Where's the Best Place to be Born?

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ABSTRACT

A series of large city rankings developed from federal agency reports were reviewed to increase appreciation of the factors that impact the general health of newborns. Efforts to provide the "right start" for the beginning of life may decrease the incidence of children with developmental disabilities. (*J Dent Child.* 2004;71:8-13)

KEYWORDS: ECONOMICS, HEALTH INSURANCE, DEMOGRAPHICS

"The decision to live in a region, a state, a community, or even a street is based upon a highly complex series of personal, family, cultural, economic, and a seemingly infinite series of other interrelated variables."[1]

A family selects to live in a particular place for a host of personal reasons. But if a child could choose with hope for the best outcome, where would he or she prefer to be born, statistically speaking? To help the child make that choice, information from the National Center for Health Statistics (NCHS) has provided general guidelines to select a preferable locale to have an increased potential for a "right start" in life.

While there have been improvements in birth outcomes in the United States during the 1990s, "this progress was not as visible in the nation's largest cities as it was elsewhere in the country."[2] For example, in all but 1 of the 50 largest cities (San Francisco) at least a quarter of all births in 1998 was to unmarried women. Of particular concern were the dozens of cities in which more than half of all births in 1998 were to single mothers, including Atlanta, Baltimore, Chicago, Cleveland, Detroit, Memphis, Miami, Milwaukee, New Orleans, Philadelphia, St. Louis, and Washington, DC.

The following article reviewed available factors that promote a healthy birth in the 50 largest cities in the nation. The basic concern is that, "statistically, children who start life under ... less than optimal conditions face higher risks of short- and long-term problems."[2]

Unless otherwise stated, data for this presentation were drawn from the extensive report, "The Right Start: City Trends" issued by the Annie E. Casey Foundation, which in turn drew its material from reports by the NCHS.[2]

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DIFFERENCES BETWEEN THE LARGEST CITIES AND THE REST OF THE NATION

A disproportionate share of low-income and minority populations reside in the large cities, and to some extent, statistics for urban children and families reflected the realities of poverty and discrimination.

1. Although there were enormous variation across the major cities, birth outcomes in the largest cities in terms of factors that promoted a healthy birth were not as good, on average, as those reported elsewhere.
2. In all indicators (ie, percent of total births to teens, percent of teen births to women who already were mothers, and percent of preterm births), except 1 indicator (mothers smoking during pregnancy), the outcome measures in large cities were worse than that for the nation as a whole (Table 1).
3. Children in central cities compared to children living outside central cities were more likely to experience each of 5 risk factors associated with negative child outcomes: (1) lack of health insurance, (2) family living on welfare benefits, (3) family living below poverty level, (4) householder with less than a high school education, and (5) living with less than 2 parents (Table 2). Citywide numbers may mask important variations within a city. For example, "studies suggest that negative birth outcomes are part of a constellation of measures that point toward particular neighborhoods with concentrated poverty and diminished opportunities."[2]

CHANGES IN 50 CITY AVERAGES DURING THE 1990s

Although there were improvements in birth outcomes in the United States as a whole during the 1990s, this progress was not as discernible in the nation's largest cities as it was in the rest of the country. Several measures of a healthy birth remained unchanged in the big cities, including the percent of

Table 1. Key Indicators of Births in the 50 Largest Cities and Nationwide: 1998[2]

Indicator	50 Largest Cities (%)	Nationwide (%)
Percent of total teen births	15	13
Percent of teen births to women who were already mothers*	24	22
Percent of total births to unmarried women	43	33
Percent of total births to mothers with less than 12 years of education	27	22
Percent of total births to mothers receiving late or no prenatal care	5	4
Percent of total births to mothers who smoked during pregnancy*	11	13
Percent low birthweight births (less than 5.5 pounds)	9	8
Percent preterm births (less than 37 completed weeks of gestation)	13	12

*Not all cities were included in the 50-city average and not all states were included in the national figure for this indicator.

Table 3. Changes in 50-City Averages: 1990, 1998[2]

Indicator	1990 (%)	1998 (%)
Percent of total teen births	15	15
Percent of teen births to women who were already mothers*	27	24
Percent of total births to unmarried women*	41	43
Percent of total births to mothers with less than 12 years of education*	29	27
Percent of total births to mothers receiving late or no prenatal care	9	5
Percent of total births to mothers who smoked during pregnancy*	18	11
Percent low-birthweight births (less than 5.5 pounds)	9	9
Percent preterm births (less than 37 completed weeks of gestation)	13	13

*Not all cities were included in the 50-city average.

births that were low birthweight, percent that were preterm, and the percent that were to teen mothers. When improvements did occur, "the results for urban newborns rarely matched national averages."[2] However, there were measurable improvements in urban indicators, including:

1. Significant reduction in the percent of mothers who received late or no prenatal care;
2. Marked drop in the percent of mothers who smoked during pregnancy (Table 3).

