Health Status Indicators for Pennsylvania Counties and Health Districts 2004 Report

Bureau of Health Statistics and Research
Pennsylvania Department of Health
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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, 6th 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/

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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 2002. Indicators updated with 2003 data will appear in the 2005 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.

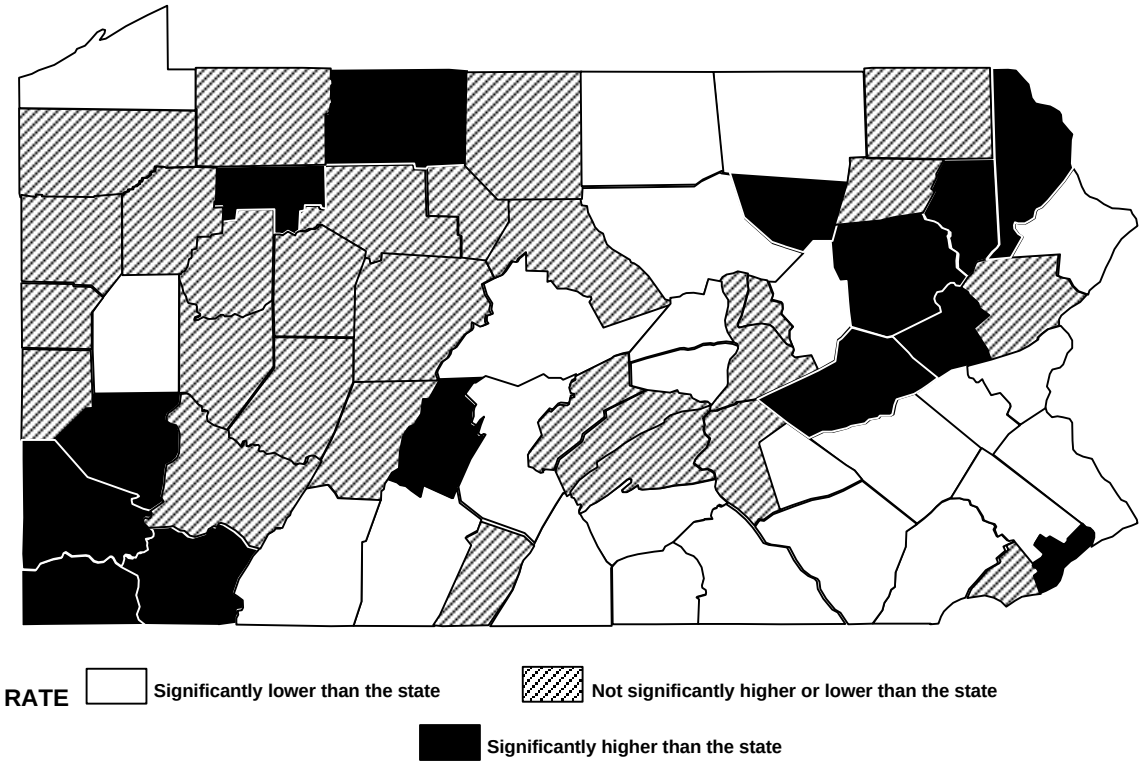
For many of the summary data tables, we have also included 95% confidence bounds and the results of comparison or significance testing of the rates or ratios for each county, health district and the state. We compared each county or health district rate or ratio to the state and also compared the state 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 30-33) 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, 2000-2002

All Causes	No.	Rate	CI (95%)	
Adams	2,521	826.7	794.43-858.97	-
Allegheny	45,650	889.0	880.84-897.16	+
Armstrong	2,642	909.2	874.53-943.87	
Beaver	6,405	884.8	863.13-906.47	
Bedford	1,480	822.3	780.41-864.19	-
Berks	10,908	830.2	814.62-845.78	-
Blair	4,928	964.6	937.67-991.53	+
Bradford	1,915	839.8	802.19-877.41	-
Bucks	14,947	843.6	830.08-857.12	-
Butler	5,163	834.9	812.13-857.67	-
Cambria	5,889	890.9	868.15-913.65	
Cameron	214	809.6	701.13-918.07	
Carbon	2,340	978.7	939.05-1,018.35	+
Centre	2,618	785.1	755.03-815.17	-
Chester	9,799	791.7	776.02-807.38	-
Clarion	1,314	905.1	856.16-954.04	
Clearfield	2,756	850.5	818.75-882.25	
Clinton	1,243	891.6	842.03-941.17	
Columbia	1,926	817.0	780.51-853.49	-
Crawford	2,881	882.1	849.89-914.31	
Cumberland	6,009	799.4	779.19-819.61	-
Dauphin	7,331	876.2	856.14-896.26	
Delaware	17,260	870.0	857.02-882.98	
Elk	1,128	829.3	780.90-877.70	
Erie	8,093	857.1	838.43-875.77	-
Fayette	5,483	920.1	895.75-944.45	+
Forest	221	1,078.3	936.13-1,220.47	+
Franklin	3,812	796.3	771.02-821.58	-
Fulton	395	843.7	760.50-926.90	
Greene	1,364	939.2	889.36-989.04	+
Huntingdon	1,252	820.4	774.96-865.84	-
Indiana	2,708	864.5	831.94-897.06	
Jefferson	1,655	883.9	841.31-926.49	
Juniata	669	828.0	765.26-890.74	
Lackawanna	8,679	926.6	907.11-946.09	+

All Causes	No.	Rate	CI (95%)	
Lancaster	12,736	794.3	780.50-808.10	-
Lawrence	3,541	866.5	837.96-895.04	
Lebanon	3,777	810.3	784.46-836.14	-
Lehigh	9,506	812.1	795.77-828.43	-
Luzerne	13,265	939.2	923.22-955.18	+
Lycoming	3,686	838.8	811.72-865.88	-
McKean	1,644	941.3	895.80-986.80	+
Mercer	4,317	895.3	868.59-922.01	
Mifflin	1,562	869.0	825.90-912.10	
Monroe	3,516	895.1	865.51-924.69	
Montgomery	21,308	791.5	780.87-802.13	-
Montour	699	929.7	860.78-998.62	
Northampton	7,594	769.8	752.49-787.11	-
Northumberland	3,623	894.7	865.57-923.83	
Perry	1,131	885.9	834.27-937.53	
Philadelphia	51,582	1,065.9	1,056.70-1,075.10	+
Pike	1,022	692.2	649.76-734.64	-
Potter	605	859.0	790.55-927.45	
Schuylkill	6,294	950.2	926.72-973.68	+
Snyder	985	817.0	765.98-868.02	-
Somerset	2,762	842.7	811.27-874.13	-
Sullivan	317	1,003.9	893.39-1,114.41	+
Susquehanna	1,375	898.6	851.10-946.10	
Tioga	1,246	809.3	764.36-854.24	-
Union	1,037	745.3	699.94-790.66	-
Venango	1,920	902.5	862.13-942.87	
Warren	1,449	878.3	833.08-923.52	
Washington	7,462	906.1	885.54-926.66	+
Wayne	1,750	925.9	882.52-969.28	+
Westmoreland	13,110	864.6	849.80-879.40	
Wyoming	781	879.0	817.35-940.65	
York	9,936	809.0	793.09-824.91	-
Pennsylvania	389,136	877.6	874.84-880.36	+
United States (2002)	2,447,862	846.8	845.74-847.86	



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.

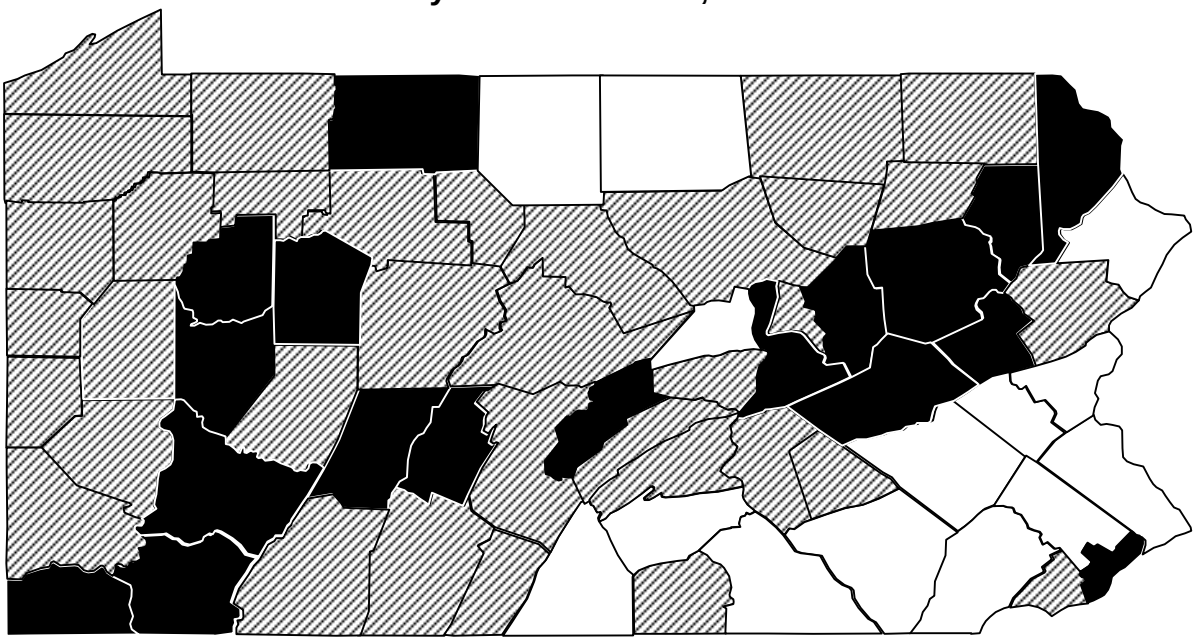
Average Annual Age-Adjusted Death Rates for Selected Causes, 2000-2002

Cardiovascular Disease	No.	Rate	CI (95%)	
Adams	1,100	357.0	335.90-378.10	
Allegheny	18,006	339.1	334.15-344.05	
Armstrong	1,079	360.8	339.27-382.33	+
Beaver	2,532	342.8	329.45-356.15	
Bedford	657	360.8	333.21-388.39	
Berks	4,377	326.1	316.44-335.76	-
Blair	2,090	396.0	379.02-412.98	+
Bradford	793	341.0	317.27-364.73	
Bucks	5,309	304.3	296.11-312.49	-
Butler	2,069	325.8	311.76-339.84	
Cambria	2,428	351.4	337.42-365.38	+
Cameron	93	335.4	267.23-403.57	
Carbon	960	389.8	365.14-414.46	+
Centre	1,079	327.9	308.33-347.47	
Chester	3,638	300.1	290.35-309.85	-
Clarion	589	397.6	365.49-429.71	+
Clearfield	1,164	349.5	329.42-369.58	
Clinton	451	316.9	287.65-346.15	
Columbia	894	369.9	345.65-394.15	+
Crawford	1,112	333.4	313.80-353.00	
Cumberland	2,377	312.3	299.75-324.85	-
Dauphin	2,859	338.8	326.38-351.22	
Delaware	6,729	328.9	321.04-336.76	
Elk	452	323.7	293.86-353.54	
Erie	3,143	327.9	316.44-339.36	
Fayette	2,265	365.8	350.74-380.86	+
Forest	88	411.5	325.52-497.48	
Franklin	1,407	288.9	273.80-304.00	-
Fulton	147	317.8	266.43-369.17	
Greene	561	377.5	346.26-408.74	+
Huntingdon	504	328.7	300.00-357.40	
Indiana	1,022	320.6	300.94-340.26	
Jefferson	761	391.5	363.68-419.32	+
Juniata	300	365.7	324.32-407.08	
Lackawanna	3,844	389.6	377.28-401.92	+
Lancaster	4,957	303.0	294.56-311.44	-
Lawrence	1,471	343.9	326.33-361.47	
Lebanon	1,556	324.0	307.90-340.10	
Lehigh	3,619	299.0	289.26-308.74	-
Luzerne	5,975	395.2	385.18-405.22	+
Lycoming	1,581	350.6	333.32-367.88	
McKean	679	375.6	347.35-403.85	+
Mercer	1,694	340.6	324.38-356.82	
Mifflin	676	366.4	338.78-394.02	+
Monroe	1,215	320.8	302.76-338.84	
Montgomery	7,783	282.7	276.42-288.98	-
Montour	287	361.9	320.03-403.77	
Northampton	3,018	298.6	287.95-309.25	-
Northumberland	1,501	358.4	340.27-376.53	+
Perry	406	320.2	289.05-351.35	
Philadelphia	18,573	374.7	369.31-380.09	+
Pike	359	254.5	228.17-280.83	-
Potter	200	276.5	238.18-314.82	-
Schuylkill	2,869	413.3	398.18-428.42	+
Snyder	395	326.3	294.12-358.48	
Somerset	1,183	349.1	329.21-368.99	
Sullivan	120	364.2	299.04-429.36	
Susquehanna	548	349.7	320.42-378.98	
Tioga	489	308.7	281.34-336.06	-
Union	430	302.1	273.55-330.65	-
Venango	747	345.1	320.35-369.85	
Warren	579	343.8	315.80-371.80	
Washington	2,789	328.2	316.02-340.38	
Wayne	729	375.1	347.87-402.33	+
Westmoreland	5,406	347.6	338.33-356.87	+
Wyoming	319	359.4	319.96-398.84	
York	3,742	304.0	294.26-313.74	-
Pennsylvania	152,774	336.3	334.61-337.99	+
United States (2002)	917,839	317.1	316.45-317.75	

