

If you have any questions about BRFSS, please contact the Bureau of Health Statistics and Research by phone at 717-783-2548 or by submitting a question or data request through our data request form on our [Contact Us](#) page.

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# The Healthy People (HP) Initiative

## What's New with HP2020?

Ever wonder how health data can be used to help improve people's lives and their overall well-being? There are many local, state, and national initiatives out there that utilize vast amounts of data in an attempt to positively impact people's lives. One of those initiatives is the Healthy People initiative. Created by the U.S. Department of Health and Human Services (HHS), Healthy People 2020 (HP2020) is the next step in improving the health of all Americans. For three decades, HHS has established benchmarks and monitored progress over time in an attempt to achieve three goals: encourage collaborations across sectors; guide individuals toward making informed health decisions; and measure the impact of prevention activities.

The Healthy People initiative was started back in 1979, with the Surgeon General's Report, *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*. This was followed up with a series of Healthy People initiatives throughout the last 30 years, one for each decade (Healthy People 1990, Healthy People 2000, and Healthy People 2010). It all leads up to the most recent Healthy People initiative, HP2020.

The [HP2020](#) initiative is an ambitious 10-year agenda for improving the nation's health. Its mission is to: identify nationwide health improvement priorities; increase public awareness and understanding of the determinants of health, disease, and disability and the opportunities for progress; provide measurable objectives and goals that are applicable at the national, state, and local levels;

engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge; and identify critical research, evaluation, and data collection needs.

HP2020 is the result of a multi-year process that reflects input from a diverse group of individuals and organizations. HP2020 has expanded compared to Healthy People 2010, with nearly 600 objectives organized into [42 topic areas](#). A few of the new topic areas include:

- Adolescent Health
- Blood Disorders and Blood Safety
- Dementias, including Alzheimer's Disease
- Early and Middle Childhood
- Genomics
- Global Health
- Healthcare-associated Infections
- Health-related Quality of Life and Well-being
- Lesbian, Gay, Bisexual, and Transgender Health
- Older Adults
- Preparedness
- Sleep Health
- Social Determinants of Health

Also note that with HP2020, there will no longer be a traditional print publication for U.S. data. Instead, an [interactive website](#) will serve as the main vehicle for dissemination.

In Pennsylvania, the Department of Health's Bureau of Health Statistics and Research provides statistics to assist in the monitoring of progress for a portion of these objectives at the state and county levels, when data are available. The Bureau also provides a crosswalk between objectives in HP2010 and objectives in HP2020

(only for objectives in which Pennsylvania displays data), to help the user transition between the two initiatives. There is also a list of data sources for the HP2020 objectives that are shown for Pennsylvania.

HP2020 makes it easy for a researcher or data user to review the progress of certain health topics, especially ones that are currently in the news such as diabetes and stroke. By utilizing the HP2020 report, one can easily see that the diabetes death rate for Pennsylvania has shown improvement in recent years, falling from an age-adjusted rate of 80.0 (per 100,000 age-adjusted to the 2000 standard million population) in 2005 to 71.8 in 2009. Likewise, one can easily identify the improvements in the stroke death rate for Pennsylvania, falling from 48.0 in 2005 (per 100,000 age-adjusted to the 2000 standard million population) to 39.9 in 2009. Neither death rate, however, have met the Healthy People 2020 goals thus far, which means greater efforts are needed in order to reach those goals.

In order to access Pennsylvania's HP2020 statistics, visit our [health statistics webpage](#) and then select "[Healthy People](#)". If you have any questions regarding this article, please contact the Bureau of Health Statistics and Research at 717-783-2548.

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# Injury Trends in Pennsylvania from 2000 to 2009

