

CityLights Data Report

Feto-Infant Mortality in Selected U.S. Cities and Counties (2000-2002) Using Perinatal Periods of Risk (PPOR) Mapping

BACKGROUND

To inform and assist major urban areas in their work to improve maternal and child health, we present fetoinfant mortality rates for major cities and counties and for the U.S. as a whole, using Perinatal Periods of Risk (PPOR) analytic methods (See *Perinatal Periods of Risk Analysis* page A2), for the period 2000-2002. PPOR rates are different from traditional measures of infant mortality, most notably because they include fetal deaths. Additionally, to assure data quality and comparability across reporting areas, PPOR analysis excludes fetal deaths occurring before 24 weeks gestation and excludes fetal and infant deaths with birthweight under 500 grams. Finally, PPOR analytic methods are designed for analysis of community level data. Although states report vital statistics information for all their localities to the National Center for Health Statistics (NCHS), city-specific and other local statistics are not published by NCHS.

ABOUT THE TABLE

Table 1 (See Page A3) reports 2000-2002 PPOR fetoinfant mortality rates for the nation's 68 largest cities and 186 largest counties. The table includes the overall fetoinfant mortality rate for each locality, followed by the component rates in each of the four "periods of risk":

- Maternal Health/Prematurity (all fetal and infant deaths under 1500 grams)
- Maternal Care (fetal deaths 1500 grams and greater)
- Newborn Care (infant deaths 1500 grams and greater occurring in the first 28 days of life)
- Infant Health (infant deaths weighing 1500 grams or more occurring in the second through twelfth months of life).

Localities with major reporting problems in NCHS data are indicated as such; their data should be used with caution. This PPOR table was created by the March of Dimes Perinatal Data Center, in collaboration with CityMatCH, using the NCHS Perinatal Mortality Data Files from the years 2000, 2001, and 2002 (the most recent data currently available). Table 1, and additional tables showing data quality information and PPOR data from past years, are posted on the CityMatCH web site. March of Dimes plans to include PPOR data on its PeriStats web site <http://www.marchofdimes.com/peristats/>. PeriStats is a well-designed and convenient resource for MCH data, intended for use by maternal and infant health professionals and researchers, medical librarians, policy-makers, students, and the media (See *PeriStats*, page A6).

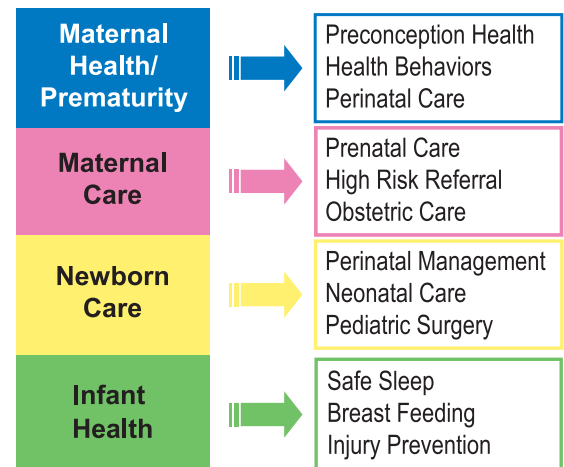
KEY FINDINGS

The 2000-2002 PPOR Map of fetoinfant mortality is displayed in Figure 2, for the U.S. as a whole and for the largest cities combined. Figure 2 demonstrates how this analytic technique allows ready comparison of populations. In 2000-2002, the overall PPOR fetoinfant mortality was higher in the nation's largest cities than in the U.S. as a whole. For the 66 cities with adequate reporting, the aggregated fetoinfant mortality rate was 10.0 vs. the U.S. rate of 9.1 ($p<.0001$). The Maternal Health/Prematurity period of risk dominates the PPOR Map for the nation as a whole and in all 68 largest cities, suggesting that preventive action must address maternal health prior to conception and early in pregnancy. The Infant Health period of risk also is a significant contributor to overall fetoinfant mortality in most localities. Targeted renewed efforts to address Sudden Unexplained Infant Death may be a key strategy for many urban areas.