Diseases of Heart	No.	Rate	CI (95%)	
Adams	892	289.3	270.31-308.29	+
Allegheny	14,039	265.5	261.11-269.89	+
Armstrong	880	294.8	275.32-314.28	+
Beaver	2,059	279.6	267.52-291.68	+
Bedford	465	253.7	230.64-276.76	
Berks	3,320	248.0	239.56-256.44	-
Blair	1,670	317.4	302.18-332.62	+
Bradford	642	276.2	254.83-297.57	
Bucks	3,871	221.4	214.43-228.37	-
Butler	1,627	256.6	244.13-269.07	
Cambria	1,892	275.6	263.18-288.02	+
Cameron	78	281.0	218.64-343.36	
Carbon	765	311.5	289.43-333.57	+
Centre	833	252.7	235.54-269.86	
Chester	2,781	229.2	220.68-237.72	-
Clarion	468	316.4	287.73-345.07	+
Clearfield	944	284.1	265.98-302.22	+
Clinton	350	245.7	219.96-271.44	
Columbia	694	288.6	267.13-310.07	+
Crawford	835	251.0	233.98-268.02	
Cumberland	1,816	238.9	227.91-249.89	-
Dauphin	2,199	260.6	249.71-271.49	
Delaware	5,021	246.3	239.49-253.11	-
Elk	346	248.4	222.23-274.57	
Erie	2,379	248.9	238.90-258.90	-
Fayette	1,740	282.6	269.32-295.88	+
Forest	70	325.0	248.86-401.14	
Franklin	1,038	213.3	200.32-226.28	-
Fulton	106	227.8	184.43-271.17	
Greene	440	295.9	268.25-323.55	+
Huntingdon	395	257.0	231.66-282.34	
Indiana	826	259.7	241.99-277.41	
Jefferson	582	301.4	276.91-325.89	+
Juniata	208	255.4	220.69-290.11	
Lackawanna	3,171	322.9	311.66-334.14	+
Lancaster	3,718	227.9	220.57-235.23	-
Lawrence	1,181	277.5	261.67-293.33	+
Lebanon	1,196	250.4	236.21-264.59	
Lehigh	2,824	233.8	225.18-242.42	-
Luzerne	4,783	317.0	308.02-325.98	+
Lycoming	1,231	273.6	258.32-288.88	
McKean	465	260.6	236.91-284.29	
Mercer	1,326	267.9	253.48-282.32	
Mifflin	524	285.0	260.60-309.40	
Monroe	966	253.6	237.61-269.59	
Montgomery	5,622	204.6	199.25-209.95	-
Montour	222	281.8	244.73-318.87	
Northampton	2,387	236.6	227.11-246.09	-
Northumberland	1,230	295.8	279.27-312.33	+
Perry	322	253.1	225.45-280.75	
Philadelphia	14,349	290.2	285.45-294.95	+
Pike	264	185.9	163.47-208.33	-
Potter	151	209.0	175.66-242.34	-
Schuylkill	2,249	325.3	311.86-338.74	+
Snyder	321	264.6	235.65-293.55	
Somerset	977	289.4	271.25-307.55	+
Sullivan	90	276.9	219.69-334.11	
Susquehanna	441	281.3	255.05-307.55	
Tioga	375	237.6	213.55-261.65	
Union	325	229.1	204.19-254.01	-
Venango	599	276.8	254.63-298.97	
Warren	473	280.9	255.59-306.21	
Washington	2,132	251.6	240.92-262.28	
Wayne	576	296.4	272.19-320.61	+
Westmoreland	4,219	271.9	263.70-280.10	+
Wyoming	236	265.8	231.89-299.71	
York	2,929	237.7	229.09-246.31	-
Pennsylvania	118,145	260.7	259.21-262.19	+
United States (2002)	695,754	240.4	239.84-240.96	

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 - Cardiovascular Disease
Pennsylvania Residents, 2000-2002



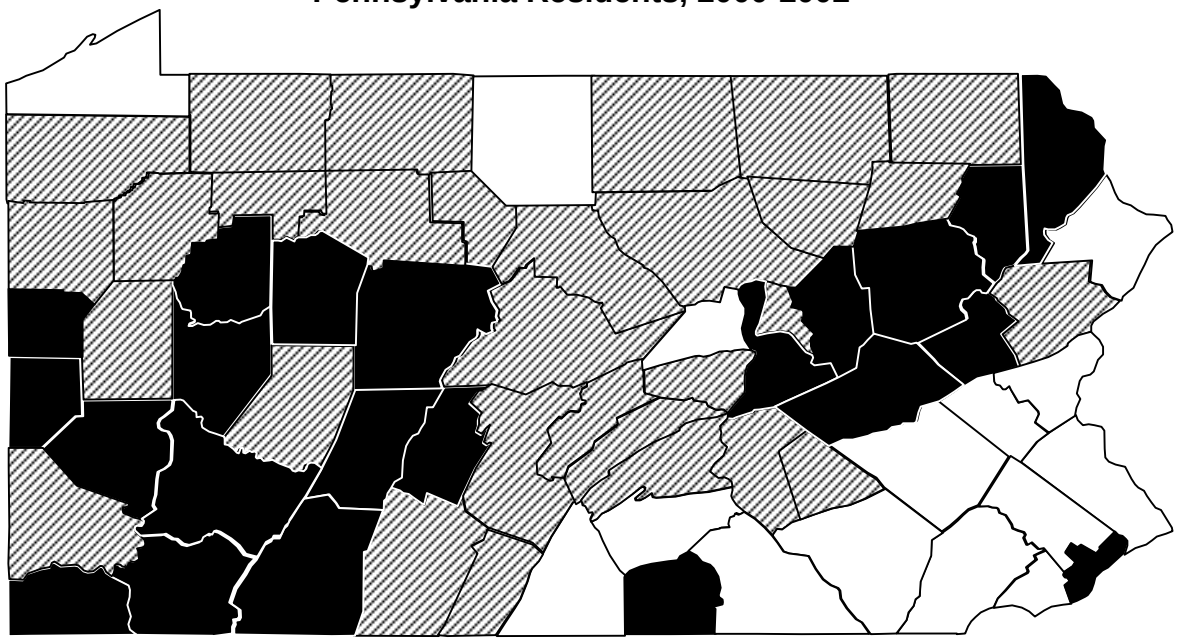
RATE

Significantly lower than the state

Not significantly higher or lower than the state

Significantly higher than the state

Average Annual Age-Adjusted Death Rates - Diseases of Heart
Pennsylvania Residents, 2000-2002



RATE

Significantly lower than the state

Not significantly higher or lower than the state

Significantly higher than the state

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.

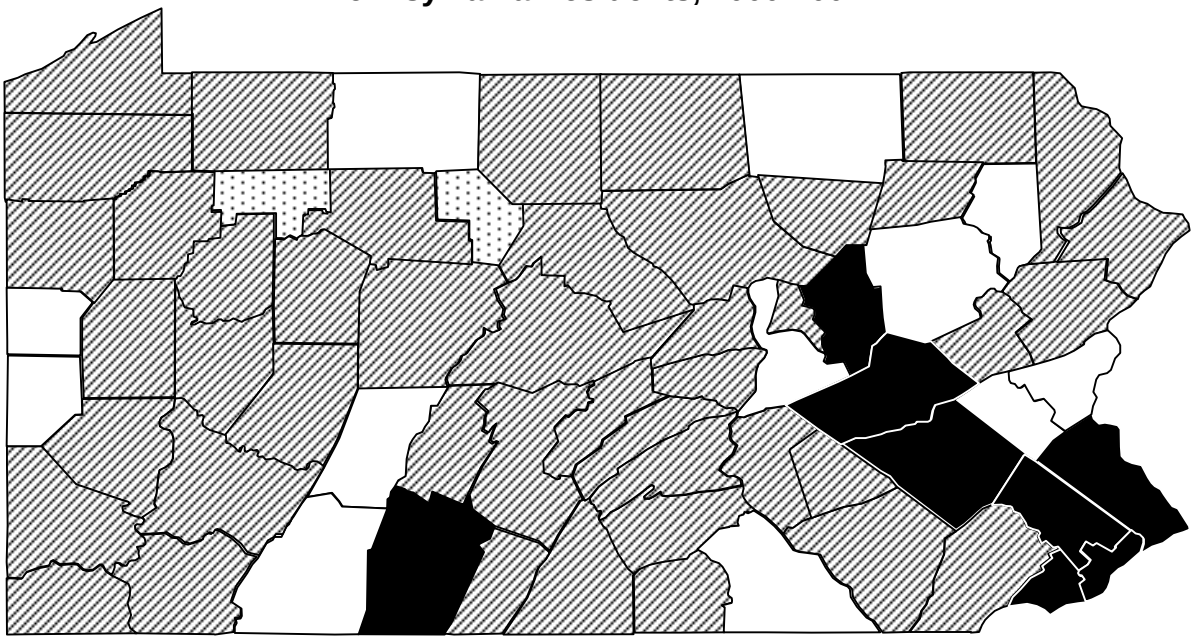
Average Annual Age-Adjusted Death Rates for Selected Causes, 2000-2002

Stroke	No.	Rate	CI (95%)	
Adams	169	54.9	46.62-63.18	
Allegheny	2,972	55.0	53.02-56.98	
Armstrong	158	52.2	44.06-60.34	
Beaver	339	45.2	40.39-50.01	-
Bedford	163	91.3	77.28-105.32	+
Berks	841	62.1	57.90-66.30	+
Blair	327	61.1	54.48-67.72	
Bradford	106	45.6	36.92-54.28	-
Bucks	1,080	62.6	58.87-66.33	+
Butler	357	55.9	50.10-61.70	
Cambria	356	50.3	45.07-55.53	-
Cameron	9	33.7		
Carbon	126	50.2	41.43-58.97	
Centre	178	54.7	46.66-62.74	
Chester	646	53.6	49.47-57.73	
Clarion	96	64.4	51.52-77.28	
Clearfield	174	51.8	44.10-59.50	
Clinton	79	54.8	42.72-66.88	
Columbia	167	68.3	57.94-78.66	+
Crawford	214	63.6	55.08-72.12	
Cumberland	418	54.7	49.46-59.94	
Dauphin	452	53.6	48.66-58.54	
Delaware	1,352	65.1	61.63-68.57	+
Elk	82	57.9	45.37-70.43	
Erie	573	59.1	54.26-63.94	
Fayette	381	60.2	54.16-66.24	
Forest	12	56.2		
Franklin	275	56.4	49.73-63.07	
Fulton	27	59.7	37.18-82.22	
Greene	85	56.9	44.80-69.00	
Huntingdon	85	55.7	43.86-67.54	
Indiana	161	50.1	42.36-57.84	
Jefferson	101	51.2	41.21-61.19	
Juniata	61	73.2	54.83-91.57	
Lackawanna	503	49.9	45.54-54.26	-
Lancaster	977	59.1	55.39-62.81	
Lawrence	209	47.5	41.06-53.94	-
Lebanon	285	58.2	51.44-64.96	
Lehigh	575	46.8	42.97-50.63	-
Luzerne	702	46.3	42.87-49.73	-
Lycoming	258	56.6	49.69-63.51	
McKean	78	42.4	32.99-51.81	-
Mercer	278	54.9	48.45-61.35	
Mifflin	114	61.3	50.05-72.55	
Monroe	186	50.4	43.16-57.64	
Montgomery	1,712	61.8	58.87-64.73	+
Montour	47	57.5	41.06-73.94	
Northampton	462	45.4	41.26-49.54	-
Northumberland	215	49.5	42.88-56.12	-
Perry	63	50.2	37.80-62.60	
Philadelphia	3,219	64.2	61.98-66.42	+
Pike	68	49.4	37.66-61.14	
Potter	33	45.8	30.17-61.43	
Schuylkill	454	64.2	58.29-70.11	+
Snyder	54	45.0	33.00-57.00	
Somerset	159	45.9	38.77-53.03	-
Sullivan	20	59.1	33.20-85.00	
Susquehanna	90	57.7	45.78-69.62	
Tioga	94	58.7	46.83-70.57	
Union	77	53.4	41.47-65.33	
Venango	107	49.4	40.04-58.76	
Warren	87	51.5	40.68-62.32	
Washington	501	58.2	53.10-63.30	
Wayne	122	62.5	51.41-73.59	
Westmoreland	857	54.7	51.04-58.36	
Wyoming	58	65.4	48.57-82.23	
York	626	51.1	47.10-55.10	-
Pennsylvania	25,912	56.5	55.81-57.19	
United States (2002)	163,010	56.3	56.03-56.57	

Motor Vehicle Accidents	No.	Rate	CI (95%)	
Adams	53	18.9	13.81-23.99	+
Allegheny	281	7.0	6.18-7.82	-
Armstrong	36	15.7	10.57-20.83	
Beaver	61	10.9	8.16-13.64	
Bedford	38	25.9	17.66-34.14	+
Berks	161	13.9	11.75-16.05	
Blair	63	16.4	12.35-20.45	+
Bradford	36	20.5	13.80-27.20	+
Bucks	203	11.6	10.00-13.20	
Butler	72	13.8	10.61-16.99	
Cambria	67	14.1	10.72-17.48	
Cameron	4	20.1		
Carbon	42	24.7	17.23-32.17	+
Centre	46	11.2	7.96-14.44	
Chester	144	11.1	9.29-12.91	
Clarion	26	19.7	12.13-27.27	
Clearfield	59	23.5	17.50-29.50	+
Clinton	22	19.1	11.12-27.08	
Columbia	32	16.7	10.91-22.49	
Crawford	63	22.9	17.25-28.55	+
Cumberland	65	9.7	7.34-12.06	-
Dauphin	104	13.8	11.15-16.45	
Delaware	128	7.5	6.20-8.80	-
Elk	24	24.2	14.52-33.88	+
Erie	146	16.7	13.99-19.41	+
Fayette	75	17.3	13.38-21.22	+
Forest	6	42.6		
Franklin	62	15.6	11.72-19.48	
Fulton	15	33.8		
Greene	33	26.5	17.46-35.54	+
Huntingdon	27	19.1	11.90-26.30	
Indiana	51	17.1	12.41-21.79	+
Jefferson	36	25.9	17.44-34.36	+
Juniata	18	27.3		
Lackawanna	75	11.6	8.97-14.23	
Lancaster	182	12.7	10.85-14.55	
Lawrence	38	12.8	8.73-16.87	
Lebanon	40	10.9	7.52-14.28	
Lehigh	100	10.4	8.36-12.44	
Luzerne	131	13.6	11.27-15.93	
Lycoming	59	16.1	11.99-20.21	
McKean	23	16.4	9.70-23.10	
Mercer	76	20.5	15.89-25.11	+
Mifflin	18	13.9		
Monroe	99	23.5	18.87-28.13	+
Montgomery	182	7.9	6.75-9.05	-
Montour	12	21.2		
Northampton	78	9.5	7.39-11.61	-
Northumberland	34	11.6	7.70-15.50	
Perry	39	30.1	20.65-39.55	+
Philadelphia	386	8.4	7.56-9.24	-
Pike	21	14.2	8.13-20.27	
Potter	5	9.5		
Schuylkill	94	20.7	16.52-24.88	+
Snyder	15	13.7		
Somerset	45	19.4	13.73-25.07	+
Sullivan	7	39.1		
Susquehanna	33	26.6	17.52-35.68	+
Tioga	20	15.8	8.88-22.72	
Union	26	18.9	11.64-26.16	
Venango	33	19.9	13.11-26.69	+
Warren	29	23.2	14.76-31.64	+
Washington	69	11.2	8.56-13.84	
Wayne	43	29.2	20.47-37.93	+
Westmoreland	138	12.8	10.66-14.94	
Wyoming	21	24.7	14.14-35.26	+
York	179	16.0	13.66-18.34	+
Pennsylvania	4,649	12.3	11.95-12.65	-
United States (2002)	44,572	15.4	15.26-15.54	

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.

