

Preterm Birth Prevention

Lisa Amlung Holloway, MBA, BS

Director of Program Services, Government Affairs
March of Dimes Ohio Chapter

Ohio Commission on Infant Mortality
December 3, 2015



Preterm Birth

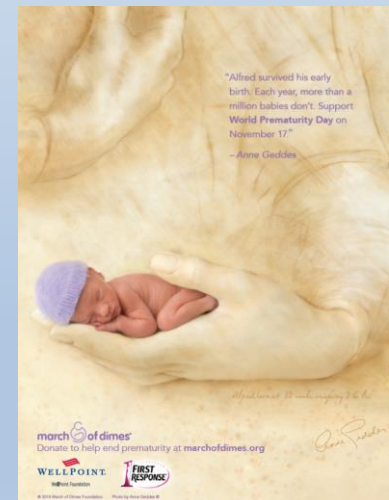
- ❖ Birth of an infant before 37 completed weeks of pregnancy
- ❖ More than 380,000 babies in the United States were born preterm in 2014 - about 15,500 do not reach their first birthday
- ❖ Babies who survive often have lifelong health problems such as cerebral palsy, vision and hearing loss, and intellectual disabilities
- ❖ Even infants born just a few weeks early have a greater risk of respiratory distress syndrome (RDS), feeding difficulties, temperature instability (hypothermia), jaundice and delayed brain development than full-term babies
- ❖ Largest contributor to infant death
- ❖ Costs the nation more than \$26 billion annually

The National Prematurity Campaign

- ❖ Initiated in 2003 by March of Dimes
- ❖ Community --- Advocacy --- Education --- Support --- Research
- ❖ Partners:
 - AAP, ACOG, AMCHP, ASTHO, AWHONN, NACCHO
 - 42 Alliance Members
 - Collaborations with federal partners – CDC, HRSA, NICHD
- ❖ The nation has met the original goal of 9.6% preterm birth rate by 2020 because:
 - Fewer babies are being born preterm (U.S. peak of 12.8% in 2006 (13.3 on OH))
 - Fewer babies are now counted as preterm due to change in measurement by CDC's National Center for Health Statistics

The National Prematurity Campaign in 2015

- ❖ Reset preterm birth goals:
 - ❖ **8.1% for 2020**
 - ❖ **5.5% for 2030**
- ❖ Optimize existing interventions
- ❖ Accelerate change in 16 high-burden areas (hi rates/volume)
 - ❖ **Includes OH**
- ❖ WORLD Prematurity Awareness Month/Day
- ❖ Launch Roadmap
- ❖ Maintain Urgency



The Report Card U.S.

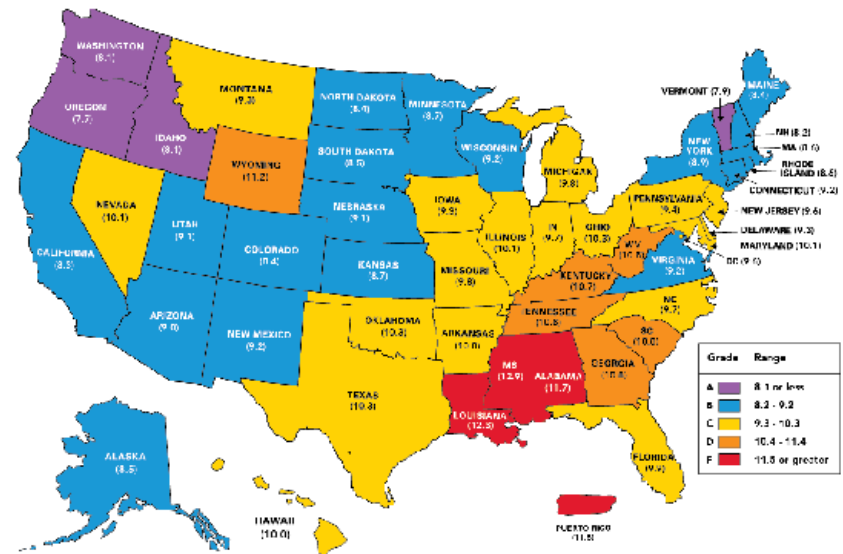
- ❖ Report Card issued annually during November – Prematurity Awareness Month
- ❖ Focus on:
 - High-volume cities and counties
 - Disparities among ethnic and cultural groups

2015 PREMATURE BIRTH REPORT CARD

United States	Preterm Birth Rate	Grade
	9.6%	C

The March of Dimes Prematurity Campaign aims to reduce preterm birth rates across the United States. Premature Birth Report Card grades are assigned by comparing the 2014 preterm birth rate in a state or locality to the March of Dimes goal of 8.1 percent by 2020. The Report Card also provides city or county and race/ethnicity data to highlight areas of increased burden and elevated risks of prematurity.