DISCUSSION AND NEXT STEPS

PPOR analysis provides new ways of looking at an old problem. The rates presented in this report offer only a glimpse into what PPOR can reveal to its users. The PPOR map is only one of 14 steps in PPOR analytic methods. Users of PPOR must complete Phase 1 by estimating excess mortality in each period of risk and identifying disparities among subpopulations. Next, each community must complete Phase 2 analysis, following CityMatCH guidelines, to investigate what drives these gaps (see Figure 1). While the PPOR maps for most cities have similar characteristics, each city has a unique set of circumstances, assets and risk factors. Phase 2 PPOR analyses allow communities to examine their own mortality problem in detail and use their findings to shape local strategies and solutions.

Figure 1. The four periods of risk are labeled by primary prevention areas to suggest potential prevention strategies.



More information about Phase 1 and 2 PPOR analytic methods is found at the CityMatCH web site <http://www.citymatch.org/PPOR/HowTo/HowToDo.htm>

Perinatal Periods Of Risk (PPOR) Analysis: Understanding Fetal And Infant Mortality In Urban Communities

The PPOR Approach is a comprehensive public health planning and action process that includes a set of analytic methods introduced below. PPOR is helping over 100 locations nationwide use population-based data in new ways to assess and address fetal and infant mortality. Intended for integration with other MCH tools and strategies, including FIMR and Healthy Start, PPOR can be a powerful approach for translating data into action for measurable results.

PPOR *analytic* methods, which are part of an overall six stage approach, go beyond traditional calculations of infant mortality rates in several ways, by:

- Including fetal deaths
- “Mapping” or cross-tabulating fetal and infant deaths by both birthweight and age at death
- Focusing on very low birthweight (under 1500 grams)
- Comparing the target population to a selected reference group with optimal outcomes to estimate “excess” mortality or preventable deaths

PPOR guides communities through a series of in-depth analyses within the periods of risk with major contributions to excess mortality. Results of PPOR analyses help public health planners target specific prevention strategies.

THE PPOR “MAP”

Phase 1 PPOR analysis generates the two-dimensional PPOR “map,” examples of which are shown in Figure 2. The map is a cross-tabulation of the fetal and infant deaths, with “age at death” as the horizontal axis, and “birthweight” as the vertical. The four color-coded boxes within the map represent “periods of risk,” which are labeled by primary prevention areas to suggest potential prevention strategies (See Figure 1).

The blue box, across the top, “Maternal Health and Prematurity,” contains all the under-1500-gram birthweight (VLBW) deaths. The three boxes across the bottom contain deaths with birthweights of 1500 grams or more. The pink box in the lower left, “Maternal Care,” which includes only

fetal deaths, reflects larger stillbirths. The yellow box in the center, “Newborn Care,” includes larger infants born alive but dying before their 28th day of life. The green box in the lower right, “Infant Health,” contains larger infants who survive the first month but die before reaching their first birthday. In Table 1, each box is shown as a separate column. To assure data quality and comparability across reporting areas, PPOR analysis excludes fetal deaths occurring before 24 weeks gestation and excludes fetal and infant deaths with birthweight under 500 grams.

PPOR PHASE 1 AND 2 ANALYSIS

PPOR analysis has two phases. The “map” is only the starting point for Phase 1. The fetio-infant mortality rates shown in Table 1 are calculated by dividing the number of deaths by the total number of live births and fetal deaths. The four period-specific rates add up to the overall rate. Also in Phase 1, the “gap” between observed and optimal rates is calculated as excess mortality. If we assume that all “target populations” should have mortality rates no higher than a selected “reference population” known to have optimal outcomes, then the difference between the target and reference population rates represents excess mortality, i.e. preventable deaths. This completes “Phase 1 Analysis.”

The periods and populations with the largest excess rates become the objects of further study in Phase 2 of PPOR analytic methods. Guidelines for PPOR Phase 2 Analyses are available at <http://www.citymatch.org/PPOR/HowTo/HowToDo.htm>.

LIMITATIONS

PPOR analysis requires a minimum of 60 deaths overall, and a minimum of ten in each period of risk. Smaller numbers are likely to change substantially from year to year and do not provide a firm basis for policy and program decisions. It is recommended that localities with small numbers of deaths use case-based methods such as FIMR to study their fetio-infant mortality.