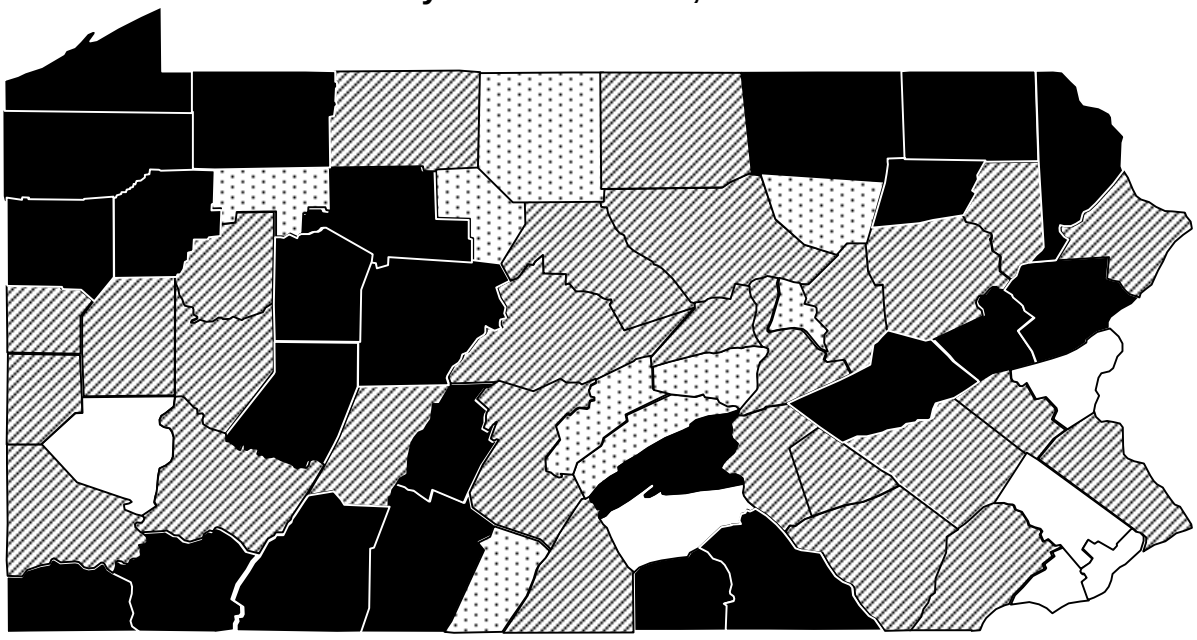
Average Annual Age-Adjusted Death Rates - Stroke
Pennsylvania Residents, 2000-2002



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 - Motor Vehicle Accidents
Pennsylvania Residents, 2000-2002



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.

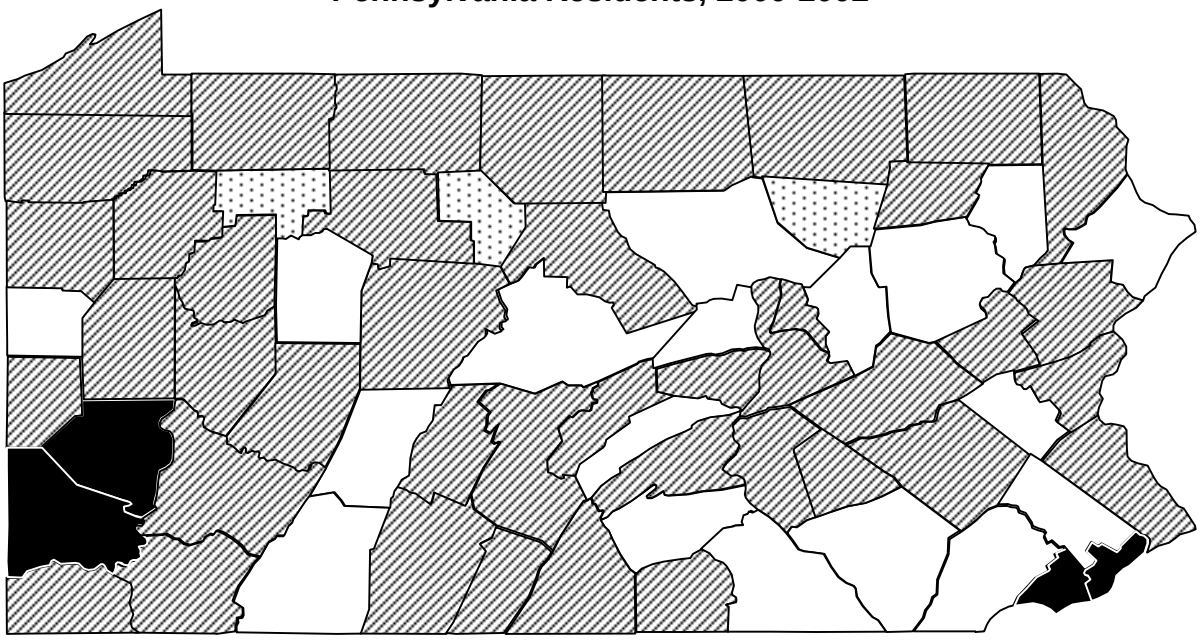
Average Annual Age-Adjusted Death Rates for Selected Causes, 2000-2002

Lung Cancer	No.	Rate	CI (95%)	
Adams	159	52.1	44.00-60.20	
Allegheny	3,058	60.6	58.45-62.75	+
Armstrong	138	47.9	39.91-55.89	
Beaver	421	57.1	51.65-62.55	
Bedford	96	49.9	39.92-59.88	
Berks	670	51.5	47.60-55.40	
Blair	296	58.2	51.57-64.83	
Bradford	109	47.4	38.50-56.30	
Bucks	986	53.2	49.88-56.52	
Butler	308	52.8	46.90-58.70	
Cambria	302	46.1	40.90-51.30	-
Cameron	14	58.0		
Carbon	148	61.9	51.93-71.87	
Centre	149	43.9	36.85-50.95	-
Chester	650	50.6	46.71-54.49	-
Clarion	66	45.2	34.30-56.10	
Clearfield	160	49.3	41.66-56.94	
Clinton	77	54.6	42.40-66.80	
Columbia	103	43.5	35.10-51.90	-
Crawford	166	51.1	43.33-58.87	
Cumberland	362	48.2	43.23-53.17	-
Dauphin	437	51.7	46.85-56.55	
Delaware	1,162	60.3	56.83-63.77	+
Elk	71	53.0	40.67-65.33	
Erie	557	59.5	54.56-64.44	
Fayette	360	60.4	54.16-66.64	
Forest	13	54.6		
Franklin	245	50.5	44.18-56.82	
Fulton	21	41.3	23.64-58.96	
Greene	86	60.0	47.32-72.68	
Huntingdon	75	47.6	36.83-58.37	
Indiana	145	47.2	39.52-54.88	
Jefferson	73	39.8	30.67-48.93	-
Juniata	30	36.5	23.44-49.56	-
Lackawanna	443	49.7	45.07-54.33	-
Lancaster	747	47.9	44.46-51.34	-
Lawrence	174	42.7	36.36-49.04	-
Lebanon	236	52.1	45.45-58.75	
Lehigh	551	48.6	44.54-52.66	-
Luzerne	668	49.8	46.02-53.58	-
Lycoming	202	45.9	39.57-52.23	-
McKean	87	50.4	39.81-60.99	
Mercer	259	54.4	47.77-61.03	
Mifflin	96	52.5	42.00-63.00	
Monroe	258	60.0	52.68-67.32	
Montgomery	1,306	49.4	46.72-52.08	-
Montour	29	41.2	26.20-56.20	
Northampton	534	55.0	50.34-59.66	
Northumberland	201	50.9	43.86-57.94	
Perry	64	48.0	36.24-59.76	
Philadelphia	3,280	69.4	67.02-71.78	+
Pike	78	44.2	34.39-54.01	-
Potter	39	57.7	39.59-75.81	
Schuylkill	358	56.4	50.56-62.24	
Snyder	55	44.1	32.44-55.76	
Somerset	130	39.6	32.79-46.41	-
Sullivan	8	25.9		
Susquehanna	78	50.2	39.06-61.34	
Tioga	69	44.7	34.15-55.25	
Union	51	38.5	27.93-49.07	-
Venango	143	64.6	54.01-75.19	
Warren	94	55.1	43.96-66.24	
Washington	511	62.7	57.26-68.14	+
Wayne	93	47.9	38.16-57.64	
Westmoreland	811	53.0	49.35-56.65	
Wyoming	44	48.0	33.82-62.18	
York	621	49.6	45.70-53.50	-
Pennsylvania	24,031	54.6	53.91-55.29	
United States (2002)	158,258	55.1	54.83-55.37	

Female Breast Cancer	No.	Rate	CI (95%)	
Adams	35	20.5	13.71-27.29	-
Allegheny	817	28.7	26.73-30.67	
Armstrong	49	32.1	23.11-41.09	
Beaver	99	24.3	19.51-29.09	
Bedford	20	20.7	11.63-29.77	
Berks	194	27.2	23.37-31.03	
Blair	78	27.2	21.16-33.24	
Bradford	33	26.0	17.13-34.87	
Bucks	314	29.8	26.50-33.10	
Butler	78	23.1	17.97-28.23	
Cambria	92	25.2	20.05-30.35	
Cameron	3	17.8		
Carbon	43	34.4	24.12-44.68	
Centre	40	21.6	14.91-28.29	
Chester	190	25.9	22.22-29.58	
Clarion	20	25.2	14.16-36.24	
Clearfield	40	21.4	14.77-28.03	
Clinton	33	42.5	28.00-57.00	+
Columbia	31	22.1	14.32-29.88	
Crawford	55	30.5	22.44-38.56	
Cumberland	109	25.0	20.31-29.69	
Dauphin	132	27.3	22.64-31.96	
Delaware	304	27.7	24.59-30.81	
Elk	16	21.4		
Erie	160	30.2	25.52-34.88	
Fayette	70	20.8	15.93-25.67	-
Forest	4	38.0		
Franklin	69	26.3	20.09-32.51	
Fulton	4	14.3		
Greene	21	26.3	15.05-37.55	
Huntingdon	19	20.3		
Indiana	45	26.0	18.40-33.60	
Jefferson	26	23.9	14.71-33.09	
Juniata	17	36.5		
Lackawanna	151	27.5	23.11-31.89	
Lancaster	238	27.4	23.92-30.88	
Lawrence	58	26.8	19.90-33.70	
Lebanon	58	23.5	17.45-29.55	
Lehigh	182	29.1	24.87-33.33	
Luzerne	217	27.7	24.01-31.39	
Lycoming	66	27.6	20.94-34.26	
McKean	22	26.0	15.14-36.86	
Mercer	62	23.5	17.65-29.35	
Mifflin	24	22.7	13.62-31.78	
Monroe	81	35.3	27.61-42.99	
Montgomery	418	27.8	25.13-30.47	
Montour	14	30.4		
Northampton	121	22.1	18.16-26.04	-
Northumberland	69	30.7	23.46-37.94	
Perry	16	22.0		
Philadelphia	953	34.4	32.22-36.58	+
Pike	16	18.5		
Potter	17	44.9		
Schuylkill	87	23.6	18.64-28.56	
Snyder	19	29.0		
Somerset	45	24.1	17.06-31.14	
Sullivan	2	9.3		
Susquehanna	18	22.1		
Tioga	17	22.6		
Union	20	26.7	15.00-38.40	
Venango	22	19.1	11.12-27.08	-
Warren	18	19.0		
Washington	136	28.8	23.96-33.64	
Wayne	31	29.3	18.99-39.61	
Westmoreland	221	26.8	23.27-30.33	
Wyoming	14	26.8		
York	169	24.6	20.89-28.31	
Pennsylvania	6,862	27.8	27.14-28.46	+
United States (2001)	41,394	26.0	25.75-26.25	

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, 2000-2002



RATE

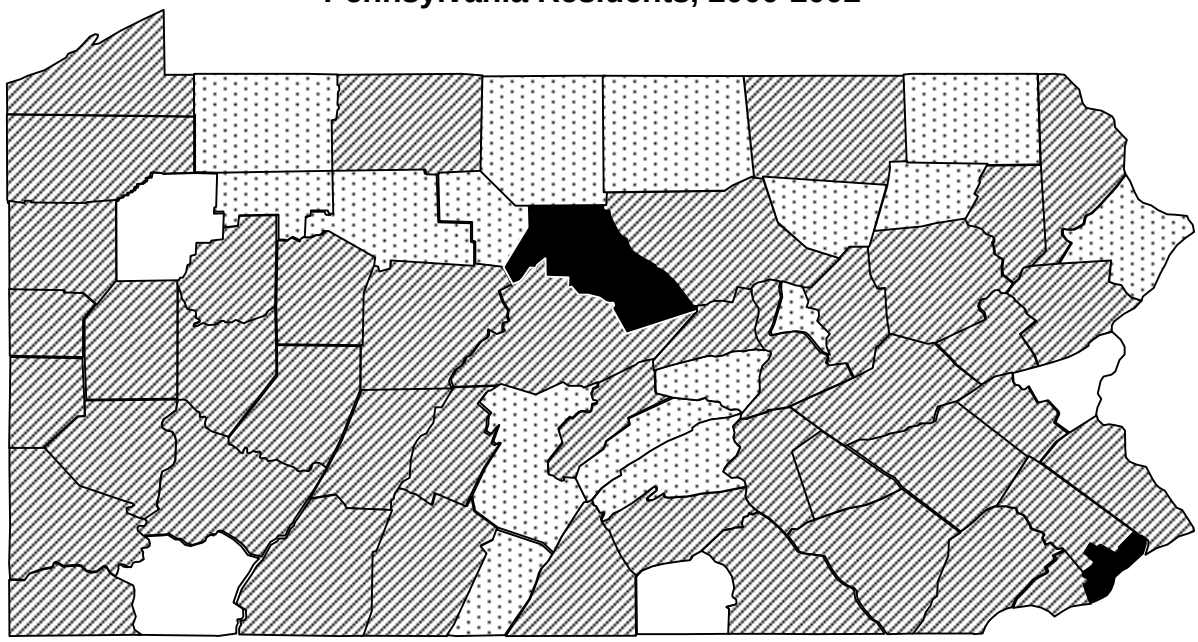
Significantly lower than the state

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 - Female Breast Cancer
Pennsylvania Residents, 2000-2002



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.

