Gaps in Infant Mortality Rates by Mother's Education: How Do States Compare?

Differences in infant mortality rates[1] by mother's education are similar at the state level to those seen nationwide. In almost every state, differences in infant mortality are seen between babies born to the most-educated mothers (who are least likely to die in the first year of life) and babies born to mothers with less education. Rates of infant mortality are highest among babies born to mothers with less than 12 years of schooling, but rates among babies born to mothers with 12 years or 13–15 years of schooling are also typically higher than rates among babies whose mothers had 16 or more years of schooling. Comparing states based on the size of the gaps[2] between the infant mortality rate for the state as a whole and that among babies born to the most-educated mothers tells us that there is unrealized health potential among babies not just at the national level but in every state as well.

	Number of Babies Born Alive[3]	Overall Infant Mortality Rate[1]	Infant Mortality Rate (per 1,000 Live Births) by Years of Schooling Completed by Mother				Percentage of Population That Would be Affected if Gap Were Eliminated[4]	Size of Infant Mortality Gap[2]	Ranking on Size of Infant Mortality Gap[5]
			0–11 Years	12 Years	13–15 Years	16 or More Years = Overall Rate if Gap Were Eliminated			
Alabama	51,730	8.8	11.1	9.7	7.9	6.4	75.6	2.4	30
Alaska	8,862	6.4	11.1	7.6	3.4	3.0†	79.9	3.4‡	49
Arizona	74,349	6.5	6.9	7.5	5.7	4.6	77.0	1.8	14
Arkansas	31,287	7.8	10.0	8.6	7.2	5.2	79.1	2.6	34
California	475,993	5.2	5.5	5.5	5.1	3.7	74.0	1.5	9
Colorado	59,523	5.5	7.1	6.3	5.8	3.3	65.4	2.2	23
Connecticut	39,413	5.9	8.1	7.6	5.7	3.9	56.8	2.0	18
Delaware	9,669	9.2	11.6	12.2	7.7	5.9	69.0	3.3	48
District of Columbia	6,575	11.0	14.3	11.7	8.8	3.7	62.0	7.3	51
Florida	180,492	6.7	8.7	7.3	5.8	4.1	74.2	2.6	34
Georgia	115,607	8.1	9.0	9.6	7.2	4.9	71.0	3.2	46
Hawaii	15,681	6.7	8.8	6.6	7.1	5.4	74.0	1.4	6
Idaho	18,446	6.5	9.6	6.6	5.3	5.0	75.5	1.4	6
Illinois	163,328	7.4	8.3	8.4	7.6	5.1	67.5	2.2	23
Indiana	76,101	7.4	9.7	8.1	6.4	5.2	73.9	2.2	23
Iowa	34,193	5.5	9.6	5.9	4.8	4.2	68.9	1.3	5
Kansas	34,764	6.5	8.6	8.8	5.2	4.5	68.1	2.0	18
Kentucky	47,599	6.2	9.8	6.6	5.7	3.9	76.0	2.4	30
Louisiana	55,230	9.3	14.1	9.7	8.0	6.3	77.0	3.0	43
Maine	12,425	4.8	5.0†	6.7	3.3	4.0	68.0	0.8	1

Prepared for the RWJF Commission to Build a Healthier America by the Center on Social Disparities in Health at the University of California, San Francisco.
Source: 2000-2002 Period Linked Birth/Infant Death Data Set.
1 The number of deaths during the first year of life per 1,000 live births.
2 Defined as the size of improvement in the state's overall rate if all infants experienced the infant mortality rate of infants whose mothers had completed 16 or more years of schooling.
3 Number of babies born alive to mothers ages 20 years or older; this number represents a yearly average for 2000-2002.