RACE AND HISPANIC ORIGIN

There were substantial differences by race and Hispanic origin for measures that characterized newborns. With the exception of smoking during pregnancy, births to non-Hispanic whites had a lower incidence for each measure than births to non-Hispanic blacks. Values for Hispanics often fell between the values for non-Hispanics whites and blacks. For example, in 1998:

1. Nine percent of US births to whites were to teen mothers compared with 22% of births to blacks and 17% of births to Hispanics.
2. Twenty-four percent of all teen births in the largest cities were repeat births, ranging from 18% for white teen births to 24% Hispanic teen births and 27% black teen births (Table 4).

Table 2. Characteristics of Children Inside and Outside Central Cities: 1998[2]

Indicator	Inside central city (%)	Outside central city (%)
Child does not have health insurance	18	12
Child is living in a family that is receiving welfare	12	5
Child is living in a family in which the family income is below the poverty level	24	14
Child is living in a household where the head of the household has less than 12 years of education	24	14
Child is not living with 2 parents	41	26

Note: Data represent about 90% of US children.

Table 4. Percent (%) of Births with Selected Indicators by Race and Hispanic Origin: 1998[2]

Indicator	White non-Hispanic	Black non-Hispanic	Hispanic
Teen births	9	22	17
Repeat teen births	18	27	24
Births to unmarried women	22	69	42
Low maternal education	13	27	49
Late or no prenatal care	2	7	6
Smoking during pregnancy	16	10	4
Low birthweight births	7	13	6
Preterm births	10	18	11

RANKING THE 50 LARGEST CITIES BY INDICATORS

TEEN BIRTHS

Teenage child-bearing was associated with diminished opportunities for both the newborn and mother. Most teen mothers were unmarried and a large proportion had not completed high school. In this scenario children probably started life with a parent who was unlikely to have the needed

Table 5. Percent (%) of Total Births to Teens: 1998[2]

Rank	City	Percent (%)
	50-city average	15
1.	San Francisco, Calif	6
2.	Seattle, Wash	6
3.	Honolulu, Hawaii	7
4.	San Jose, Calif	9
5.	San Diego, Calif	10
46.	Cleveland, Ohio	21
47.	St. Louis, Mo	21
48.	Memphis, Tenn	21
49.	New Orleans, La	21
50.	Baltimore, Md	22

Table 6. Percent (%) of Teen Births to Women Who Were Already Mothers: 1998[2]

Rank	City	Percent (%)
	50-city average*	24
1.	Honolulu, Hawaii	14
2.	San Francisco, Calif	14
3.	Boston, Mass	17
4.	Virginia Beach, Va	17
5.	Albuquerque, NM	18
44.	Minneapolis, Minn	29
45.	Fresno, Calif	29
46.	Memphis, Tenn	29
47.	Milwaukee, Wis	31
48.	Atlanta, Ga	32

*Data for cities in Oklahoma were not included.

resources to provide for them. In addition, teenage fathers probably were unable to provide needed financial assistance.

1. Ten percent of teenage mothers ages 15 to 17 years received child support payments in 1997.
2. In 1999, only 58% of men between the ages of 16 and 19 years earned income, and the average annual income for those who worked was slightly less than $6,000.
3. Teenage mothers were more likely to receive late or no prenatal care.
4. Teenage mothers were more likely to smoke during pregnancy.
5. A child was less likely to secure needed emotional and financial resources essential to develop into an independent, productive, well-adjusted adult.

In Baltimore, Cleveland, Memphis, Milwaukee, New Orleans, and St. Louis, births to teens accounted for more than 1 in 5, or 20% of all births in 1998 compared with 15% for the 50 largest cities and 13% for the United States (Table 5).

REPEAT TEEN BIRTHS

Child-bearing during the teen years presented a whole set of difficulties. The birth of a second child for a teenage mother severely compounded the challenge.

1. Twenty-four percent of all teen births in the largest 48 cities were repeat births, ranging from 14% in Honolulu to 32% Atlanta.
2. During the 1990s, the large city average fluctuated from 28% to 23% and then up to 24% (Table 6).

BIRTHS TO UNMARRIED WOMEN

Children growing up with a single mother "were more likely to drop out of school, give birth out of wedlock, divorce or separate, and be dependent on welfare."[2]

1. In 1998, the poverty rate for single-parent families headed by never-married mothers was 55%.
2. The infant mortality rate born to an unmarried mother was almost twice that of children born to married mothers (10.2 deaths per 1,000 live births, compared to 5.7 deaths per 1,000 live births).
3. In 1997, among never-married single parents, only 47% had child support awarded by a court, compared to 70% of divorced single parents.
4. An unmarried mother was more likely to receive inadequate prenatal care than a married one.