PRETERM BIRTH RATES & GRADES BY STATE



Preterm is less than 37 weeks gestation based on obstetric estimate.
Source: National Center for Health Statistics, final natality data 2014.
For more information on how we are working to reduce premature birth, contact the March of Dimes National Office at (914) 997-4286.

1 marchofdimes.org/reportcard

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The Report Card Ohio

❖ OH receives “C” in 2015

Year	PTB Rate	Grade
2014	12.1	C
2013	12.1	C
2012	12.0	C
2011	12.3	C
2010	12.6	D
2009	13.2	F
2008	13.0	D

- ❖ 6 Cities included
- ❖ Disparity Index

2015 PREMATURE BIRTH REPORT CARD

Ohio	Preterm Birth Rate	Grade
	10.3%	C

The March of Dimes Prematurity Campaign aims to reduce preterm birth rates across the United States. Premature Birth Report Card grades are assigned by comparing the 2014 preterm birth rate in a state or locality to the March of Dimes goal of 8.1 percent by 2020. The Report Card also provides city or county and race/ethnicity data to highlight areas of increased burden and elevated risks of prematurity.

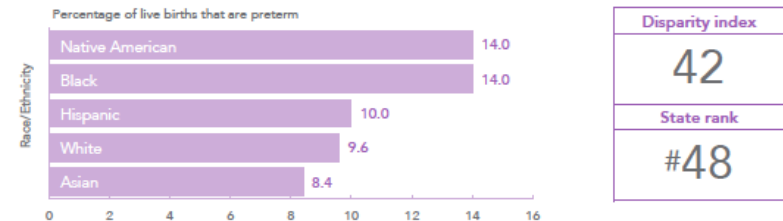
CITIES

Cities with the greatest number of births are graded based on their 2013 preterm birth rates. The status indicator shows whether the 2013 city rate is higher (●), lower (●), or the same (●) as the 2013 state rate (10.3%).

City	Preterm birth rate	Grade	Status
Columbus	11.6%	F	●
Cleveland	13.7%	F	●
Cincinnati	11.8%	F	●
Toledo	10.4%	D	●
Akron	11.6%	F	●
Dayton	11.9%	F	●

RACE & ETHNICITY IN OHIO

The March of Dimes ranks states and localities based on a disparity index, which provides a measure of differences in preterm birth rates across racial/ethnic groups within a geographic area. The index compares the rate within each racial/ethnic group to the lowest rate in the area (2011 to 2013 average). The state or locality with the lowest index number is ranked #1, and the highest is ranked #50.



Gestational age is based on obstetric estimate. Race categories include only women of non-Hispanic ethnicity. For more information on how we are working to reduce premature birth, contact the March of Dimes Ohio Chapter at (513) 769-3588.