| | Number of Babies Born Alive[3] | Overall Infant Mortality Rate[1] | Infant Mortality Rate (per 1,000 Live Births) by Years of Schooling Completed by Mother | | | 16 or More Years = Overall Rate if Gap Were Eliminated | Percentage of Population That Would be Affected if Gap Were Eliminated[4] | Size of Infant Mortality Gap[2] | Ranking on Size of Infant Mortality Gap[5] |
			0–11 Years	12 Years	13–15 Years				
Maryland	66,626	7.4	9.3	8.8	6.7	5.3	58.1	2.1	20
Massachusetts	76,054	4.6	5.9	5.9	4.7	3.4	55.8	1.2	2
Michigan	119,692	7.6	11.0	8.2	7.1	4.7	69.9	2.8	38
Minnesota	62,382	5.1	7.4	6.5	4.3	3.7	60.5	1.4	6
Mississippi	34,973	9.9	12.4	10.9	8.9	6.8	78.5	3.1	45
Missouri	66,265	7.1	10.7	8.2	6.8	4.2	70.3	2.9	40
Montana	9,719	6.6	8.4	6.9	6.6	5.1	71.7	1.5	9
Nebraska	22,501	6.5	7.8	8.4	6.1	5.0	66.7	1.6	12
Nevada	27,802	5.8	6.2	6.1	5.3	3.5	80.2	2.3	27
New Hampshire	13,635	4.7	4.6†	6.1	4.6	3.5	60.9	1.2	2
New Jersey	107,543	5.8	7.8	6.8	5.4	3.2	59.6	2.6	34
New Mexico	22,722	6.1	5.3	6.9	5.9	3.8	79.1	2.3	27
New York	234,672	5.8	6.8	6.8	5.3	3.7	68.9	2.1	20
North Carolina	103,827	8.0	9.7	9.3	7.8	5.6	71.8	2.5	32
North Dakota	7,005	7.5	17.2	9.0	6.5	5.4	64.9	2.2	23
Ohio	134,592	7.3	11.0	8.3	6.4	4.4	70.4	2.8	38
Oklahoma	42,447	7.6	9.2	8.8	6.6	4.7	77.6	2.9	40
Oregon	40,603	5.2	6.2	6.0	4.5	3.8	72.3	1.5	9
Pennsylvania	130,384	6.8	10.4	7.4	5.5	4.0	65.5	2.9	40
Rhode Island	11,454	6.3	7.3	6.8	5.4	4.4	58.7	1.9	16
South Carolina	47,431	8.5	11.6	9.2	7.8	5.3	74.5	3.2	46
South Dakota	9,347	6.3	9.2	7.1	6.7	4.0	69.5	2.3	27
Tennessee	67,404	8.6	11.7	9.8	8.0	4.9	75.1	3.7	50
Texas	312,957	5.5	5.6	6.0	5.1	3.9	76.3	1.7	13
Utah	44,263	5.1	7.8	5.5	4.6	4.0	73.0	1.2	2
Vermont	5,889	5.2	8.4†	7.1	3.6†	3.4	64.0	1.8	14
Virginia	89,630	6.9	10.3	8.3	6.7	4.2	63.9	2.7	37
Washington	72,219	5.2	6.8	5.4	4.3	3.2	65.8	2.1	20
West Virginia	17,924	7.4	11.3	7.2	6.7	4.4	79.3	3.0	43
Wisconsin	62,161	6.4	10.2	7.6	5.6	3.9	67.5	2.5	32
Wyoming	5,491	5.8	8.5†	7.3	4.8	4.0†	76.7	1.9‡	16
United States	3,580,884	6.5	7.8	7.4	6.0	4.2	70.6	2.2	—

