

**Health Status Indicators  
for Pennsylvania Counties  
and Health Districts  
2003 Report**

Bureau of Health Statistics and Research  
Pennsylvania Department of Health  
Harrisburg, Pa  
June, 2003

H106.838P

**IMPORTANT CHANGE  
FOR USERS OF THIS REPORT TO NOTE:**

Age-adjusted mortality rates were calculated in this report and in the 2001 and 2002 reports using a different standard population (U.S. 2000 standard million) than was used for the rates that appeared in reports prior to the 2001 issue (U.S. 1940). Therefore, the age-adjusted mortality rates in reports released after 2000 are not comparable to any age-adjusted rates that appeared in previous Health Status Indicators reports or any other age-adjusted mortality rates that were calculated using a different standard million population.

Please see the Technical Notes of this report for more discussion of this important change.

---

## **Preface**

This publication of health status indicators for Pennsylvania counties and Department of Health Districts was prepared by the Bureau of Health Statistics and Research of the Pennsylvania Department of Health. The indicators were developed by the Centers for Disease Control and Prevention in response to Objective 22.1 of *Healthy People 2000* and are again cited in Objectives 23-2 and 23-5 of *Healthy People 2010*. They are to be used for assessing and comparing the health status of state and local areas.

We encourage the use of the statistics in these reports to assess, compare, and track local health status. Additional statistics (see Appendix) that can be used to calculate the indicators at the minor civil division level are also available from the Bureau upon request.

The format of the report includes presentation of available county and health district data of the latest multiple or single-year data available for each indicator. In addition, county outline state maps with the results of significance testing for most of the indicators are also presented. The testing found which county and health district indicators were significantly higher or lower than the state figures and which state indicators were significantly higher or lower than the United States figures. The formulas used in the significance testing appear in the Technical Notes section in the back of this report. This analysis should provide an additional perspective for users of the indicators. All of the data shown in this report are available in either Microsoft Excel or PDF format. Please note that the data presented in this report may not match county data previously released for the indicators due to differences in the definitions for some of the indicators or updates of selected files.

If any of the data provided in this report or upon special request are used in any publication or release, please include the following statement:

These data were supplied by the Bureau of Health Statistics and Research, Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretation or conclusions.

The Bureau of Health Statistics and Research welcomes comments and suggestions on the content and format of this report. Staff is available to answer any questions regarding this report. Please address all comments, questions, requests for data, etc. to:

Bureau of Health Statistics and Research  
Pennsylvania Department of Health  
555 Walnut Street, 6<sup>th</sup> Floor  
Harrisburg, Pa 17101-1914  
Telephone 717-783-2548  
FAX 717-772-3258

This report and many other health statistics are on the Health Statistics pages of the Department's website at

**[www.health.state.pa.us/stats/](http://www.health.state.pa.us/stats/)**

The Pennsylvania Department of Health is an equal opportunity provider of grants, contracts, services and employment.

---

# Table of Contents

	Page
<b>Introduction</b> .....	6
Contents of the Report.....	6
Use of the Report.....	7
Additional Statistics.....	7
<b>County and Health District Data</b>	
County Data Tables, Significance Testing Results and County Outline Maps by Health Status Indicator.....	9
Health District Data Tables and Significant Testing Results by Health Status Indicator.....	28
<b>Technical Notes</b>	
Data Sources.....	32
Definition of Terms.....	32
Age-Adjusted Rates.....	32
Reliability of Rates.....	33
Comparison of Age-Adjusted Rates.....	33
Comparison of Crude Rates and Ratios.....	34
<b>References</b> .....	36
<b>Appendix:</b>	
Additional Statistics Available.....	37
<b>Map of Pennsylvania Counties and Health Districts</b> .....	38

---

## **INTRODUCTION**

In July 1991, the Centers for Disease Control and Prevention (CDC) in collaboration with the National Center for Health Statistics (NCHS) released a set of Health Status Indicators to serve as baseline measurements of health status outcome and/or factors that put individuals at increased risk of disease or premature death. These indicators were developed by a CDC Health Status Indicators Consensus Work Group in response to Objective 22.1 as contained in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives for the Nation* which established multiple goals and objectives for improving the health of Americans by the end of the decade. Specifically, Objective 22.1 is to “develop a set of health status indicators appropriate for Federal, State, and local health agencies and establish use of the set in at least 40 states.” Healthy People 2010 continued support for these indicators in its Objectives 23-2 and 23-5, “Increase the proportion of Federal, Tribal, State, and local health agencies that have made information available to the public in the past year on the...Health Status Indicators...”

The Consensus Work Group identified 18 health status indicators that were adopted by NCHS and CDC. The 18 indicators are divided into two types – health status or risk indicators. The 13 indicators of health status include eight indicators of total and cause-specific mortality rates (age-adjusted and crude), an infant mortality rate, and four indicators of selected morbidity rates (AIDS, measles, tuberculosis, and syphilis). The five indicators of risk include three involving natality statistics (prevalence of low birth weight, adolescent mothers, and no prenatal care in first trimester of pregnancy); one indicator of childhood poverty; and, one on air quality. As previously stated, the 18 indicators were created to represent a general overview of a community's health, and the data needed to monitor them should be readily available at major geographic levels. CDC and NCHS are encouraging all States and local agencies to use these indicators to assess community health and track their progress.

## **CONTENT of the REPORT**

Average annual (three-year summary) rates and annual rates/percentages for 17 of the 18 health status indicators are presented for the United States, Pennsylvania, each of the 67 counties in the state, and then for the six Department of Health Districts (except for the poverty indicators). Data for the indicator on air quality are not included since there is no data source with complete data by county.

County outline state maps also appear with the county tables depicting the results of significance testing for many of the indicators. The most recent Pennsylvania data used in this report are for 2001. Indicators updated with 2002 data will appear in the 2004 edition of this report. The United States data shown in this report may not be as recent as state or local level data.

In the Spring, 1992 edition of *Healthy People 2000 Statistical Notes* published by the National Center for Health Statistics (NCHS), national data for the indicators as well as for some subcomponents of the indicators were first released. Age-adjusted mortality rates for heart disease and stroke were listed as major subcomponents of the indicator for cardiovascular disease. They also appear in this report. Racial and Hispanic data for the natality and infant death indicators were also listed in the NCHS report as major subcomponents because of the considerable statistical variation among these groups. Blacks and Hispanics tend to have much higher percentages of low birth weight, teen mothers, and no prenatal care in the first trimester, as well as higher infant death rates. Black data for the infant death and birth indicators are therefore also shown in this report for Pennsylvania, Philadelphia City/County, and seven other counties – Allegheny, Bucks, Chester, Dauphin, Delaware, Erie, and Montgomery. A large majority of the state's black residents live in these eight counties. Data on Hispanic origin have only been collected on birth and death certificates in Pennsylvania since 1989 and are included for the state and seven counties (Berks, Chester, Lancaster, Lehigh, Montgomery, Northampton, and Philadelphia) where a large segment of the Hispanic population in the state reside. Starting with the 2002 report, data for Asian/Pacific Islander are shown for birth and three-year infant death statistics. Data for Asians are shown for Pennsylvania and four counties: Allegheny, Delaware, Montgomery, and Philadelphia. The criteria for choosing which counties had racial or Hispanic data was a 2000 U.S. Census population of 15,000 or more blacks, Hispanics, or Asians as well as at least 200 births to black, Hispanic, or Asian/Pacific Islander mothers. Data on whites appear for the state and the twelve counties that also have black, Asian/Pacific Islander and/or Hispanic data shown in this

---

report. Racial (except for Asian/Pacific Islander) and Hispanic data appear for all six Department of Health Districts.

Three-year summary or average annual age-adjusted death rates (using the 2000 U.S. standard million population) are presented in this report due to the unreliability of rates based on small numbers of annual events. Pennsylvania has many rural counties with small populations and very few or no deaths per year for some of the causes that appear in this report. Annual numbers of live births by county are much higher than the annual numbers of deaths; therefore, the percentages based on one year of live births can be presented with more confidence in their reliability.

## ***USE of the REPORT***

It should be noted that the health status indicators were not intended to correspond to the Healthy People 2010 objectives. They are meant to be a separate set of health data items for assessing and comparing health status, as opposed to tracking progress in achieving objectives. Some of the indicators do appear as a unit of measurement for a 2010 objective; some indicators are similar to but are not exactly the same measurement used in a 2010 objective; and, some indicators do not appear in any 2010 objective.

Through the release of this report, the Bureau of Health Statistics and Research hopes to encourage the use of these indicators for assessing, comparing, and tracking local health status. All of the data shown in this report are available in Microsoft Excel or PDF format.

## ***ADDITIONAL STATISTICS (for Cities, Boroughs and Townships)***

Additional birth and death data at the minor civil division level (city, borough, and township) are available upon request from the Bureau of Health Statistics and Research. Most of the figures are five-year summary data that can be used to calculate the indicators at these local levels. Five-year summary figures are used due to very small annual numbers of events for many minor civil divisions in the state. A complete list of the additional statistics available is included in the Appendix at the back of this report. Five-year summary data have been updated annually starting with the period 1986-1990 so that running averages can be calculated and used for trend analysis.

Additional three-year summary natality data by race (white and black) for selected cities and boroughs in the state are also available upon request, as well as three-year summary Hispanic birth data for selected cities and boroughs. The cities and boroughs with black and Hispanic data are those that had a 2000 U.S. Census population of 20,000 or more and had at least 100 Hispanic or black annual births among residents.

## **County and Health District Data:**

### **Data Tables, Significance Testing or Comparison Results, and County Outline Maps by Health Status Indicators**

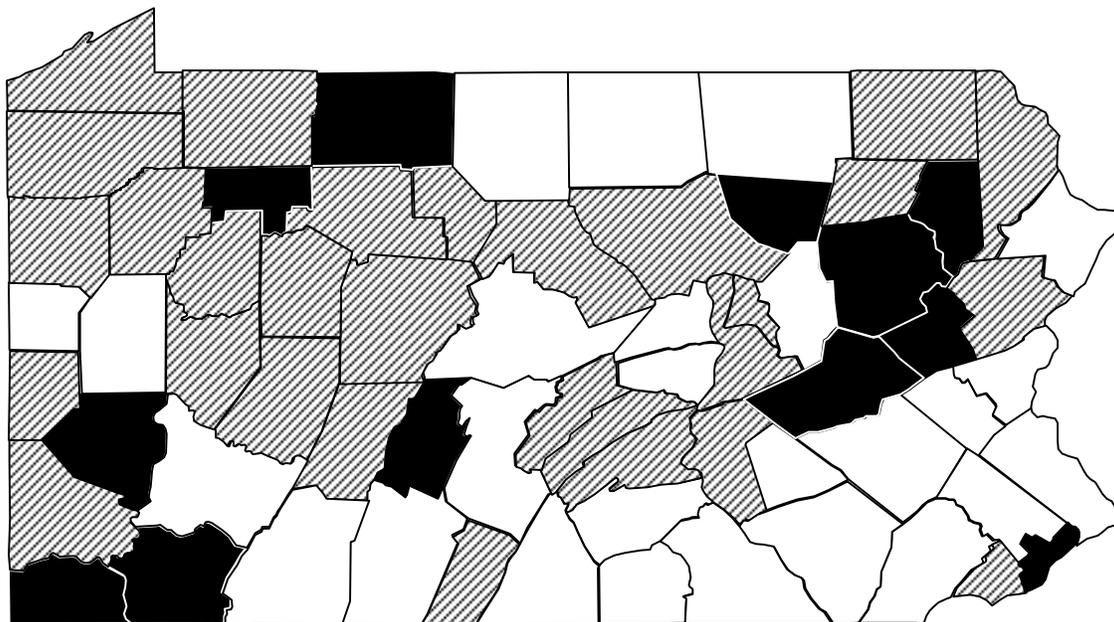
The latest multiple or single-year numbers and rates or ratios for health status indicators by county and by Pennsylvania Department of Health District are presented in summary data table format.

For many of the summary data tables, we have also included 95% confidence bounds and the results of comparison or significance testing of the rates or ratios for each county, health district and the state. We compared each county or health district rate or ratio to the state and also compared the state rate or ratio to the United States figure to determine if age-adjusted death rates could be considered substantially different or other rates/percentages significantly higher or lower. County outline maps are also shown along with the county data tables to geographically display the results of the comparisons.

In order to understand the qualifications of the data presented and how the analyses were conducted, it is important to refer to the footnotes as they appear on each page. Also, review the Technical Notes section (pages 32-35) for a complete discussion of data sources, definitions of terms, age-adjusted rates, the reliability of rates, and the formulas used in the comparative analyses.

## Average Annual Age-Adjusted Death Rates for All Causes, 1999-2001

All Causes	No.	Rate	CI (95%)	All Causes	No.	Rate	CI (95%)
Adams	2,466	821.0	788.60-853.40 -	Lancaster	12,686	800.7	786.77-814.63 -
Allegheny	45,953	880.6	872.55-888.65 +	Lawrence	3,456	839.2	811.22-867.18 -
Armstrong	2,608	877.8	844.11-911.49	Lebanon	3,758	805.6	779.84-831.36 -
Beaver	6,396	862.7	841.56-883.84	Lehigh	9,440	802.5	786.31-818.69 -
Bedford	1,503	814.6	773.42-855.78 -	Luzerne	13,367	938.2	922.29-954.11 +
Berks	10,875	823.4	807.92-838.88 -	Lycoming	3,737	847.4	820.23-874.57
Blair	4,830	935.4	909.02-961.78 +	McKean	1,664	935.4	890.46-980.34 +
Bradford	1,845	804.8	768.08-841.52 -	Mercer	4,357	881.3	855.13-907.47
Bucks	15,050	842.4	828.94-855.86 -	Mifflin	1,551	855.9	813.30-898.50
Butler	5,032	835.6	812.51-858.69 -	Monroe	3,374	882.9	853.11-912.69
Cambria	5,905	870.8	848.59-893.01	Montgomery	21,097	770.9	760.50-781.30 -
Cameron	221	855.7	742.88-968.52	Montour	692	936.0	866.26-1,005.74
Carbon	2,258	931.1	892.69-969.51 +	Northampton	7,422	767.9	750.43-785.37 -
Centre	2,550	772.1	742.13-802.07 -	Northumberland	3,613	881.7	852.95-910.45
Chester	9,523	767.8	752.38-783.22 -	Perry	1,147	912.1	859.31-964.89
Clarion	1,268	872.5	824.48-920.52	Philadelphia	52,596	1,075.9	1,066.71-1,085.09 +
Clearfield	2,720	841.5	809.88-873.12	Pike	939	643.0	601.87-684.13 -
Clinton	1,251	885.5	836.43-934.57	Potter	551	800.7	733.84-867.56 -
Columbia	1,940	818.7	782.27-855.13 -	Schuylkill	6,272	939.9	916.64-963.16 +
Crawford	2,929	894.2	861.82-926.58	Snyder	949	780.2	730.56-829.84 -
Cumberland	6,010	800.9	780.65-821.15 -	Somerset	2,750	836.8	805.52-868.08 -
Dauphin	7,436	876.7	856.77-896.63	Sullivan	323	1,028.4	916.25-1,140.55 +
Delaware	17,305	861.0	848.17-873.83	Susquehanna	1,351	873.7	827.11-920.29
Elk	1,134	831.5	783.10-879.90	Tioga	1,266	824.9	779.46-870.34 -
Erie	8,138	861.6	842.88-880.32	Union	1,008	736.0	690.56-781.44 -
Fayette	5,543	921.4	897.14-945.66 +	Venango	1,957	906.5	866.34-946.66
Forest	223	1,037.3	901.15-1,173.45 +	Warren	1,487	882.6	837.74-927.46
Franklin	3,804	796.7	771.38-822.02 -	Washington	7,456	885.0	864.91-905.09
Fulton	396	822.1	741.13-903.07	Wayne	1,633	867.5	825.42-909.58
Greene	1,368	920.8	872.00-969.60 +	Westmoreland	12,982	840.1	825.65-854.55 -
Huntingdon	1,239	802.5	757.81-847.19 -	Wyoming	783	862.3	801.90-922.70
Indiana	2,717	876.4	843.45-909.35	York	9,920	808.7	792.79-824.61 -
Jefferson	1,649	878.9	836.48-921.32				
Juniata	696	872.1	807.31-936.89	Pennsylvania	389,170	871.0	868.26-873.74 +
Lackawanna	8,805	927.3	907.93-946.67 +	United States (2001)	2,417,798	855.0	853.92-856.08



**RATE**  Significantly lower than the state  Not significantly higher or lower than the state  Significantly higher than the state

NOTE: A+ or - after the confidence interval (CI) denotes if the county rate was significantly higher or lower than the state rate. No + or - after a CI denotes no significant difference. Pennsylvania data were compared to U.S. data. CIs and comparison results were not calculated and shown for rates based on less than 20 events. See Technical Notes.