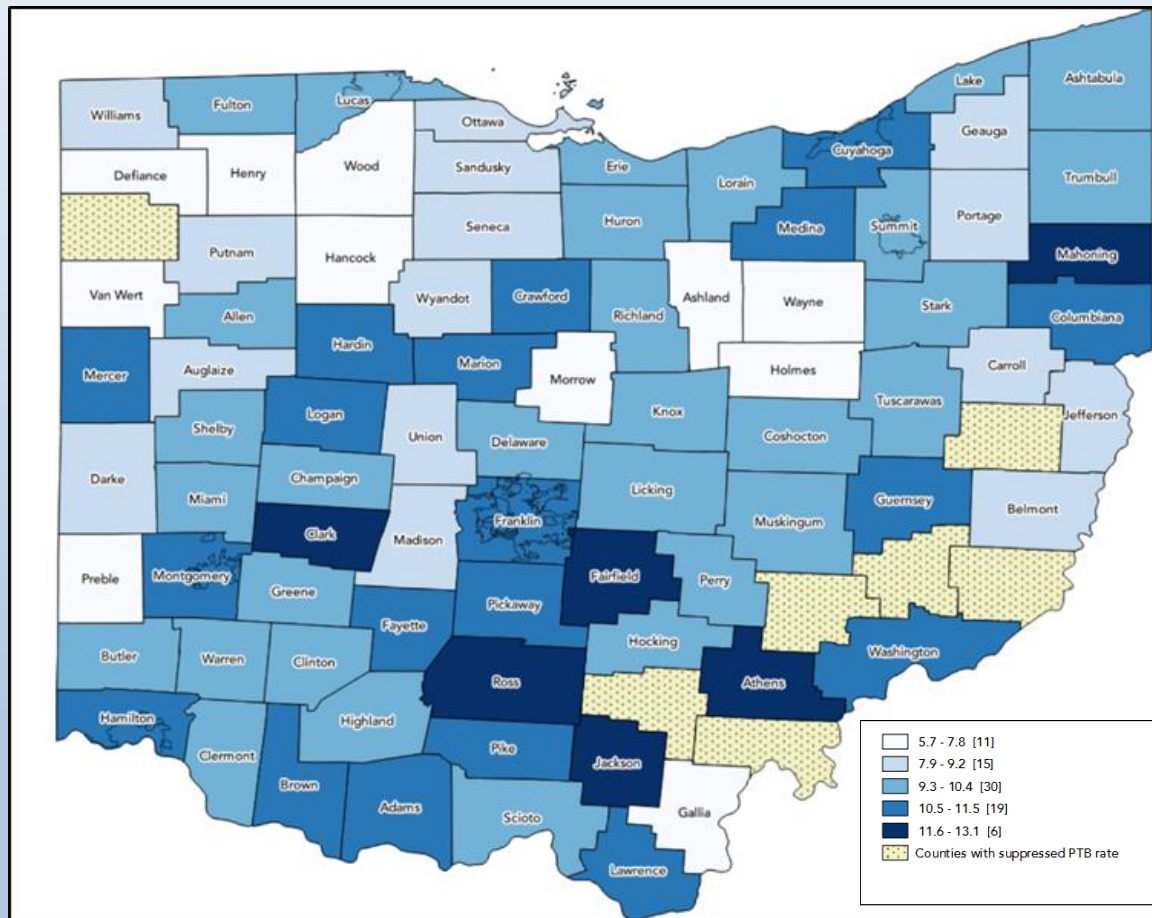
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Disparity index
42
State rank
#48

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Ohio Preterm Birth Rates by County 2013



**In Ohio
in 2013**

138,936
babies were born

14,259
babies were born
preterm
Preterm Birth Rate: 10.3

1,024
babies died before their
first birthday
Infant Mortality Rate: 7.4

Gestational age based on obstetric estimate. Preterm is defined as less than 37 weeks gestation.

Source: National Center for Health Statistics, 2013 final natality data.

Prepared by March of Dimes Perinatal Data Center, September 2015.

Premature Birth Report

2013 Ohio city data

Place	Preterm Births	% of Preterm	Live Births	% of Live Births
Akron	335	2.3%	2,885	2.1%
Cincinnati	642	4.5%	5,465	3.9%
Cleveland	792	5.6%	5,793	4.2%
Columbus	1,643	11.5%	14,244	10.3%
Dayton	278	1.9%	2,342	1.7%
<u>Toledo</u>	<u>450</u>	<u>3.2%</u>	<u>4,336</u>	<u>3.1%</u>
Total 6 cities	4,140	29.0%	35,065	25.2%
Balance of state	10,119	71.0%	103,871	74.8%
Total state	14,259	--	138,936	--