CityMatCH recommends that communities perform their own Phase 1 and Phase 2 Analyses as part of the comprehensive PPOR Approach, using locally obtained data, which in some cases has proved more complete than data provided to NCHS by their state.

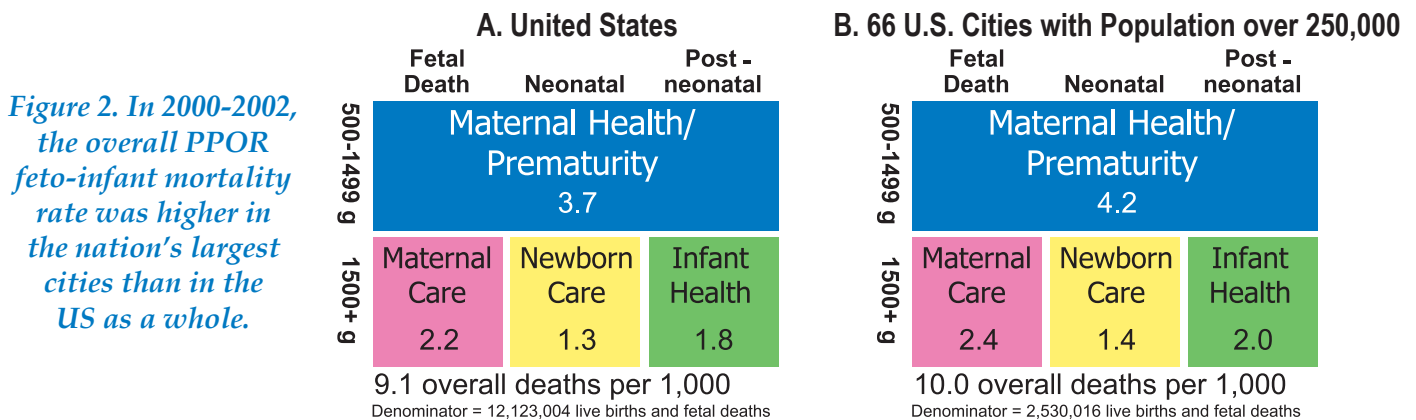


Table 1. Feto-infant mortality rates, overall and by the four Perinatal Periods of Risk

U.S. Counties and Cities with over 250,000 Population by State, 2000-2002

Rates are per 1,000 live births

† Indicates rates are suppressed because fewer than 10 deaths were reported

* City and county coincide

** State contains no large cities or counties

Note: Shaded localities have reporting problems (See end notes)

		Overall	Maternal Health/Prematurity	Maternal Care	Newborn Care	Infant Health	Reporting Problems	
Alabama	Jefferson	13.9	6.5	3.3	1.6	2.6		
	Birmingham	17.7	8.5	3.6	2.0	3.6		
	Mobile	11.0	4.2	2.3	1.4	3.0		
Alaska**								
Arizona	Maricopa	8.7	3.2	2.3	1.5	1.8		
	Mesa	7.7	2.8	2.0	1.1	1.8		
	Phoenix	9.5	3.5	2.4	1.6	2.0		
	Pima	9.5	3.5	2.4	1.4	2.1		
	Tucson	8.5	3.3	1.8	1.3	2.1		
Arkansas	Pulaski	12.2	5.2	2.5	1.8	2.7		
California	Alameda	8.1	3.2	2.4	1.1	1.4		
	Oakland	10.3	4.1	3.1	1.0	2.1		
	Contra Costa	6.6	2.3	1.9	1.1	1.3		
	Fresno	8.1	3.3	2.0	1.3	1.6		
		Fresno	8.5	3.5	1.9	1.2	1.9	
		Kern	10.2	3.8	3.0	1.2	2.2	
		Los Angeles	7.8	3.1	2.1	1.1	1.4	
		Long Beach	8.6	2.8	2.5	1.1	2.1	E
		Los Angeles	8.1	3.2	2.2	1.2	1.5	
		Monterey	7.4	2.4	2.0	1.6	1.4	
		Orange	7.2	2.9	1.9	1.1	1.2	
		Anaheim	7.7	2.8	1.9	1.6	1.3	
		Santa Ana	7.9	3.4	2.2	1.2	1.1	
		Riverside	8.4	2.9	2.4	1.4	1.6	
		Sacramento	8.2	2.8	2.3	1.3	1.9	
		Sacramento	9.9	3.3	2.8	1.5	2.3	
		San Bernardino	9.0	3.6	2.1	1.4	1.9	
		San Diego	7.2	2.7	1.9	1.2	1.4	
		San Diego	7.1	2.4	1.9	1.3	1.4	
		San Francisco*	7.3	3.1	2.3	0.7	1.1	
		San Joaquin	9.7	4.1	2.2	1.8	1.7	
		San Mateo	7.0	2.7	2.1	1.2	1.0	
		Santa Barbara	6.8	2.3	1.8	1.6	1.2	
		Santa Clara	6.4	2.5	2.0	1.0	0.9	
		San Jose	6.8	2.6	2.2	1.0	1.0	
		Solano	9.2	4.0	2.7	1.0	1.5	
		Sonoma	8.0	3.5	1.8	1.6	1.1	
		Stanislaus	9.6	4.0	2.4	1.4	1.8	
		Tulare	9.2	3.5	2.2	1.6	1.9	
		Ventura	6.9	2.6	2.2	1.4	0.7	