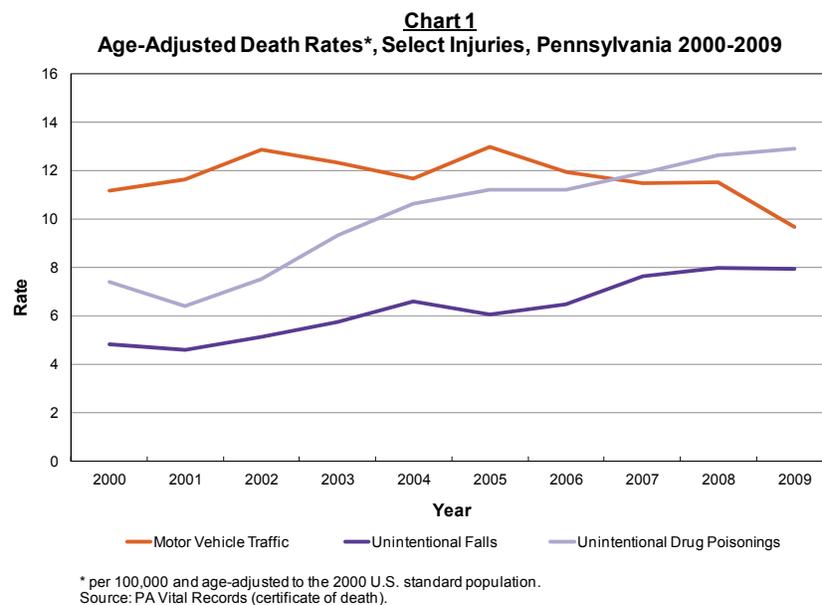
## Some Ups, Some Downs

A lot can happen in ten years. In Pennsylvania, from 2000 to 2009, the injury related hospitalizations and deaths have changed in several ways, both encouraging and ominous. Here we review trends among the three leading causes of injury death and hospitalization: unintentional falls, motor vehicle traffic accidents, and unintentional drug poisonings. Although general insights are provided throughout, these anecdotes are meant only to add context and are not meant to serve as causal explanation of observed trends. For more detailed analysis, please see the [Injury Statistics](#) website. *Note:* If date is not specified, general statements are meant to refer to the entire ten-year period from 2000 to 2009.

### Overview

Injury rates rose steadily over the course of the decade, increasing by 11 percent among deaths and hospitalizations. Age-adjusted injury death rates increased from 51.7 (per 100,000 U.S. 2000 standard million population) to a peak of 60.9 in 2008, before decreasing slightly to 57.8 in 2009. Meanwhile, age-adjusted inpatient hospitalization rates due to injury increased from 919.0 in 2000 to a peak of 1,074.3 in 2007, before decreasing to 1,020.4 in 2009. However, trends in rates for specific causes of injury varied considerably.

Among specific causes of injury death, unintentional falls and unintentional drug poisonings showed the strongest and most consistent increases in age-adjusted rates over time (see Chart 1). Age-adjusted death rates for unintentional falls



rose from 4.8 in 2000 to 7.9 in 2009, an increase of 64 percent. Age-adjusted death rates for unintentional drug poisonings rose from 7.4 in 2000 to 12.9 in 2009, an increase of 74 percent. Motor vehicle traffic injuries (MVT) have been on the decline since 2006, and the age-adjusted death rate dropped by 16 percent from 2008 to 2009.

Patterns were similar among age-adjusted injury hospitalization rates. From 2000 to 2009, rates for unintentional falls increased by 13 percent, rates for unintentional drug poisoning increased by 52 percent, and rates for MVT injury decreased by 21 percent. Increases in unintentional falls and unintentional drug poisonings seem to be the main drivers of observed increases in injury deaths and injury hospitalizations overall.

### Unintentional Falls

Unintentional falls represented approximately 46 percent of Pennsyl-

vania's overall injury hospitalizations from 2000 to 2009, and an increasing share of injury deaths (17 percent in 2009, up from 11 percent in 2000). Most falls, especially falls resulting in death, are suffered by the elderly. In 2009, adults age 65 and older accounted for 49,298 hospitalizations (72 percent of total) and 1,131 deaths (82 percent of total) due to unintentional falls. Age-specific rates of death and hospitalization due to unintentional falls for ages 65 and older are up to one hundred times greater than corresponding rates for younger age groups. Rates of fall injuries among the elderly have risen over time, by 20 percent among falls resulting in hospitalizations and 96 percent among falls resulting in death from 2000 to 2009.

Even if rates do not continue to rise, annual numbers of deaths and hospitalizations due to unintentional falls are expected to increase in the coming decade due to the changing

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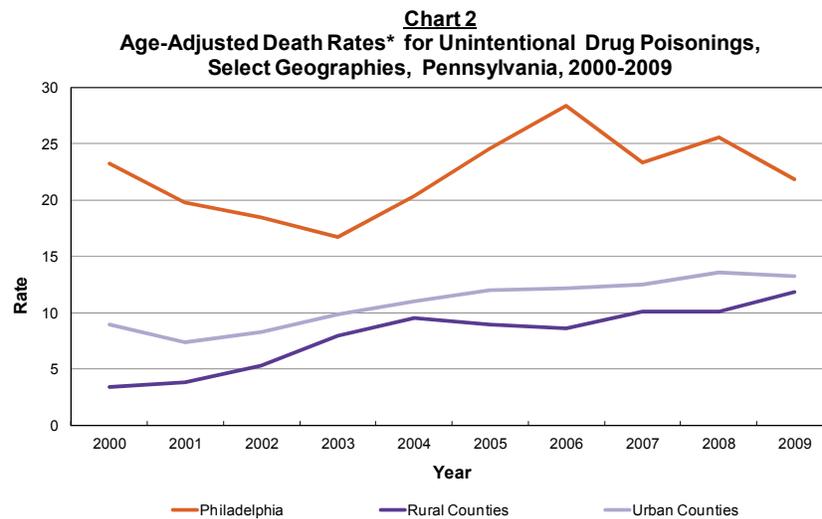
## Injury Trends in Pennsylvania from 2000 to 2009