## Average Annual Age-Adjusted Death Rates for Selected Causes, 1999-2001

### Cardiovascular

Disease	No.	Rate	CI (95%)
Adams	1,048	343.5	322.70-364.30
Allegheny	18,547	340.9	335.99-345.81
Armstrong	1,083	350.9	330.00-371.80
Beaver	2,515	330.9	317.97-343.83
Bedford	653	345.8	319.28-372.32
Berks	4,470	329.5	319.84-339.16
Blair	2,054	383.1	366.53-399.67 +
Bradford	777	331.6	308.28-354.92
Bucks	5,538	312.1	303.88-320.32 -
Butler	2,109	341.5	326.93-356.07
Cambria	2,464	345.7	332.05-359.35
Cameron	98	355.0	284.71-425.29
Carbon	964	385.2	360.88-409.52 +
Centre	1,071	326.4	306.85-345.95
Chester	3,650	297.4	287.75-307.05 -
Clarion	607	407.3	374.90-439.70 +
Clearfield	1,146	342.4	322.58-362.22
Clinton	483	331.8	302.21-361.39
Columbia	935	384.9	360.23-409.57 +
Crawford	1,172	348.4	328.45-368.35
Cumberland	2,430	318.9	306.22-331.58 -
Dauphin	3,005	348.0	335.56-360.44
Delaware	6,736	322.1	314.41-329.79 -
Elk	424	301.4	272.71-330.09 -
Erie	3,278	339.8	328.17-351.43
Fayette	2,381	378.5	363.30-393.70 +
Forest	85	385.3	303.39-467.21
Franklin	1,421	291.9	276.72-307.08 -
Fulton	141	291.3	243.22-339.38
Greene	587	380.7	349.90-411.50 +
Huntingdon	527	335.7	307.04-364.36
Indiana	1,074	340.9	320.51-361.29
Jefferson	779	397.3	369.40-425.20 +
Juniata	309	380.1	337.72-422.48
Lackawanna	3,991	397.9	385.56-410.24 +
Lancaster	5,103	315.2	306.55-323.85 -
Lawrence	1,500	346.3	328.77-363.83
Lebanon	1,544	317.7	301.85-333.55 -
Lehigh	3,706	302.7	292.95-312.45 -
Luzerne	6,131	401.1	391.06-411.14 +
Lycoming	1,622	355.6	338.29-372.91
McKean	729	392.5	364.01-420.99 +
Mercer	1,746	340.4	324.43-356.37
Mifflin	691	371.4	343.71-399.09 +
Monroe	1,194	321.0	302.79-339.21
Montgomery	7,861	278.3	272.15-284.45 -
Montour	288	364.1	322.05-406.15
Northampton	2,948	296.6	285.89-307.31 -
Northumberland	1,505	350.4	332.70-368.10
Perry	439	351.7	318.80-384.60
Philadelphia	19,153	378.6	373.24-383.96 +
Pike	347	242.3	216.81-267.79 -
Potter	202	284.9	245.61-324.19 -
Schuylkill	2,852	404.4	389.56-419.24 +
Snyder	392	319.7	288.05-351.35
Somerset	1,200	349.7	329.91-369.49
Sullivan	114	337.7	275.71-399.69
Susquehanna	556	348.3	319.35-377.25
Tioga	508	322.0	294.00-350.00
Union	431	305.8	276.93-334.67 -
Venango	792	357.1	332.23-381.97
Warren	627	359.9	331.73-388.07
Washington	2,952	337.2	325.04-349.36
Wayne	713	366.7	339.78-393.62 +
Westmoreland	5,518	345.7	336.58-354.82
Wyoming	320	350.5	312.10-388.90
York	3,851	311.6	301.76-321.44 -
Pennsylvania	156,087	338.5	336.82-340.18 +
United States (2001)	921,819	326.4	325.73-327.07

Diseases of Heart	No.	Rate	CI (95%)
Adams	823	269.9	251.46-288.34
Allegheny	14,542	268.6	264.23-272.97 +
Armstrong	881	285.8	266.93-304.67 +
Beaver	2,068	272.5	260.76-284.24
Bedford	483	255.6	232.80-278.40
Berks	3,465	256.5	247.96-265.04
Blair	1,664	311.4	296.44-326.36 +
Bradford	635	271.3	250.20-292.40
Bucks	4,080	229.6	222.55-236.65 -
Butler	1,675	271.6	258.59-284.61
Cambria	1,925	271.7	259.56-283.84
Cameron	80	289.1	225.75-352.45
Carbon	780	313.1	291.13-335.07 +
Centre	817	248.6	231.55-265.65
Chester	2,799	227.7	219.26-236.14 -
Clarion	483	325.2	296.20-354.20 +
Clearfield	934	280.0	262.04-297.96
Clinton	380	261.7	235.39-288.01
Columbia	720	297.9	276.14-319.66 +
Crawford	890	265.4	247.96-282.84
Cumberland	1,876	246.5	235.35-257.65 -
Dauphin	2,333	271.0	260.00-282.00
Delaware	5,037	241.7	235.03-248.37 -
Elk	316	225.1	200.28-249.92 -
Erie	2,492	259.2	249.02-269.38
Fayette	1,850	296.8	283.28-310.32 +
Forest	69	312.8	238.99-386.61
Franklin	1,040	214.7	201.65-227.75 -
Fulton	98	202.0	162.01-241.99 -
Greene	462	300.6	273.19-328.01 +
Huntingdon	414	263.0	237.67-288.33
Indiana	877	279.1	260.63-297.57
Jefferson	587	300.9	276.56-325.24 +
Juniata	219	271.8	235.80-307.80
Lackawanna	3,298	330.8	319.51-342.09 +
Lancaster	3,827	237.2	229.68-244.72 -
Lawrence	1,192	275.9	260.24-291.56
Lebanon	1,195	247.5	233.47-261.53 -
Lehigh	2,933	240.5	231.80-249.20 -
Luzerne	4,984	326.7	317.63-335.77 +
Lycoming	1,265	278.2	262.87-293.53
McKean	507	277.7	253.53-301.87
Mercer	1,384	271.3	257.01-285.59
Mifflin	545	295.0	270.23-319.77 +
Monroe	963	257.6	241.33-273.87
Montgomery	5,725	203.1	197.84-208.36 -
Montour	228	291.6	253.75-329.45
Northampton	2,367	238.6	228.99-248.21 -
Northumberland	1,215	285.5	269.45-301.55 +
Perry	348	278.3	249.06-307.54
Philadelphia	14,744	292.4	287.68-297.12 +
Pike	259	180.4	158.43-202.37 -
Potter	156	220.2	185.64-254.76 -
Schuylkill	2,257	321.3	308.04-334.56 +
Snyder	312	254.0	225.82-282.18
Somerset	973	284.5	266.62-302.38 +
Sullivan	89	261.5	207.17-315.83
Susquehanna	447	280.1	254.13-306.07
Tioga	384	244.0	219.59-268.41
Union	333	236.8	211.37-262.23 -
Venango	610	276.2	254.28-298.12
Warren	513	294.6	269.11-320.09 +
Washington	2,280	261.0	250.29-271.71
Wayne	566	291.4	267.39-315.41 +
Westmoreland	4,335	272.3	264.19-280.41 +
Wyoming	244	267.1	233.59-300.61
York	3,002	243.0	234.31-251.69 -
Pennsylvania	121,274	263.8	262.32-265.28 +
United States (2001)	699,697	247.7	247.12-248.28

NOTE: A+ or - after the confidence interval (CI) denotes if the county rate was significantly higher or lower than the state rate. No + or - after a CI denotes no significant difference. State data were compared to U.S. data. CIs were not calculated for rates based on less than 20 events. See Technical Notes.

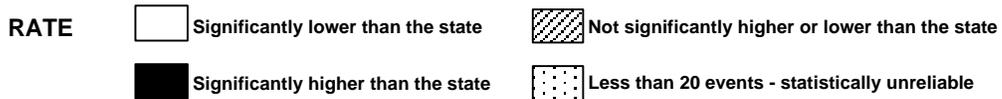
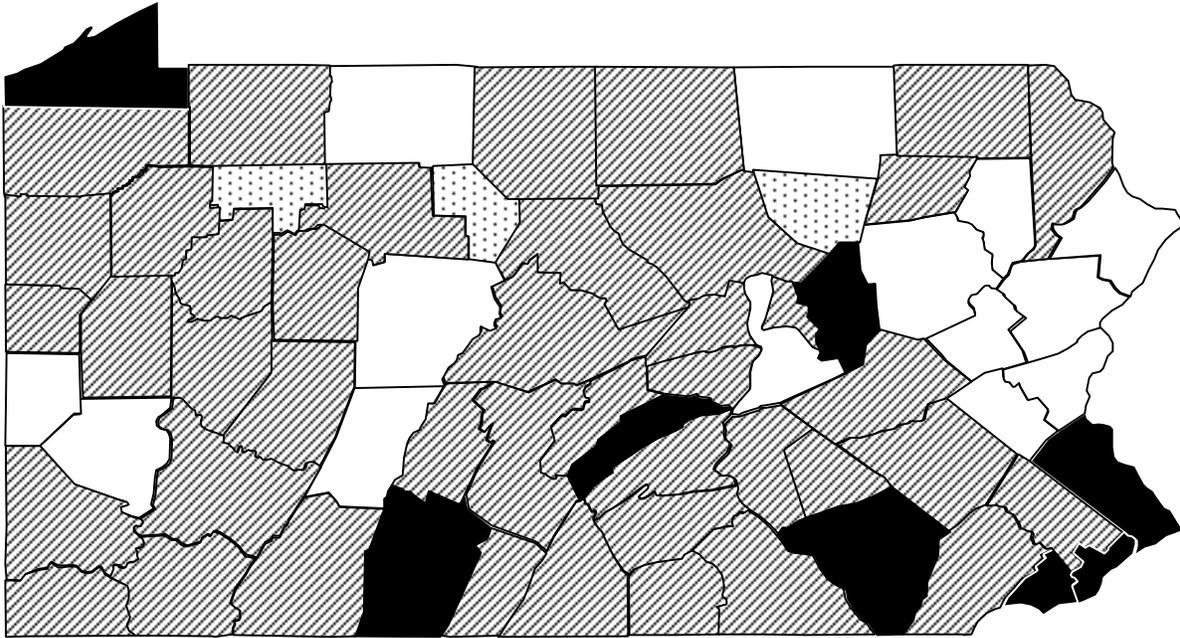


## Average Annual Age-Adjusted Death Rates for Selected Causes, 1999-2001

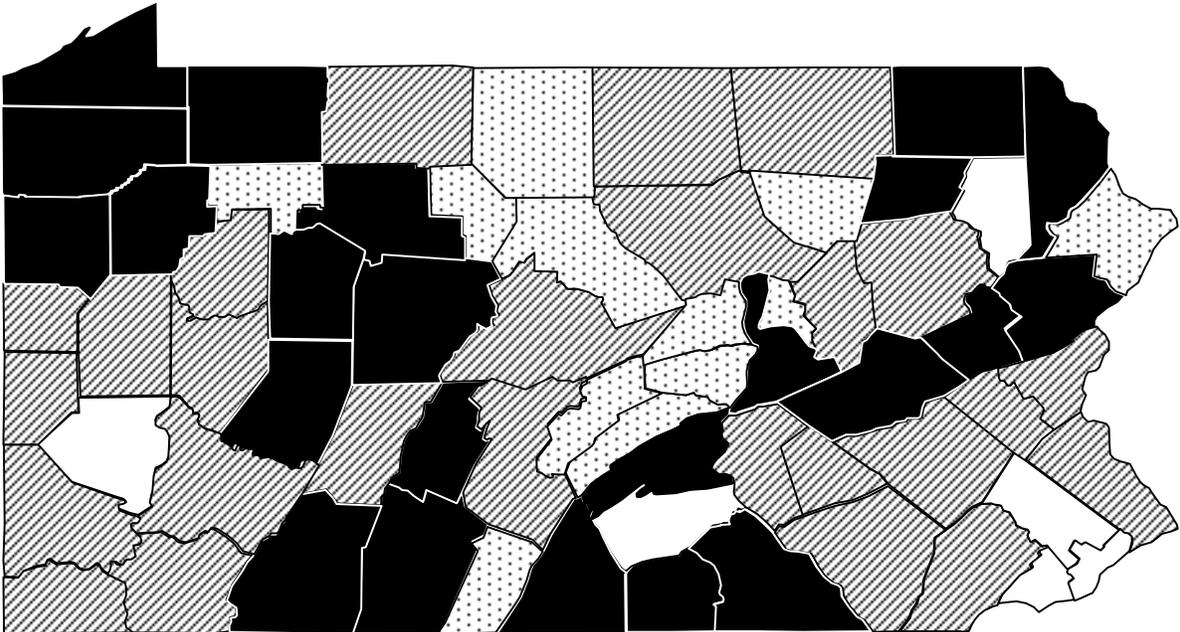
Stroke				Motor Vehicle Accidents			
	No.	Rate	CI (95%)		No.	Rate	CI (95%)
Adams	181	59.2	50.58-67.82	Adams	57	20.8	15.40-26.20 +
Allegheny	2,979	53.7	51.77-55.63 -	Allegheny	255	6.3	5.53-7.07 -
Armstrong	166	53.3	45.19-61.41	Armstrong	39	17.3	11.87-22.73
Beaver	334	43.4	38.75-48.05 -	Beaver	66	11.5	8.73-14.27
Bedford	145	76.9	64.38-89.42 +	Bedford	41	27.4	19.01-35.79 +
Berks	784	56.8	52.82-60.78	Berks	144	12.6	10.54-14.66
Blair	302	55.5	49.24-61.76	Blair	72	18.6	14.30-22.90 +
Bradford	96	40.8	32.64-48.96 -	Bradford	27	15.5	9.65-21.35
Bucks	1,094	62.0	58.33-65.67 +	Bucks	194	11.2	9.62-12.78
Butler	345	55.5	49.64-61.36	Butler	59	11.3	8.42-14.18
Cambria	366	50.3	45.15-55.45 -	Cambria	62	12.7	9.54-15.86
Cameron	11	39.9		Cameron	3	16.6	
Carbon	116	45.5	37.22-53.78 -	Carbon	38	22.3	15.21-29.39 +
Centre	183	56.2	48.06-64.34	Centre	40	10.1	6.97-13.23
Chester	658	53.9	49.78-58.02	Chester	157	12.4	10.46-14.34
Clarion	101	67.3	54.17-80.43	Clarion	26	19.3	11.88-26.72
Clearfield	164	48.2	40.82-55.58 -	Clearfield	60	24.2	18.08-30.32 +
Clinton	78	52.9	41.16-64.64	Clinton	19	16.9	
Columbia	171	69.0	58.66-79.34 +	Columbia	33	16.5	10.87-22.13
Crawford	212	62.1	53.74-70.46	Crawford	66	24.2	18.36-30.04 +
Cumberland	410	53.6	48.41-58.79	Cumberland	59	8.9	6.63-11.17 -
Dauphin	453	52.1	47.30-56.90	Dauphin	102	13.6	10.96-16.24
Delaware	1,308	61.7	58.36-65.04 +	Delaware	129	7.6	6.29-8.91 -
Elk	79	55.7	43.42-67.98	Elk	23	23.0	13.60-32.40 +
Erie	594	60.8	55.91-65.69 +	Erie	137	15.7	13.07-18.33 +
Fayette	383	58.7	52.82-64.58	Fayette	63	14.3	10.77-17.83
Forest	12	52.4		Forest	2	15.1	
Franklin	285	57.8	51.09-64.51	Franklin	68	17.5	13.34-21.66 +
Fulton	28	58.7	36.96-80.44	Fulton	17	39.3	
Greene	90	57.2	45.38-69.02	Greene	24	19.0	11.40-26.60
Huntingdon	87	55.6	43.92-67.28	Huntingdon	25	17.5	10.64-24.36
Indiana	162	50.9	43.06-58.74	Indiana	53	17.7	12.93-22.47 +
Jefferson	116	58.8	48.10-69.50	Jefferson	31	22.2	14.39-30.01 +
Juniata	63	76.5	57.61-95.39 +	Juniata	18	27.0	
Lackawanna	517	50.1	45.78-54.42 -	Lackawanna	58	8.9	6.61-11.19 -
Lancaster	1,003	61.1	57.32-64.88 +	Lancaster	180	12.7	10.84-14.56
Lawrence	222	50.5	43.86-57.14	Lawrence	37	12.1	8.20-16.00
Lebanon	269	54.2	47.72-60.68	Lebanon	42	11.8	8.23-15.37
Lehigh	571	45.8	42.04-49.56 -	Lehigh	106	11.4	9.23-13.57
Luzerne	678	44.3	40.97-47.63 -	Luzerne	113	11.9	9.71-14.09
Lycoming	281	60.5	53.43-67.57	Lycoming	45	12.2	8.64-15.76
McKean	78	41.3	32.13-50.47 -	McKean	21	15.5	8.87-22.13
Mercer	285	54.0	47.73-60.27	Mercer	70	18.8	14.40-23.20 +
Mifflin	110	57.7	46.92-68.48	Mifflin	14	11.0	
Monroe	174	48.1	40.95-55.25 -	Monroe	77	19.1	14.83-23.37 +
Montgomery	1,665	58.4	55.59-61.21	Montgomery	187	8.2	7.02-9.38 -
Montour	45	54.1	38.29-69.91	Montour	17	33.1	
Northampton	430	42.8	38.75-46.85 -	Northampton	88	10.8	8.54-13.06
Northumberland	220	48.8	42.35-55.25 -	Northumberland	50	18.1	13.08-23.12 +
Perry	66	53.4	40.52-66.28	Perry	38	29.7	20.26-39.14 +
Philadelphia	3,378	65.7	63.48-67.92 +	Philadelphia	397	8.8	7.93-9.67 -
Pike	60	43.0	32.12-53.88 -	Pike	15	11.4	
Potter	33	46.7	30.77-62.63	Potter	10	19.2	
Schuylkill	424	59.0	53.38-64.62	Schuylkill	109	23.6	19.17-28.03 +
Snyder	63	51.7	38.93-64.47	Snyder	13	11.7	
Somerset	174	49.9	42.49-57.31	Somerset	60	25.6	19.12-32.08 +
Sullivan	17	52.6		Sullivan	7	38.1	
Susquehanna	88	55.3	43.75-66.85	Susquehanna	30	23.5	15.09-31.91 +
Tioga	99	62.4	50.11-74.69	Tioga	24	19.1	11.46-26.74
Union	73	50.9	39.22-62.58	Union	18	13.5	
Venango	134	59.7	49.59-69.81	Venango	32	19.1	12.48-25.72 +
Warren	90	51.2	40.62-61.78	Warren	30	22.8	14.64-30.96 +
Washington	521	58.8	53.75-63.85	Washington	68	11.1	8.46-13.74
Wayne	112	56.7	46.20-67.20	Wayne	33	23.1	15.22-30.98 +
Westmoreland	869	54.0	50.41-57.59	Westmoreland	124	11.1	9.15-13.05
Wyoming	53	58.2	42.53-73.87	Wyoming	20	23.0	12.92-33.08 +
York	659	53.2	49.14-57.26	York	178	16.0	13.65-18.35 +
Pennsylvania	26,017	55.7	55.02-56.38 -	Pennsylvania	4,520	12.1	11.75-12.45 -
United States (2001)	163,601	57.9	57.62-58.18	United States (2001)	41,967	14.7	14.56-14.84

NOTE: A+ or - after the confidence interval (CI) denotes if the county rate was significantly higher or lower than the state rate. No + or - after a CI denotes no significant difference. State data were compared to U.S. data. CIs were not calculated for rates based on less than 20 events. See Technical Notes.