		Overall	Maternal Health/Prematurity	Maternal Care	Newborn Care	Infant Health	Reporting Problems	
Colorado	Adams	8.0	2.8	2.3	1.2	1.7		
	Arapahoe	7.9	3.4	2.5	0.9	1.2		
	Denver*	8.4	3.9	2.0	1.1	1.4		
	El Paso	8.9	3.2	2.1	1.7	1.9		
	Colorado Springs	9.2	3.3	2.1	1.8	2.0		
	Jefferson	6.8	2.9	1.8	1.0	1.2		
Connecticut	Fairfield	6.9	3.4	2.0	0.7	0.8		
	Hartford	7.5	3.7	1.6	1.1	1.0		
	New Haven	7.7	3.6	1.6	1.1	1.3		
	New London	7.6	3.4	†	1.8	1.4		
Delaware	New Castle	9.0	3.9	2.1	1.2	1.8		
District of Columbia	Washington	14.1	7.1	3.4	1.7	2.0		
Florida	Brevard	8.5	3.3	2.0	1.5	1.7		
	Broward	8.8	4.0	2.3	1.0	1.4		
	Dade	8.9	3.8	2.7	1.1	1.3		
		Miami	10.6	4.8	2.5	1.4	1.8	
	Duval	11.4	5.4	2.0	1.4	2.6		
		Jacksonville	11.4	5.4	2.1	1.5	2.5	
		Escambia	14.2	6.3	2.1	1.9	4.0	
		Hillsborough	10.1	3.9	2.6	1.3	2.3	
		Tampa	9.1	3.7	1.8	1.1	2.4	
		Lee	8.7	2.9	2.4	1.6	1.7	
		Orange	9.8	4.4	2.2	1.1	2.0	
		Palm Beach	10.3	4.5	2.6	1.5	1.8	
		Pasco	9.1	3.6	1.9	1.7	1.8	
		Pinellas	9.2	4.6	2.4	1.0	1.2	
		Polk	10.8	4.5	2.4	1.6	2.2	
		Sarasota	8.2	2.6	2.4	1.4	1.8	
		Seminole	7.9	3.2	2.1	1.1	1.6	E
	Volusia	10.3	4.3	2.6	1.1	2.3		
Georgia	Cobb	9.5	4.2	2.2	1.7	1.4		
	De Kalb	11.3	5.4	2.5	1.5	1.9		
	Fulton	13.6	6.5	3.6	1.6	2.0		
		Atlanta	14.5	6.7	3.8	1.8	2.2	
		Gwinnett	8.0	3.5	1.8	1.3	1.4	
Hawaii	Honolulu	8.3	3.6	1.7	1.4	1.7	E	
	Honolulu	8.1	3.4	1.5	1.6	1.6	E	
Idaho**								
Illinois	Cook	10.8	4.8	2.5	1.4	2.1		
		Chicago	12.1	5.3	2.6	1.6	2.6	
		Du Page	7.5	3.3	1.7	1.3	1.2	
		Kane	7.8	3.6	1.6	1.0	1.6	
		Lake	7.4	3.2	1.8	0.8	1.6	
		St. Clair	12.4	4.9	3.4	1.2	2.9	
		Will	8.3	3.8	2.3	1.0	1.2	
		Winnebago	8.7	3.2	2.3	1.3	2.0	