age structure of the population. In 2011, Baby Boomers began to enter the 65 and older age group. Whereas the population of Pennsylvania residents age 65 and older grew by only two percent from 2000 to 2010, the [Penn State Data Center](#) projects an increase of 22 percent in this population from 2010 to 2020. At 2009 rates, the 22 percent population increase in those 65 and older translates into 250 more deaths and 11,000 more hospitalizations annually by 2020. This increase is due to population dynamics alone; if rates of unintentional fall injuries continue to rise as they have from 2000 to 2009, the increase will be even greater.

### Motor Vehicle Traffic Injuries

Motor Vehicle Traffic (MVT) injuries display more encouraging trends than falls. Most MVT injury hospitalizations (71 percent) are to occupants of motor vehicles; 11 percent are to motorcyclists; 11 percent are to pedal cyclists, and 8 percent are to pedestrians. Age-adjusted hospitalization rates for MVT occupant injuries declined steadily over the course of the decade, from 88.6 in 2000 to 63.0 in 2009 (a 29 percent decrease). Pedal cyclist injuries declined by 21 percent, while pedestrian injuries showed no trend. In contrast, age-adjusted hospitalization rates for motorcyclists increased, from 9.7 in 2000 to a high of 16.3 in 2005, before declining to 12.8 in 2009 (net increase of 32 percent).

The greatest drop in motorcyclist injuries was from 2008 to 2009, mirroring the 16 percent decline observed among MVT death rates that year. Overall MVT hospitalization



Note: "Urban Counties" includes Philadelphia. Urban/rural definitions are from the Center for Rural Pennsylvania.  
\* per 100,000 and adjusted to the 2000 U.S. standard population.  
Source: PA Vital Records (certificate of death).

rates (including occupant, motorcyclist, pedal cyclist, and pedestrian injuries) dropped by 9 percent from 2007 to 2008, and dropped another 10 percent from 2008 to 2009.

Though various factors may have influenced this decline, including injury prevention and law enforcement efforts, we cannot ignore the potential effects of changing economic circumstances. The estimated number of vehicle miles driven in the United States declined for the first time in 30 years in 2008, with the greatest drop among interstates and principal arterial highways ([Federal Highway Administration](#)). In 2009, the number of miles driven decreased again. This change in driving patterns coincided with record high gas prices and higher unemployment rates. In 2008, gas prices reached \$4 per gallon ([US Energy Information Administration](#)). In 2009, Pennsylvania's unemployment rate reached 8 percent ([Bureau of Labor Statistics](#)). While we cannot conclude that these

economic developments were directly responsible for the rapid decline in MVT injury rates, they did contribute to decreased business and leisure travel and decreased traffic congestion ([INRIX](#)). Low injury rates at the end of the decade should be viewed in this context.

### Unintentional Drug Poisonings

When asked which external mechanism accounted for the most injury deaths in Pennsylvania, a typical guess might be motor vehicles or firearms. However, by 2009, these guesses would have been incorrect; unintentional drug poisonings had become the number one injury-related killer. Age-adjusted death rates for unintentional drug poisonings showed a dramatic increase over the course of the decade, equaling even peak death rates for MVT injuries. And the increase in unintentional drug poisoning deaths was seen statewide.

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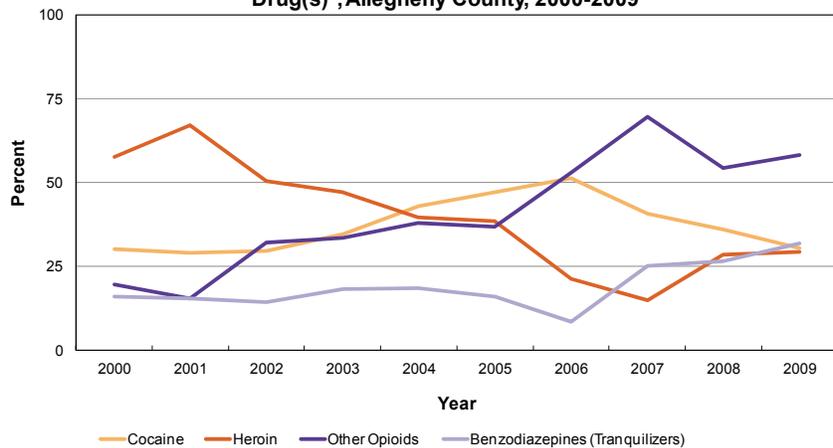
## Injury Trends in Pennsylvania from 2000 to 2009