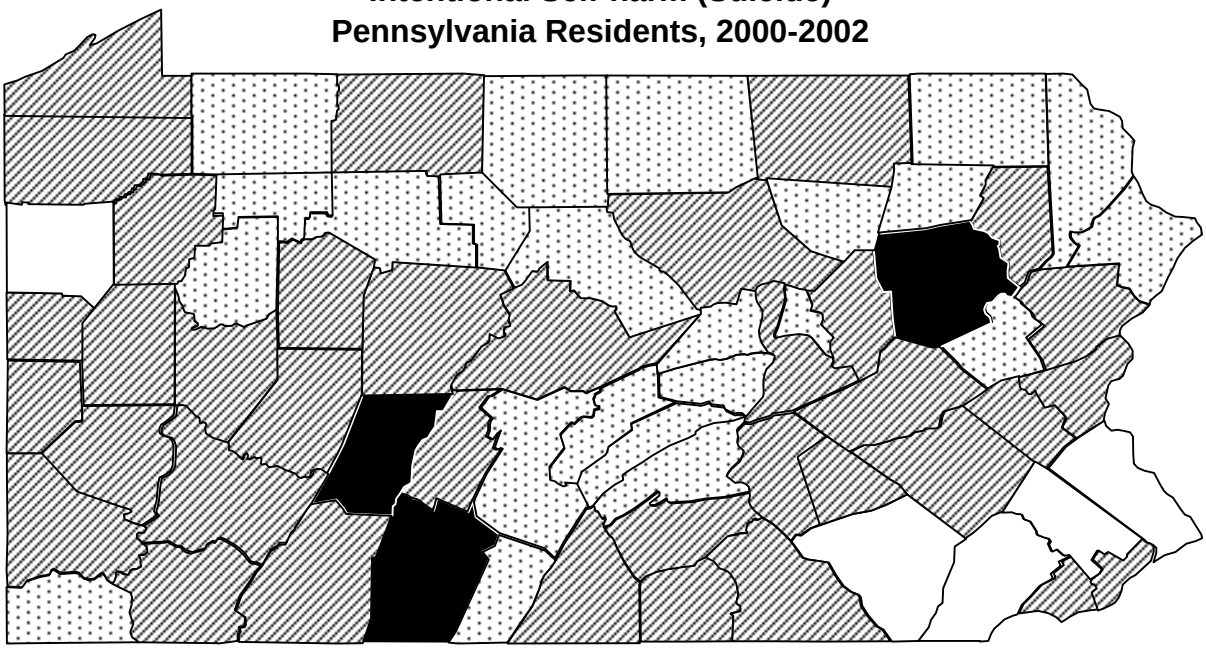
Average Annual Age-Adjusted Death Rates for Selected Causes, 2000-2002

Intentional Self-harm (Suicide)	No.	Rate	CI (95%)	
Adams	31	11.1	7.19-15.01	
Allegheny	399	10.1	9.11-11.09	
Armstrong	30	13.6	8.73-18.47	
Beaver	65	11.6	8.78-14.42	
Bedford	26	17.3	10.65-23.95	+
Berks	129	11.0	9.10-12.90	
Blair	48	11.8	8.46-15.14	
Bradford	21	10.3	5.89-14.71	
Bucks	166	9.1	7.72-10.48	-
Butler	56	10.6	7.82-13.38	
Cambria	71	14.9	11.43-18.37	+
Cameron	3	14.6		
Carbon	19	10.6		
Centre	34	8.9	5.91-11.89	
Chester	107	7.9	6.40-9.40	-
Clarion	16	13.6		
Clearfield	31	11.6	7.52-15.68	
Clinton	16	13.5		
Columbia	25	12.1	7.36-16.84	
Crawford	29	10.3	6.55-14.05	
Cumberland	69	10.1	7.72-12.48	
Dauphin	78	10.0	7.78-12.22	
Delaware	159	9.5	8.02-10.98	
Elk	10	9.5		
Erie	79	9.4	7.33-11.47	
Fayette	57	12.9	9.55-16.25	
Forest	4	27.4		
Franklin	37	9.4	6.37-12.43	
Fulton	6	14.0		
Greene	16	12.8		
Huntingdon	16	11.4		
Indiana	39	15.0	10.29-19.71	
Jefferson	23	16.2	9.58-22.82	
Juniata	5	6.8		
Lackawanna	67	10.8	8.21-13.39	
Lancaster	113	8.0	6.52-9.48	-
Lawrence	37	13.0	8.81-17.19	
Lebanon	30	8.5	5.46-11.54	
Lehigh	95	9.8	7.83-11.77	
Luzerne	128	13.7	11.33-16.07	+
Lycoming	32	8.7	5.69-11.71	
McKean	22	16.4	9.55-23.25	
Mercer	29	7.6	4.83-10.37	-
Mifflin	19	12.9		
Monroe	54	12.2	8.95-15.45	
Montgomery	208	8.9	7.69-10.11	-
Montour	5	8.7		
Northampton	75	9.1	7.04-11.16	
Northumberland	31	10.9	7.06-14.74	
Perry	19	13.9		
Philadelphia	457	10.3	9.36-11.24	
Pike	18	12.5		
Potter	10	17.3		
Schuylkill	61	13.1	9.81-16.39	
Snyder	7	6.4		
Somerset	30	10.5	6.74-14.26	
Sullivan	3	16.9		
Susquehanna	15	10.9		
Tioga	17	14.0		
Union	17	13.3		
Venango	20	11.0	6.18-15.82	
Warren	13	9.6		
Washington	73	11.2	8.63-13.77	
Wayne	19	13.2		
Westmoreland	142	11.8	9.86-13.74	
Wyoming	13	14.3		
York	141	12.0	10.02-13.98	
Pennsylvania	3,940	10.5	10.17-10.83	
United States (2002)	30,646	10.6	10.48-10.72	

Assault (Homicide)	No.	Rate	CI (95%)	
Adams	5	1.9		
Allegheny	242	6.7	5.86-7.54	+
Armstrong	6	2.9		
Beaver	16	3.3		
Bedford	4	2.7		
Berks	92	8.3	6.60-10.00	+
Blair	10	2.5		
Bradford	5	2.7		
Bucks	27	1.5	0.93-2.07	-
Butler	5	0.9		
Cambria	13	2.9		
Cameron	0	-		
Carbon	3	1.5		
Centre	10	3.0		
Chester	13	1.0		
Clarion	1	1.1		
Clearfield	2	0.8		
Clinton	3	1.5		
Columbia	3	1.5		
Crawford	8	2.9		
Cumberland	7	1.2		
Dauphin	44	6.2	4.37-8.03	
Delaware	97	6.1	4.89-7.31	
Elk	0	-		
Erie	20	2.4	1.35-3.45	-
Fayette	22	5.2	3.03-7.37	
Forest	1	6.6		
Franklin	2	0.5		
Fulton	1	2.5		
Greene	2	1.5		
Huntingdon	7	5.2		
Indiana	3	1.1		
Jefferson	3	2.5		
Juniata	3	4.7		
Lackawanna	9	1.5		
Lancaster	33	2.4	1.58-3.22	-
Lawrence	6	2.3		
Lebanon	7	2.0		
Lehigh	30	3.4	2.18-4.62	-
Luzerne	29	3.4	2.16-4.64	-
Lycoming	6	1.8		
McKean	3	2.4		
Mercer	11	3.2		
Mifflin	3	2.1		
Monroe	15	3.2		
Montgomery	55	2.5	1.84-3.16	-
Montour	1	2.1		
Northampton	26	3.3	2.03-4.57	-
Northumberland	4	1.6		
Perry	3	2.2		
Philadelphia	927	19.9	18.62-21.18	+
Pike	4	3.0		
Potter	0	-		
Schuylkill	7	1.7		
Snyder	0	-		
Somerset	4	1.7		
Sullivan	0	-		
Susquehanna	2	1.9		
Tioga	0	-		
Union	5	4.0		
Venango	3	2.1		
Warren	3	2.6		
Washington	13	2.2		
Wayne	2	1.2		
Westmoreland	28	2.6	1.64-3.56	-
Wyoming	2	2.3		
York	28	2.5	1.57-3.43	-
Pennsylvania	1,949	5.4	5.16-5.64	-
United States (2002)	17,045	5.9	5.81-5.99	

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, 2000-2002



RATE

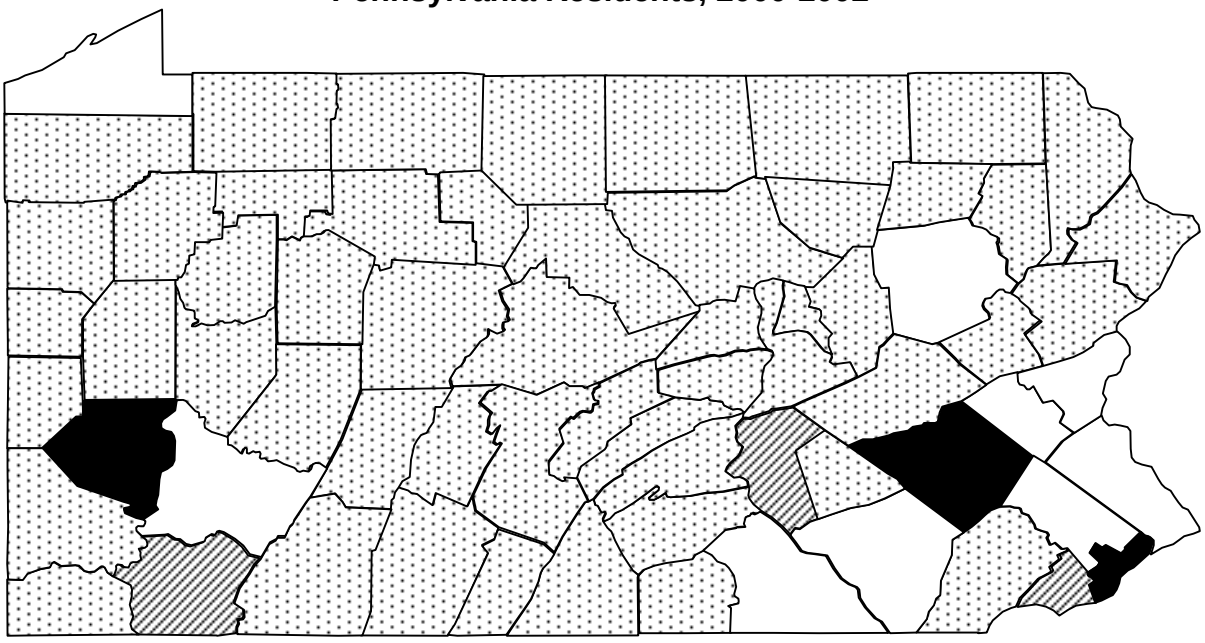
Significantly lower than the state

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, 2000-2002



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

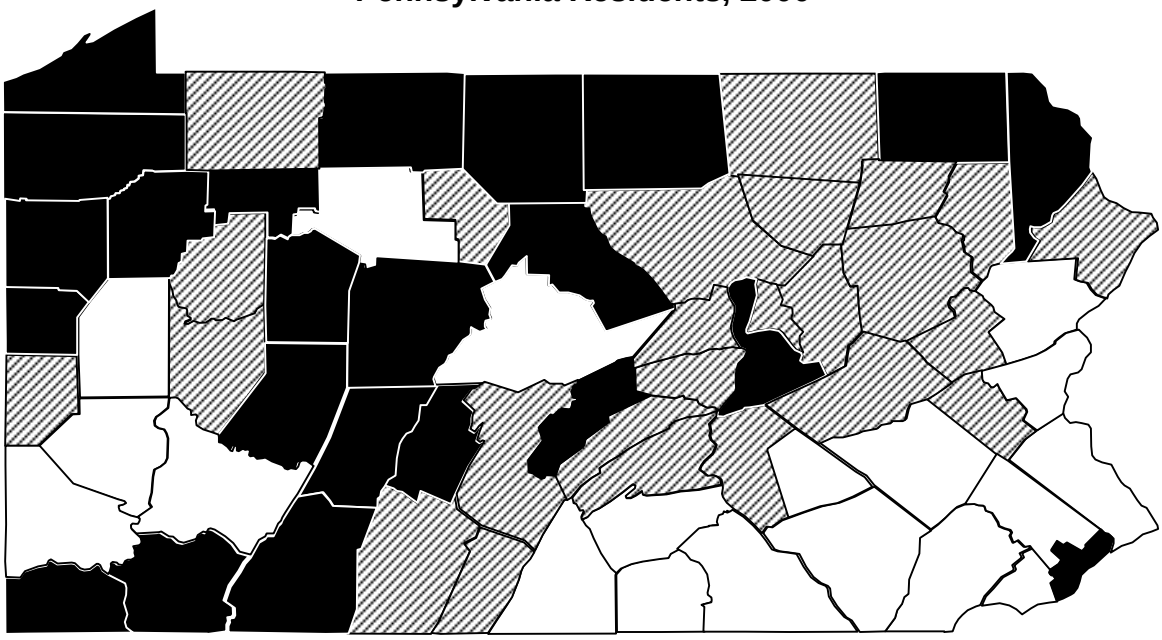
Note: Significance was determined by calculating and comparing county confidence intervals to the state rate. The calculations were not performed for counties that had less than 20 events. Rates for counties with less than 20 events are considered unreliable. See Technical Notes.

Percent of Children by Age Below Poverty Level, 2000

Related Children Ages 5-17 Below Poverty	No.	Pct.	μ (95%)		All Children <18 Below Poverty	No.	Pct.	μ (95%)	
Adams	1,287	7.8	-4.15	-	Adams	1,910	8.7	-5.73	-
Allegheny	21,053	10.5	-2.98	-	Allegheny	34,492	12.6	-2.30	-
Armstrong	1,518	12.7	1.56		Armstrong	2,355	14.7	1.78	
Beaver	3,024	10.2	-1.64		Beaver	4,895	12.3	-1.40	
Bedford	1,083	13.0	1.56		Bedford	1,650	14.5	1.31	
Berks	6,450	9.8	-3.41	-	Berks	10,506	11.6	-3.97	-
Blair	2,859	13.8	3.56	+	Blair	4,457	15.8	3.99	+
Bradford	1,473	12.9	1.73		Bradford	2,329	15.3	2.39	+
Bucks	4,764	4.3	-21.82	-	Bucks	7,699	5.1	-27.34	-
Butler	2,385	7.8	-5.65	-	Butler	3,798	9.1	-7.19	-
Cambria	3,011	13.2	2.87	+	Cambria	4,916	16.0	4.47	+
Cameron	121	11.1	-0.03		Cameron	176	12.7	-0.13	
Carbon	1,027	10.9	-0.28		Carbon	1,613	12.8	-0.30	
Centre	1,526	8.8	-3.00	-	Centre	2,390	10.1	-4.06	-
Chester	4,154	5.1	-16.54	-	Chester	6,585	5.9	-21.15	-
Clarion	824	12.9	1.29		Clarion	1,285	14.9	1.47	
Clearfield	1,862	13.8	2.87	+	Clearfield	2,897	16.1	3.54	+
Clinton	879	15.4	3.02	+	Clinton	1,332	17.0	3.04	+
Columbia	1,169	12.2	0.93		Columbia	1,776	13.9	0.80	
Crawford	2,355	15.0	4.52	+	Crawford	3,614	17.0	5.00	+
Cumberland	2,147	6.3	-8.60	-	Cumberland	3,302	7.2	-11.11	-
Dauphin	4,764	10.9	-0.60		Dauphin	7,653	12.8	-0.65	
Delaware	8,121	8.3	-8.62	-	Delaware	13,056	9.7	-10.97	-
Elk	450	7.4	-2.82	-	Elk	708	8.7	-3.49	-
Erie	6,529	13.1	4.03	+	Erie	10,279	15.1	4.59	+
Fayette	4,614	19.4	12.02	+	Fayette	7,310	22.7	15.15	+
Forest	151	21.6	2.61	+	Forest	263	24.7	3.33	+
Franklin	2,107	9.7	-2.10	-	Franklin	3,318	11.0	-3.21	-
Fulton	314	12.9	0.80		Fulton	463	13.7	0.31	
Greene	1,131	17.5	4.81	+	Greene	1,750	20.4	5.95	+
Huntingdon	932	13.3	1.67		Huntingdon	1,427	14.9	1.55	
Indiana	2,160	16.1	5.39	+	Indiana	3,337	18.6	6.48	+
Jefferson	1,088	14.1	2.42	+	Jefferson	1,677	16.1	2.69	+
Juniata	464	11.6	0.24		Juniata	681	12.3	-0.52	
Lackawanna	3,491	10.5	-1.21		Lackawanna	5,668	12.6	-0.93	
Lancaster	8,621	9.6	-4.56	-	Lancaster	13,585	11.0	-6.49	-
Lawrence	2,212	14.1	3.45	+	Lawrence	3,460	16.4	4.22	+
Lebanon	1,950	9.7	-2.02	-	Lebanon	3,092	11.1	-2.94	-
Lehigh	5,613	10.4	-1.77		Lehigh	8,922	12.1	-2.39	-
Luzerne	5,068	10.6	-1.25		Luzerne	8,299	12.9	-0.45	
Lycoming	2,479	12.5	1.74		Lycoming	3,909	14.6	2.16	+
McKean	1,079	14.1	2.41	+	McKean	1,670	16.2	2.77	+
Mercer	2,897	14.7	4.67	+	Mercer	4,534	16.9	5.47	+
Mifflin	1,244	15.3	3.51	+	Mifflin	1,928	17.3	3.90	+
Monroe	2,522	8.9	-3.68	-	Monroe	3,912	10.6	-4.22	-
Montgomery	5,714	4.4	-23.29	-	Montgomery	9,194	5.1	-29.87	-
Montour	347	11.0	-0.11		Montour	540	12.8	-0.17	
Northampton	3,378	7.4	-7.71	-	Northampton	5,400	8.9	-9.10	-
Northumberland	2,024	13.8	2.99	+	Northumberland	3,071	15.7	3.20	+
Perry	760	9.6	-1.35		Perry	1,157	10.9	-1.99	-
Philadelphia	59,798	22.2	54.25	+	Philadelphia	95,119	25.6	67.01	+
Pike	884	9.3	-1.76		Pike	1,285	10.4	-2.64	-
Potter	508	14.9	2.05	+	Potter	757	16.8	2.18	+
Schuylkill	2,362	10.5	-1.00		Schuylkill	3,752	12.5	-0.91	
Snyder	855	13.0	1.39		Snyder	1,234	14.1	0.82	
Somerset	1,759	13.7	2.69	+	Somerset	2,775	16.1	3.46	+
Sullivan	135	14.8	1.03		Sullivan	226	17.1	1.28	
Susquehanna	1,097	14.0	2.36	+	Susquehanna	1,638	15.9	2.50	+
Tioga	1,071	15.3	3.26	+	Tioga	1,599	17.2	3.48	+
Union	645	10.7	-0.37		Union	967	11.9	-0.95	
Venango	1,451	14.8	3.39	+	Venango	2,287	17.5	4.42	+
Warren	938	12.5	1.07		Warren	1,417	14.0	0.80	
Washington	3,268	10.0	-2.06	-	Washington	5,204	11.8	-2.40	-
Wayne	1,153	13.8	2.26	+	Wayne	1,737	15.7	2.41	+
Westmoreland	5,504	9.3	-4.39	-	Westmoreland	8,794	11.2	-4.68	-
Wyoming	566	11.1	-0.07		Wyoming	860	12.8	-0.22	
York	5,244	7.7	-8.68	-	York	8,302	9.0	-10.95	-
Pennsylvania	234,433	11.2	-40.98	-	Pennsylvania	372,192	13.1	-41.42	-
United States (2000)	7,536,575	14.6			United States (2000)	11,587,118	16.2		