2013 PTB rates:
 6 cities: 11.8%
 Balance of state: 9.8%
 Overall state rate: 10.3%

2013 Preterm Birth Rates for Cities with Greatest Number of Live Births

City of Residence	State	Preterm Birth Rate	Grade	City of Residence	State	Preterm Birth Rate	Grade	City of Residence	State	Preterm Birth Rate	Grade
Albuquerque	NM	10.1	C	Fort Worth	TX	10.1	C	Oklahoma City	OK	10.0	C
Anaheim	CA	8.5	B	Fresno	CA	10.2	C	Omaha	NE	10.1	C
Anchorage	AK	9.1	B	Glendale	AZ	10.1	C	Orlando	FL	10.0	C
Arlington	TX	11.2	D	Grand Rapids	MI	10.2	C	Oxnard	CA	7.8	A
Atlanta	GA	11.5	F	Greensboro	NC	10.4	D	Philadelphia	PA	11.2	D
Aurora	CO	9.1	B	Honolulu	HI	9.9	C	Phoenix	AZ	10.0	C
Austin	TX	10.0	C	Houston	TX	10.8	D	Pittsburgh	PA	10.4	D
Bakersfield	CA	9.3	C	Indianapolis	IN	10.8	D	Portland	OR	7.2	A
Baltimore	MD	12.2	F	Irving	TX	8.7	B	Raleigh	NC	8.9	B
Baton Rouge	LA	13.0	F	Jacksonville	FL	10.8	D	Reno	NV	8.8	B
Birmingham	AL	13.1	F	Jersey City	NJ	12.0	F	Riverside	CA	8.6	B
Boston	MA	9.3	C	Kansas City	MO	9.3	C	Rochester	NY	10.2	C
Brownsville	TX	10.1	C	Knoxville	TN	11.0	D	Sacramento	CA	8.5	B
Buffalo	NY	11.4	D	Laredo	TX	8.8	B	Salt Lake City	UT	9.6	C
Charlotte	NC	10.0	C	Las Vegas	NV	10.5	D	San Antonio	TX	11.5	F
Chicago	IL	10.4	D	Lincoln	NE	8.2	B	San Bernardino	CA	9.7	C
Chula Vista	CA	9.1	B	Long Beach	CA	8.7	B	San Diego	CA	8.3	B
Cincinnati	OH	11.8	F	Los Angeles	CA	9.3	C	San Francisco	CA	8.6	B
Cleveland	OH	13.7	F	Louisville	KY	10.5	D	San Jose	CA	8.3	B
Colorado Springs	CO	10.0	C	Lubbock	TX	12.0	F	San Juan*	PR	9.8	C
Columbus	OH	11.6	F	Memphis	TN	13.7	F	Santa Ana	CA	8.2	B
Corpus Christi	TX	11.4	D	Mesa	AZ	8.6	B	Seattle	WA	8.1	A
Dallas	TX	10.3	C	Miami	FL	11.3	D	Shreveport	LA	18.8	F
Denver	CO	8.4	B	Milwaukee	WI	10.8	D	Spokane	WA	8.6	B
Des Moines	IA	9.6	C	Minneapolis	MN	8.8	B	St Louis	MO	12.5	F
Detroit	MI	13.0	F	Modesto	CA	8.3	B	St Paul	MN	8.0	A
District of Columbia		10.4	D	Nashville	TN	10.1	C	Stockton	CA	10.2	C
Durham	NC	9.9	C	New Orleans	LA	12.1	F	Tacoma	WA	8.4	B
El Paso	TX	11.1	D	New York City	NY	8.9	B	Tampa	FL	10.9	D
Fayette	KY	10.3	C	Newark	NJ	12.2	F	Toledo	OH	10.4	D
Fayetteville	NC	10.9	D	Norfolk	VA	11.0	D	Tucson	AZ	8.9	B
Fontana	CA	8.5	B	North Las Vegas	NV	10.3	C	Tulsa	OK	12.4	F
Fort Wayne	IN	10.2	C	Oakland	CA	8.2	B	Virginia Beach	VA	9.3	C
								Wichita	KS	9.7	C

Preterm is less than 37 weeks gestation and based on obstetric estimate of gestational age.

Cities are sorted by alphabetical city name.

Source: National Center for Health Statistics, 2011-2013 final data.