		Overall	Maternal Health/ Prematurity	Maternal Care	Newborn Care	Infant Health	Reporting Problems
Indiana	Allen	10.0	3.6	2.4	1.8	2.2	
	Lake	12.1	4.9	3.0	1.5	2.7	A
	Marion	10.6	4.5	2.6	1.3	2.2	
	Indianapolis	10.5	4.4	2.5	1.3	2.3	
Iowa	Polk	7.1	2.5	2.2	0.9	1.5	
Kansas	Johnson	6.8	2.6	1.6	1.1	1.4	
	Sedgwick	9.1	4.2	1.6	1.5	1.8	
	Wichita	9.5	4.5	1.4	1.6	1.9	
Kentucky	Jefferson	10.4	4.0	2.7	1.6	2.1	
	Louisville	11.0	4.2	2.8	1.7	2.3	
Louisiana	East Baton Rouge	12.4	6.0	2.5	1.8	2.1	
	Jefferson	9.8	3.7	2.3	1.4	2.4	
	Orleans*	11.7	5.3	1.9	1.6	3.1	
Maine**							
Maryland	Anne Arundel	7.3	3.2	1.6	1.3	1.2	
	Baltimore	9.5	4.3	2.6	1.1	1.6	
	Baltimore City*	15.2	6.7	3.9	2.0	2.6	
	Montgomery	7.5	3.3	2.1	1.1	1.1	
	Prince George's	13.2	7.1	3.0	1.2	1.9	
Massachusetts	Bristol	6.6	2.6	1.8	1.1	1.2	
	Essex	6.8	3.0	2.0	0.9	0.9	
	Hampden	7.3	3.0	2.0	0.8	1.4	
	Middlesex	5.7	2.6	1.6	0.6	0.9	
	Norfolk	4.6	2.2	1.6	0.6	†	
	Plymouth	6.1	2.8	1.6	0.9	0.8	
	Suffolk	7.6	3.5	2.1	0.7	1.3	
	Boston	7.8	3.7	2.0	0.7	1.3	
	Worcester	6.6	2.6	1.8	1.0	1.3	
Michigan	Genesee	11.0	4.6	1.9	1.4	3.1	
	Ingham	7.9	4.2	1.4	1.1	1.3	
	Kent	8.6	3.8	1.6	1.7	1.6	
	Macomb	6.6	3.4	1.0	1.0	1.2	
	Oakland	7.6	3.3	1.9	1.1	1.3	
	Washtenaw	7.8	3.8	1.6	1.3	1.2	
	Wayne	10.9	5.0	1.9	1.4	2.6	
	Detroit	15.0	7.2	2.3	1.7	3.7	
Minnesota	Dakota	6.4	1.7	2.3	1.0	1.4	
	Hennepin	7.7	2.5	2.2	1.4	1.6	
	Minneapolis	8.8	2.6	2.4	1.5	2.3	
	Ramsey	7.9	2.9	2.3	0.9	1.8	
	St Paul	9.2	3.2	2.7	1.1	2.2	
Mississippi	Hinds	16.7	7.7	3.8	1.6	3.5	
Missouri	Jackson	9.4	3.8	1.9	1.6	2.1	
	Kansas City	9.9	4.4	1.8	1.4	2.3	
	St. Louis	9.2	3.8	2.3	1.3	1.7	
	St. Louis City	14.0	5.9	3.0	2.2	2.9	
Montana**							