## Average Annual Age-Adjusted Death Rates - Stroke Pennsylvania Residents, 1999-2001



## Average Annual Age-Adjusted Death Rates - Motor Vehicle Accidents Pennsylvania Residents, 1999-2001



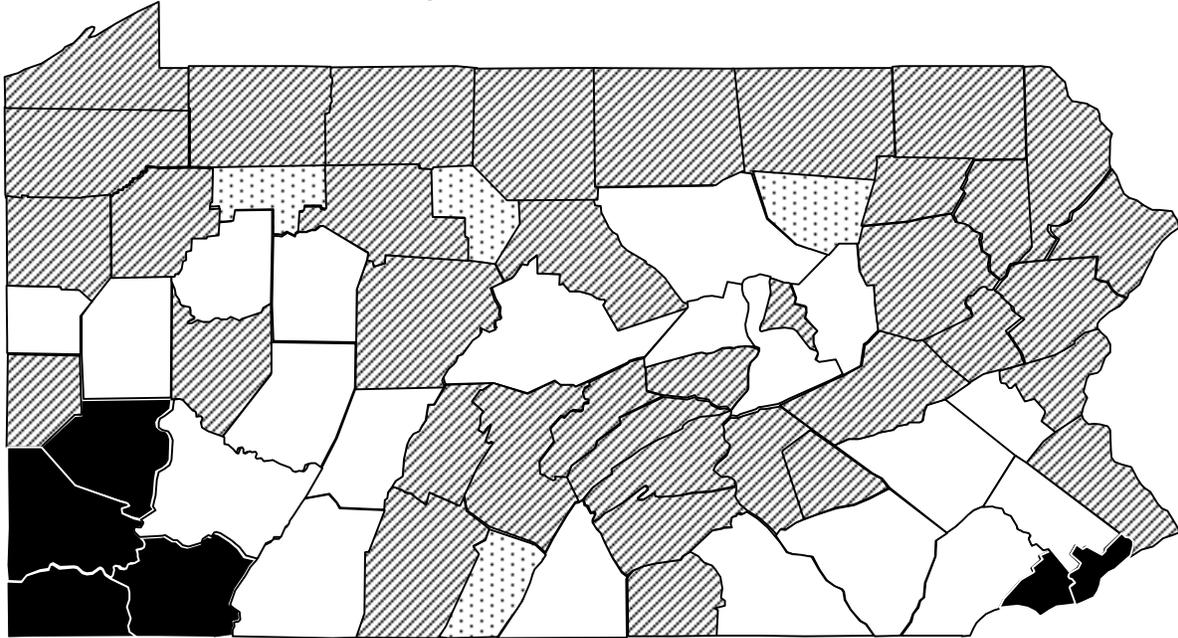
Note: Significance was determined by calculating and comparing county confidence intervals to the state rate. The calculations were not performed for counties that had less than 20 events. Rates for counties with less than 20 events are considered unreliable. See Technical Notes.

## Average Annual Age-Adjusted Death Rates for Selected Causes, 1999-2001

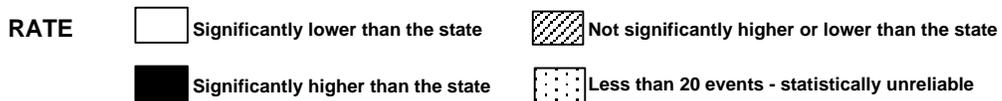
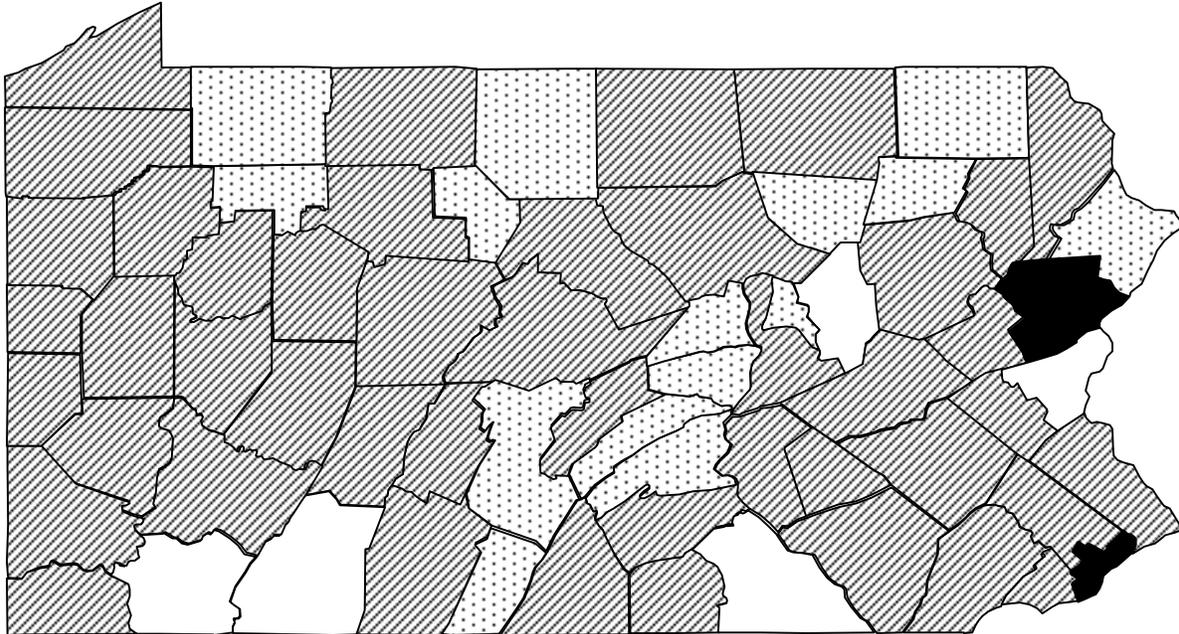
Lung Cancer				Female Breast Cancer			
No.	Rate	CI (95%)		No.	Rate	CI (95%)	
Adams	157	52.7	44.46-60.94	Adams	36	22.2	14.95-29.45
Allegheny	3,061	60.9	58.74-63.06 +	Allegheny	813	28.5	26.54-30.46
Armstrong	149	51.8	43.48-60.12	Armstrong	45	28.6	20.24-36.96
Beaver	402	54.5	49.17-59.83	Beaver	116	27.7	22.66-32.74
Bedford	94	48.8	38.93-58.67	Bedford	26	26.1	16.07-36.13
Berks	639	49.7	45.85-53.55 -	Berks	187	26.1	22.36-29.84
Blair	288	57.2	50.59-63.81	Blair	88	31.0	24.52-37.48
Bradford	107	47.4	38.42-56.38	Bradford	39	31.2	21.41-40.99
Bucks	1,026	56.3	52.85-59.75	Bucks	306	29.4	26.11-32.69
Butler	276	48.5	42.78-54.22 -	Butler	97	30.0	24.03-35.97
Cambria	310	47.3	42.03-52.57 -	Cambria	97	27.3	21.87-32.73
Cameron	13	55.1		Cameron	3	20.6	
Carbon	145	60.1	50.32-69.88	Carbon	44	36.0	25.36-46.64
Centre	137	41.3	34.38-48.22 -	Centre	44	24.5	17.26-31.74
Chester	625	49.4	45.53-53.27 -	Chester	184	25.6	21.90-29.30
Clarion	53	37.1	27.11-47.09 -	Clarion	23	30.1	17.80-42.40
Clearfield	178	56.5	48.20-64.80	Clearfield	42	23.5	16.39-30.61
Clinton	75	54.3	42.01-66.59	Clinton	27	35.4	22.05-48.75
Columbia	94	40.1	31.99-48.21 -	Columbia	24	17.6	10.56-24.64 -
Crawford	175	54.6	46.51-62.69	Crawford	57	31.9	23.62-40.18
Cumberland	382	51.6	46.43-56.77	Cumberland	113	26.6	21.70-31.50
Dauphin	434	52.1	47.20-57.00	Dauphin	132	26.7	22.15-31.25
Delaware	1,142	59.5	56.05-62.95 +	Delaware	326	29.4	26.21-32.59
Elk	81	60.7	47.48-73.92	Elk	20	26.3	14.77-37.83
Erie	548	59.8	54.79-64.81	Erie	143	27.6	23.08-32.12
Fayette	382	65.3	58.75-71.85 +	Fayette	68	19.9	15.17-24.63 -
Forest	14	57.7		Forest	6	51.9	
Franklin	226	47.3	41.13-53.47 -	Franklin	76	29.2	22.64-35.76
Fulton	19	39.0		Fulton	4	15.3	
Greene	98	68.7	55.10-82.30 +	Greene	20	26.4	14.83-37.97
Huntingdon	76	49.2	38.14-60.26	Huntingdon	16	17.7	
Indiana	140	46.2	38.55-53.85 -	Indiana	39	23.1	15.85-30.35
Jefferson	75	41.2	31.88-50.52 -	Jefferson	31	29.5	19.12-39.88
Juniata	35	44.7	29.89-59.51	Juniata	13	31.3	
Lackawanna	456	51.4	46.68-56.12	Lackawanna	135	24.7	20.53-28.87
Lancaster	732	47.7	44.24-51.16 -	Lancaster	229	26.7	23.24-30.16
Lawrence	179	44.3	37.81-50.79 -	Lawrence	65	28.4	21.50-35.30
Lebanon	239	53.8	46.98-60.62	Lebanon	66	27.0	20.49-33.51
Lehigh	524	46.6	42.61-50.59 -	Lehigh	188	30.2	25.88-34.52
Luzerne	709	53.2	49.28-57.12	Luzerne	207	26.3	22.72-29.88
Lycoming	201	46.7	40.24-53.16 -	Lycoming	65	28.9	21.87-35.93
McKean	96	57.1	45.68-68.52	McKean	21	24.6	14.08-35.12
Mercer	254	53.2	46.66-59.74	Mercer	70	26.3	20.14-32.46
Mifflin	90	51.0	40.46-61.54	Mifflin	26	26.1	16.07-36.13
Monroe	255	62.5	54.83-70.17	Monroe	82	37.8	29.62-45.98 +
Montgomery	1,247	46.9	44.30-49.50 -	Montgomery	431	28.7	25.99-31.41
Montour	31	47.4	30.71-64.09	Montour	13	27.2	
Northampton	501	53.2	48.54-57.86	Northampton	115	21.4	17.49-25.31 -
Northumberland	184	47.1	40.29-53.91 -	Northumberland	79	35.6	27.75-43.45
Perry	66	50.8	38.54-63.06	Perry	13	18.2	
Philadelphia	3,355	71.4	68.98-73.82 +	Philadelphia	982	35.4	33.19-37.61 +
Pike	78	48.0	37.35-58.65	Pike	13	15.7	
Potter	30	46.0	29.54-62.46	Potter	13	32.6	
Schuylkill	375	59.4	53.39-65.41	Schuylkill	95	26.0	20.77-31.23
Snyder	56	45.5	33.58-57.42	Snyder	16	24.6	
Somerset	127	39.6	32.71-46.49 -	Somerset	38	20.4	13.91-26.89 -
Sullivan	10	34.2		Sullivan	3	17.7	
Susquehanna	81	52.7	41.22-64.18	Susquehanna	18	22.3	
Tioga	68	44.7	34.08-55.32	Tioga	23	29.1	17.21-40.99
Union	49	38.6	27.79-49.41 -	Union	16	21.6	
Venango	139	63.9	53.28-74.52	Venango	27	23.4	14.57-32.23
Warren	88	52.1	41.21-62.99	Warren	19	20.5	
Washington	511	62.7	57.26-68.14 +	Washington	146	31.6	26.47-36.73
Wayne	94	49.7	39.65-59.75	Wayne	33	32.8	21.61-43.99
Westmoreland	776	50.9	47.32-54.48 -	Westmoreland	217	27.0	23.41-30.59
Wyoming	47	51.2	36.56-65.84	Wyoming	14	26.7	
York	618	50.4	46.43-54.37 -	York	162	23.4	19.80-27.00 -
Pennsylvania	23,922	55.0	54.30-55.70	Pennsylvania	6,945	28.3	27.63-28.97 +
United States (2001)	156,005	55.3	55.03-55.57	United States (2000)	41,872	27.1	26.84-27.36

NOTE: A+ or - after the confidence interval (CI) denotes if the county rate was significantly higher or lower than the state rate. No + or - after a CI denotes no significant difference. State data were compared to U.S. data. CIs were not calculated for rates based on less than 20 events. See Technical Notes.

## Average Annual Age-Adjusted Death Rates - Lung Cancer Pennsylvania Residents, 1999-2001



## Average Annual Age-Adjusted Death Rates - Female Breast Cancer Pennsylvania Residents, 1999-2001



Note: Significance was determined by calculating and comparing county confidence intervals to the state rate. The calculations were not performed for counties that had less than 20 events. Rates for counties with less than 20 events are considered unreliable. See Technical Notes.

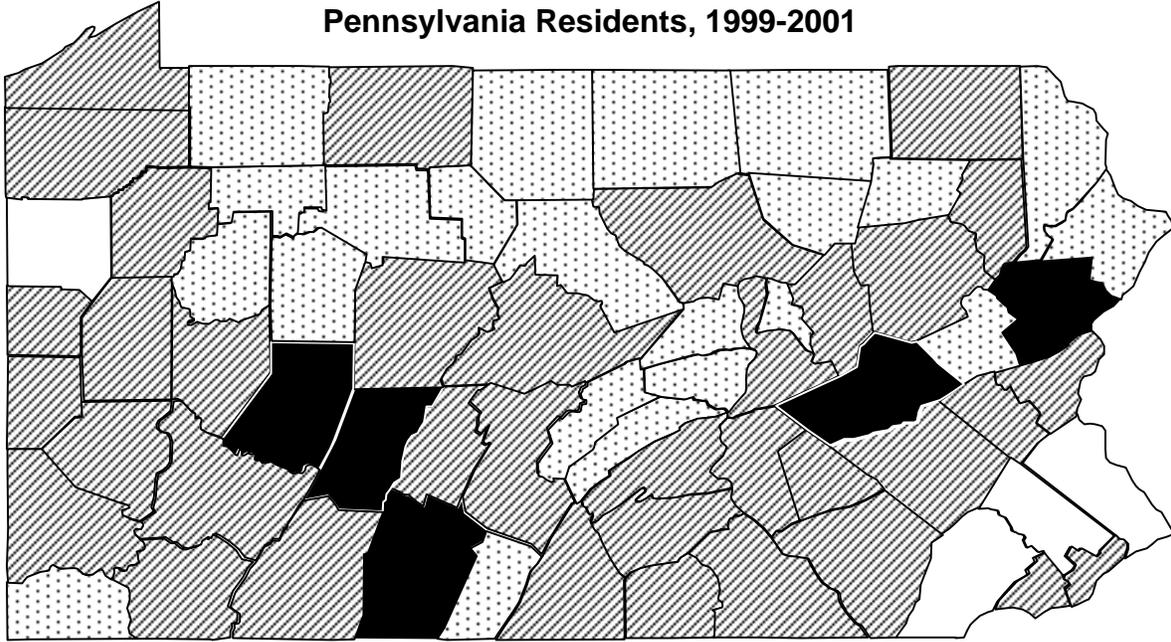
## Average Annual Age-Adjusted Death Rates for Selected Causes, 1999-2001

### Intentional Self-harm

(Suicide)	No.	Rate	CI (95%)	Assault (Homicide)	No.	Rate	CI (95%)
Adams	28	10.1	6.36-13.84	Adams	2	0.8	
Allegheny	402	10.2	9.20-11.20	Allegheny	241	6.6	5.77-7.43 +
Armstrong	30	13.9	8.93-18.87	Armstrong	7	3.4	
Beaver	64	11.4	8.61-14.19	Beaver	19	4.0	
Bedford	30	19.7	12.65-26.75 +	Bedford	3	1.8	
Berks	130	11.4	9.44-13.36	Berks	83	7.6	5.96-9.24 +
Blair	51	13.1	9.50-16.70	Blair	10	2.6	
Bradford	19	9.4		Bradford	4	2.1	
Bucks	159	8.7	7.35-10.05 -	Bucks	33	1.9	1.25-2.55 -
Butler	52	9.8	7.14-12.46	Butler	10	1.9	
Cambria	66	14.0	10.62-17.38 +	Cambria	12	2.6	
Cameron	4	22.0		Cameron	0	-	
Carbon	17	9.9		Carbon	3	1.6	
Centre	28	7.7	4.85-10.55	Centre	9	2.5	
Chester	99	7.5	6.02-8.98 -	Chester	17	1.3	
Clarion	17	13.8		Clarion	0	-	
Clearfield	27	10.3	6.41-14.19	Clearfield	6	2.4	
Clinton	19	16.9		Clinton	2	1.5	
Columbia	22	11.0	6.40-15.60	Columbia	4	2.2	
Crawford	28	10.4	6.55-14.25	Crawford	8	3.1	
Cumberland	59	8.9	6.63-11.17	Cumberland	10	1.6	
Dauphin	74	9.5	7.34-11.66	Dauphin	35	5.0	3.34-6.66
Delaware	165	10.0	8.47-11.53	Delaware	97	6.0	4.81-7.19
Elk	15	14.1		Elk	2	1.9	
Erie	94	11.4	9.10-13.70	Erie	24	2.8	1.68-3.92 -
Fayette	55	12.5	9.20-15.80	Fayette	20	4.7	2.64-6.76
Forest	4	26.5		Forest	1	7.0	
Franklin	34	8.5	5.64-11.36	Franklin	2	0.5	
Fulton	7	15.5		Fulton	1	2.4	
Greene	17	13.4		Greene	2	1.6	
Huntingdon	20	14.8	8.31-21.29	Huntingdon	5	3.5	
Indiana	41	15.4	10.69-20.11 +	Indiana	3	1.2	
Jefferson	15	10.4		Jefferson	3	2.4	
Juniata	6	8.5		Juniata	0	-	
Lackawanna	68	10.9	8.31-13.49	Lackawanna	15	2.5	
Lancaster	124	9.0	7.42-10.58	Lancaster	35	2.5	1.67-3.33 -
Lawrence	39	14.0	9.61-18.39	Lawrence	8	3.1	
Lebanon	29	8.2	5.22-11.18	Lebanon	7	2.0	
Lehigh	93	9.7	7.73-11.67	Lehigh	32	3.7	2.42-4.98 -
Luzerne	113	12.2	9.95-14.45	Luzerne	24	2.8	1.68-3.92 -
Lycoming	31	8.3	5.38-11.22	Lycoming	6	1.8	
McKean	21	15.5	8.87-22.13	McKean	4	3.2	
Mercer	29	7.5	4.77-10.23 -	Mercer	12	3.5	
Mifflin	12	7.8		Mifflin	3	2.1	
Monroe	61	14.7	11.01-18.39 +	Monroe	15	3.6	
Montgomery	199	8.7	7.49-9.91 -	Montgomery	42	2.0	1.40-2.60 -
Montour	5	9.8		Montour	1	2.0	
Northampton	78	9.7	7.55-11.85	Northampton	24	3.0	1.80-4.20 -
Northumberland	36	12.7	8.55-16.85	Northumberland	10	3.9	
Perry	20	14.9	8.37-21.43	Perry	3	2.2	
Philadelphia	453	10.3	9.35-11.25	Philadelphia	946	20.8	19.47-22.13 +
Pike	18	12.5		Pike	3	2.2	
Potter	10	17.0		Potter	0	-	
Schuylkill	64	13.9	10.49-17.31 +	Schuylkill	7	1.7	
Snyder	10	8.8		Snyder	0	-	
Somerset	29	11.3	7.19-15.41	Somerset	4	1.9	
Sullivan	1	3.1		Sullivan	0	-	
Susquehanna	20	15.0	8.43-21.57	Susquehanna	4	3.7	
Tioga	12	9.8		Tioga	0	-	
Union	12	9.7		Union	5	4.1	
Venango	26	14.9	9.17-20.63	Venango	2	1.3	
Warren	14	9.9		Warren	0	-	
Washington	69	10.7	8.18-13.22	Washington	9	1.5	
Wayne	17	12.0		Wayne	2	1.2	
Westmoreland	141	12.0	10.02-13.98	Westmoreland	25	2.2	1.34-3.06 -
Wyoming	10	11.0		Wyoming	2	2.5	
York	124	10.7	8.82-12.58	York	26	2.3	1.42-3.18 -
Pennsylvania	3,886	10.4	10.07-10.73	Pennsylvania	1,954	5.5	5.26-5.74 -
United States (2001)	29,423	10.3	10.18-10.42	United States (2001)	19,727	6.9	6.80-7.00

NOTE: A+ or - after the confidence interval (CI) denotes if the county rate was significantly higher or lower than the state rate. No + or - after a CI denotes no significant difference. State data were compared to U.S. data. CIs were not calculated for rates based on less than 20 events. See Technical Notes.