4 The percent of babies whose mothers had completed fewer than 16 years of schooling.

5 Ranked by size of gap, from smallest to largest; states with the same size gap were assigned the same ranking.
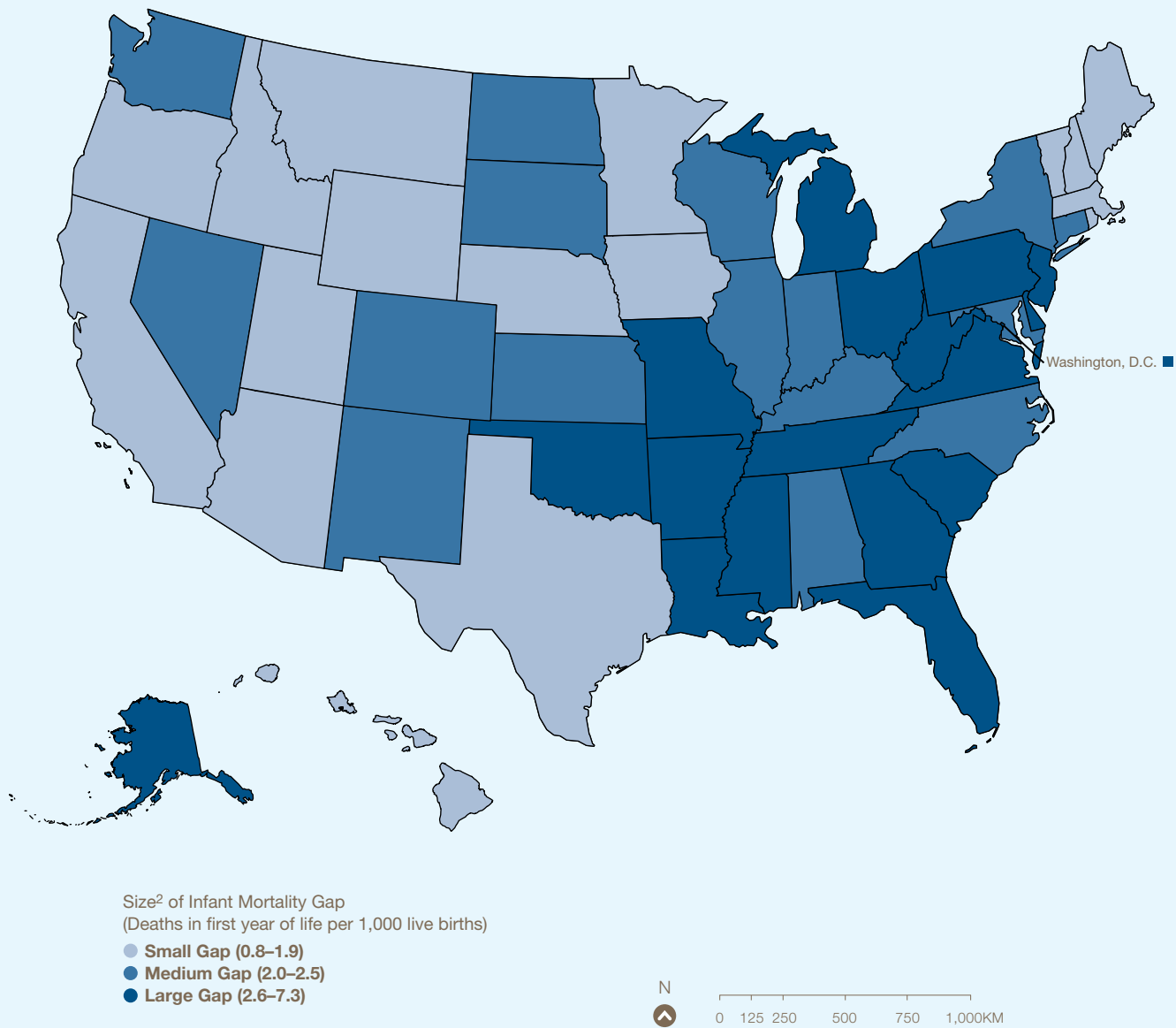
† This estimate of infant mortality is based on fewer than 20 deaths and hence may be statistically unreliable.

‡ Fewer than 20 infant deaths occurred among babies born to mothers with 16 years or more of education in this state; thus, the estimate of the size of the infant mortality gap by mother's education is considered statistically unreliable.

Gaps in Infant Mortality Rates by Mother's Education:
How Do States Compare?

In almost every state, rates of infant mortality among babies born to mothers ages 20 years or older were lowest for those whose mothers had the most education and increased as the level of maternal education decreased. Although the size of the state-level gap[1] in infant mortality by mother's education varies markedly across the United States, there is unrealized health potential among babies in every state.

Washington, D.C. ■

Size[2] of Infant Mortality Gap
(Deaths in first year of life per 1,000 live births)

- Small Gap (0.8–1.9)
- Medium Gap (2.0–2.5)
- Large Gap (2.6–7.3)

N

0 125 250 500 750 1,000KM

Prepared for the RWJF Commission to Build a Healthier America by the Center on Social Disparities in Health at the University of California, San Francisco.

Source: 2000–2002 Period Linked Birth/Infant Death Data Set.

1 Defined as the size of improvement in the state's overall rate if all infants experienced the infant mortality rates of infants whose mothers had completed 16 or more years of schooling.

2 States were grouped into three approximately equal groups based on the size of the gaps in infant mortality rates by mother's education.

Note: Because fewer than 20 infant deaths occurred among babies born to mothers with 16 years or more of education in Alaska and Wyoming, estimates of the infant mortality gap by mother's education in these states are considered statistically unreliable.