		Overall	Maternal Health/ Prematurity	Maternal Care	Newborn Care	Infant Health	Reporting Problems	
Nebraska	Douglas	10.1	4.1	2.1	2.0	1.9		
	Omaha	10.5	4.3	2.2	1.9	2.1		
Nevada	Clark	9.5	3.3	2.4	1.7	2.1		
	Las Vegas	7.8	2.6	1.7	1.7	1.9		
	Washoe	9.6	3.9	2.5	1.2	2.1	E	
New Hampshire	Hillsborough	6.4	2.5	2.1	1.0	0.9		
New Jersey	Bergen	6.7	3.1	1.8	0.9	0.9		
	Burlington	7.2	3.1	2.0	1.0	1.1		
	Camden	11.4	5.4	2.8	1.1	2.0		
	Essex	12.3	5.6	3.4	1.1	2.1		
	Newark	16.0	7.2	4.2	1.3	3.3		
	Hudson	10.0	4.9	2.1	1.4	1.5		
	Mercer	10.2	5.7	2.9	0.9	†		
	Middlesex	7.2	3.0	2.4	0.8	1.0		
	Monmouth	6.1	2.5	1.8	0.9	1.0	E	
	Morris	5.5	2.0	1.7	1.0	0.7		
New Mexico	Ocean	6.4	2.5	1.8	1.0	1.1		
	Passaic	7.5	3.2	1.8	0.8	1.7		
	Union	9.1	4.1	2.5	1.4	1.1		
	Bernalillo	7.6	3.3	1.4	1.3	1.6		
	Albuquerque	7.8	3.4	1.4	1.3	1.7		
	New York	Albany	10.4	4.2	2.6	1.4	2.2	E
		New York City	10.2	4.9	3.0	1.1	1.3	E
		Bronx borough	11.1	5.4	3.1	1.2	1.4	E
		Brooklyn borough	11.8	5.9	3.3	1.1	1.6	E
		Manhattan borough	8.9	4.0	2.6	1.1	1.2	E
Queens borough		8.5	3.9	2.8	0.9	0.9	E	
Staten Island borough		8.5	3.9	2.6	1.0	1.0	E	
Dutchess		7.5	3.3	2.3	1.0	†	C,E	
Erie		9.0	3.4	2.8	1.2	1.7		
Buffalo		11.0	4.4	3.7	1.1	1.8		
Monroe		9.4	4.2	2.7	1.3	1.2	E	
Nassau		7.5	3.8	1.9	0.8	1.0	C,E	
Oneida		11.8	4.3	3.5	2.1	2.0	E	
Onondaga		9.7	4.0	2.4	1.4	2.0		
Orange		7.5	2.8	2.3	1.1	1.3	E	
Rockland	8.7	3.3	3.0	1.3	1.2	C,E		
Suffolk	6.6	3.2	1.7	0.6	1.0	E		
Westchester	7.2	3.3	2.0	0.7	1.2	C,E		
North Carolina	Cumberland	10.5	4.9	2.4	1.5	1.7		
	Forsyth	10.0	4.4	2.9	0.7	1.9		
	Guilford	10.5	4.6	2.6	1.3	1.9		
	Mecklenburg	10.8	4.9	2.8	1.5	1.7		
	Charlotte	10.9	5.0	2.6	1.6	1.7		
Wake	8.8	4.4	2.3	1.0	1.1			
North Dakota**								