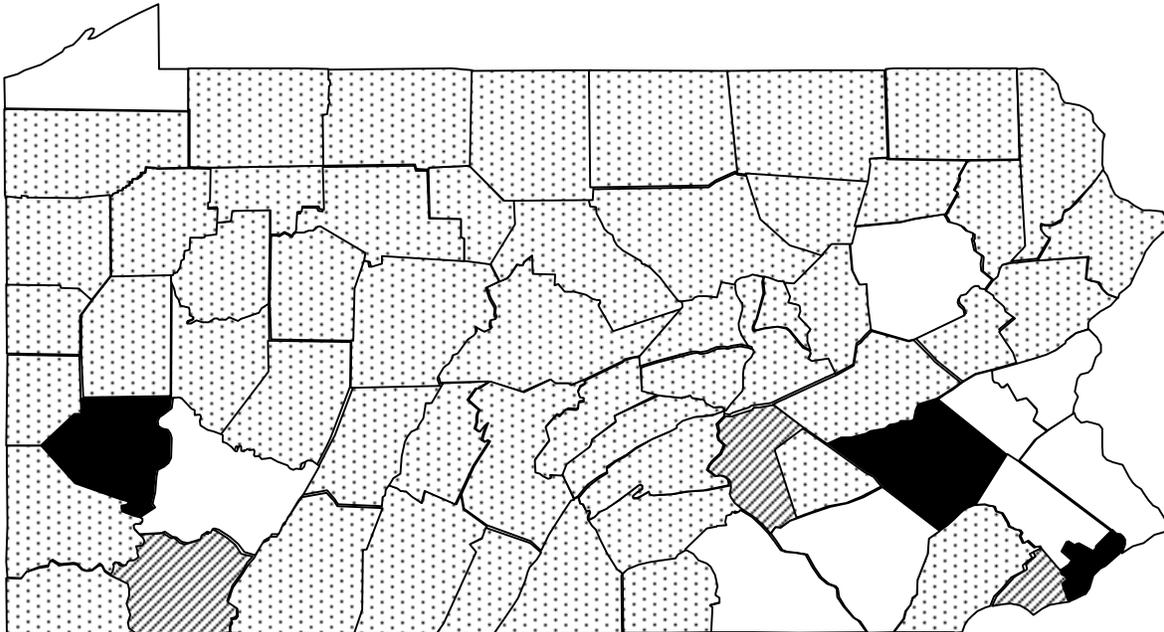
**Average Annual Age-Adjusted Death Rates  
Intentional Self-harm (Suicide)  
Pennsylvania Residents, 1999-2001**



**RATE**

	Significantly lower than the state		Not significantly higher or lower than the state
	Significantly higher than the state		Less than 20 events - statistically unreliable

**Average Annual Age-Adjusted Death Rates - Assault (Homicide)  
Pennsylvania Residents, 1999-2001**



**RATE**

	Significantly lower than the state		Not significantly higher or lower than the state
	Significantly higher than the state		Less than 20 events - statistically unreliable

Note: Significance was determined by calculating and comparing county confidence intervals to the state rate. The calculations were not performed for counties that had less than 20 events. Rates for counties with less than 20 events are considered unreliable. See Technical Notes.

## Percent of Children by Age Below Poverty Level, 1999

### Related Children

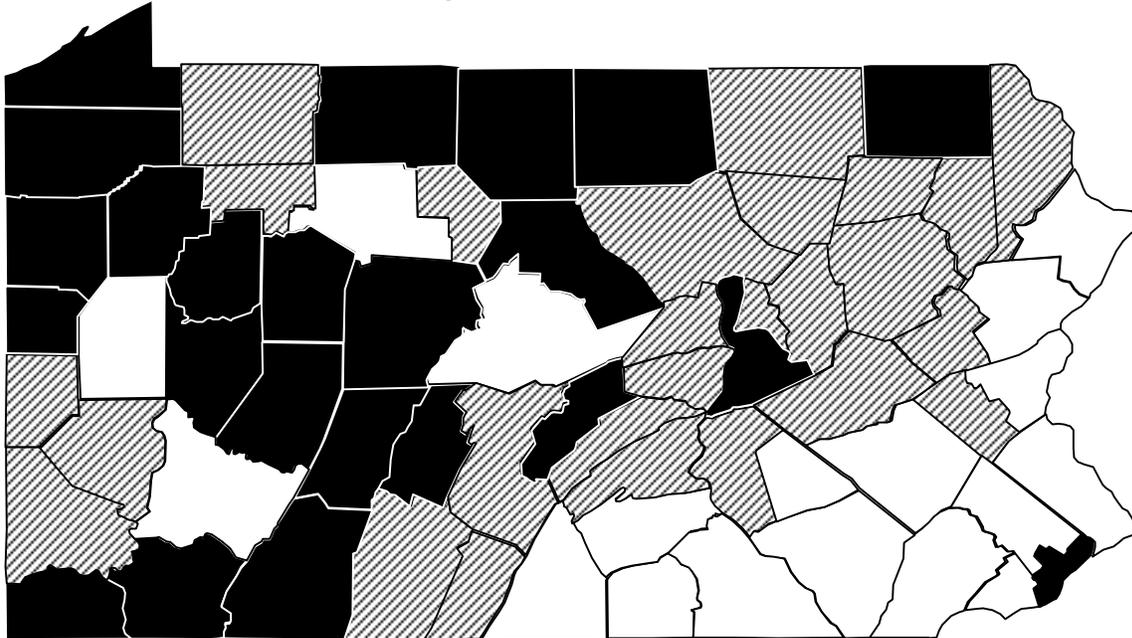
<b>Ages 5-17 Below Poverty</b>	<b>No.</b>	<b>Pct.</b>	<b>m (95%)</b>
Adams	1,475	8.7	-4.75 -
Allegheny	26,829	12.9	0.41
Armstrong	1,882	15.1	2.28 +
Beaver	3,892	12.6	-0.31
Bedford	1,182	13.7	0.74
Berks	7,658	11.4	-3.23 -
Blair	3,457	16.0	4.18 +
Bradford	1,715	14.4	1.55
Bucks	6,012	5.3	-22.47 -
Butler	2,917	9.4	-5.33 -
Cambria	3,682	15.3	3.45 +
Cameron	154	13.3	0.15
Carbon	1,239	12.7	-0.09
Centre	1,823	10.2	-3.09 -
Chester	4,566	5.5	-18.71 -
Clarion	1,037	15.7	2.10 +
Clearfield	2,345	16.7	4.11 +
Clinton	1,002	16.9	2.81 +
Columbia	1,378	13.8	0.89
Crawford	2,633	16.0	3.65 +
Cumberland	2,526	7.3	-9.10 -
Dauphin	5,655	12.6	-0.38
Delaware	10,043	10.0	-7.89 -
Elk	607	9.6	-2.26 -
Erie	7,553	14.6	3.64 +
Fayette	5,611	22.7	13.85 +
Forest	133	18.2	1.30
Franklin	2,241	10.0	-3.73 -
Fulton	362	14.2	0.63
Greene	1,360	20.2	5.40 +
Huntingdon	1,049	14.5	1.29
Indiana	2,456	17.2	4.68 +
Jefferson	1,294	15.9	2.49 +
Juniata	477	11.5	-0.74
Lackawanna	4,330	12.5	-0.50
Lancaster	8,913	9.8	-8.05 -
Lawrence	2,716	16.7	4.42 +
Lebanon	2,154	10.4	-3.07 -
Lehigh	6,519	11.9	-1.87
Luzerne	6,189	12.4	-0.79
Lycoming	2,814	13.5	0.90
McKean	1,354	16.9	3.26 +
Mercer	3,288	16.1	4.20 +
Mifflin	1,287	15.4	2.11 +
Monroe	2,867	10.1	-4.05 -
Montgomery	7,044	5.3	-24.32 -
Montour	362	11.1	-0.86
Northampton	4,255	9.1	-7.12 -
Northumberland	2,292	15.0	2.42 +
Perry	851	10.4	-1.93
Philadelphia	68,005	24.3	54.12 +
Pike	919	9.6	-2.79 -
Potter	583	16.7	2.05 +
Schuylkill	2,750	11.7	-1.50
Snyder	893	13.2	0.29
Somerset	2,035	15.1	2.38 +
Sullivan	143	15.4	0.70
Susquehanna	1,267	15.5	2.17 +
Tioga	1,178	16.1	2.51 +
Union	665	10.7	-1.47
Venango	1,685	16.5	3.33 +
Warren	1,088	13.7	0.71
Washington	4,190	12.5	-0.49
Wayne	1,263	14.7	1.57
Westmoreland	6,529	10.7	-4.61 -
Wyoming	691	12.9	0.07
York	5,817	8.4	-10.30 -
Pennsylvania	275,181	12.8	-36.38 -
United States (1999)	8,188,068	15.9	

### All Children <18

<b>Below Poverty</b>	<b>No.</b>	<b>Pct.</b>	<b>m (95%)</b>
Adams	2,142	9.6	-5.59 -
Allegheny	39,820	14.2	0.90
Armstrong	2,640	16.0	2.19 +
Beaver	5,776	14.1	0.17
Bedford	1,719	14.7	0.64
Berks	11,606	12.8	-3.08 -
Blair	4,947	17.0	4.36 +
Bradford	2,478	15.6	1.72
Bucks	9,868	6.4	-25.40 -
Butler	4,342	10.2	-6.67 -
Cambria	5,378	16.8	4.26 +
Cameron	206	14.1	0.03
Carbon	1,832	14.3	0.29
Centre	2,751	11.3	-3.59 -
Chester	7,496	6.6	-21.23 -
Clarion	1,465	16.4	1.93
Clearfield	3,295	17.6	4.19 +
Clinton	1,392	17.3	2.52 +
Columbia	1,935	14.6	0.59
Crawford	3,850	17.5	4.42 +
Cumberland	3,767	8.0	-11.08 -
Dauphin	8,436	13.9	-0.21
Delaware	15,544	11.4	-8.17 -
Elk	888	10.6	-2.65 -
Erie	11,178	16.1	4.71 +
Fayette	7,786	23.3	14.47 +
Forest	234	21.0	1.99 +
Franklin	3,522	11.5	-3.72 -
Fulton	504	14.5	0.25
Greene	1,913	21.5	6.02 +
Huntingdon	1,514	15.5	1.26
Indiana	3,453	18.4	5.13 +
Jefferson	1,828	17.0	2.65 +
Juniata	681	12.0	-1.28
Lackawanna	6,587	14.3	0.55
Lancaster	13,614	10.9	-9.32 -
Lawrence	3,891	17.9	4.89 +
Lebanon	3,398	12.0	-2.86 -
Lehigh	9,661	13.1	-2.08 -
Luzerne	9,196	13.9	-0.22
Lycoming	4,239	15.3	1.84
McKean	1,900	17.7	3.26 +
Mercer	4,781	17.4	4.80 +
Mifflin	1,926	17.0	2.72 +
Monroe	4,348	11.8	-3.59 -
Montgomery	11,606	6.4	-27.55 -
Montour	562	13.0	-0.56
Northampton	6,489	10.5	-7.41 -
Northumberland	3,257	16.1	2.54 +
Perry	1,243	11.4	-2.31 -
Philadelphia	96,287	25.4	59.74 +
Pike	1,331	10.8	-3.02 -
Potter	814	17.5	2.03 +
Schuylkill	4,182	13.4	-0.90
Snyder	1,228	13.7	-0.24
Somerset	3,016	17.0	3.40 +
Sullivan	242	17.8	1.19
Susquehanna	1,746	16.4	2.11 +
Tioga	1,629	16.9	2.42 +
Union	968	11.7	-1.78
Venango	2,472	18.3	4.25 +
Warren	1,529	14.6	0.52
Washington	6,252	13.9	-0.18
Wayne	1,829	16.2	1.99 +
Westmoreland	10,168	12.6	-3.38 -
Wyoming	1,007	14.4	0.28
York	9,315	10.0	-10.39 -
Pennsylvania	406,902	14.0	-40.74 -
United States (1999)	12,280,321	17.1	

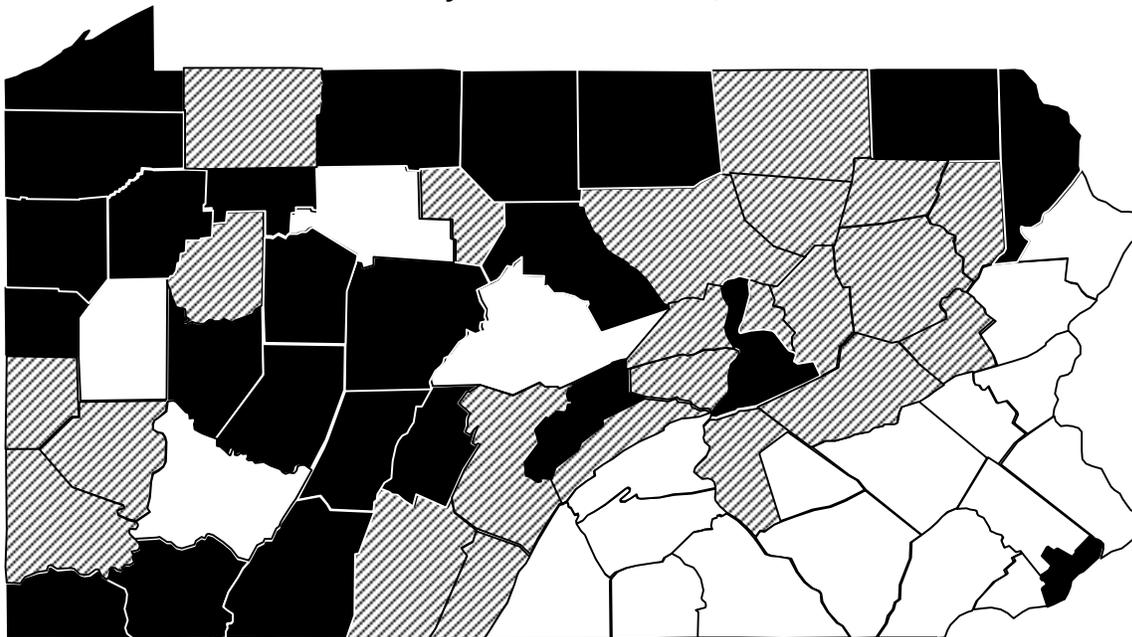
NOTE: A+ or - after the value of  $\mu$  denotes if the county rate was significantly higher or lower than the state rate. No + or - after the  $\mu$  value denotes no significant difference. State data were compared to U.S. data. Two separate formulas computed the  $\mu$  values, depending on the number of events. See Technical Notes.

**Percent of Children 5-17 Related to Persons with Income Below Poverty Level  
Pennsylvania Residents, 1999**



PERCENT  Significantly lower than the state  Not significantly higher or lower than the state  Significantly higher than the state

**Percent of Children Under 18 Living Below Poverty Level  
Pennsylvania Residents, 1999**



PERCENT  Significantly lower than the state  Not significantly higher or lower than the state  Significantly higher than the state

Note: Significance is determined by calculating county  $\mu$  values. The calculations were not performed for counties that had less than 10 events. Rates for counties with less than 10 events are considered unreliable. See Technical Notes.