Forty-three percent of all births in the 50 largest cities occurred to unmarried women in 1998, ranging from 24% in San Francisco to 71% in Detroit and 78% in Hartford, Conn (Table 7).

LOW MATERNAL EDUCATION

"Women who do not get a good formal education were often less likely to provide the kind of educational and intellectual stimulation that (a child) needs."[2]

Table 7. Percent (%) of Births to Unmarried Women: 1998[2]

Rank	City	Percent (%)
	50-city average	43
1.	San Francisco, Calif	24
2.	Honolulu, Hawaii	25
3.	Seattle, Wash	26
4.	Virginia Beach, Va	26
5.	San Jose, Calif	27
46.	New Orleans, La	65
47.	Cleveland, Ohio	66
48.	St. Louis, Mo	67
49.	Baltimore, Md	70
50.	Detroit, Mich	71

Table 8. Percent (%) of Total Births to Mothers With Less Than 12 Years of Education: 1998[2]

Rank	City	Percent (%)
	50-city average	27
1.	Honolulu, Hawaii	10
2.	Virginia Beach, Va	10
3.	Seattle, Wash	11
4.	Colorado Springs, Colo	13
5.	Pittsburgh, Pa	14
46.	Phoenix, Ariz	40
47.	Fresno, Calif	41
48.	Houston, Tex	42
49.	Dallas, Tex	44
50.	Los Angeles, Calif	45

1. Mothers with less than 12 years of education were more likely to smoke during pregnancy.
2. Mothers with less than a high school education were more likely to receive inadequate prenatal care.

In 1998, 27% of all births were to women with less than a high school education, ranging from 9% in Honolulu to 45% in Los Angeles. During the 1990s, the large city average fluctuated from 29% to 30% and then decreased to 27% (Table 8).

LATE OR NO PRENATAL CARE

A child stood a better chance of being born without health problems if his or her mother received timely prenatal care.

1. In 1999, 25% of women living in central cities had no health insurance, compared with 17% of women living outside of central cities. "Since the availability of health insurance is related to obtaining good prenatal care, women in large cities are at a disadvantage."[2]

In 1998, 5% of all births were to women who received late or no prenatal care, ranging from 2% in Honolulu to 13% in El Paso. During the 1990s, the percent of total births to mothers receiving late or no prenatal care decreased from 9% to 5% (Table 9).

SMOKING DURING PREGNANCY

"Smoking during pregnancy is associated with adverse outcomes, including low birthweight, intrauterine growth retardation, and infant mortality, as well as negative consequences for child health and development."[2]

1. In 1998, for 41 of the largest cities, 11% of the total births were to mothers who smoked during pregnancy, ranging from 2% in Miami to 24% in Pittsburgh.
2. During the 1990s, the share of babies born to mothers who smoked in these cities decreased from 18% to 11 (Table 10).

Table 9. Percent (%) of Total Births to Mothers Receiving Late or No Prenatal Care: 1998[2]

Rank	City	Percent (%)
	50-city average	5
1.	Honolulu, Hawaii	2
2.	Charlotte, NC	3
3.	Oakland, Calif	3
4.	Seattle, Wash	3
5.	San Antonio, Tex	3
46.	Detroit, Mich	9
47.	Cleveland, Ohio	10
48.	Washington, DC	10
49.	Columbus, Ohio	12
50.	El Paso, Tex	13

Table 10. Percent (%) of Total Births to Mothers Who Smoked During Pregnancy: 1998[2]

Rank	City	Percent (%)
	50-city average*	11
1.	Miami, Fla	2
2	New Orleans, La	2
3.	El Paso, Tex	3
4.	Dallas, Tex	4
5.	Austin, Tex	4
	Houston, Tex	4
37.	Cleveland, Ohio	19
38.	Columbus, Ohio	19
39.	Milwaukee, Wis	19
40.	Oklahoma City, Okla	19
41.	Pittsburgh, Pa	24

***Data for cities in California and Indiana were not included.**

LOW BIRTHWEIGHT BIRTHS

If a child weighed less than 5.5 pounds when born, he or she had "a high probability of experiencing developmental difficulties, suffering from serious illness, and dying during the first year of life."[2] If a mother lacked health insurance, she was less likely to have had adequate prenatal care and an increased probability of giving birth to a low birthweight baby.