Prepared by March of Dimes Perinatal Data Center, 2015

100 US CITIES WITH THE GREATEST NUMBER OF BIRTHS

2013 PRETERM BIRTH RATES & GRADES

City, State	Preterm Birth Rate (%)	Grade
Portland, OR	7.2%	A
Oxnard, CA	7.8%	
St. Paul, MN	8.0%	
Seattle, WA	8.1%	
Lincoln, NE	8.2%	B
Oakland, CA	8.2%	
Santa Ana, CA	8.2%	
Modesto, CA	8.3%	
San Diego, CA	8.3%	
San Jose, CA	8.3%	
Denver, CO	8.4%	
Tacoma, WA	8.4%	
Anaheim, CA	8.5%	
Fontana, CA	8.5%	
Sacramento, CA	8.5%	
Mesa, AZ	8.6%	
Riverside, CA	8.6%	
San Francisco, CA	8.6%	
Spokane, WA	8.6%	
Irvine, TX	8.7%	
Long Beach, CA	8.7%	
Laredo, TX	8.8%	
Minneapolis, MN	8.8%	
Reno, NV	8.8%	
New York, NY	8.9%	
Raleigh, NC	8.9%	
Tucson, AZ	8.9%	
Anchorage, AK	9.1%	C
Aurora, CO	9.1%	
Chico Vista, CA	9.1%	
Bakersfield, CA	9.3%	
Boston, MA	9.3%	
Kansas City, MO	9.3%	
Los Angeles, CA	9.3%	
Virginia Beach, VA	9.3%	
Des Moines, IA	9.6%	
Salt Lake City, UT	9.6%	
San Bernardino, CA	9.7%	
Wichita, KS	9.7%	
San Juan, PR	9.8%	
Durham, NC	9.9%	
Honolulu, HI	9.9%	
Austin, TX	10.0%	
Charlotte, NC	10.0%	
Colorado Springs, CO	10.0%	
Oklahoma City, OK	10.0%	
Orlando, FL	10.0%	
Phoenix, AZ	10.0%	
Albuquerque, NM	10.1%	
Brownsville, TX	10.1%	
Fort Worth, TX	10.1%	
Glendale, AZ	10.1%	
Nashville, TN	10.1%	
Omaha, NE	10.1%	
Fort Wayne, IN	10.2%	D
Fresno, CA	10.2%	
Grand Rapids, MI	10.2%	
Rochester, NY	10.2%	
Stockton, CA	10.2%	
Dallas, TX	10.3%	
Fayetteville, NC	10.3%	
North Las Vegas, NV	10.3%	
Chicago, IL	10.4%	
District of Columbia	10.4%	
Greensboro, NC	10.4%	
Pittsburgh, PA	10.4%	
Toledo, OH	10.4%	
Las Vegas, NV	10.5%	
Louisville, KY	10.5%	
Houston, TX	10.8%	
Indianapolis, IN	10.8%	
Jacksonville, FL	10.8%	
Wilmington, NC	10.8%	
Fayetteville, NC	10.9%	
Tampa, FL	10.9%	
Knoxville, TN	11.0%	
Norfolk, VA	11.0%	
Sioux Falls, SD	11.1%	
Arlington, TX	11.2%	
Philadelphia, PA	11.2%	
Miami, FL	11.3%	F
Buffalo, NY	11.4%	
Corpus Christi, TX	11.4%	
Atlanta, GA	11.5%	
San Antonio, TX	11.5%	
Columbus, OH	11.6%	
Cincinnati, OH	11.6%	
Jersey City, NJ	12.0%	
Lubbock, TX	12.0%	
New Orleans, LA	12.1%	
Baltimore, MD	12.2%	
Newark, NJ	12.2%	
Tulsa, OK	12.4%	
St. Louis, MO	12.5%	
Baton Rouge, LA	13.0%	
Detroit, MI	13.0%	
Birmingham, AL	13.1%	
Cleveland, OH	13.2%	
Memphis, TN	13.7%	
Sheepport, LA	18.8%	

March of Dimes

2020 Goal: 8.1%

The March of Dimes has set a goal to reduce preterm birth in the United States to 8.1 percent by 2020. The 2015 U.S. Premature Birth Report Card assigned grades to the 100 cities with the greatest number of live births in 2013. Grades are assigned by comparing the 2013 preterm birth rate in the city to the March of Dimes 2020 goal.

Percent of Live Births

A	8.1 or less
B	8.2 – 9.2
C	9.3 – 10.3
D	10.4 – 11.4
F	11.5 or greater

Notes:

- Preterm is less than 37 weeks gestation based on obstetric estimate of gestational age.
- Cities represent those with the greatest number of live births out of all cities with a population of >100,000, as defined by the National Center for Health Statistics.
- Cities are sorted by preterm birth rates and alphabetically by city name for cities with the same preterm birth rate.
- *Data shown are for the municipality of San Juan.
- See the U.S. 2015 Premature Birth Report Card for more information.

Source: National Center for Health Statistics, 2013 final natality data.

Prepared by: March of Dimes Perinatal Data Center, October 2015.

Preterm Birth Disparities Index

What is the March of Dimes disparity index?

The disparity index, shown as a whole number on the report card, provides a measure of the differences, or disparities, in preterm birth rates across racial/ethnic groups within a US geographic area.

Reference Point: the racial/ethnic group with the best, or lowest, preterm birth rate in a state.

The distance from the “best” rate is determined for all other racial/ethnic groups (as a percent).