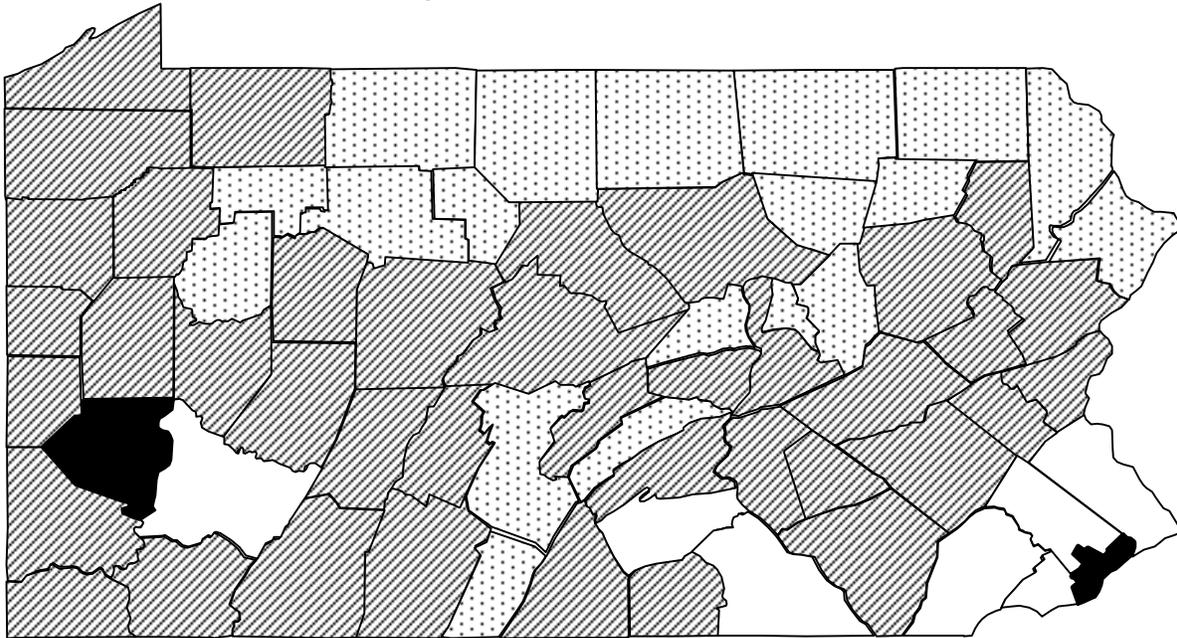
## Infant Death Rates, 1999-01, and Percent Low Birth Weight, 2001

### 1999-2001

Infant Death Rates				Percent Low Birth Weight			
	No.	Rate	$\mu$ (95%)		No.	Pct.	$\mu$ (95%)
Adams	24	7.7	0.37	Adams	95	8.7	0.94
Allegheny	343	8.0	2.21 +	Allegheny	1,147	8.2	1.32
Armstrong	17	7.7	0.32	Armstrong	61	8.9	0.93
Beaver	29	5.4	-1.53	Beaver	150	8.5	0.93
Bedford	18	10.6	1.69	Bedford	39	7.3	-0.49
Berks	102	7.4	0.42	Berks	331	7.1	-2.03 -
Blair	23	5.2	-1.49	Blair	81	5.7	-2.95 -
Bradford	8	3.6		Bradford	56	7.5	-0.39
Bucks	95	4.4	-4.78 -	Bucks	519	7.3	-1.88
Butler	36	5.6	-1.38	Butler	138	6.4	-2.58 -
Cambria	37	8.1	0.77	Cambria	138	9.2	1.87
Cameron	1	5.8		Cameron	1	2.2	
Carbon	10	5.7	-0.69	Carbon	52	8.8	0.78
Centre	19	5.1	-1.44	Centre	67	5.5	-2.98 -
Chester	93	5.4	-2.68 -	Chester	386	6.8	-3.07 -
Clarion	4	3.2		Clarion	26	6.5	-1.00
Clearfield	21	8.5	0.83	Clearfield	64	8.1	0.20
Clinton	12	9.4	0.98	Clinton	34	8.2	0.22
Columbia	8	4.5		Columbia	36	6.6	-1.08
Crawford	23	7.0	-0.08	Crawford	57	5.3	-3.03 -
Cumberland	27	4.0	-2.98 -	Cumberland	176	7.9	0.00
Dauphin	54	5.7	-1.62	Dauphin	356	11.1	6.72 +
Delaware	119	5.8	-2.22 -	Delaware	490	7.2	-2.14 -
Elk	4	3.5		Elk	28	7.8	-0.07
Erie	85	8.2	1.34	Erie	252	7.5	-0.86
Fayette	44	9.4	1.88	Fayette	122	8.1	0.29
Forest	1	8.7		Forest	4	10.0	
Franklin	32	6.5	-0.52	Franklin	124	7.7	-0.30
Fulton	1	2.0		Fulton	8	4.9	
Greene	11	9.1	0.81	Greene	37	8.7	0.59
Huntingdon	5	3.3		Huntingdon	23	4.6	-2.63 -
Indiana	20	7.6	0.30	Indiana	81	9.2	1.37
Jefferson	14	9.2	0.96	Jefferson	46	8.7	0.65
Juniata	8	9.2		Juniata	13	4.7	-1.89
Lackawanna	42	6.5	-0.62	Lackawanna	163	7.3	-1.05
Lancaster	141	6.9	-0.34	Lancaster	351	5.3	-7.84 -
Lawrence	28	9.2	1.40	Lawrence	84	8.4	0.56
Lebanon	26	6.1	-0.76	Lebanon	92	6.7	-1.58
Lehigh	93	8.3	1.49	Lehigh	313	8.5	1.35
Luzerne	55	6.1	-1.09	Luzerne	198	6.8	-2.20 -
Lycoming	32	8.1	0.71	Lycoming	85	6.6	-1.66
McKean	7	4.7		McKean	35	7.1	-0.63
Mercer	28	7.0	-0.06	Mercer	88	6.6	-1.69
Mifflin	12	6.8	-0.15	Mifflin	30	5.4	-2.10 -
Monroe	27	6.2	-0.70	Monroe	114	7.6	-0.43
Montgomery	160	5.7	-2.80 -	Montgomery	649	6.9	-3.60 -
Montour	8	12.4		Montour	16	7.0	-0.48
Northampton	49	5.7	-1.54	Northampton	268	9.1	2.41 +
Northumberland	22	7.4	0.21	Northumberland	71	6.8	-1.26
Perry	15	9.6	1.15	Perry	40	7.5	-0.33
Philadelphia	704	10.9	11.51 +	Philadelphia	2,384	11.3	18.31 +
Pike	1	0.9		Pike	20	5.4	-1.71
Potter	4	5.9		Potter	14	6.0	-1.03
Schuylkill	29	6.7	-0.32	Schuylkill	119	8.1	0.28
Snyder	15	11.2	1.76	Snyder	33	6.8	-0.86
Somerset	19	7.7	0.36	Somerset	43	5.5	-2.39 -
Sullivan	1	6.5		Sullivan	5	9.6	
Susquehanna	9	6.5		Susquehanna	27	6.1	-1.35
Tioga	4	3.1		Tioga	35	7.9	0.00
Union	8	6.9		Union	22	5.5	-1.71
Venango	17	9.1	1.02	Venango	47	8.0	0.09
Warren	12	8.5	0.60	Warren	26	5.8	-1.58
Washington	44	7.1	-0.04	Washington	135	6.7	-2.00 -
Wayne	3	2.0		Wayne	35	7.5	-0.31
Westmoreland	56	5.3	-2.17 -	Westmoreland	210	6.3	-3.42 -
Wyoming	7	7.4		Wyoming	29	9.4	0.94
York	60	4.4	-3.73 -	York	341	7.4	-1.26
Pennsylvania	3,086	7.1	1.59	Pennsylvania	11,360	7.9	2.84 +
United States (2001)	27,801	6.9		United States (2001)	308,747	7.7	

NOTE: A+ or - after the value of  $\mu$  denotes if the county rate was significantly higher or lower than the state rate. No + or - after the  $\mu$  value denotes no significant difference. State data were compared to U.S. data. Two separate formulas computed the  $\mu$  values, depending on the number of events. See Technical Notes.

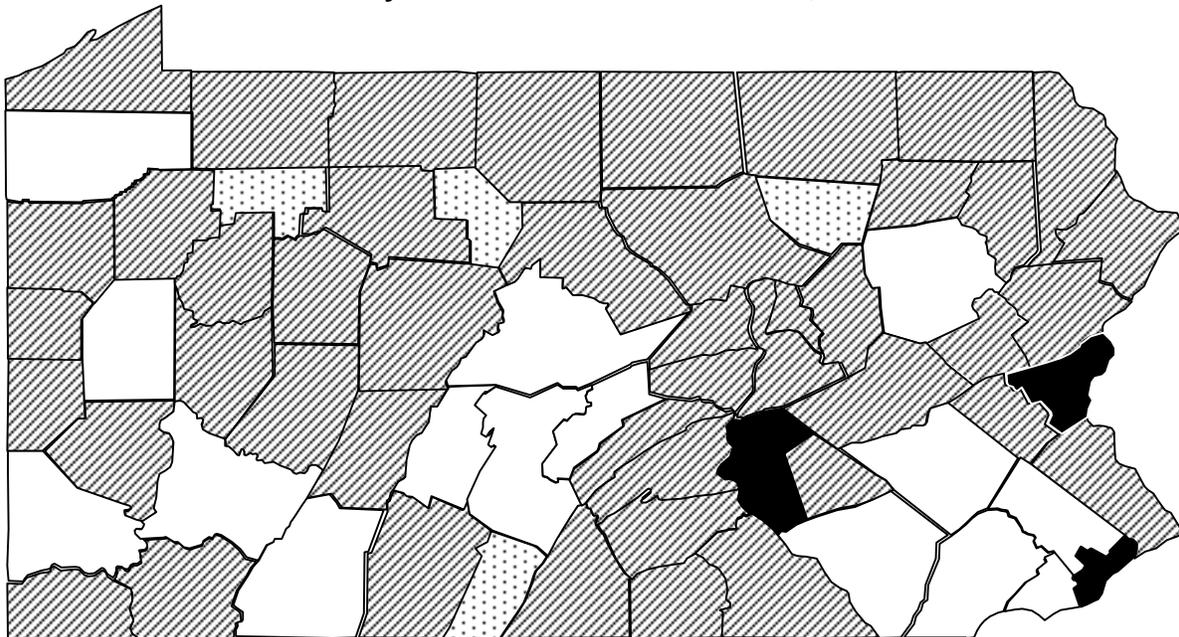
## Infant Death Rates Pennsylvania Residents, 1999-2001



**RATE**

Significantly lower than the state	Not significantly higher or lower than the state
Significantly higher than the state	Less than 10 events - statistically unreliable

## Percent Low Birth Weight Pennsylvania Resident Live Births, 2001



**PERCENT**

Significantly lower than the state	Not significantly higher or lower than the state
Significantly higher than the state	Less than 10 events - statistically unreliable

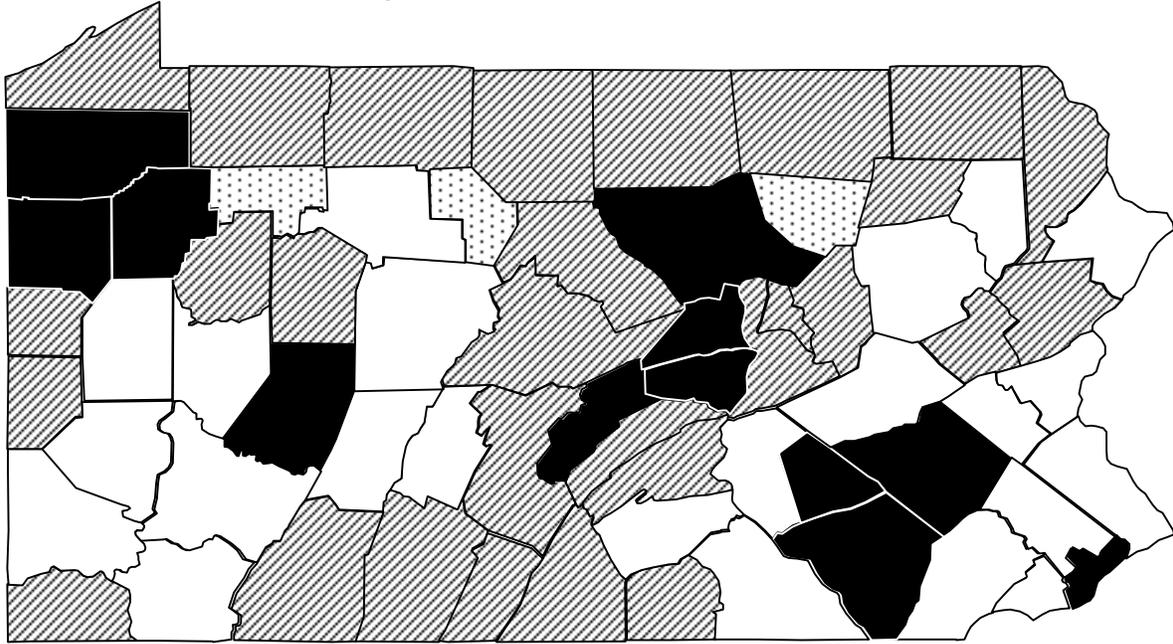
Note: Significance is determined by calculating county  $\mu$  values. The calculations were not performed for counties that had less than 10 events. Rates for counties with less than 10 events are considered unreliable. See Technical Notes.

## Percent No Prenatal Care in First Trimester and Teen Births, 2001

No Prenatal Care				Births to			
First Trimester	No.	Pct.	$\mu$ (95%)	Mothers <18	No.	Pct.	$\mu$ (95%)
Adams	149	14.0	-0.73	Adams	32	2.9	-0.56
Allegheny	1,130	8.3	-21.36 -	Allegheny	412	3.0	-1.33
Armstrong	80	11.8	-2.03 -	Armstrong	22	3.2	0.00
Beaver	209	13.1	-1.91	Beaver	54	3.1	-0.23
Bedford	78	14.8	0.00	Bedford	12	2.2	-1.31
Berks	1,154	26.9	22.32 +	Berks	166	3.6	1.54
Blair	114	8.1	-7.08 -	Blair	57	4.0	1.69
Bradford	106	14.8	0.00	Bradford	23	3.1	-0.15
Bucks	564	8.3	-15.09 -	Bucks	74	1.0	-10.58 -
Butler	191	9.1	-7.35 -	Butler	35	1.6	-4.18 -
Cambria	159	10.9	-4.19 -	Cambria	44	2.9	-0.65
Cameron	2	5.9		Cameron	2	4.4	
Carbon	77	13.9	-0.55	Carbon	12	2.0	-1.64
Centre	182	15.8	0.96	Centre	20	1.7	-2.88 -
Chester	627	11.8	-6.16 -	Chester	81	1.4	-7.65 -
Clarion	52	13.0	-0.94	Clarion	7	1.7	
Clearfield	65	8.3	-4.73 -	Clearfield	22	2.8	-0.63
Clinton	68	16.6	0.95	Clinton	11	2.7	-0.56
Columbia	96	17.8	1.81	Columbia	13	2.4	-1.04
Crawford	216	20.4	5.13 +	Crawford	25	2.3	-1.66
Cumberland	204	9.5	-6.92 -	Cumberland	31	1.4	-4.73 -
Dauphin	260	8.7	-9.39 -	Dauphin	130	4.1	2.88 +
Delaware	840	13.1	-3.83 -	Delaware	194	2.9	-1.39
Elk	14	3.9	-5.37 -	Elk	3	0.8	
Erie	518	15.6	1.30	Erie	156	4.6	4.63 +
Fayette	153	10.3	-4.88 -	Fayette	68	4.5	2.82 +
Forest	4	10.5		Forest	0	-	
Franklin	240	14.9	0.11	Franklin	51	3.2	0.00
Fulton	26	16.0	0.40	Fulton	5	3.0	
Greene	52	12.3	-1.34	Greene	17	3.9	0.82
Huntingdon	61	12.4	-1.38	Huntingdon	16	3.2	0.00
Indiana	159	18.6	3.13 +	Indiana	20	2.3	-1.48
Jefferson	62	11.9	-1.72	Jefferson	13	2.5	-0.89
Juniata	52	19.2	1.88	Juniata	5	1.8	
Lackawanna	268	12.7	-2.72 -	Lackawanna	54	2.4	-2.12 -
Lancaster	1,328	21.1	14.07 +	Lancaster	162	2.4	-3.73 -
Lawrence	139	14.9	0.09	Lawrence	32	3.2	0.00
Lebanon	264	19.9	5.23 +	Lebanon	51	3.7	1.04
Lehigh	401	12.9	-2.98 -	Lehigh	105	2.8	-1.39
Luzerne	281	9.9	-7.35 -	Luzerne	84	2.9	-0.90
Lycoming	210	16.8	1.99 +	Lycoming	45	3.5	0.60
McKean	54	12.6	-1.18	McKean	18	3.7	0.62
Mercer	233	17.7	2.96 +	Mercer	40	3.0	-0.41
Mifflin	141	26.0	7.34 +	Mifflin	23	4.2	1.31
Monroe	225	15.5	0.75	Monroe	38	2.4	-1.78
Montgomery	985	11.2	-9.51 -	Montgomery	111	1.2	-10.93 -
Montour	43	19.2	1.71	Montour	5	2.2	
Northampton	245	9.0	-8.52 -	Northampton	73	2.5	-2.11 -
Northumberland	148	14.4	-0.36	Northumberland	33	3.2	0.00
Perry	62	12.1	-1.59	Perry	22	4.1	1.17
Philadelphia	5,203	26.5	46.17 +	Philadelphia	1,472	6.9	30.71 +
Pike	37	9.9	-2.46 -	Pike	8	2.0	
Potter	17	9.7	-1.76	Potter	8	3.4	
Schuylkill	142	10.0	-5.09 -	Schuylkill	42	2.9	-0.64
Snyder	123	26.2	6.96 +	Snyder	12	2.5	-0.86
Somerset	103	13.5	-1.01	Somerset	16	2.1	-1.70
Sullivan	6	11.5		Sullivan	0	-	
Susquehanna	69	15.9	0.60	Susquehanna	15	3.4	0.23
Tioga	57	13.2	-0.86	Tioga	18	4.1	1.05
Union	88	22.7	4.04 +	Union	5	1.3	
Venango	106	18.8	2.67 +	Venango	20	3.4	0.27
Warren	61	14.1	-0.38	Warren	14	3.1	-0.12
Washington	169	8.4	-8.08 -	Washington	33	1.6	-4.06 -
Wayne	53	11.6	-1.78	Wayne	11	2.3	-1.10
Westmoreland	314	9.5	-8.58 -	Westmoreland	64	1.9	-4.22 -
Wyoming	42	13.9	-0.41	Wyoming	8	2.6	
York	560	12.6	-4.13 -	York	176	3.8	2.32 +
Pennsylvania	20,141	14.8	-17.85 -	Pennsylvania	4,651	3.2	-11.96 -
United States (2001)	654,048	16.6		United States (2001)	153,105	3.8	

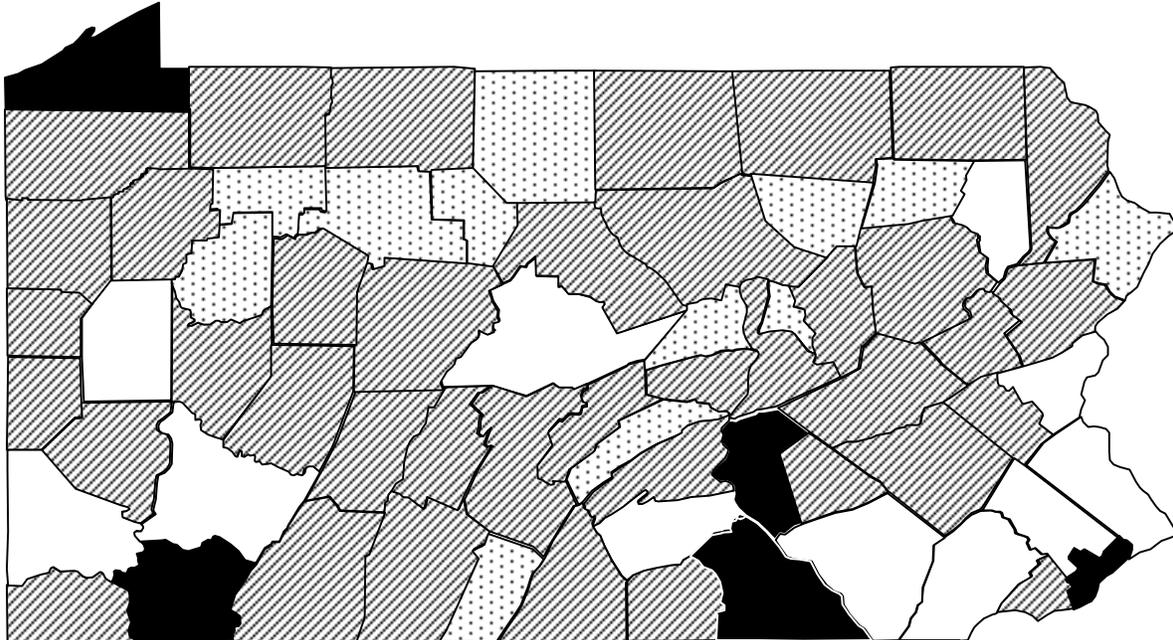
NOTE: A+ or - after the value of  $\mu$  denotes if the county rate was significantly higher or lower than the state rate. No + or - after the  $\mu$  value denotes no significant difference. State data were compared to U.S. data. Two separate formulas computed the  $\mu$  values, depending on the number of events. See Technical Notes.