1. In 1999, more than one third of all Hispanics, and 21% of black non-Hispanics did not have health insurance.
2. People living in poverty, high school dropouts, and young adults were least likely to have health insurance.
3. Among women of child-bearing age at 15 to 44 years, 25% living in central cities lacked health insurance,

Table 11. Percent (%) Low Birthweight Births (less than 5.5 pounds): 1998[2]

Rank	City	Percent (%)
	50-city average	9
1.	Mesa, Ariz	6
2.	San Jose, Calif	6
3.	San Diego, Calif	6
4.	Long Beach, Calif	6
5.	Portland, Ore	6
46.	Memphis, Tenn	13
46.	New Orleans, La	13
48.	Washington, DC	13
49.	Detroit, Mich	13
50.	Baltimore, Md	14

Table 12. Percent (%) Preterm Births (Less Than 37 Completed Weeks of Gestation): 1998[2]

Rank	City	Percent (%)
	50-city average	13
1.	San Jose, Calif	9
2.	San Francisco, Calif	9
3.	Seattle, Wash	10
4.	Portland, Ore	10
5.	Fresno, Calif	10
5.	San Diego, Calif	10
46.	Memphis, Tenn	17
47.	Baltimore, Md	18
48.	Detroit, Mich	18
49.	Washington, DC	19
50.	St. Louis, Mo	21

compared to 16% of those living in the suburbs. Among Hispanic women of child-bearing age living in central cities, 41% lacked health insurance.

In 1998, 9% of all births in the 50 largest cities were low birthweight, ranging from 6% in Mesa, Ariz, to 14% in Baltimore. During the 1990s, the proportion of low birthweights in the large cities remained constant at 9% (Table 11).

PRETERM BIRTHS

Babies born preterm often suffered health, growth, and developmental problems. Thirteen percent of births in the 50 largest cities were preterm births, ranging from 9% in San Jose, Calif, to 21% in St. Louis. During the 1990s, except for 1996, the large city average remained at 13% (Table 12).

SUMMARY

No single city was at the highest or lowest rank for each of the 8 indicators of a "good start potential." Two cities, Honolulu and Seattle, however, were in the top 5 ranks of the largest cities in 5 indicators, followed by San Francisco in 5 of the top 5 ranks. Four cities, Baltimore, Cleveland, Detroit and Memphis, were in the bottom 5 ranks of the 50 largest cities in 4 indicators.

CHILDREN LIVING IN POVERTY AND LACKING HEALTH INSURANCE

"Child poverty rates fell significantly in many states in the current economic boom, but nationwide, and in all but a handful of states, child poverty was still higher than it was 20 years ago."[3]

Federal agency reports repeatedly emphasized the relationships between childhood poverty, lack of health insurance, and an extended series of health and social problems.[4,5] Unfortunately, poverty and health insurance levels for child residents of the country's largest cities for the late 1990s was not available until late 2002, according to the Census Bureau (communication, May 2001).

Census Bureau statewide data for 1997 to 1999 for children younger than 19 years, however, provided some general indications of the economic setting in which a child was born.

1. More than half of the children in 5 states (Arizona, Arkansas, Louisiana, New Mexico, and West Virginia) and the District of Columbia lived in families at or below 200% of the poverty level.
2. Less than 30% of the children in 8 states (Alaska, Connecticut, Maryland, Minnesota, New Hampshire, New Jersey, and Wisconsin) lived in families at or below 200% of the poverty level.
3. Between 16% and 19% of the children in 4 states (Arizona, Louisiana, New Mexico, and Texas) lived in families at or below 200% of the poverty level and had no health insurance.
4. Less than 5% of children in 10 states (Massachusetts, Minnesota, Nebraska, New Hampshire, Pennsylvania, Rhode Island, Tennessee, Vermont, Washington, and Wisconsin) lived in families at or below 200% of the poverty level and had no health insurance.[6]

SO WHERE IS THE BEST PLACE TO BE BORN?

Statistical reviews could not document the specifics of an individual family setting which guaranteed the "best place to be born." They provided only a general overview of tendencies and probabilities where children and grandchildren had an increased potential for a "right start" in life. These reviews, however, can direct general efforts to improve the potential for the lives of children, and maybe decrease the reality that:

1. Seventeen percent of US children younger than 18 years of age have developmental disabilities.[7]
2. Each year about 10,000 babies born in the US are diagnosed with cerebral palsy.[8]
3. Twelve of every 1,000 school children have mental retardation.[9]

Previous reports in the *Journal of Dentistry for Children*[1,10] documented some of the factors used by pediatric dentists to select practice locations in particular states. A review of health and social conditions in cities may further direct an understanding of this process.

"If pediatric dental practitioners tend to follow the families they serve, then an additional approach to better appreciate the process of practice location may well be to document the process by which families select 'the best place to (be born).'"[1]

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