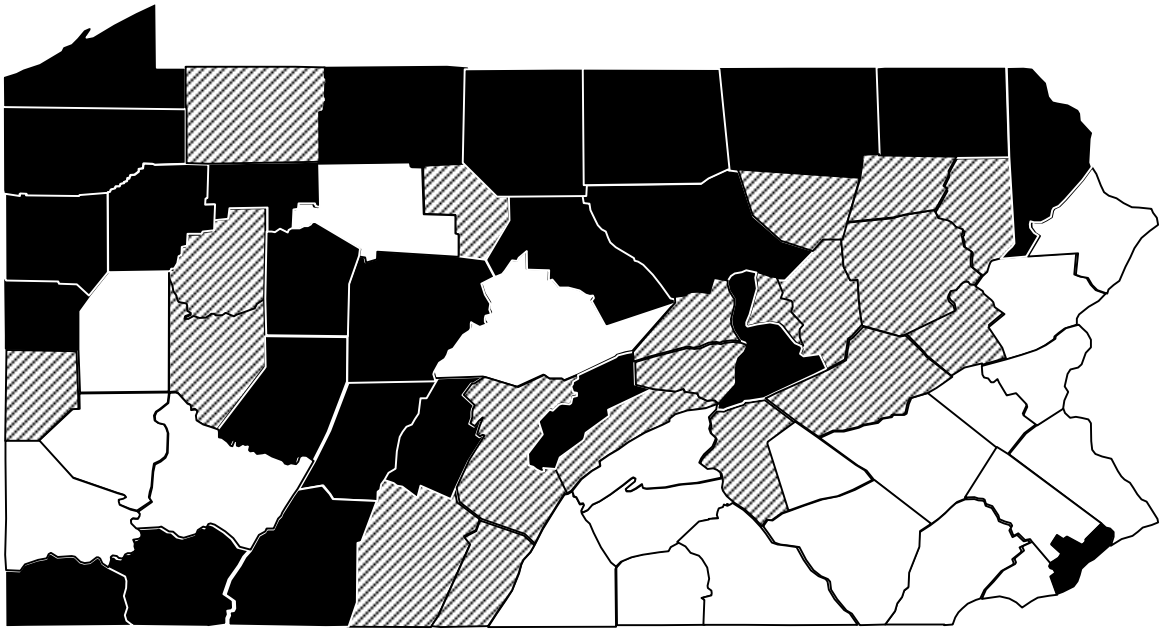
NOTE: A+ or - after the value of μ denotes if the county rate was significantly higher or lower than the state rate. No + or - after the μ value denotes no significant difference. State data were compared to U.S. data. Two separate formulas computed the μ values, depending on the number of events. See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

Percent of Children 5-17 Related to Persons with Income Below Poverty Level
Pennsylvania Residents, 2000



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, 2000



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 μ values. The calculations were not peformed for counties that had less than 10 events. Rates for counties with less than 10 events are considered unreliable. See Technical Notes.

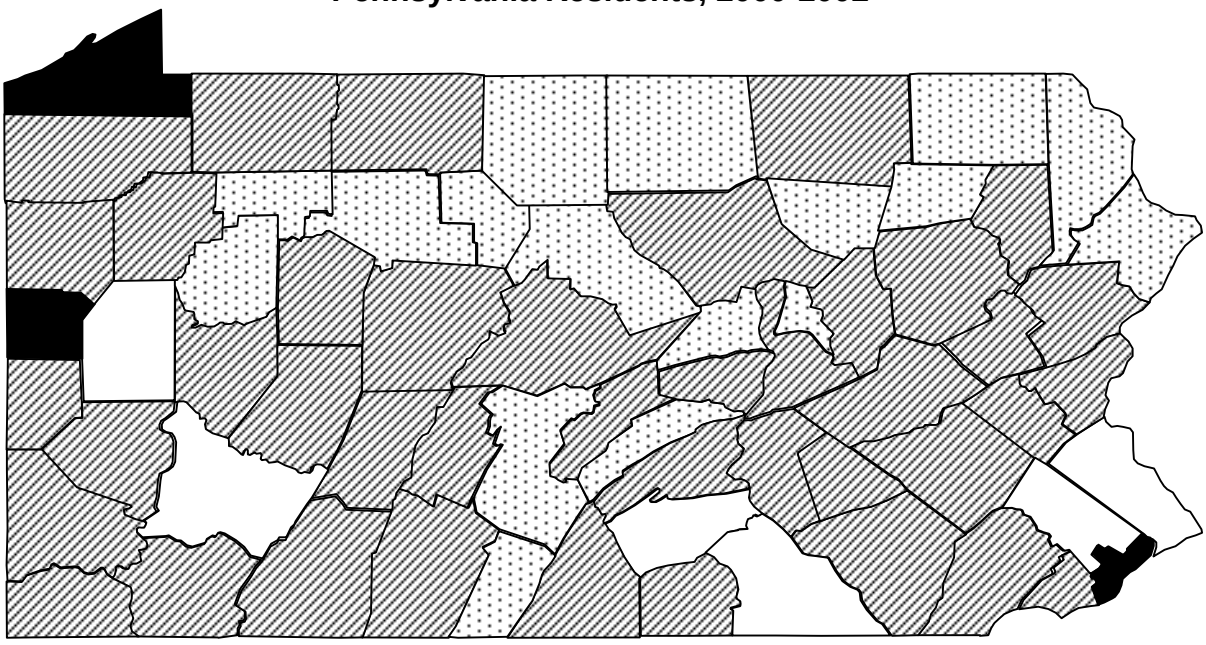
Infant Death Rates, 2000-02, and Percent Low Birth Weight, 2002

2000-2002 Infant Death Rates	No.	Rate	μ (95%)
Adams	20	6.3	-0.63
Allegheny	335	8.0	1.68
Armstrong	17	8.0	0.38
Beaver	29	5.3	-1.75
Bedford	15	8.9	0.76
Berks	116	8.2	1.25
Blair	21	4.8	-1.93
Bradford	13	6.0	-0.71
Bucks	103	4.8	-4.29 -
Butler	28	4.5	-2.58 -
Cambria	41	9.1	1.39
Cameron	1	5.9	
Carbon	11	6.2	-0.54
Centre	21	5.6	-1.21
Chester	107	6.1	-1.86
Clarion	6	4.9	
Clearfield	18	7.5	0.10
Clinton	9	7.0	
Columbia	12	6.6	-0.34
Crawford	20	6.2	-0.75
Cumberland	34	5.1	-2.09 -
Dauphin	61	6.5	-0.94
Delaware	136	6.7	-1.00
Elk	6	5.6	
Erie	92	9.0	2.02 +
Fayette	41	9.1	1.39
Forest	3	27.3	
Franklin	31	6.4	-0.76
Fulton	1	2.1	
Greene	13	11.0	1.48
Huntingdon	6	4.0	
Indiana	13	5.1	-1.31
Jefferson	11	7.1	-0.11
Juniata	6	6.6	
Lackawanna	41	6.4	-0.87
Lancaster	150	7.4	0.17
Lawrence	33	10.9	2.34 +
Lebanon	30	6.9	-0.32
Lehigh	94	8.2	1.16
Luzerne	54	6.0	-1.39
Lycoming	33	8.5	0.85
McKean	10	7.0	-0.13
Mercer	36	9.3	1.46
Mifflin	18	10.3	1.46
Monroe	31	6.9	-0.34
Montgomery	150	5.3	-3.96 -
Montour	9	13.6	
Northampton	50	5.8	-1.63
Northumberland	28	9.6	1.45
Perry	10	6.4	-0.42
Philadelphia	679	10.5	9.54 +
Pike	1	0.9	
Potter	5	7.6	
Schuylkill	23	5.4	-1.50
Snyder	12	8.8	0.65
Somerset	18	7.5	0.09
Sullivan	2	12.8	
Susquehanna	7	5.2	
Tioga	8	5.8	
Union	6	4.9	
Venango	13	7.3	0.00
Warren	12	8.7	0.60
Washington	47	7.6	0.25
Wayne	2	1.4	
Westmoreland	59	5.7	-1.97 -
Wyoming	7	7.6	
York	67	4.9	-3.32 -
Pennsylvania	3,142	7.3	2.36 +
United States (2002)	27,977	7.0	

Percent Low Birth Weight	No.	Pct.	μ (95%)
Adams	73	7.2	-1.11
Allegheny	1,149	8.5	1.27
Armstrong	53	7.6	-0.55
Beaver	143	7.8	-0.62
Bedford	35	6.2	-1.66
Berks	379	8.0	-0.50
Blair	105	7.2	-1.39
Bradford	38	5.3	-2.71 -
Bucks	513	7.4	-2.43 -
Butler	151	7.6	-0.97
Cambria	123	8.5	0.42
Cameron	5	8.9	
Carbon	37	6.0	-1.91
Centre	74	5.9	-2.84 -
Chester	405	6.8	-3.94 -
Clarion	37	9.5	0.90
Clearfield	63	7.9	-0.30
Clinton	29	6.9	-0.93
Columbia	52	8.0	-0.18
Crawford	60	5.6	-2.97 -
Cumberland	180	8.1	-0.17
Dauphin	332	10.8	5.25 +
Delaware	514	7.8	-1.18
Elk	16	4.9	-2.08 -
Erie	279	8.3	0.21
Fayette	122	8.3	0.14
Forest	3	10.0	
Franklin	98	6.2	-2.78 -
Fulton	8	4.9	
Greene	30	7.8	-0.27
Huntingdon	36	7.5	-0.54
Indiana	64	7.8	-0.40
Jefferson	33	6.5	-1.34
Juniata	19	5.8	-1.52
Lackawanna	146	7.2	-1.64
Lancaster	417	6.2	-5.98 -
Lawrence	93	9.3	1.21
Lebanon	107	7.0	-1.71
Lehigh	296	7.5	-1.60
Luzerne	241	8.0	-0.40
Lycoming	87	6.9	-1.61
McKean	37	7.9	-0.23
Mercer	79	6.5	-2.07 -
Mifflin	33	5.5	-2.31 -
Monroe	129	8.8	0.84
Montgomery	687	7.3	-3.18 -
Montour	15	6.8	-0.73
Northampton	250	8.8	1.17
Northumberland	72	7.5	-0.76
Perry	38	7.3	-0.72
Philadelphia	2,481	11.6	18.12 +
Pike	34	9.0	0.54
Potter	10	4.9	-1.65
Schuylkill	88	6.3	-2.48 -
Snyder	34	7.7	-0.37
Somerset	50	6.5	-1.65
Sullivan	7	12.7	
Susquehanna	33	8.1	-0.07
Tioga	33	7.3	-0.67
Union	28	6.7	-1.07
Venango	38	6.7	-1.25
Warren	22	5.0	-2.34 -
Washington	161	7.8	-0.66
Wayne	19	4.1	-3.08 -
Westmoreland	250	7.2	-2.15 -
Wyoming	27	9.1	0.54
York	367	8.0	-0.49
Pennsylvania	11,667	8.2	5.63 +
United States (2002)	314,077	7.8	

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

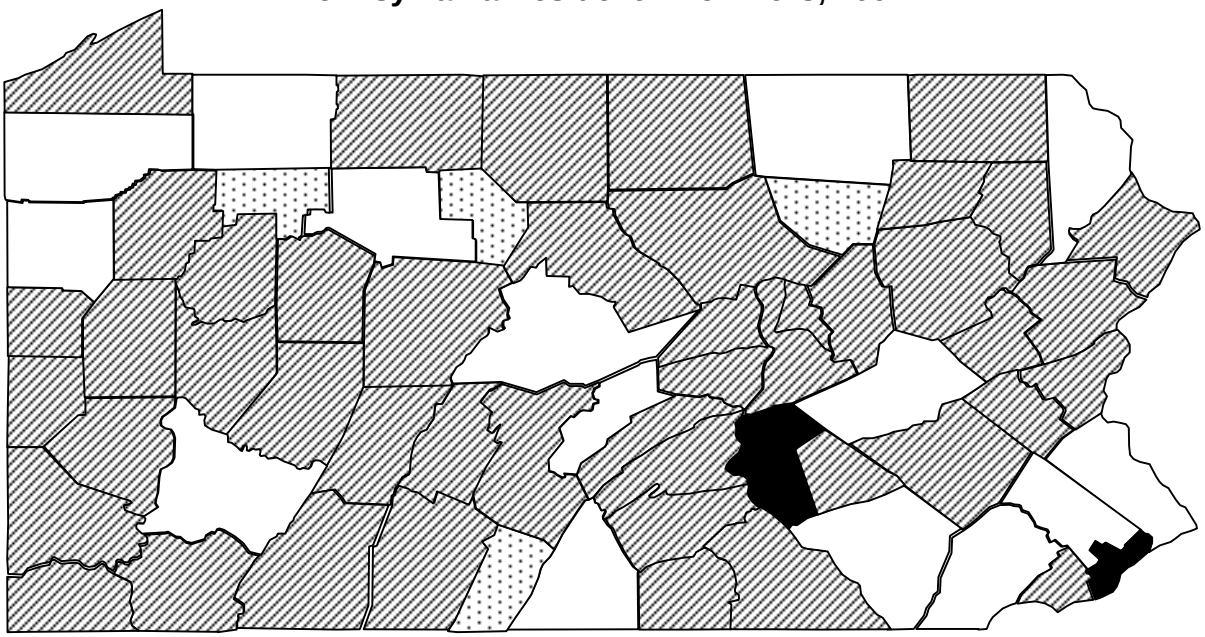
Infant Death Rates
Pennsylvania Residents, 2000-2002



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, 2002



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 μ values. The calculations were not peformed for counties that had less than 10 events. Rates for counties with less than 10 events are considered unreliable. See Technical Notes.