		Overall	Maternal Health/ Prematurity	Maternal Care	Newborn Care	Infant Health	Reporting Problems
Ohio	Butler	8.7	3.1	2.2	1.8	1.6	
	Cuyahoga	10.1	4.7	2.1	1.5	1.9	
	Cleveland	13.9	6.5	2.2	2.2	3.0	
	Franklin	10.2	4.6	2.0	1.6	1.9	
	Columbus	11.4	5.4	2.1	1.5	2.3	
	Hamilton	10.5	4.8	1.7	1.8	2.2	
	Cincinnati	13.7	5.9	2.0	2.4	3.5	
	Lorain	9.1	3.6	2.3	0.9	2.2	
	Lucas	9.9	4.1	2.5	1.3	2.1	
	Toledo	10.2	4.2	2.5	1.4	2.1	
	Mahoning	9.8	3.4	2.1	1.7	2.6	
	Montgomery	10.5	4.5	2.1	1.5	2.4	
	Stark	9.3	4.1	1.8	1.6	1.8	
	Summit	7.8	3.1	2.1	0.8	1.9	
Oklahoma	Oklahoma	9.2	3.6	1.5	1.6	2.4	C,E
	Oklahoma City	9.8	3.7	1.5	1.8	2.8	C,E
	Tulsa	9.8	3.3	2.4	2.0	2.1	E
	Tulsa	11.1	3.8	2.8	2.0	2.5	E
Oregon	Clackamas	6.7	2.3	2.3	1.0	1.2	
	Lane	9.4	3.5	2.3	1.4	2.2	
	Multnomah	8.2	2.8	2.2	1.5	1.8	
	Portland	7.6	2.7	1.8	1.3	1.7	
Washington	6.3	2.5	2.0	1.1	0.8		
Pennsylvania	Allegheny	7.9	3.3	1.9	1.2	1.6	
	Pittsburgh	10.1	4.5	2.0	1.2	2.3	
	Berks	8.9	3.9	1.6	1.8	1.7	
	Bucks	5.2	2.3	1.5	0.7	0.7	
	Chester	8.3	3.6	2.1	1.4	1.1	
	Delaware	8.7	4.2	2.2	0.9	1.4	
	Erie	10.0	4.2	2.3	1.7	1.8	
	Lancaster	10.1	3.6	2.6	2.1	1.8	
	Lehigh	9.3	3.2	2.5	1.0	2.4	
	Luzerne	8.7	3.7	2.1	1.8	1.1	E
	Montgomery	6.7	2.8	2.0	1.2	0.7	
	Philadelphia*	12.2	5.1	2.9	1.5	2.8	
	Westmoreland	6.8	2.5	1.8	†	1.7	
	York	6.8	2.8	2.0	†	1.3	
Rhode Island	Providence	8.5	3.8	2.2	1.1	1.4	
South Carolina	Charleston	12.2	6.0	3.2	2.0	0.9	
	Greenville	10.5	4.1	3.6	1.0	1.8	
	Richland	11.7	5.3	2.9	1.2	2.4	
South Dakota**							
Tennessee	Davidson	11.7	5.0	2.1	1.8	2.7	
	Nashville-Davidson	11.5	4.8	2.2	1.8	2.7	
	Hamilton	11.9	4.8	2.1	1.8	3.2	
	Knox	8.5	2.8	2.0	1.6	2.2	
	Shelby	14.5	5.9	3.7	1.6	3.3	
	Memphis	16.5	6.6	4.2	1.8	4.0	

		Overall	Maternal Health/ Prematurity	Maternal Care	Newborn Care	Infant Health	Reporting Problems	
Texas	Bexar	7.4	2.8	1.5	1.1	1.9		
	San Antonio	7.3	2.7	1.5	1.2	1.9		
	Cameron	6.5	2.8	1.3	1.1	1.4	E	
	Collin	5.7	2.4	1.4	0.7	1.2		
	Dallas	9.0	3.5	2.3	1.3	1.8		
	Dallas	9.4	3.6	2.6	1.3	1.9		
	Denton	6.5	2.3	1.9	0.9	1.4		
	El Paso	6.9	2.6	1.8	1.0	1.5	E	
	El Paso	7.0	2.7	1.8	0.9	1.5	E	
	Harris	7.8	3.2	1.9	0.9	1.7		
	Houston	8.1	3.4	2.1	0.9	1.7		
	Hidalgo	7.1	2.6	1.9	1.2	1.5		
	Nueces	9.5	4.6	1.7	1.3	1.8		
	Corpus Christi	9.8	4.8	1.8	1.3	2.0		
	Tarrant	9.2	3.7	2.2	1.4	2.0		
	Arlington	7.9	3.1	1.7	1.1	2.0		
	Fort Worth	10.7	4.1	2.5	1.9	2.3		
	Travis	7.2	2.3	2.2	1.0	1.6		
	Austin	6.9	2.3	2.1	0.9	1.6		
	Utah	Salt Lake	7.2	2.5	1.8	1.4	1.5	
		Utah	7.2	2.7	1.4	1.7	1.4	
Vermont**								
Virginia	Fairfax	5.7	2.5	1.3	0.9	1.0	E	
	Norfolk City*	13.1	6.2	2.9	2.1	1.9	E	
	Virginia Beach City*	8.5	3.7	2.4	0.9	1.4	E	
Washington	King	6.5	2.6	1.8	1.0	1.2	B,E	
	Seattle	6.7	2.7	2.0	1.2	0.9	B,E	
	Pierce	9.2	3.8	1.7	1.7	2.1		
	Snohomish	7.2	2.2	1.8	1.1	2.0		
	Spokane	8.5	2.8	2.4	1.6	1.8		
West Virginia**								
Wisconsin	Dane	7.3	2.6	2.0	1.8	0.9		
	Milwaukee	12.1	4.4	3.0	1.6	3.1		
	Milwaukee	13.8	4.9	3.1	1.8	3.9		
	Waukesha	5.4	1.9	2.0	†	0.8		
Wyoming**								
United States		9.1	3.7	2.2	1.3	1.8	F	
66 Cities	aggregate	10.0	4.2	2.4	1.4	2.0	F	