**Percent with No Prenatal Care in First Trimester  
Pennsylvania Resident Live Births, 2001**



**PERCENT** Significantly lower than the state      Not significantly higher or lower than the state  
 Significantly higher than the state      Less than 10 events - statistically unreliable

**Percent of Births to Mothers Under 18  
Pennsylvania Resident Live Births, 2001**



**PERCENT** Significantly lower than the state      Not significantly higher or lower than the state  
 Significantly higher than the state      Less than 10 events - statistically unreliable

Note: Significance is determined by calculating county  $\mu$  values. The calculations were not performed for counties that had less than 10 events. Rates for counties with less than 10 events are considered unreliable. See Technical Notes.

## Infant Death Rates, Total and By Race/Ethnicity

2001			2001 Infant Deaths:			1999-01 Infant Deaths:		
Infant Deaths	No.	Rate	White	No.	Rate	White	No.	Rate
Adams	11	10.1	Allegheeny	54	5.1	Allegheeny	178	5.4
Allegheeny	107	7.7	Berks	34	8.0	Berks	85	6.7
Armstrong	2	2.9	Bucks	29	4.4	Bucks	79	4.0
Beaver	8	4.5	Chester	23	4.5	Chester	74	4.8
Bedford	7	13.1	Dauphin	12	5.3	Dauphin	35	5.1
Berks	41	8.8	Delaware	23	4.8	Delaware	60	4.0
Blair	7	5.0	Erie	28	9.4	Erie	62	6.8
Bradford	5	6.7	Lancaster	45	7.2	Lancaster	125	6.6
Bucks	34	4.7	Lehigh	28	8.6	Lehigh	73	7.3
Butler	8	3.7	Montgomery	39	4.9	Montgomery	118	5.0
Cambria	14	9.3	Northampton	17	6.2	Northampton	43	5.4
Cameron	1	22.2	Philadelphia	54	6.6	Philadelphia	158	6.1
Carbon	5	8.4	Pennsylvania	714	6.1	Pennsylvania	2052	5.8
Centre	7	5.8	U.S. (2001)	18,094	5.7			
Chester	32	5.6						
Clarion	2	5.0						
Clearfield	7	8.9						
Clinton	4	9.7						
Columbia	5	9.2						
Crawford	4	3.7						
Cumberland	10	4.5						
Dauphin	14	4.4						
Delaware	38	5.6						
Elk	1	2.8						
Erie	31	9.2						
Fayette	11	7.3						
Forest	1	25.0						
Franklin	11	6.8						
Fulton	1	6.1						
Greene	5	11.6						
Huntingdon	1	2.0						
Indiana	5	5.7						
Jefferson	3	5.7						
Juniata	1	3.6						
Lackawanna	15	6.7						
Lancaster	51	7.7						
Lawrence	12	12.0						
Lebanon	11	8.0						
Lehigh	39	10.5						
Luzerne	15	5.1						
Lycoming	15	11.6						
McKean	3	6.1						
Mercer	11	8.2						
Mifflin	4	7.2						
Monroe	11	7.0						
Montgomery	50	5.3						
Montour	3	13.2						
Northampton	21	7.1						
Northumberland	13	12.5						
Perry	4	7.5						
Philadelphia	228	10.8						
Pike	1	2.5						
Potter	0	-						
Schuylkill	6	4.1						
Snyder	5	10.3						
Somerset	6	7.7						
Sullivan	0	-						
Susquehanna	3	6.7						
Tioga	1	2.3						
Union	2	5.0						
Venango	8	13.7						
Warren	5	11.1						
Washington	14	6.9						
Wayne	1	2.1						
Westmoreland	13	3.9						
Wyoming	3	9.7						
York	20	4.3						
Pennsylvania	1,038	7.2						
United States (2001)	27,801	6.9						

2001 Infant Deaths:			1999-01 Infant Deaths:		
White	No.	Rate	Black	No.	Rate
Allegheeny	48	18.3	Allegheeny	154	19.2
Bucks	4	13.0	Bucks	12	12.6
Chester	5	14.5	Chester	14	13.4
Dauphin	2	2.8	Dauphin	19	9.0
Delaware	14	9.5	Delaware	58	13.5
Erie	3	8.9	Erie	23	21.3
Montgomery	9	11.7	Montgomery	39	16.5
Philadelphia	166	15.2	Philadelphia	513	15.4
Pennsylvania	295	14.9	Pennsylvania	950	15.8
U.S. (2001)	8,563	14.2			

Hispanic			Asian and Pacific Islander		
Hispanic	No.	Rate	Asian and Pacific Islander	No.	Rate
Berks	13	13.4	Allegheeny	5	4.4
Chester	1	2.4	Delaware	1	1.0
Lancaster	10	16.3	Montgomery	2	1.2
Lehigh	13	16.9	Philadelphia	19	5.3
Montgomery	1	3.1	Pennsylvania	45	4.0
Northampton	3	8.6			
Philadelphia	22	8.3			
Pennsylvania	78	9.6			
U.S. (2001)	4,744	5.6			

NOTES: Rates based on small numbers can be unreliable. See Technical Notes. Hispanics can be of any race.

## Average Annual Incidence Rates for Selected Diseases, 1999-2001

<u>Syphilis</u>	<u>No.</u>	<u>Rate</u>	<u>AIDS</u>	<u>No.</u>	<u>Rate</u>	<u>Tuberculosis</u>	<u>No.</u>	<u>Rate</u>
Adams	0	-	Adams	10	3.7	Adams	1	0.4
Allegheny	12	0.3	Allegheny	246	6.5	Allegheny	101	2.7
Armstrong	0	-	Armstrong	3	1.4	Armstrong	5	2.3
Beaver	0	-	Beaver	12	2.2	Beaver	9	1.7
Bedford	0	-	Bedford	1	0.7	Bedford	0	-
Berks	1	0.1	Berks	102	9.2	Berks	25	2.3
Blair	0	-	Blair	7	1.8	Blair	3	0.8
Bradford	0	-	Bradford	4	2.1	Bradford	1	0.5
Bucks	6	0.3	Bucks	67	3.7	Bucks	42	2.3
Butler	0	-	Butler	7	1.3	Butler	4	0.8
Cambria	0	-	Cambria	12	2.6	Cambria	9	2.0
Cameron	0	-	Cameron	0	-	Cameron	0	-
Carbon	0	-	Carbon	5	2.8	Carbon	1	0.6
Centre	0	-	Centre	12	3.0	Centre	7	1.7
Chester	0	-	Chester	49	3.7	Chester	28	2.1
Clarion	1	0.8	Clarion	0	-	Clarion	0	-
Clearfield	0	-	Clearfield	14	5.7	Clearfield	3	1.2
Clinton	0	-	Clinton	1	0.9	Clinton	2	1.8
Columbia	0	-	Columbia	6	3.1	Columbia	3	1.6
Crawford	0	-	Crawford	8	3.0	Crawford	3	1.1
Cumberland	0	-	Cumberland	51	8.0	Cumberland	19	3.0
Dauphin	2	0.3	Dauphin	138	18.4	Dauphin	22	2.9
Delaware	5	0.3	Delaware	176	10.7	Delaware	59	3.6
Elk	0	-	Elk	0	-	Elk	0	-
Erie	0	-	Erie	44	5.3	Erie	29	3.5
Fayette	0	-	Fayette	4	0.9	Fayette	10	2.3
Forest	0	-	Forest	1	6.8	Forest	0	-
Franklin	0	-	Franklin	6	1.5	Franklin	10	2.6
Fulton	0	-	Fulton	0	-	Fulton	0	-
Greene	0	-	Greene	5	4.1	Greene	3	2.4
Huntingdon	0	-	Huntingdon	15	11.0	Huntingdon	0	-
Indiana	1	0.4	Indiana	0	-	Indiana	2	0.8
Jefferson	0	-	Jefferson	2	1.5	Jefferson	2	1.5
Juniata	0	-	Juniata	0	-	Juniata	2	2.9
Lackawanna	2	0.3	Lackawanna	23	3.6	Lackawanna	19	3.0
Lancaster	1	0.1	Lancaster	82	5.8	Lancaster	23	1.6
Lawrence	0	-	Lawrence	5	1.8	Lawrence	6	2.1
Lebanon	0	-	Lebanon	26	7.2	Lebanon	4	1.1
Lehigh	2	0.2	Lehigh	114	12.3	Lehigh	26	2.8
Luzerne	0	-	Luzerne	19	2.0	Luzerne	30	3.2
Lycoming	0	-	Lycoming	44	12.4	Lycoming	2	0.6
McKean	0	-	McKean	2	1.5	McKean	2	1.5
Mercer	2	0.6	Mercer	9	2.5	Mercer	2	0.6
Mifflin	0	-	Mifflin	3	2.1	Mifflin	3	2.1
Monroe	0	-	Monroe	19	4.6	Monroe	11	2.7
Montgomery	6	0.3	Montgomery	109	4.9	Montgomery	57	2.6
Montour	0	-	Montour	4	7.4	Montour	2	3.7
Northampton	0	-	Northampton	40	5.0	Northampton	19	2.4
Northumberland	0	-	Northumberland	11	3.9	Northumberland	4	1.4
Perry	0	-	Perry	0	-	Perry	2	1.5
Philadelphia	215	4.9	Philadelphia	3,069	69.3	Philadelphia	497	11.2
Pike	0	-	Pike	7	5.1	Pike	0	-
Potter	0	-	Potter	0	-	Potter	3	5.6
Schuylkill	0	-	Schuylkill	22	4.9	Schuylkill	2	0.4
Snyder	0	-	Snyder	4	3.5	Snyder	2	1.8
Somerset	0	-	Somerset	13	5.4	Somerset	3	1.3
Sullivan	0	-	Sullivan	1	5.2	Sullivan	0	-
Susquehanna	0	-	Susquehanna	1	0.8	Susquehanna	1	0.8
Tioga	0	-	Tioga	1	0.8	Tioga	0	-
Union	0	-	Union	25	20.2	Union	2	1.6
Venango	0	-	Venango	4	2.3	Venango	1	0.6
Warren	0	-	Warren	0	-	Warren	0	-
Washington	0	-	Washington	17	2.8	Washington	17	2.8
Wayne	0	-	Wayne	10	7.0	Wayne	1	0.7
Westmoreland	4	0.4	Westmoreland	19	1.7	Westmoreland	18	1.6
Wyoming	0	-	Wyoming	5	5.9	Wyoming	1	1.2
York	1	0.1	York	79	6.9	York	22	1.9
Pennsylvania	261	0.7	Pennsylvania	4,795	13.1	Pennsylvania	1,187	3.2
U.S. (2001)	6,103	2.2	U.S. (2001)	41,868	14.9	U.S. (2001)	15,989	5.7

NOTES: Rates based on small numbers can be unreliable. See the Technical Notes section.

## Average Annual Incidence Rate for Measles, 1999-2001

<u>Measles</u>	<u>No.</u>	<u>Rate</u>	<u>Measles</u>	<u>No.</u>	<u>Rate</u>	<u>Measles</u>	<u>No.</u>	<u>Rate</u>
Adams	0	-	Elk	0	-	Montour	0	-
Allegheny	2	0.05	Erie	0	-	Northampton	0	-
Armstrong	0	-	Fayette	0	-	Northumberland	0	-
Beaver	0	-	Forest	0	-	Perry	0	-
Bedford	3	2.01	Franklin	0	-	Philadelphia	1	0.02
Berks	0	-	Fulton	1	2.32	Pike	0	-
Blair	1	0.26	Greene	0	-	Potter	0	-
Bradford	0	-	Huntingdon	0	-	Schuylkill	0	-
Bucks	0	-	Indiana	0	-	Snyder	0	-
Butler	0	-	Jefferson	0	-	Somerset	0	-
Cambria	0	-	Juniata	0	-	Sullivan	0	-
Cameron	0	-	Lackawanna	0	-	Susquehanna	0	-
Carbon	0	-	Lancaster	1	0.07	Tioga	0	-
Centre	0	-	Lawrence	0	-	Union	0	-
Chester	0	-	Lebanon	0	-	Venango	0	-
Clarion	0	-	Lehigh	0	-	Warren	0	-
Clearfield	0	-	Luzerne	0	-	Washington	0	-
Clinton	0	-	Lycoming	0	-	Wayne	0	-
Columbia	0	-	McKean	0	-	Westmoreland	0	-
Crawford	0	-	Mercer	0	-	Wyoming	0	-
Cumberland	0	-	Mifflin	0	-	York	0	-
Dauphin	0	-	Monroe	0	-			
Delaware	0	-	Montgomery	0	-	Pennsylvania	9	0.02
						U.S. (2001)	116	0.04

## Average Annual Work-Related Injury Death Rate, 1999-2001

<u>Work-Related Injury Deaths</u>	<u>No.</u>	<u>Rate</u>	<u>Work-Related Injury Deaths</u>	<u>No.</u>	<u>Rate</u>	<u>Work-Related Injury Deaths</u>	<u>No.</u>	<u>Rate</u>
Adams	4	1.5	Elk	1	1.0	Montour	2	3.7
Allegheny	47	1.2	Erie	14	1.7	Northampton	18	2.3
Armstrong	6	2.8	Fayette	5	1.1	Northumberland	7	2.5
Beaver	13	2.4	Forest	1	6.8	Perry	3	2.3
Bedford	6	4.0	Franklin	7	1.8	Philadelphia	82	1.9
Berks	20	1.8	Fulton	4	9.3	Pike	4	2.9
Blair	5	1.3	Greene	7	5.7	Potter	0	-
Bradford	2	1.1	Huntingdon	2	1.5	Schuylkill	12	2.7
Bucks	18	1.0	Indiana	8	3.0	Snyder	5	4.4
Butler	8	1.5	Jefferson	3	2.2	Somerset	29	12.1
Cambria	11	2.4	Juniata	4	5.9	Sullivan	1	5.2
Cameron	0	-	Lackawanna	17	2.7	Susquehanna	1	0.8
Carbon	5	2.8	Lancaster	20	1.4	Tioga	5	4.0
Centre	5	1.2	Lawrence	6	2.1	Union	3	2.4
Chester	24	1.8	Lebanon	9	2.5	Venango	2	1.2
Clarion	3	2.4	Lehigh	15	1.6	Warren	2	1.5
Clearfield	7	2.8	Luzerne	15	1.6	Washington	10	1.6
Clinton	3	2.7	Lycoming	7	2.0	Wayne	2	1.4
Columbia	3	1.6	McKean	6	4.4	Westmoreland	21	1.9
Crawford	7	2.6	Mercer	8	2.2	Wyoming	2	2.3
Cumberland	9	1.4	Mifflin	4	2.9	York	22	1.9
Dauphin	8	1.1	Monroe	6	1.5			
Delaware	22	1.3	Montgomery	26	1.2	Pennsylvania	666	1.8
						U.S. (2001)	5,900	2.1

NOTES: Rates based on small numbers can be unreliable. See the Technical Notes. Unknown county included in state total.

## Selected Birth Statistics by Race and Hispanic Origin of Mother, 2001

<b>Low Birth Weight</b>			<b>No Prenatal Care First Trimester</b>			<b>Births to Mother &lt;18</b>		
	<b>No.</b>	<b>Pct.</b>		<b>No.</b>	<b>Pct.</b>		<b>No.</b>	<b>Pct.</b>
<b>White:</b>			<b>White:</b>			<b>White:</b>		
Allegheny	703	6.6	Allegheny	668	6.4	Allegheny	164	1.5
Berks	290	6.8	Berks	1,021	25.7	Berks	145	3.4
Bucks	451	6.9	Bucks	452	7.2	Bucks	61	0.9
Chester	327	6.4	Chester	524	10.9	Chester	51	1.0
Dauphin	227	10.0	Dauphin	172	8.1	Dauphin	70	3.1
Delaware	270	5.6	Delaware	388	8.4	Delaware	62	1.3
Erie	208	7.0	Erie	391	13.4	Erie	107	3.6
Lancaster	314	5.0	Lancaster	1,260	21.3	Lancaster	135	2.2
Lehigh	266	8.2	Lehigh	310	11.2	Lehigh	81	2.5
Montgomery	494	6.2	Montgomery	707	9.5	Montgomery	70	0.9
Northampton	237	8.7	Northampton	217	8.6	Northampton	67	2.5
Philadelphia	652	8.0	Philadelphia	1,487	19.2	Philadelphia	366	4.5
Pennsylvania	8,086	6.9	Pennsylvania	13,981	12.5	Pennsylvania	2,719	2.3
U.S. (2001)	212,228	6.7	U.S. (2001)	460,742	14.8	U.S. (2001)	103,287	3.3
<b>Black:</b>			<b>Black:</b>			<b>Black:</b>		
Allegheny	384	14.7	Allegheny	400	16.0	Allegheny	238	9.1
Bucks	44	14.6	Bucks	74	25.8	Bucks	9	2.9
Chester	43	12.5	Chester	78	27.7	Chester	25	7.3
Dauphin	101	14.1	Dauphin	72	11.3	Dauphin	49	6.9
Delaware	187	12.7	Delaware	369	26.8	Delaware	125	8.4
Erie	39	11.6	Erie	110	33.7	Erie	44	13.1
Montgomery	96	12.4	Montgomery	172	24.5	Montgomery	40	5.2
Philadelphia	1,549	14.2	Philadelphia	3,114	31.2	Philadelphia	1,004	9.2
Pennsylvania	2,727	13.8	Pennsylvania	4,931	27.1	Pennsylvania	1,734	8.8
U.S. (2001)	78,423	13.0	U.S. (2001)	149,657	25.5	U.S. (2001)	44,297	7.3
<b>Hispanic:</b>			<b>Hispanic:</b>			<b>Hispanic:</b>		
Berks	75	7.8	Berks	412	46.8	Berks	82	8.5
Chester	24	5.8	Chester	107	28.6	Chester	20	4.8
Lancaster	60	9.8	Lancaster	76	14.2	Lancaster	62	10.1
Lehigh	64	8.3	Lehigh	137	22.2	Lehigh	56	7.3
Montgomery	24	7.5	Montgomery	77	25.5	Montgomery	11	3.4
Northampton	43	12.4	Northampton	60	19.7	Northampton	28	8.1
Philadelphia	249	9.4	Philadelphia	722	29.1	Philadelphia	267	10.1
Pennsylvania	719	8.8	Pennsylvania	2,001	26.9	Pennsylvania	655	8.0
U.S. (2001)	55,092	6.5	U.S. (2001)	200,671	24.3	U.S. (2001)	49,679	5.8
<b>Asian and Pacific Islander:</b>			<b>Asian and Pacific Islander:</b>			<b>Asian and Pacific Islander:</b>		
Allegheny	28	7.1	Allegheny	29	7.6	Allegheny	0	-
Delaware	26	7.2	Delaware	64	19.1	Delaware	3	0.8
Montgomery	43	7.6	Montgomery	79	15.4	Montgomery	1	0.2
Philadelphia	116	9.5	Philadelphia	344	31.5	Philadelphia	26	2.1
Pennsylvania	307	8.0	Pennsylvania	691	19.7	Pennsylvania	38	1.0
U.S. (2001)	15,031	7.5	U.S. (2001)	31,173	16.0	U.S. (2001)	2,681	1.3

NOTES: Rates/percents based on small numbers can be unreliable. See the Technical Notes section. Hispanics can be of any race.