In Pennsylvania's urban counties, age-adjusted death rates due to unintentional drug poisoning rose by 48 percent from 2000 to 2009 (see Chart 2, previous page). Notably, unintentional drug poisoning death rates in Philadelphia only increased from 2004 through 2006. Therefore, the increase in urban counties' rates was not due to an increase in Philadelphia County. In rural counties the drug trend was worse, with rates more than tripling from 3.4 in 2000 to 11.8 in 2009. In a related pattern, unintentional drug poisoning death rates among blacks rose only 10 percent from 2000 to 2009, while rates among whites more than doubled.

So what explains this widespread increase in drug poisoning deaths? Our best evidence comes from Allegheny County. Unlike most counties, where death certificates for drug poisoning rarely specify the exact drug or drugs involved, reporting of specific drugs in Allegheny County is nearly complete (over 95 percent of drug deaths).

Using Allegheny's data alone, we see that the order of drug prevalence among poisoning deaths has radically changed over the past decade (See Chart 3). Heroin had been involved in the greatest proportion of Allegheny's drug deaths in 2000, but by 2009 prescription opioids (e.g., OxyContin, Vicodin, and methadone) were involved in the majority of drug deaths. Heroin and cocaine were present in approximately one-third of cases in 2009, joined by benzodiazepines (prescription tranquilizers such as Xanax or Valium). Many poisoning deaths involved multiple drugs, especially those with benzodiazepines present.

**Chart 3**  
Percent of Unintentional Drug Poisoning Deaths Involving Specified Drug(s)\*, Allegheny County, 2000-2009



Note: Percent will not add to 100 for a given year, as some poisoning deaths listed multiple drugs and only major drug categories were included in the graph.  
\* Denominator is the total number of drug poisoning deaths, including those listing only non-specific drugs.  
Source: PA Vital Records (certificate of death).

Clearly prescription drugs are now playing a larger role among drug poisonings in Allegheny County. And unintentional drug poisonings in Allegheny have been increasing; the age-adjusted death rate rose by 82 percent from 2000 to 2009. Specifically, the age-adjusted death rate for unintentional drug poisonings involving heroin remained flat and the rate for deaths involving cocaine rose by 72 percent. Meanwhile, rates for unintentional drug poisoning deaths involving other opioids (prescription pain-relievers) increased five-fold. It seems the abuse of prescription drugs is contributing to an increase in drug poisoning deaths in Allegheny County.

Although Allegheny County accounts for only 13 percent of Pennsylvania's drug deaths, we have strong evidence on the national level to suggest that opioid prescription drugs have fueled similar increases in drug poisoning deaths across the state\*. A recent [CDC brief](#) on the

misuse and abuse of prescription opioids gives the following statistics:

- In 2008, prescription drugs (including opioids) accounted for more overdose deaths and emergency department visits annually than heroin and cocaine combined ([deaths – National Vital Statistics System, Emergency Department visits – Drug Abuse Warning Network](#)).
- Sales of opioid pain relievers, as well as deaths and substance abuse treatment admissions due to their use, have increased four-fold from 1999 to 2008 (sales – [Drug Enforcement Agency, treatment admissions – Treatment Episode Data Set](#)).
- Enough opioid pain relievers were prescribed in 2010 to medicate every American adult for one month at standard dosage. Prescribing practices predict overdose rates better than demographics.

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## **Injury Trends in Pennsylvania from 2000 to 2009**

In recent years, several initiatives have tried to address the problem of prescription drug abuse. States have instituted prescription drug monitoring programs, pharmaceutical companies have reformulated commonly-abused drugs such as OxyContin, and professionals within public health and law enforcement have tried to educate parents, nurses, and others on the front lines as to how to identify and respond to

prescription drug abuse. We cannot yet determine from the data what effects, if any, have resulted from these efforts.

Further information on prescription drug abuse, and the local implications of this nationwide trend, will be available in an upcoming report from the [Pennsylvania Violence and Injury Prevention Program](#).

Some data used in this article were provided to the Pennsylvania

Department of Health by the [Pennsylvania Health Care Cost Containment Council \(PHC4\)](#). The Pennsylvania Health Care Cost Containment Council specifically disclaims responsibility for any analyses, interpretations, or conclusions.

For any questions related to this article or injury data in general, please contact the [Bureau of Health Statistics and Research](#) at 717-783-2548.

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