Source: National Center for Health Statistics, perinatal mortality data

Prepared by the March of Dimes Perinatal Data Center, 2005

Classification of major reporting problems

- A Over 10% missing infant deaths, 5% or more of them are unlinked
- B Over 10% missing infant deaths, 5% or more of them are linked
- C Over 10% missing fetal deaths
- D Over 10% imputed combined deaths, 10% or more imputed infant deaths
- E Over 10% imputed combined deaths, 10% or more imputed fetal deaths
- F Over 10% unknown maternal education, fetal deaths

(See Technical Notes on page A6)



March of Dimes PeriStats Provides MCH Data in a User Friendly Format

The PeriStats Web Site is your online source for perinatal statistics developed by the March of Dimes Perinatal Data Center. PeriStats provides free access to maternal and infant health-related data at the US, state, county, and city level, and was developed to ensure that health professionals, researchers, medical librarians, policy-makers, students, and the media have easy access to this information. Data are updated throughout the year, and useful for multiple tasks, including fact-finding, health assessments, grant writing, policy development, lectures and presentations.

PeriStats provides access to the most current maternal and infant health statistics on topics such as preterm birth, infant mortality, tobacco use, cesarean section rates, and health insurance coverage. Detailed information by race, ethnicity, and

maternal age for many indicators is also available. To communicate this information, PeriStats produces printer-ready graphs, maps, and tables, and enables you to make comparisons between states, counties, and cities and to the United States. Over 60,000 graphs, maps and tables are available on PeriStats, and data are always referenced to the relevant source and Healthy People 2010 objective.

The PeriStats web site aggregates data from more than 11 government agencies and organizations:

- Health Resources Services Administration (HRSA)
- Substance Abuse and Mental Health Services Administration (SAMHSA)
- U.S. Census Bureau
- National Governors Association (NGA)
- United States Department of Agriculture (USDA)
- National Newborn Screening and Genetics Resource Center (NNSGRC)
- Centers for Disease Control and Prevention (CDC)
 - ▲ National Center for Health Statistics (NCHS)
 - ▲ National Center for Chronic Disease Prevention and Health Promotion
 - ▲ National Center for HIV, STD and TB Prevention
 - ▲ Centers for Medicare and Medicaid Services (CMS)

For more information about the PeriStats web site, contact the March of Dimes Perinatal Data Center at peristats@marchofdimes.com.

www.marchofdimes.com/peristats/

Technical Notes

The National Center for Health Statistics provides data on 254 cities and counties with populations of 250,000 or more based on 1990 census. As in previously released PPOR tables, the five New York City boroughs are treated as cities, and New York City is treated as a county. Though all cities are included in the table, rates are not calculated for periods with less than 10 deaths.

This table includes results for localities with data quality problems. However, unlinked records and missing data cause biased estimates, and localities flagged with major reporting problems should use these numbers with caution, if at all. Two of the 68 cities (Oklahoma City and Seattle) were excluded from the aggregated city rates because of missing and unlinked data (flag A, B, or C).



CityMatCH is a freestanding national membership organization of city and county health departments' maternal and child health (MCH) programs and leaders representing urban communities in the United States. The mission of CityMatCH is to improve the health and well-being of urban women, children and families by strengthening the public health organizations and leaders in their communities.

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