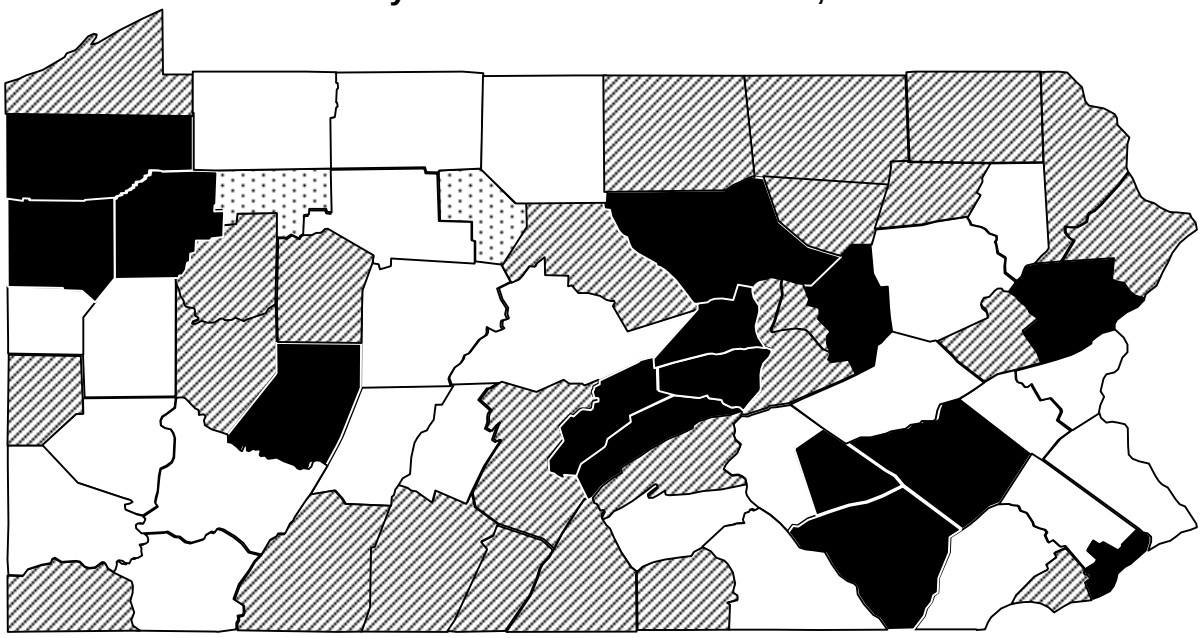
Percent No Prenatal Care in First Trimester and Teen Births, 2002

No Prenatal Care First Trimester	No.	Pct.	μ (95%)	
Adams	155	15.6	0.17	
Allegheny	1,081	8.3	-22.45	-
Armstrong	88	12.9	-1.66	
Beaver	234	14.0	-1.59	
Bedford	76	13.6	-1.08	
Berks	1,107	26.4	19.73	+
Blair	123	8.5	-7.27	-
Bradford	95	13.6	-1.21	
Bucks	537	8.2	-16.14	-
Butler	175	9.0	-7.82	-
Cambria	156	10.8	-4.84	-
Cameron	7	14.6		
Carbon	81	14.6	-0.48	
Centre	151	12.8	-2.47	-
Chester	784	14.3	-2.26	-
Clarion	53	13.8	-0.80	
Clearfield	86	11.0	-3.14	-
Clinton	63	15.1	-0.16	
Columbia	118	18.3	2.04	+
Crawford	223	21.7	5.60	+
Cumberland	213	10.1	-6.74	-
Dauphin	287	10.1	-7.83	-
Delaware	990	16.0	1.31	
Elk	19	5.9	-4.34	-
Erie	514	15.6	0.32	
Fayette	164	11.3	-4.33	-
Forest	3	10.3		
Franklin	248	15.9	0.55	
Fulton	26	16.1	0.23	
Greene	61	16.4	0.49	
Huntingdon	60	12.8	-1.43	
Indiana	171	21.1	4.50	+
Jefferson	78	15.8	0.23	
Juniata	77	23.9	3.89	+
Lackawanna	213	11.2	-5.07	-
Lancaster	1,383	21.7	13.93	+
Lawrence	116	12.4	-2.54	-
Lebanon	269	18.5	3.27	+
Lehigh	445	13.4	-3.19	-
Luzerne	294	10.3	-7.55	-
Lycoming	234	19.1	3.59	+
McKean	44	10.5	-2.56	-
Mercer	228	18.9	3.37	+
Mifflin	162	27.6	8.19	+
Monroe	246	17.6	2.28	+
Montgomery	928	10.7	-12.13	-
Montour	34	15.7	0.11	
Northampton	241	9.2	-8.79	-
Northumberland	133	14.2	-1.02	
Perry	81	16.3	0.51	
Philadelphia	5,238	28.0	47.75	+
Pike	44	11.7	-1.83	
Potter	11	7.3	-2.53	-
Schuylkill	103	7.7	-7.80	-
Snyder	103	24.3	5.08	+
Somerset	95	12.6	-1.96	
Sullivan	11	20.8	1.00	
Susquehanna	56	14.6	-0.40	
Tioga	58	13.1	-1.23	
Union	106	26.5	6.15	+
Venango	113	20.4	3.26	+
Warren	44	10.4	-2.62	-
Washington	175	8.6	-8.50	-
Wayne	57	12.9	-1.34	
Westmoreland	351	10.3	-8.25	-
Wyoming	37	12.8	-1.13	
York	579	13.3	-3.84	-
Pennsylvania	20,536	15.4	-8.90	-
United States (2002)	641,444	16.3		

Births to Mothers <18	No.	Pct.	μ (95%)	
Adams	28	2.8	-0.71	
Allegheny	421	3.1	-0.66	
Armstrong	15	2.1	-1.64	
Beaver	41	2.2	-2.41	-
Bedford	19	3.4	0.26	
Berks	173	3.7	1.94	
Blair	46	3.1	-0.22	
Bradford	11	1.5	-2.57	-
Bucks	90	1.3	-8.84	-
Butler	24	1.2	-5.00	-
Cambria	34	2.3	-1.93	
Cameron	6	10.7		
Carbon	14	2.3	-1.24	
Centre	16	1.3	-3.73	-
Chester	88	1.5	-7.28	-
Clarion	9	2.3		
Clearfield	25	3.1	-0.16	
Clinton	8	1.9		
Columbia	11	1.7	-2.13	-
Crawford	32	3.0	-0.37	
Cumberland	29	1.3	-5.02	-
Dauphin	114	3.7	1.58	
Delaware	177	2.7	-2.30	-
Elk	6	1.8		
Erie	146	4.3	3.64	+
Fayette	77	5.2	4.30	+
Forest	2	6.7		
Franklin	41	2.6	-1.33	
Fulton	6	3.7		
Greene	11	2.9	-0.33	
Huntingdon	21	4.4	1.47	
Indiana	15	1.8	-2.26	-
Jefferson	8	1.6		
Juniata	6	1.8		
Lackawanna	51	2.5	-1.77	
Lancaster	161	2.4	-3.72	-
Lawrence	37	3.7	0.88	
Lebanon	39	2.5	-1.55	
Lehigh	126	3.2	0.00	
Luzerne	73	2.4	-2.47	-
Lycoming	36	2.8	-0.80	
McKean	16	3.4	0.24	
Mercer	30	2.5	-1.36	
Mifflin	17	2.8	-0.55	
Monroe	24	1.6	-3.46	-
Montgomery	105	1.1	-11.66	-
Montour	3	1.4		
Northampton	74	2.6	-1.79	
Northumberland	37	3.9	1.21	
Perry	15	2.9	-0.38	
Philadelphia	1,463	6.8	30.00	+
Pike	6	1.6		
Potter	6	2.9		
Schuylkill	47	3.4	0.42	
Snyder	10	2.3	-1.05	
Somerset	13	1.7	-2.32	-
Sullivan	1	1.8		
Susquehanna	9	2.2		
Tioga	13	2.9	-0.36	
Union	10	2.4	-0.91	
Venango	24	4.2	1.34	
Warren	9	2.0		
Washington	54	2.6	-1.53	
Wayne	6	1.3		
Westmoreland	79	2.3	-2.95	-
Wyoming	4	1.3		
York	146	3.2	0.00	
Pennsylvania	4,514	3.2	-8.06	-
United States (2002)	146,046	3.6		

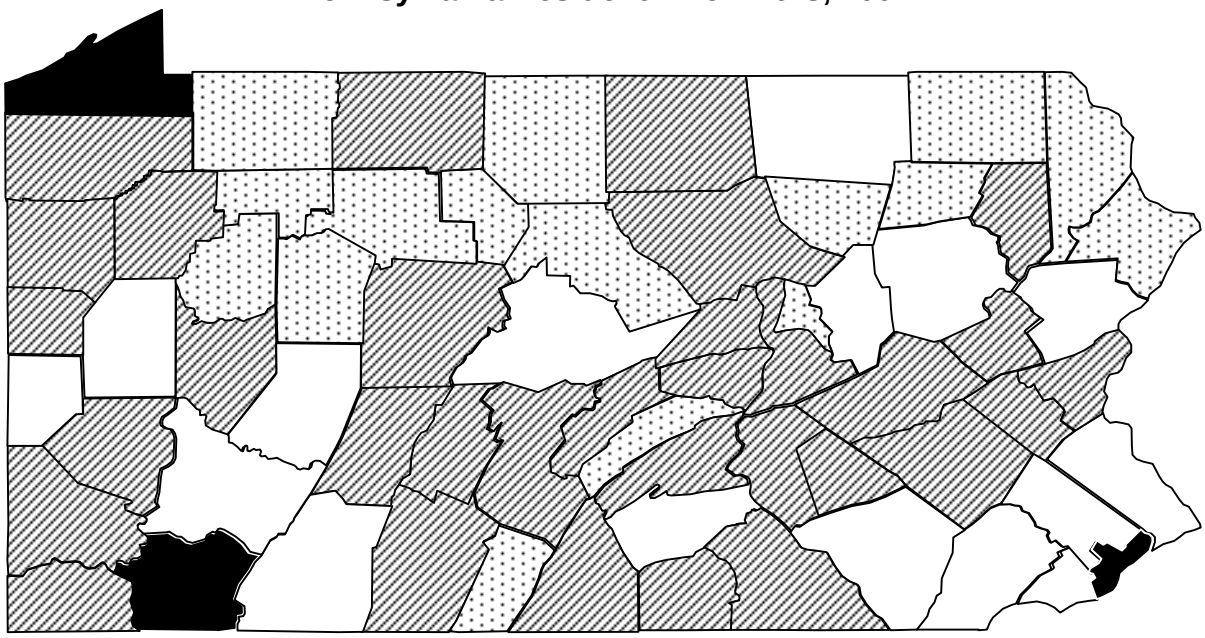
NOTE: A+ or - after the value of μ denotes if the county rate was significantly higher or lower than the state rate. No + or - after the μ value denotes no significant difference. State data were compared to U.S. data. Two separate formulas computed the μ values, depending on the number of events. See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

Percent with No Prenatal Care in First Trimester
Pennsylvania Resident Live Births, 2002



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, 2002



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 μ values. The calculations were not peformed 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

2002

Infant Deaths	No.	Rate
Adams	7	6.9
Allegheny	108	8.0
Armstrong	7	10.0
Beaver	11	6.0
Bedford	4	7.1
Berks	43	9.1
Blair	8	5.5
Bradford	6	8.4
Bucks	44	6.4
Butler	10	5.0
Cambria	11	7.6
Cameron	0	-
Carbon	3	4.9
Centre	10	7.9
Chester	38	6.4
Clarion	2	5.1
Clearfield	6	7.5
Clinton	2	4.7
Columbia	7	10.7
Crawford	6	5.6
Cumberland	16	7.2
Dauphin	22	7.1
Delaware	54	8.2
Elk	3	9.2
Erie	38	11.3
Fayette	10	6.8
Forest	2	66.7
Franklin	8	5.1
Fulton	0	-
Greene	4	10.4
Huntingdon	3	6.3
Indiana	5	6.1
Jefferson	4	7.9
Juniata	2	6.1
Lackawanna	12	5.9
Lancaster	54	8.0
Lawrence	12	12.0
Lebanon	11	7.2
Lehigh	27	6.8
Luzerne	19	6.3
Lycoming	10	7.9
McKean	4	8.6
Mercer	13	10.6
Mifflin	10	16.7
Monroe	14	9.2
Montgomery	45	4.8
Montour	4	18.1
Northampton	16	5.6
Northumberland	10	10.4
Perry	4	7.7
Philadelphia	227	10.6
Pike	0	-
Potter	2	9.8
Schuylkill	6	4.3
Snyder	4	9.1
Somerset	4	5.2
Sullivan	1	18.2
Susquehanna	1	2.4
Tioga	5	11.1
Union	1	2.4
Venango	3	5.3
Warren	1	2.3
Washington	11	5.3
Wayne	1	2.2
Westmoreland	22	6.3
Wyoming	2	6.7
York	21	4.6
Pennsylvania	1,081	7.6
United States (2002)	27,977	7.0

2002 Infant Deaths:

White	No.	Rate
Allegheny	49	4.8
Berks	40	9.3
Bucks	38	6.1
Chester	32	6.1
Dauphin	14	6.4
Delaware	29	6.2
Erie	26	9.0
Lancaster	49	7.8
Lehigh	21	6.1
Montgomery	37	4.7
Northampton	16	6.1
Philadelphia	63	7.8
Pennsylvania	744	6.4
U.S. (2002)	18,390	5.8