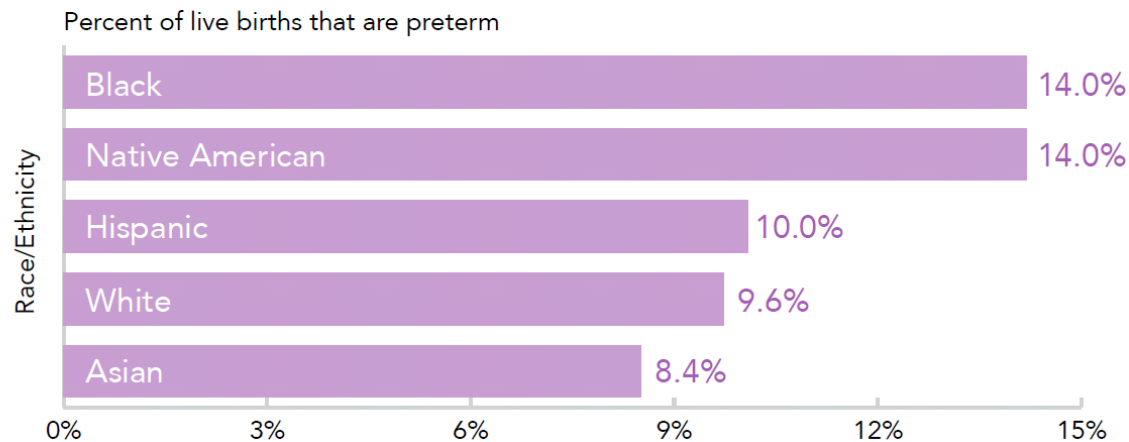
These differences are combined in an average summary measure, or **Disparities Index Score**.

This Index Score is then used to provide a **Ranking**.

Preterm Birth Disparities Index

RACE & ETHNICITY

The March of Dimes ranks states based on a disparity index, which provides a measure of the extent of racial and ethnic disparities in preterm birth in each state. The disparity index compares the racial/ethnic group with the lowest (2011 to 2013 average) preterm birth rate to all other racial/ethnic groups. The state/territory with the lowest disparity is ranked #1, and the state/territory with the highest disparity is ranked #50.