# Health Status Indicators by Department of Health District

## Total Number of Deaths and Average Annual Age-Adjusted Death Rates All Causes and Selected Causes, 1999-2001

All Causes	No.	Rate	CI (95%)	
North Central	19,725	826.5	814.97-838.03	-
Northeastern	49,372	860.8	853.21-868.39	-
Northwestern	31,203	871.0	861.34-880.66	
South Central	44,756	834.7	826.97-842.43	-
Southeastern	145,404	891.3	886.72-895.88	+
Southwestern	98,710	871.8	866.36-877.24	
Pennsylvania	389,170	871.0	868.26-873.74	+
U.S. (2001)	2,417,798	855.0	853.92-856.08	

### Cardiovascular

Disease	No.	Rate	CI (95%)	
North Central	8,328	340.3	332.99-347.61	
Northeastern	20,870	349.2	344.46-353.94	+
Northwestern	12,983	350.9	344.86-356.94	+
South Central	18,113	331.5	326.67-336.33	-
Southeastern	55,363	330.4	327.65-333.15	-
Southwestern	40,430	343.9	340.55-347.25	+
Pennsylvania	156,087	338.5	336.82-340.18	+
U.S. (2001)	921,819	326.4	325.73-327.07	

Lung Cancer	No.	Rate	CI (95%)	
North Central	1,042	45.0	42.27-47.73	-
Northeastern	2,890	52.3	50.39-54.21	-
Northwestern	1,893	54.2	51.76-56.64	
South Central	2,724	51.3	49.37-53.23	-
Southeastern	9,141	57.6	56.42-58.78	+
Southwestern	6,232	56.8	55.39-58.21	+
Pennsylvania	23,922	55.0	54.30-55.70	
U.S. (2001)	156,005	55.3	55.03-55.57	

### Diseases of Heart

Disease	No.	Rate	CI (95%)	
North Central	6,534	267.9	261.40-274.40	
Northeastern	16,841	282.5	278.23-286.77	+
Northwestern	10,057	272.9	267.57-278.23	+
South Central	14,040	257.5	253.24-261.76	-
Southeastern	41,934	250.9	248.50-253.30	-
Southwestern	31,868	272.1	269.11-275.09	+
Pennsylvania	121,274	263.8	262.32-265.28	+
U.S. (2001)	699,697	247.7	247.12-248.28	

### Female

Breast Cancer	No.	Rate	CI (95%)	
North Central	362	28.3	25.38-31.22	
Northeastern	849	27.1	25.28-28.92	
Northwestern	527	27.1	24.79-29.41	
South Central	771	25.7	23.89-27.51	-
Southeastern	2,740	30.2	29.07-31.33	+
Southwestern	1,696	27.6	26.29-28.91	
Pennsylvania	6,945	28.3	27.63-28.97	+
U.S. (2000)	41,872	27.1	26.84-27.36	

### Stroke

Disease	No.	Rate	CI (95%)	
North Central	1,359	54.7	51.79-57.61	
Northeastern	2,799	46.2	44.49-47.91	-
Northwestern	2,098	55.9	53.51-58.29	
South Central	3,058	55.6	53.63-57.57	
Southeastern	10,314	60.9	59.72-62.08	+
Southwestern	6,389	53.5	52.19-54.81	-
Pennsylvania	26,017	55.7	55.02-56.38	-
U.S. (2001)	163,601	57.9	57.62-58.18	

### Intentional Self-harm

(Suicide)	No.	Rate	CI (95%)	
North Central	205	9.9	8.54-11.26	
Northeastern	495	11.2	10.21-12.19	
Northwestern	333	11.6	10.35-12.85	
South Central	494	10.5	9.57-11.43	
Southeastern	1,393	9.6	9.10-10.10	-
Southwestern	966	11.2	10.49-11.91	+
Pennsylvania	3,886	10.4	10.07-10.73	
U.S. (2001)	29,423	10.3	10.18-10.42	

### Motor Vehicle

Accidents	No.	Rate	CI (95%)	
North Central	303	14.4	12.78-16.02	+
Northeastern	578	13.1	12.03-14.17	
Northwestern	538	18.4	16.85-19.95	+
South Central	731	15.9	14.75-17.05	+
Southeastern	1,497	10.3	9.78-10.82	-
Southwestern	873	10.1	9.43-10.77	-
Pennsylvania	4,520	12.1	11.75-12.45	-
U.S. (2001)	41,967	14.7	14.56-14.84	

Assault (Homicide)	No.	Rate	CI (95%)	
North Central	41	2.1	1.46-2.74	-
Northeastern	124	3.0	2.47-3.53	-
Northwestern	70	2.6	1.99-3.21	-
South Central	107	2.4	1.95-2.85	-
Southeastern	1,260	8.9	8.41-9.39	+
Southwestern	352	4.4	3.94-4.86	-
Pennsylvania	1,954	5.5	5.26-5.74	-
U.S. (2001)	19,727	6.9	6.80-7.00	

NOTES: A + or - after the confidence interval (CI) denotes if the district age-adjusted death rate was significantly higher or lower than the state rates.  
No + or - after a CI denotes no significant difference. State data were compared to U.S. data. See Technical Notes section.

# Health Status Indicators by Department of Health District

## Infant Deaths, Number and Average Annual Rate By Race and Hispanic Origin, 1999-2001

All Infant Deaths	No.	Rate	m (95%)
North Central	141	6.7	-0.69
Northeastern	296	6.4	-1.79
Northwestern	245	7.6	1.07
South Central	305	5.6	-4.17 -
Southeastern	1,443	7.6	2.60 +
Southwestern	656	7.4	1.07
Pennsylvania	3,086	7.1	1.59
U.S. (2001)	27,801	6.9	

White	No.	Rate	Black	No.	Rate	Hispanic	No.	Rate
North Central	130	6.4	North Central	8	22.0	North Central	1	5.6
Northeastern	257	6.0	Northeastern	34	19.9	Northeastern	41	10.1
Northwestern	207	6.9	Northwestern	33	20.3	Northwestern	4	9.1
South Central	268	5.4	South Central	34	10.0	South Central	15	6.6
Southeastern	726	5.3	Southeastern	665	15.3	Southeastern	131	8.6
Southwestern	464	6.0	Southwestern	176	18.5	Southwestern	9	13.2
Pennsylvania	2,052	5.8	Pennsylvania	950	15.8	Pennsylvania	201	8.8
U.S. (2001)	18,094	5.7	U.S. (2001)	8,563	14.2	U.S. (2001)	4,744	5.6

## Infant Deaths, Number and Rate By Race and Hispanic Origin, 2001

All Infant Deaths	No.	Rate	m (95%)
North Central	60	8.5	1.26
Northeastern	114	7.3	0.15
Northwestern	89	8.5	1.56
South Central	102	5.6	-2.55 -
Southeastern	480	7.6	1.19
Southwestern	193	6.7	-1.01
Pennsylvania	1,038	7.2	1.37
U.S. (2001)	27,801	6.9	

White	No.	Rate	Black	No.	Rate	Hispanic	No.	Rate
North Central	56	8.2	North Central	2	15.7	North Central	0	-
Northeastern	97	6.7	Northeastern	15	26.2	Northeastern	18	12.3
Northwestern	80	8.1	Northwestern	7	13.9	Northwestern	1	6.5
South Central	96	5.9	South Central	6	5.1	South Central	7	8.5
Southeastern	253	5.7	Southeastern	210	14.7	Southeastern	48	8.9
Southwestern	132	5.3	Southwestern	55	17.9	Southwestern	4	15.9
Pennsylvania	714	6.1	Pennsylvania	295	14.9	Pennsylvania	78	9.6
U.S. (2001)	18,094	5.7	U.S. (2001)	8,563	14.2	U.S. (2001)	4,744	5.6

Note: A + or - after the value of  $\mu$  denotes if the district rate was significantly higher or lower than the state rate. No + or - after the  $\mu$  value denotes no significant difference. State data were compared to U.S. data. Two separate formulas computed the  $\mu$  values, depending on the number of events. The value of  $\mu$  was not calculated for rates/percents based on less than 10 events or for rates by race and Hispanic origin. See Technical Notes.

# Health Status Indicators by Department of Health District

## Selected Diseases

### Total Number and Average Annual Rate, 1999-2001

<b>Syphilis</b>	<b>No.</b>	<b>Rate</b>	<b>Tuberculosis</b>	<b>No.</b>	<b>Rate</b>
North Central	0	-	North Central	28	1.4
Northeastern	4	0.09	Northeastern	109	2.5
Northwestern	3	0.11	Northwestern	48	1.7
South Central	3	0.07	South Central	88	1.9
Southeastern	234	1.63	Southeastern	733	5.1
Southwestern	17	0.20	Southwestern	181	2.2
Pennsylvania	261	0.71	Pennsylvania	1,187	3.2
U.S. (2001)	6,103	2.20	U.S. (2001)	15,989	5.7
<b>AIDS</b>	<b>No.</b>	<b>Rate</b>	<b>Measles</b>	<b>No.</b>	<b>Rate</b>
North Central	113	5.6	North Central	0	-
Northeastern	243	5.5	Northeastern	0	-
Northwestern	89	3.1	Northwestern	0	-
South Central	336	7.3	South Central	5	0.11
Southeastern	3,676	25.6	Southeastern	2	0.01
Southwestern	338	4.1	Southwestern	2	0.02
Pennsylvania	4,795	13.1	Pennsylvania	9	0.02
U.S. (2001)	41,868	14.9	U.S. (2001)	116	0.04

### Low Birth Weight, Number and Percent, By Race and Hispanic Origin, 2001

<b>All Births</b>	<b>No.</b>	<b>Pct.</b>	<b><math>\mu</math> (95%)</b>
North Central	474	6.7	-3.74 -
Northeastern	1,219	7.9	0.00
Northwestern	758	7.2	-2.66 -
South Central	1,418	7.8	-0.50
Southeastern	5,229	8.3	3.72 +
Southwestern	2,262	7.8	-0.63
Pennsylvania	11,360	7.9	2.84 +
U.S. (2001)	308,747	7.7	

<b>White</b>	<b>No.</b>	<b>Pct.</b>	<b>Black</b>	<b>No.</b>	<b>Pct.</b>	<b>Hispanic</b>	<b>No.</b>	<b>Pct.</b>
North Central	449	6.6	North Central	17	13.4	North Central	7	11.5
Northeastern	1,096	7.6	Northeastern	66	11.5	Northeastern	137	9.4
Northwestern	688	7.0	Northwestern	63	12.5	Northwestern	12	7.8
South Central	1,185	7.2	South Central	164	13.9	South Central	83	10.0
Southeastern	2,912	6.5	Southeastern	1,980	13.8	Southeastern	461	8.6
Southwestern	1,756	7.0	Southwestern	437	14.2	Southwestern	19	7.5
Pennsylvania	8,086	6.9	Pennsylvania	2,727	13.8	Pennsylvania	719	8.8
U.S. (2001)	212,228	6.7	U.S. (2001)	78,423	13.0	U.S. (2001)	55,092	6.5

Note: A + or - after the value of  $\mu$  denotes if the district rate was significantly higher or lower than the state rate. No + or - after the  $\mu$  value denotes no significant difference. State data were compared to U.S. data. Two separate formulas computed the  $\mu$  values, depending on the number of events. The value of  $\mu$  was not calculated for rates/percents based on less than 10 events or for rates/percents by race and Hispanic origin. See Technical Notes.

# Health Status Indicators by Department of Health District

## No Prenatal Care in First Trimester, Number and Percent of Live Births, By Race and Hispanic Origin, 2001

All Births	No.	Pct.	m (95%)
North Central	1,144	16.8	4.65 +
Northeastern	1,698	11.8	-10.13 -
Northwestern	1,526	15.0	0.57
South Central	2,211	12.7	-7.80 -
Southeastern	10,843	18.4	24.61 +
Southwestern	2,719	9.6	-24.64 -
Pennsylvania	20,141	14.8	-17.85 -
U.S. (2001)	654,048	16.6	

White	No.	Pct.	Black	No.	Pct.	Hispanic	No.	Pct.
North Central	1,088	16.5	North Central	32	26.0	North Central	13	22.8
Northeastern	1,472	11.0	Northeastern	137	27.6	Northeastern	264	21.3
Northwestern	1,349	14.1	Northwestern	146	30.2	Northwestern	30	19.7
South Central	1,963	12.3	South Central	189	17.5	South Central	192	24.8
Southeastern	5,977	14.2	Southeastern	3,932	30.1	Southeastern	1,466	29.5
Southwestern	2,132	8.7	Southwestern	495	16.8	Southwestern	36	14.6
Pennsylvania	13,981	12.5	Pennsylvania	4,931	27.1	Pennsylvania	2,001	26.9
U.S. (2001)	460,742	14.8	U.S. (2001)	149,657	25.5	U.S. (2001)	200,671	24.3

## Live Births to Mothers Under Age 18, Number and Percent, By Race and Hispanic Origin, 2001

All Births	No.	Pct.	m (95%)
North Central	193	2.7	-2.40 -
Northeastern	408	2.6	-4.27 -
Northwestern	352	3.4	1.16
South Central	611	3.4	1.52
Southeastern	2,302	3.6	5.75 +
Southwestern	785	2.7	-4.84 -
Pennsylvania	4,651	3.2	-11.96 -
U.S. (2001)	153,105	3.8	

White	No.	Pct.	Black	No.	Pct.	Hispanic	No.	Pct.
North Central	182	2.7	North Central	11	8.7	North Central	3	4.9
Northeastern	352	2.4	Northeastern	37	6.5	Northeastern	101	6.9
Northwestern	288	2.9	Northwestern	57	11.3	Northwestern	7	4.6
South Central	489	3.0	South Central	97	8.2	South Central	70	8.5
Southeastern	931	2.1	Southeastern	1,241	8.7	Southeastern	465	8.6
Southwestern	477	1.9	Southwestern	291	9.5	Southwestern	9	3.6
Pennsylvania	2,719	2.3	Pennsylvania	1,734	8.8	Pennsylvania	655	8.0
U.S. (2001)	103,287	3.3	U.S. (2001)	44,297	7.3	U.S. (2001)	49,679	5.8

Note: A + or - after the value of  $\mu$  denotes if the district rate was significantly higher or lower than the state rate. No + or - after the  $\mu$  value denotes no significant difference. State data were compared to U.S. data. Two separate formulas were used to compute the  $\mu$  values, depending on the number of events. The value of  $\mu$  was not calculated for rates/percents based on less than 10 events or for rates/percents by race and Hispanic Origin. See Technical Notes.

# Technical Notes

## Data Sources

The Pennsylvania Department of Health's vital statistics registration system was the source for the birth and death statistics that appear in this report except for work-related injury deaths which were from the Census of Fatal Occupational Injuries as conducted by the U.S. Department of Labor. The National Center for Health Statistics was the source for the U.S. birth and death statistics that appear in this report. The latest available U.S. birth statistics are final 2001 data. The latest available U.S. death statistics are preliminary 2001 data (female breast cancer are final 2000 data).

The Department's Communicable Disease Surveillance, Sexually Transmitted Disease, and Tuberculosis Control Programs were the sources for the number of measles, syphilis, and tuberculosis cases reported. For the number of AIDS cases reported, data from the Department's AIDS Reporting System were used.

The U.S. Census Bureau 1999 income data were used for the estimated number and percentage of related children ages 5-17 and all children under age 18 living below the poverty level by county. Access their website at [www.census.gov](http://www.census.gov) to review complete data tables, including confidence intervals and data limitations.

Population estimates, for the years 1999 through 2001, used to compute rates were produced jointly by the U.S. Census Bureau and the State Data Center of the Pennsylvania State University at Harrisburg under the Federal-State Cooperative Program for Local Population Estimates. The estimated county population figures used to compute the rates that appear in this report are available from the Bureau of Health Statistics and Research upon request. The 2000 United States standard million population used in calculating age-adjusted death rates follows:

Age	Population
All Ages .....	1,000,000
Under 1 .....	13,818
1-4 .....	55,317
5-14 .....	145,565
15-24 .....	138,646
25-34 .....	135,573
35-44 .....	162,613
45-54 .....	134,834
55-64 .....	87,247
65-74 .....	66,037
75-84 .....	44,842
85+ .....	15,508

## DEFINITIONS of TERMS

**Death rates** by cause (and for all causes) are per 100,000 population (except the rate for female breast cancer which is per 100,000 females) and are age-adjusted to the 2000 standard million U.S. population (see above) except the rate for work related injury, which is a crude rate per 100,000 population.

**Infant death rates** are per 1,000 live births for the specified years.

**Incidence rates** are per 100,000 population for the specified years.

The **International Classification of Diseases (ICD-10) codes** for the selected causes of death shown in this report are as follows:

	ICD-10
Motor Vehicle Accidents	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Intentional Self-harm (Suicide)	U03, X60-X84, Y87.0
Lung Cancer	C33-C34
Female Breast Cancer	C50 (sex = fem)
Cardiovascular Disease	I00-I78
Diseases of Heart	I00-I09, I11, I13, I20-I51
Stroke	I60-I69
Assault (Homicide)	U01-U02, X85-Y09, Y87.1

**Low Birth Weight** is less than 2,500 grams or 5 pounds and 9 ounces.

**Hispanics** can be of any race.

**Unknowns excluded in calculations for birth statistics (low birth weight, prenatal care, and teen births). Please note that in previous editions of this report, it was stated that "All calculations exclude any unknowns." That applied only to birth statistics, as it does for this report. We apologize for any inconvenience this may cause.**

## Age-Adjusted Rates

There are many characteristics of a population that can render a crude rate of little use, especially when comparing different populations. (A crude rate is usually defined as: total number of events divided by total population at risk, then, multiplied by 1,000 or 100,000.) Any unique demographic factors such as those related to age, sex or race are used or compared. The median age of Pennsylvania's population has been for many years one of the highest among all the states. Therefore, age-adjusted rates offer a more refined measurement to compare experiences over geographic areas or periods of time. However, there are limitations to their use and one should be familiar with these types of rates when using them.