Black	No.	Rate
Allegheny	56	21.8
Bucks	5	17.0
Chester	3	8.6
Dauphin	8	12.3
Delaware	22	15.2
Erie	11	27.8
Montgomery	7	9.7
Philadelphia	147	13.5
Pennsylvania	299	15.2
U.S. (2002)	8,446	14.3

Hispanic	No.	Rate
Berks	11	10.9
Chester	4	9.0
Lancaster	9	13.1
Lehigh	10	11.8
Montgomery	2	5.0
Northampton	2	5.6
Philadelphia	25	9.3
Pennsylvania	78	9.0
U.S. (2002)	4,928	5.6

2000-02 Infant Deaths:

White	No.	Rate
Allegheny	165	5.2
Berks	102	7.9
Bucks	91	4.7
Chester	87	5.6
Dauphin	38	5.6
Delaware	72	5.0
Erie	67	7.5
Lancaster	132	6.9
Lehigh	73	7.2
Montgomery	115	4.8
Northampton	46	5.7
Philadelphia	170	6.8
Pennsylvania	2139	6.1

Black	No.	Rate
Allegheny	161	20.4
Bucks	10	10.7
Chester	12	11.7
Dauphin	23	11.1
Delaware	60	13.8
Erie	24	22.0
Montgomery	32	13.9
Philadelphia	473	14.3
Pennsylvania	914	15.3

Hispanic	No.	Rate
Berks	32	11.4
Chester	9	7.4
Lancaster	23	12.1
Lehigh	28	12.1
Montgomery	5	5.0
Northampton	8	7.7
Philadelphia	73	9.2
Pennsylvania	219	9.0

Asian and Pacific Islander	No.	Rate
Allegheny	6	4.7
Delaware	3	2.9
Montgomery	2	1.1
Philadelphia	16	4.2
Pennsylvania	44	3.6

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, 2000-2002

Syphilis	No.	Rate
Adams	0	-
Allegheny	17	0.4
Armstrong	4	1.9
Beaver	0	-
Bedford	0	-
Berks	0	-
Blair	0	-
Bradford	0	-
Bucks	8	0.4
Butler	0	-
Cambria	0	-
Cameron	0	-
Carbon	0	-
Centre	0	-
Chester	0	-
Clarion	1	0.8
Clearfield	0	-
Clinton	0	-
Columbia	1	0.5
Crawford	0	-
Cumberland	0	-
Dauphin	1	0.1
Delaware	5	0.3
Elk	0	-
Erie	0	-
Fayette	0	-
Forest	0	-
Franklin	0	-
Fulton	0	-
Greene	0	-
Huntingdon	0	-
Indiana	1	0.4
Jefferson	0	-
Juniata	0	-
Lackawanna	0	-
Lancaster	0	-
Lawrence	0	-
Lebanon	0	-
Lehigh	2	0.2
Luzerne	0	-
Lycoming	0	-
McKean	0	-
Mercer	2	0.6
Mifflin	0	-
Monroe	0	-
Montgomery	8	0.4
Montour	0	-
Northampton	0	-
Northumberland	0	-
Perry	0	-
Philadelphia	215	4.8
Pike	0	-
Potter	0	-
Schuylkill	0	-
Snyder	0	-
Somerset	0	-
Sullivan	0	-
Susquehanna	1	0.8
Tioga	0	-
Union	0	-
Venango	0	-
Warren	0	-
Washington	0	-
Wayne	0	-
Westmoreland	17	1.5
Wyoming	0	-
York	1	0.1
Pennsylvania	284	0.8
U.S. (2002)	6,862	2.4

AIDS	No.	Rate
Adams	10	3.6
Allegheny	282	7.4
Armstrong	4	1.9
Beaver	17	3.1
Bedford	1	0.7
Berks	100	8.8
Blair	11	2.9
Bradford	3	1.6
Bucks	50	2.8
Butler	8	1.5
Cambria	13	2.9
Cameron	0	-
Carbon	2	1.1
Centre	9	2.2
Chester	56	4.2
Clarion	1	0.8
Clearfield	12	4.8
Clinton	1	0.9
Columbia	2	1.0
Crawford	9	3.3
Cumberland	50	7.7
Dauphin	109	14.4
Delaware	135	8.2
Elk	0	-
Erie	43	5.1
Fayette	5	1.1
Forest	1	6.8
Franklin	11	2.8
Fulton	0	-
Greene	4	3.3
Huntingdon	11	8.0
Indiana	1	0.4
Jefferson	1	0.7
Juniata	1	1.5
Lackawanna	24	3.8
Lancaster	77	5.4
Lawrence	5	1.8
Lebanon	24	6.6
Lehigh	88	9.3
Luzerne	17	1.8
Lycoming	37	10.3
McKean	4	2.9
Mercer	5	1.4
Mifflin	3	2.2
Monroe	19	4.4
Montgomery	97	4.3
Montour	3	5.5
Northampton	47	5.8
Northumberland	12	4.3
Perry	1	0.8
Philadelphia	2,810	62.4
Pike	7	4.8
Potter	0	-
Schuylkill	15	3.3
Snyder	5	4.4
Somerset	8	3.3
Sullivan	2	10.2
Susquehanna	1	0.8
Tioga	1	0.8
Union	19	15.2
Venango	4	2.3
Warren	1	0.8
Washington	18	2.9
Wayne	5	3.4
Westmoreland	24	2.2
Wyoming	4	4.8
York	87	7.5
Pennsylvania	4,444	12.0
U.S. (2002)	42,745	15.3

Tuberculosis	No.	Rate
Adams	7	2.5
Allegheny	87	2.3
Armstrong	1	0.5
Beaver	8	1.5
Bedford	0	-
Berks	19	1.7
Blair	2	0.5
Bradford	2	1.1
Bucks	30	1.7
Butler	4	0.8
Cambria	6	1.3
Cameron	0	-
Carbon	1	0.6
Centre	7	1.7
Chester	24	1.8
Clarion	0	-
Clearfield	3	1.2
Clinton	2	1.8
Columbia	5	2.6
Crawford	4	1.5
Cumberland	26	4.0
Dauphin	27	3.6
Delaware	51	3.1
Elk	0	-
Erie	29	3.4
Fayette	10	2.3
Forest	0	-
Franklin	9	2.3
Fulton	0	-
Greene	3	2.5
Huntingdon	1	0.7
Indiana	1	0.4
Jefferson	2	1.5
Juniata	1	1.5
Lackawanna	16	2.5
Lancaster	24	1.7
Lawrence	3	1.1
Lebanon	4	1.1
Lehigh	21	2.2
Luzerne	22	2.3
Lycoming	3	0.8
McKean	3	2.2
Mercer	3	0.8
Mifflin	3	2.2
Monroe	7	1.6
Montgomery	55	2.4
Montour	2	3.7
Northampton	15	1.9
Northumberland	4	1.4
Perry	1	0.8
Philadelphia	460	10.2
Pike	0	-
Potter	1	1.8
Schuylkill	3	0.7
Snyder	2	1.8
Somerset	3	1.3
Sullivan	0	-
Susquehanna	0	-
Tioga	2	1.6
Union	2	1.6
Venango	1	0.6
Warren	0	-
Washington	15	2.5
Wayne	1	0.7
Westmoreland	13	1.2
Wyoming	1	1.2
York	24	2.1
Pennsylvania	1,086	2.9
U.S. (2002)	15,075	5.4

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

Average Annual Incidence Rate for Measles, 2000-2002

Measles	No.	Rate
Adams	0	-
Allegheny	2	0.05
Armstrong	0	-
Beaver	0	-
Bedford	3	2.00
Berks	0	-
Blair	1	0.26
Bradford	0	-
Bucks	0	-
Butler	0	-
Cambria	0	-
Cameron	0	-
Carbon	0	-
Centre	0	-
Chester	0	-
Clarion	0	-
Clearfield	0	-
Clinton	0	-
Columbia	0	-
Crawford	0	-
Cumberland	0	-
Dauphin	0	-
Delaware	0	-

Measles	No.	Rate
Elk	0	-
Erie	0	-
Fayette	0	-
Forest	0	-
Franklin	0	-
Fulton	1	2.33
Greene	0	-
Huntingdon	0	-
Indiana	0	-
Jefferson	0	-
Juniata	0	-
Lackawanna	0	-
Lancaster	1	0.07
Lawrence	0	-
Lebanon	0	-
Lehigh	0	-
Luzerne	0	-
Lycoming	0	-
McKean	0	-
Mercer	0	-
Mifflin	0	-
Monroe	0	-
Montgomery	0	-

Measles	No.	Rate
Montour	0	-
Northampton	0	-
Northumberland	0	-
Perry	0	-
Philadelphia	1	0.02
Pike	0	-
Potter	0	-
Schuylkill	0	-
Snyder	0	-
Somerset	0	-
Sullivan	0	-
Susquehanna	0	-
Tioga	0	-
Union	0	-
Venango	0	-
Warren	0	-
Washington	0	-
Wayne	0	-
Westmoreland	0	-
Wyoming	0	-
York	1	0.09
Pennsylvania	10	0.03
U.S. (2002)	44	0.02

Average Annual Work-Related Injury Death Rate, 2000-2002

Work-Related Injury Deaths	No.	Rate
Adams	2	0.7
Allegheny	42	1.1
Armstrong	8	3.7
Beaver	17	3.1
Bedford	3	2.0
Berks	25	2.2
Blair	7	1.8
Bradford	4	2.1
Bucks	20	1.1
Butler	9	1.7
Cambria	9	2.0
Cameron	0	-
Carbon	2	1.1
Centre	4	1.0
Chester	18	1.4
Clarion	2	1.6
Clearfield	10	4.0
Clinton	4	3.5
Columbia	2	1.0
Crawford	7	2.6
Cumberland	7	1.1
Dauphin	14	1.9
Delaware	21	1.3

Work-Related Injury Deaths	No.	Rate
Elk	1	1.0
Erie	14	1.7
Fayette	3	0.7
Forest	0	-
Franklin	8	2.0
Fulton	2	4.7
Greene	7	5.8
Huntingdon	3	2.2
Indiana	8	3.0
Jefferson	5	3.6
Juniata	3	4.4
Lackawanna	11	1.7
Lancaster	19	1.3
Lawrence	10	3.5
Lebanon	7	1.9
Lehigh	7	0.7
Luzerne	9	0.9
Lycoming	8	2.2
McKean	6	4.4
Mercer	9	2.5
Mifflin	3	2.2
Monroe	5	1.2
Montgomery	24	1.1

Work-Related Injury Deaths	No.	Rate
Montour	3	5.5
Northampton	21	2.6
Northumberland	7	2.5
Perry	2	1.5
Philadelphia	67	1.5
Pike	5	3.5
Potter	0	-
Schuylkill	10	2.2
Snyder	5	4.4
Somerset	30	12.6
Sullivan	0	-
Susquehanna	2	1.6
Tioga	4	3.2
Union	4	3.2
Venango	5	2.9
Warren	3	2.3
Washington	9	1.5
Wayne	4	2.8
Westmoreland	21	1.9
Wyoming	1	1.2
York	20	1.7
Pennsylvania	634	1.7
U.S. (2002)	5,524	1.9

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, 2002

Low Birth Weight	No.	Pct.
White:		
Allegheny	706	6.9
Berks	324	7.6
Bucks	456	7.3
Chester	351	6.7
Dauphin	205	9.3
Delaware	309	6.6
Erie	207	7.1
Lancaster	382	6.0
Lehigh	243	7.0
Montgomery	524	6.7
Northampton	230	8.8
Philadelphia	663	8.2
Pennsylvania	8,279	7.2
U.S. (2002)	215,799	6.8
Black:		
Allegheny	388	15.1
Bucks	32	10.9
Chester	34	9.8
Dauphin	104	16.0
Delaware	169	11.7
Erie	59	14.9
Montgomery	98	13.5
Philadelphia	1,605	14.8
Pennsylvania	2,781	14.1
U.S. (2002)	78,813	13.3
Hispanic:		
Berks	89	8.8
Chester	35	7.8
Lancaster	75	10.9
Lehigh	75	8.8
Montgomery	35	8.8
Northampton	53	14.8
Philadelphia	253	9.4
Pennsylvania	790	9.2
U.S. (2002)	57,383	6.5
Asian and Pacific Islander:		
Allegheny	35	7.0
Delaware	24	7.1
Montgomery	50	7.8
Philadelphia	112	8.3
Pennsylvania	342	7.9
U.S. (2002)	16,404	7.8

No Prenatal Care First Trimester	No.	Pct.
White:		
Allegheny	580	5.8
Berks	957	24.9
Bucks	428	7.2
Chester	637	13.1
Dauphin	178	8.7
Delaware	511	11.5
Erie	377	13.3
Lancaster	1,311	21.8
Lehigh	350	11.9
Montgomery	672	9.2
Northampton	205	8.4
Philadelphia	1,377	18.9
Pennsylvania	14,054	12.8
U.S. (2002)	454,499	14.6
Black:		
Allegheny	421	17.3
Bucks	69	25.7
Chester	89	29.0
Dauphin	87	15.3
Delaware	403	30.4
Erie	116	30.2
Montgomery	136	20.8
Philadelphia	3,185	33.8
Pennsylvania	5,079	29.0
U.S. (2002)	143,161	24.8
Hispanic:		
Berks	366	43.3
Chester	125	31.0
Lancaster	85	14.1
Lehigh	160	23.1
Montgomery	84	22.7
Northampton	49	15.5
Philadelphia	741	31.1
Pennsylvania	2,120	27.7
U.S. (2002)	199,149	23.3
Asian and Pacific Islander:		
Allegheny	40	8.3
Delaware	55	18.5
Montgomery	89	15.4
Philadelphia	354	30.8
Pennsylvania	761	19.4
U.S. (2002)	31,323	15.2

Births to Mother <18	No.	Pct.
White:		
Allegheny	151	1.5
Berks	143	3.3
Bucks	76	1.2
Chester	58	1.1
Dauphin	55	2.5
Delaware	50	1.1
Erie	104	3.6
Lancaster	135	2.1
Lehigh	106	3.1
Montgomery	66	0.8
Northampton	59	2.2
Philadelphia	367	4.5
Pennsylvania	2,605	2.3
U.S. (2002)	99,748	3.1
Black:		
Allegheny	254	9.9
Bucks	10	3.4
Chester	25	7.2
Dauphin	52	8.0
Delaware	124	8.6
Erie	40	10.1
Montgomery	30	4.1
Philadelphia	975	9.0
Pennsylvania	1,684	8.6
U.S. (2002)	41,077	6.9
Hispanic:		
Berks	85	8.4
Chester	30	6.7
Lancaster	70	10.2
Lehigh	65	7.6
Montgomery	20	5.0
Northampton	26	7.3
Philadelphia	280	10.4
Pennsylvania	693	8.0
U.S. (2002)	49,161	5.6
Asian and Pacific Islander:		
Allegheny	1	0.2
Delaware	1	0.3
Montgomery	3	0.5
Philadelphia	27	2.0
Pennsylvania	42	1.0
U.S. (2002)	2,425	1.1