The age-adjusted death rates that appear in this report were calculated using the direct method and the 2000 United States standard million population distribution (shown in the column on the left). It is important to use the same standard population in the computation of each age-adjusted rate to allow comparability. **Please note that reports for Health Status Indicators prior to the**

**2001 issue used the 1940 U.S. standard million population to calculate age-adjusted rates. Therefore, the age-adjusted rates that appear in this report should not be compared to the age-adjusted rates that appeared in reports prior to the 2001 issue.** This change in the use of a standard population is in response to national/federal guidelines. Also, note that age-adjusted rates are artificial measurements and should never be compared with any other type of rate or be used to calculate the actual number of events.

To calculate an age-adjusted rate using the direct method, the age-specific rates must first be calculated for each of the age groups (as shown in the 2000 standard population distribution on the previous page) using the enumerated or estimated population figures for the time period and population under study. Each age-specific rate is then multiplied by the population figure of the corresponding age group in the standard population breakdown. The resultant figures are the number of deaths to be expected if the population under study had the same age distribution as the standard population. The total of these expected events is then divided by the total of the standard population (in the report 1,000,000). This dividend is then multiplied by 100,000 to yield the age-adjusted rate per 100,000 population.

## Reliability of Rates

All rates are subject to variation. This variation is directly related to the number of events used to calculate the rate. The smaller the number of events used in the calculation of a rate, the higher will be the variability of the rate. Rates (or percentages) based on unusually small numbers of events over a specified period of time or for a sparsely populated geographic area should be of particular concern and used cautiously. When few events or small populations are evident in calculating/studying rates, multiple-year summary rates usually referred to as average annual rates, will sometimes provide a much better perspective or measurement of an outcome. Expanding the period of time studied enlarges the absolute numbers and adds more credence to a statement regarding a rate. Another approach is to expand the geographical area of study, thereby, enlarging the number of events. Adjoining counties can be grouped into regions according to any demographic features they may share, i.e., rural counties with mostly white, older populations.

It is also common practice among data users familiar with health statistics to calculate what is called a standard error (SE) of a rate when comparing rates. This statistic defines a rate's variability and can be used to calculate a confidence interval (CI) to determine the range of possible values for the true rate. If a set standard, goal or target value is included in a rate's confidence interval, there is no significant difference between the two. However, there are various statistical formulas for comparing rates depending on the types of rates or populations being studied and the number of events involved. The following section discusses various statistical formulas that were used to compare the rates that appear in this report.

**NOTE:** Before we proceed with presenting formulas for comparing rates and ratios/percentages, the user should understand that these statistical tools for analyzing/comparing rates are crude and rather conservative approaches, especially the formulas presented for comparing age-adjusted rates. A user may wish to utilize more precise and sophisticated calculations performed by computer software such as SPSS or SAS. Consultation with a statistician or other professional familiar with analyzing health statistics may also be a consideration before pursuing any further study.

## Comparison of Age-Adjusted Rates

As mentioned above, a first step in comparing rates is the computation of a standard error (SE), defining the rate's variability. The usual formula given for computing the standard error of an age-adjusted rate (Chiang, 1961) is very complex and not often understood or used by the average health data user. However, the average user can approximate the standard error of an age-adjusted rate with the following less complex formula (Keyfitz, 1966):

$$SE=R/\sqrt{N}$$

where:

R = (age-adjusted) rate

N = number of events (deaths)

This estimate assumes the rate to be a binomial proportion. As an example, let's use the state's average annual (1999-2001) age-adjusted death rate for suicide of 10.4 to calculate an estimated SE. The rate was based on 3,886 suicides. The square root of 3,886 is 62.34. By dividing the rate of 10.4 by 62.34, one obtains the estimated SE of 0.1668. The estimated SE can then be used to compute a 95% confidence interval (CI) for the rate. The standard formula for determining the 95% CI of a rate is:

$$R \pm (1.96 \times SE)$$

Following this formula, for the rate we are using, produces an equation of  $10.4 \pm (1.96 \times 0.1668)$  and the result is  $10.4 \pm 0.33$ . Then, by subtracting and adding 0.33 against the original rate of 10.4, a range can be calculated and considered the estimated 95% confidence interval for the state, i.e., 10.07 - 10.73. One could then state, with 95% certainty that the actual age-adjusted suicide rate for the state during 1999-2001 was between 10.07 and 10.73.

To compare a particular county's age-adjusted suicide rate for 1999-2001 with the state's corresponding rate, one must go through the same steps shown directly above to obtain the 95% CI for that county's rate. If the rate for the state is not included in the CI, then the county rate is considered to be significantly different, at the 95% confidence level. For example, at first glance, Blair County's age-adjusted suicide rate for 1999-2001 of 13.1 (based on 51 deaths) seems much higher than the corresponding state rate of 10.4. However, calculation of

a 95% CI for Blair County's rate would produce a rather wide range of 9.50-16.70. Since this range for Blair County also includes 10.4 or the state rate, we can say that the county rate is not significantly different than the state rate, at the 95% confidence level. If we were comparing two counties, any significant difference would be determined by whether their confidence intervals overlapped or not. However, please note that the formula for computation of the SE that we are using is not as precise as others and the application of a more precise methodology may produce somewhat different results. Another important result the user of this formula should note is that, the smaller the number of events, upon which the rate is based, the larger the SE and CI will be. This clearly demonstrates the wider variability (and less reliability) of rates based on smaller numbers. As a general rule, age-adjusted rates based on less than twenty events should be considered unstable and are not recommended for comparative use or in determining significance. For this reason, the CIs were not computed, compared and shown for any age-adjusted mortality rate in this report based on less than twenty events.

## Comparison of Crude Rates/Ratios

A crude rate is easily computed and usually based on the number of vital events and the total population for a specific area or group, i.e., number of births or deaths among a specific population per 1,000 (or 100,000) of that specific population. A ratio is simply a proportion or percentage, usually a rate per 100. Any of the indicators that are not presented in this report as age-adjusted rates can be considered crude rates or ratios. Before comparison of these figures can be done, they should first be identified as dependent or independent and then defined as being based on a small or large number of events.

### DEPENDENT vs. INDEPENDENT CRUDE RATES:

Two crude rates or ratios are considered dependent when the same events are included in their numerators. Examples of this include a state rate and a county or city rate or rates that share or overlap the same time periods, i.e., two multiple-year summary rates for the state – one for 1990-1995, the other for 1990-1999. Two rates are considered to be independent when they do not include any of the same data or events in their numerator, such as rates for two different counties.

**NUMBER of EVENTS:** When comparing two dependent or independent rates, determining whether a significant difference exists between the two rates or whether the difference is caused solely by chance requires a rather complex statistical computation. The number of events upon which the two observed rates are based is of primary importance. The statistical formula for determining significance is different for a rate based on a small number of events as compared to the formula for a rate based on a large number of events. Exactly what is considered a small number of events is arbitrary but, as a general rule, one can define "small number" as less than 100 events. Crude rates or ratios based on less than ten events should be considered unstable and are not recommended for comparative use or in determining

significance. The formulas are also different depending on whether the rates being compared are dependent or independent.

Four formulas for comparing crude rates and ratios are presented next: one recommended for use in comparing dependent rates based on a small number of events; another, for comparing dependent rates based on a large number of events; a third, for independent rates based on less than 100 events; and, a fourth, for comparing independent rates based on 100 or more events. A sample step-by-step calculation is shown for the first formula to demonstrate its use.

### COMPARISON of DEPENDENT CRUDE RATES

**BASED on SMALL NUMBER OF EVENTS:** When the (county or local) crude rate or ratio to be compared to a standard (state or national) rate or ratio is based on 10-99 events, actual and estimated numbers of events are used to determine statistical significance. The formula for this situation is shown below:

$$\mu = (o-e) / \sqrt{e}$$

where:

- o = the number of events for the county or local area to be compared
- e = the expected number of events for the county or local area (based on the state or national crude rate)

If  $\mu$  has a value greater than + 1.96, the county rate is considered to differ significantly at a 95% confidence level from the state rate to which it is being compared. The value for o is a readily available figure; however, e must be specially computed. To compute the expected number of events for the county based on a state or national crude rate, first change the state rate to a percentage or rate per person. For example, if the state rate was 14.5 per 1,000 population, simply divide 14.5 by 1,000; the result is .0145. (Note: If comparing percentages, divide by 100.) Then, multiply the value of the denominator in the county rate (the population used to compute the rate) by this figure to obtain the value for e or the expected number of events for the county.

As an example for computation of this formula, use a county infant death rate of 13.8 per 1,000 resident live births. This rate was based on 58 resident infant deaths occurring among 4,205 resident live births for the county. The comparable state rate that year was 9.5. Step-by-step computation would yield the following results:

$$o = 58$$

$$e = (9.5/1,000) \times 4,205 \text{ or } 39.9$$

1.  $\sqrt{e} = \sqrt{39.9} = 6.3$
2.  $(o - e) = 58 - 39.9 = 18.1$
3.  $(o - e) / \sqrt{e} = 18.1/6.3 = 2.9 \text{ or } \mu$

Since the value of  $\mu$  in the previous computation exceeds the value of 1.96, it can be stated that the difference between the county's infant death rate and the state's rate that year was significant at the 95% confidence level. In other words, the user can be up to 95% confident that the county's true infant death rate that year was significantly higher than the infant death rate for the state. A negative value of more than -1.96 would mean a significantly lower rate.

**COMPARISON of DEPENDENT CRUDE RATES BASED on LARGE NUMBER OF EVENTS:** The following formula for determining the significance between two observed, dependent crude rates with 100 or more events in the numerator of the county or local rate is more complex than the previous formula for dependent rates.

$$\mu = (r - s) \sqrt{(n / (s - s^2))}$$

where:

- r = the county or local rate to be compared, expressed as a rate per person
- s = the state (or national, regional, etc.) rate expressed as a rate per person
- n = the population figure used for computing the county or local rate

To compute a rate per person, divide the rate by the population number used to express the rate. For example, the rate per person for a death rate of 23.5 per 100,000 would be calculated by dividing 23.5 by 100,000. The result is 0.000235.

Determining significance according to the  $\mu$  value follows the same rules as listed in the previous section for comparing dependent rates based on a small number of events.

**COMPARISON of INDEPENDENT CRUDE RATES BASED on SMALL NUMBER OF EVENTS:** The following formulas can be used to compute a 95% confidence interval to determine the statistical significance of the difference between two independent crude rates when both rates are based on 10-99 events. The first step is to calculate the difference (D) between the two rates with the following formula:

$$D = r_1 - r_2$$

where:

- r<sub>1</sub> = rate for County 1
- r<sub>2</sub> = rate for County 2

The 95% confidence interval (CI) is then computed using the following formula:

$$CI = D \pm \sqrt{(CL_1^2 + CL_2^2)}$$

where:

- CL<sub>1</sub> = confidence limit for County 1 rate
- CL<sub>2</sub> = confidence limit for County 2 rate

This computation becomes a three-step process due to the need to construct a confidence limit or CL (the numerical value that determines the range of the confidence interval) for each rate before the above formula can be calculated for CI. The formula for 95% confidence is as follows:

$$CL = 1.96 \times (r \sqrt{d})$$

where: d = number of events

At the end of this three-step process, if the confidence interval or the range of the numbers calculated for the difference between the two rates includes the value of 0, then it can be stated that the two rates are not significantly different, with 95% confidence. Of course, if the range of numbers does not contain 0, then the difference between the rates is considered significant, with 95% confidence. For example, a computed confidence interval (CI) of 4.38 for a rate difference (D) of 6.8 would result in a range of 2.42 to 11.18. Since that range does not include the value of 0, the difference between the two rates being compared can be considered significant, with 95% confidence.

**COMPARISON of INDEPENDENT CRUDE RATES BASED on LARGE NUMBER OF EVENTS:** If two independent crude rates or ratios are being compared and both or one of the figures is based on 100 or more events, a two-step calculation is performed to construct a 95% confidence interval for the ratio between the two rates. Please note, however, that whenever only one of the two rates is based on 100 or more events, then that rate must be used as r<sup>2</sup> in the following formula.

The formula for calculating the ratio (R) between the two rates is:

$$R = r_1 / r_2$$

where:

- r<sub>1</sub> = rate for County 1
- r<sub>2</sub> = rate for County 2

The formula for the 95% confidence interval (CI) for the ratio between the two independent rates is:

$$CI = R \pm 1.96 (R) \sqrt{((1/d_1) + (1/d_2))}$$

where:

- d<sub>1</sub> = number of events for County 1
- d<sub>2</sub> = number of events for County 2

If the range of numbers derived from the confidence interval (CI) for the ratio contains the value of 1, then a significant difference does not exist, at 95% confidence. If the range of numbers does not contain the value of 1, then it can be stated that the ratio between the two county rates is significantly different, with 95% confidence.

---

## References

1. **Centers for Disease Control and Prevention**, *Summary of Notifiable Diseases, United States 2001*. Morbidity and Mortality Weekly Report: Vol. 50 No. 53. Atlanta, Georgia: May 2, 2003.
2. **Chaing CL**. *Standard Error of the Age-Adjusted Rate*. Vital Statistics Special Reports 1961;47(9).
3. **Curtin LP** and **Klein RJ**. *Direct Standardization (Age-Adjusted Death Rates)*. Statistical Notes; Number 6. Hyattsville, Maryland: National Center for Health Statistics. March 1995.
4. **Dever, Alan GE**. *Epidemiology in Health Services Management*. Rockville, Maryland: Aspen Systems Corporation. 1984.
5. **Freedman MA**. *Health Status Indicators for the Year 2000*. Statistical Notes; Vol. 1 No. 1. Hyattsville, Maryland: National Center for Health Statistics. 1991.
6. **Keyfitz N**. *Sampling Variance of Standardized Mortality Rates*. Human Biology, 38:309-317, 1966.
7. **Klein RJ** and **Hawk SA**. *Health Status Indicators: Definitions and National Data*. Statistical Notes; Vol. 1 No. 3. Hyattsville, Maryland: National Center for Health Statistics. 1992.
8. **National Center for Health Statistics**, *Births: Final Data for 2001*, National Vital Statistics Reports Vol. 51 No. 2; Hyattsville, Maryland. DHHS Publication No. (PHS) 2003-1120 03-0059 (12/2002).
9. **National Center for Health Statistics**, *Deaths: Preliminary Data for 2001*, National Vital Statistics Reports Vol. 51 No. 5; Hyattsville, Maryland. DHHS Publication No. (PHS) 2003-1120 03-0165 (3/2003).
10. **National Center for Health Statistics**, *Deaths: Final Data for 2000*, National Vital Statistics Reports Vol. 50 No. 15; Hyattsville, Maryland. DHHS Publication No. (PHS) 2002-1120 02-0583 (9/2002).
11. **Pennsylvania Department of Health**. *Comparing Rates – Part 1: Dependant Rates*. Statistical News from the State Health Data Center; Vol. 12 No. 3, pp. 4-5. Harrisburg, Pennsylvania: State Health Data Center. 1989.
12. **Pennsylvania Department of Health**. *Comparing Rates – Part 2: Independent Rates*. Statistical News from the State Health Data Center; Vol. 12 No. 4, pp. 4-5, 8. Harrisburg, Pennsylvania: State Health Data Center. 1989.
13. **Pennsylvania Department of Health**. *Pennsylvania Vital Statistics 2001*. Harrisburg, Pennsylvania: Bureau of Health Statistics and Research. July 2003.
14. **U.S. Department of Health and Human Services**. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives for the Nation*. Washington DC: Public Health Service. 1991.
15. **U.S. Department of Health and Human Services**. *Healthy People 2010*. 2<sup>nd</sup> ed. 2 vols. Washington DC; US Government Printing Office, November 2000.
16. **U.S. Department of Health and Human Services**. *International Statistical Classification of Diseases and Related Health Problems*. Tenth Revision. Prepared by the World Health Organization, Geneva 1992.
17. **World Health Organization**. *Manual of the International Statistical Classification of Disease, Injuries, and Causes of Death, Based on the Recommendations of the Ninth Revision Conference, 1975*. Geneva: World Health Organization. 1977.

---

## **Appendix**

### **Additional Statistics Available**

The Bureau of Health Statistics and Research has created special five-year summary tabulations of birth and death data at the minor civil division level (city, borough or township) that can be used to calculate the health status indicators relating to births and deaths as shown in this report. Five-year summary data have been produced because of the very small annual numbers of births and deaths in most of the minor civil divisions in the state.

Birth multiple-year data that can be used to compute indicators by race and Hispanic Origin are available for selected municipalities. These municipalities were selected according to the following criteria – a city or borough with 2000 enumerated population of 20,000 or more and having at least 100 annual resident live births to black mothers or mothers of Hispanic origin are included in these tabulations. (Please also refer to another one of our publications, *Maternal and Child Health Status Indicators for Pennsylvania and Major Municipalities*, to easily obtain various health statistics at the municipality level.)

All additional data available, except minor civil division population and poverty status figures, will be updated every year, i.e., when 2002 data are available, 1998-2002 summary data will be created. As updates are made, historical multiple-year data will continue to be available, allowing for computing and comparing of trend data. A complete list of the additional statistics available for use in computing and comparing indicators appears below. Copies of these tabulations can be obtained by contacting the Bureau in writing, by telephone (717-783-2548) or FAX (717-772-3258). However, some of these cross-tabulations are quite lengthy and there may be a charge involved for a large number of copies. More recent tabulations are also available in Portable Document Format (PDF) files and by visiting the Health Statistics pages of the Department's website at [www.health.state.pa.us/stats](http://www.health.state.pa.us/stats).

#### **Births:**

Resident Live Births by Birth Weight for State, Counties and Minor Civil Divisions, Five-Year Summary and by Race (White and Black) and Hispanic Origin for Selected Municipalities, Three-Year Summary

Resident Live Births by Trimester of Mother's Entry in Prenatal Care for State, Counties and Minor Civil Divisions, Five-Year Summary and by Race (White and Black) and Hispanic Origin for Selected Municipalities, Three-Year Summary

Resident Live Births by Age Group of Mother for State, Counties and Minor Civil Divisions, Five-Year Summary and by Race (White and Black) and Hispanic Origin for Selected Municipalities, Three-Year Summary

#### **Deaths:**

Resident Deaths by Selected Causes by Age Group for State, Counties and Minor Civil Divisions, Five-Year Summary

Resident Infant Deaths for State, Counties and Minor Civil Divisions, Five-Year Summary

#### **Population\*/Poverty:**

Population for State and Counties by Age Group

Population for Minor Civil Division by Age Group, 2000 Enumerated Only

Related Children Under 18 Years of Age Living with Person/s with Income in 1999 Below Poverty Level for State and Counties – Selected Minor Civil Divisions, Number and Percent, 2000 Enumerated Only

\*2000 enumerated population data can be accessed via the U.S. Bureau of the Census web site at [www.census.gov](http://www.census.gov).

# Pennsylvania Health Districts and Counties