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, 2000-2002

All Causes	No.	Rate	CI (95%)	
North Central	19,900	835.0	823.40-846.60	-
Northeastern	49,828	869.4	861.77-877.03	-
Northwestern	31,133	875.5	865.77-885.23	
South Central	44,803	838.5	830.74-846.26	-
Southeastern	144,834	895.1	890.49-899.71	+
Southwestern	98,638	883.8	878.28-889.32	+
Pennsylvania	389,136	877.6	874.84-880.36	+
U.S. (2002)	2,447,862	846.8	845.74-847.86	

Cardiovascular Disease	No.	Rate	CI (95%)	
North Central	8,220	338.5	331.18-345.82	
Northeastern	20,586	346.7	341.96-351.44	+
Northwestern	12,572	344.6	338.58-350.62	+
South Central	17,821	329.3	324.47-334.13	-
Southeastern	54,235	329.2	326.43-331.97	-
Southwestern	39,340	341.7	338.32-345.08	+
Pennsylvania	152,774	336.3	334.61-337.99	+
U.S. (2002)	917,839	317.1	316.45-317.75	

Lung Cancer	No.	Rate	CI (95%)	
North Central	1,092	46.1	43.37-48.83	-
Northeastern	2,895	51.5	49.62-53.38	-
Northwestern	1,877	52.9	50.51-55.29	
South Central	2,738	50.7	48.80-52.60	-
Southeastern	9,159	57.2	56.03-58.37	+
Southwestern	6,270	56.8	55.39-58.21	+
Pennsylvania	24,031	54.6	53.91-55.29	
U.S. (2002)	158,258	55.1	54.83-55.37	

Diseases of Heart	No.	Rate	CI (95%)	
North Central	6,464	266.9	260.39-273.41	
Northeastern	16,413	276.9	272.66-281.14	+
Northwestern	9,746	268.0	262.68-273.32	+
South Central	13,760	254.4	250.15-258.65	-
Southeastern	40,931	248.9	246.49-251.31	-
Southwestern	30,831	268.7	265.70-271.70	+
Pennsylvania	118,145	260.7	259.21-262.19	+
U.S. (2002)	695,754	240.4	239.84-240.96	

Female Breast Cancer	No.	Rate	CI (95%)	
North Central	361	27.6	24.75-30.45	
Northeastern	874	27.5	25.68-29.32	
Northwestern	506	25.8	23.55-28.05	
South Central	750	24.9	23.12-26.68	-
Southeastern	2,698	29.6	28.48-30.72	+
Southwestern	1,673	27.0	25.71-28.29	
Pennsylvania	6,862	27.8	27.14-28.46	+
U.S. (2001)	41,394	26.0	25.75-26.25	

Stroke	No.	Rate	CI (95%)	
North Central	1,328	54.1	51.19-57.01	
Northeastern	2,892	48.3	46.54-50.06	-
Northwestern	2,020	54.8	52.41-57.19	
South Central	3,065	56.5	54.50-58.50	
Southeastern	10,281	62.0	60.80-63.20	+
Southwestern	6,326	54.1	52.77-55.43	-
Pennsylvania	25,912	56.5	55.81-57.19	
U.S. (2002)	163,010	56.3	56.03-56.57	

Intentional Self-harm (Suicide)	No.	Rate	CI (95%)	
North Central	218	10.4	9.02-11.78	
Northeastern	503	11.2	10.22-12.18	
Northwestern	316	10.9	9.70-12.10	
South Central	525	11.0	10.06-11.94	
Southeastern	1,400	9.5	9.00-10.00	-
Southwestern	978	11.3	10.59-12.01	+
Pennsylvania	3,940	10.5	10.17-10.83	
U.S. (2002)	30,646	10.6	10.48-10.72	

Motor Vehicle Accidents	No.	Rate	CI (95%)	
North Central	314	14.6	12.99-16.21	+
Northeastern	643	14.3	13.19-15.41	+
Northwestern	563	19.4	17.80-21.00	+
South Central	721	15.5	14.37-16.63	+
Southeastern	1,480	10.0	9.49-10.51	-
Southwestern	928	10.8	10.11-11.49	-
Pennsylvania	4,649	12.3	11.95-12.65	-
U.S. (2002)	44,572	15.4	15.26-15.54	

Assault (Homicide)	No.	Rate	CI (95%)	
North Central	37	1.8	1.22-2.38	-
Northeastern	122	2.8	2.30-3.30	-
Northwestern	61	2.2	1.65-2.75	-
South Central	124	2.8	2.31-3.29	-
Southeastern	1,251	8.8	8.31-9.29	+
Southwestern	354	4.4	3.94-4.86	-
Pennsylvania	1,949	5.4	5.16-5.64	-
U.S. (2002)	17,045	5.9	5.81-5.99	

NOTES: A + or - after the confidence interval (CI) denotes if the district age-adjusted death 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. Rates/percents based on small numbers can be unreliable.
See Technical Notes section.

Health Status Indicators by Department of Health District

Infant Deaths, Number and Average Annual Rate
By Race and Hispanic Origin, 2000-2002

All Infant Deaths	No.	Rate	μ (95%)
North Central	158	7.4	0.17
Northeastern	298	6.4	-2.28 -
Northwestern	261	8.3	2.08 +
South Central	320	5.9	-3.84 -
Southeastern	1,464	7.7	2.05 +
Southwestern	641	7.3	0.00
Pennsylvania	3,142	7.3	2.36 +
U.S. (2002)	27,977	7.0	

White	No.	Rate
North Central	148	7.2
Northeastern	258	6.0
Northwestern	218	7.4
South Central	277	5.6
Southeastern	791	5.9
Southwestern	447	5.9
Pennsylvania	2,139	6.1
U.S. (2002)	18,390	5.8

Black	No.	Rate
North Central	6	16.1
Northeastern	35	20.0
Northwestern	37	23.0
South Central	40	11.8
Southeastern	616	14.3
Southwestern	180	19.2
Pennsylvania	914	15.3
U.S. (2002)	8,446	14.3

Hispanic	No.	Rate
North Central	0	-
Northeastern	45	10.2
Northwestern	5	12.0
South Central	15	6.0
Southeastern	148	9.2
Southwestern	6	8.4
Pennsylvania	219	9.0
U.S. (2002)	4,928	5.6

Infant Deaths, Number and Rate
By Race and Hispanic Origin, 2002

All Infant Deaths	No.	Rate	μ (95%)
North Central	62	8.8	1.14
Northeastern	95	6.1	-2.12 -
Northwestern	94	9.2	1.83
South Central	116	6.4	-1.86
Southeastern	511	8.1	1.45
Southwestern	203	7.1	-0.97
Pennsylvania	1,081	7.6	2.72 +
U.S. (2002)	27,977	7.0	

White	No.	Rate
North Central	60	8.9
Northeastern	81	5.7
Northwestern	75	7.9
South Central	98	5.9
Southeastern	293	6.6
Southwestern	137	5.6
Pennsylvania	744	6.4
U.S. (2002)	18,390	5.8

Black	No.	Rate
North Central	0	-
Northeastern	12	19.4
Northwestern	18	32.4
South Central	16	14.9
Southeastern	192	13.5
Southwestern	61	19.8
Pennsylvania	299	15.2
U.S. (2002)	8,446	14.3

Hispanic	No.	Rate
North Central	0	-
Northeastern	17	10.5
Northwestern	3	23.4
South Central	4	4.4
Southeastern	54	9.6
Southwestern	0	-
Pennsylvania	78	9.0
U.S. (2002)	4,928	5.6

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

Health Status Indicators by Department of Health District

Selected Diseases
Total Number and Average Annual Rate, 2000-2002

Syphilis	No.	Rate
North Central	1	0.05
Northeastern	3	0.07
Northwestern	3	0.11
South Central	2	0.04
Southeastern	236	1.62
Southwestern	39	0.47
Pennsylvania	284	0.77
U.S. (2002)	6,862	2.44

Tuberculosis	No.	Rate
North Central	32	1.6
Northeastern	84	1.9
Northwestern	48	1.7
South Central	105	2.3
Southeastern	666	4.6
Southwestern	151	1.8
Pennsylvania	1,086	2.9
U.S. (2002)	15,075	5.4

AIDS	No.	Rate
North Central	94	4.6
Northeastern	214	4.8
Northwestern	86	3.0
South Central	319	6.9
Southeastern	3,340	22.9
Southwestern	384	4.6
Pennsylvania	4,444	12.0
U.S. (2002)	42,745	15.3

Measles	No.	Rate
North Central	0	-
Northeastern	0	-
Northwestern	0	-
South Central	6	0.13
Southeastern	2	0.01
Southwestern	2	0.02
Pennsylvania	10	0.03
U.S. (2002)	44	0.02

Low Birth Weight, Number and Percent,
By Race and Hispanic Origin, 2002

All Births	No.	Pct.	μ (95%)
North Central	479	6.8	-4.28 -
Northeastern	1,212	7.8	-1.82
Northwestern	765	7.5	-2.58 -
South Central	1,431	7.9	-1.47
Southeastern	5,484	8.7	4.58 +
Southwestern	2,296	8.1	-0.61
Pennsylvania	11,667	8.2	5.63 +
U.S. (2002)	314,077	7.8	

White	No.	Pct.
North Central	453	6.7
Northeastern	1,078	7.5
Northwestern	667	7.0
South Central	1,221	7.4
Southeastern	3,094	7.0
Southwestern	1,766	7.2
Pennsylvania	8,279	7.2
U.S. (2002)	215,799	6.8

Black	No.	Pct.
North Central	18	15.0
Northeastern	78	12.6
Northwestern	79	14.2
South Central	159	14.8
Southeastern	2,005	14.1
Southwestern	442	14.4
Pennsylvania	2,781	14.1
U.S. (2002)	78,813	13.3

Hispanic	No.	Pct.
North Central	5	7.4
Northeastern	155	9.6
Northwestern	10	7.8
South Central	80	8.8
Southeastern	520	9.2
Southwestern	20	8.4
Pennsylvania	790	9.2
U.S. (2002)	57,383	6.5

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

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, 2002

All Births	No.	Pct.	μ (95%)
North Central	1,117	16.5	2.51 +
Northeastern	1,714	12.1	-10.88 -
Northwestern	1,528	15.4	0.00
South Central	2,356	13.6	-6.56 -
Southeastern	11,070	19.3	25.88 +
Southwestern	2,751	10.0	-24.81 -
Pennsylvania	20,536	15.4	-8.90 -
U.S. (2002)	641,444	16.3	

White	No.	Pct.
North Central	1,045	16.0
Northeastern	1,450	11.0
Northwestern	1,336	14.5
South Central	2,129	13.4
Southeastern	5,992	14.6
Southwestern	2,102	8.8
Pennsylvania	14,054	12.8
U.S. (2002)	454,499	14.6

Black	No.	Pct.
North Central	37	33.0
Northeastern	161	29.8
Northwestern	152	28.1
South Central	168	17.4
Southeastern	4,030	32.4
Southwestern	531	18.3
Pennsylvania	5,079	29.0
U.S. (2002)	143,161	24.8

Hispanic	No.	Pct.
North Central	16	25.4
Northeastern	312	22.4
Northwestern	30	24.4
South Central	250	29.4
Southeastern	1,485	29.7
Southwestern	27	11.8
Pennsylvania	2,120	27.7
U.S. (2002)	199,149	23.3

Live Births to Mothers Under Age 18, Number and Percent, By Race and Hispanic Origin, 2002

All Births	No.	Pct.	μ (95%)
North Central	162	2.3	-4.29 -
Northeastern	387	2.5	-4.95 -
Northwestern	350	3.4	1.15
South Central	527	2.9	-2.30 -
Southeastern	2,304	3.7	7.09 +
Southwestern	784	2.8	-3.80 -
Pennsylvania	4,514	3.2	-8.06 -
U.S. (2002)	146,046	3.6	

White	No.	Pct.
North Central	153	2.3
Northeastern	329	2.3
Northwestern	292	3.1
South Central	427	2.6
Southeastern	938	2.1
Southwestern	466	1.9
Pennsylvania	2,605	2.3
U.S. (2002)	99,748	3.1

Black	No.	Pct.
North Central	8	6.7
Northeastern	39	6.3
Northwestern	53	9.5
South Central	82	7.7
Southeastern	1,209	8.5
Southwestern	293	9.5
Pennsylvania	1,684	8.6
U.S. (2002)	41,077	6.9

Hispanic	No.	Pct.
North Central	2	2.9
Northeastern	109	6.7
Northwestern	18	14.1
South Central	51	5.6
Southeastern	500	8.8
Southwestern	13	5.5
Pennsylvania	693	8.0
U.S. (2002)	49,161	5.6

Note: A + or - after the value of μ denotes if the district rate was significantly higher or lower than the state rate. No + or - after the μ value denotes no significant difference. State data were compared to U.S. data. Two separate formulas were used to compute the μ values, depending on the number of events. The value of μ was not calculated for rates/percents based on less than 10 events or for rates/percents by race and Hispanic Origin. Rates/percents based on small numbers can be unreliable. 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 2002 data. The latest available U.S. death statistics are preliminary 2002 data (female breast cancer are final 2001 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 2000 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*** to review complete data tables, including confidence intervals and data limitations.

Population estimates, for the years 2000 through 2002, 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.

All calculations exclude any unknowns.

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 (2000-2002) age-adjusted death rate for suicide of 10.5 to calculate an estimated SE. The rate was based on 3,940 suicides. The square root of 3,940 is 62.77. By dividing the rate of 10.5 by 62.77, one obtains the estimated SE of 0.1673. 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 $10.5 \pm (1.96 \times 0.1673)$ and the result is 10.5 ± 0.33. Then, by subtracting and adding 0.33 against the original rate of 10.5, a range can be calculated and considered the estimated 95% confidence interval for the state, i.e., 10.17 - 10.83. One could then state, with 95% certainty that the actual age-adjusted suicide rate for the state during 2000-2002 was between 10.17 and 10.83.

To compare a particular county's age-adjusted suicide rate for 2000-2002 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, Indiana County's age-adjusted suicide rate for 2000-2002 of 15.0 (based on 39 deaths) seems much higher than the corresponding state rate of 10.5. However, calculation of a 95% CI for Indiana County's rate would produce a rather wide range of 10.29-19.71. Since this range for Indiana County also includes 10.5 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 μ 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) 4,205 = 39.9

1. $\sqrt{e} = \sqrt{39.9} = 6.3$

2. $(o – e) = 58 – 39.9 = 18.1$

3. $(o – e) / \sqrt{e} = 18.1 / 6.3 = 2.9$ or μ

Since the value of μ 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 μ 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_1 = rate for County 1
r_2 = 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_1 = confidence limit for County 1 rate
CL_2 = 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:

$$CL = [1.96 (r / \sqrt{d})]$$

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^2 in the following formula.

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

$$R = (r_1 / r_2)$$

where:

r_1 = rate for County 1
r_2 = 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_1 = number of events for County 1
d_2 = 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.

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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 2003 data are available, 1999-2003 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***.

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 2000 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. Census Bureau web site at *www.census.gov*.

Pennsylvania Health Districts and Counties