Disparity index

42

Index Score

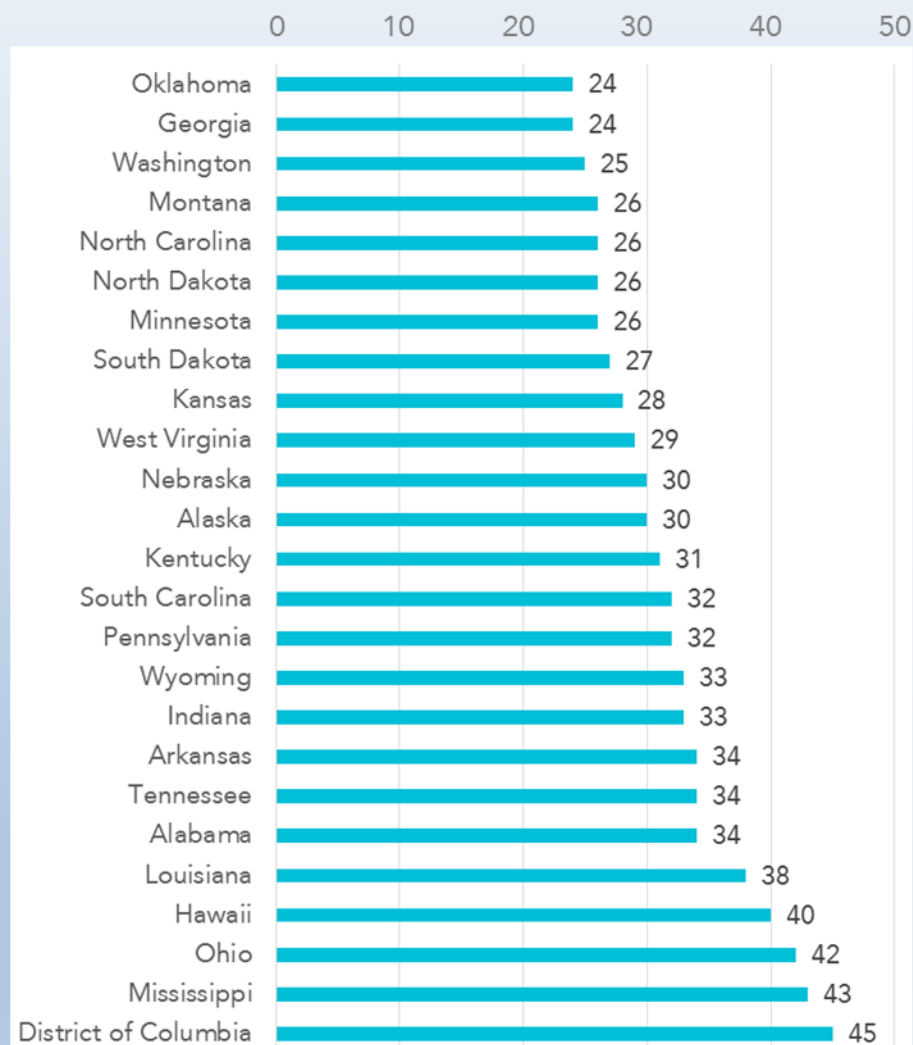
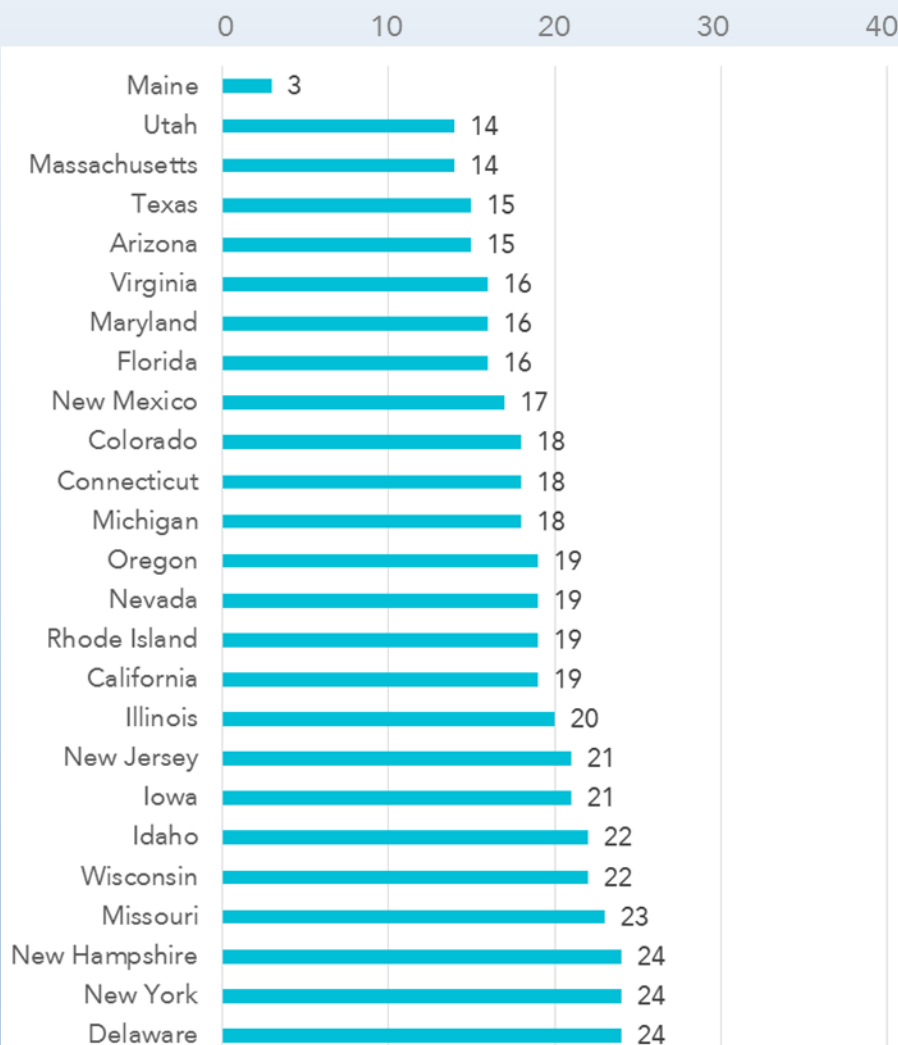
State rank

#48

State Rank

State Preterm Birth Disparity Index

Scores and Rankings, 2011-2013 (Average)



Preterm is less than 37 weeks gestation. Gestational age is determined using obstetric estimate.

Source: National Center for Health Statistics, 2011-2013 final data.

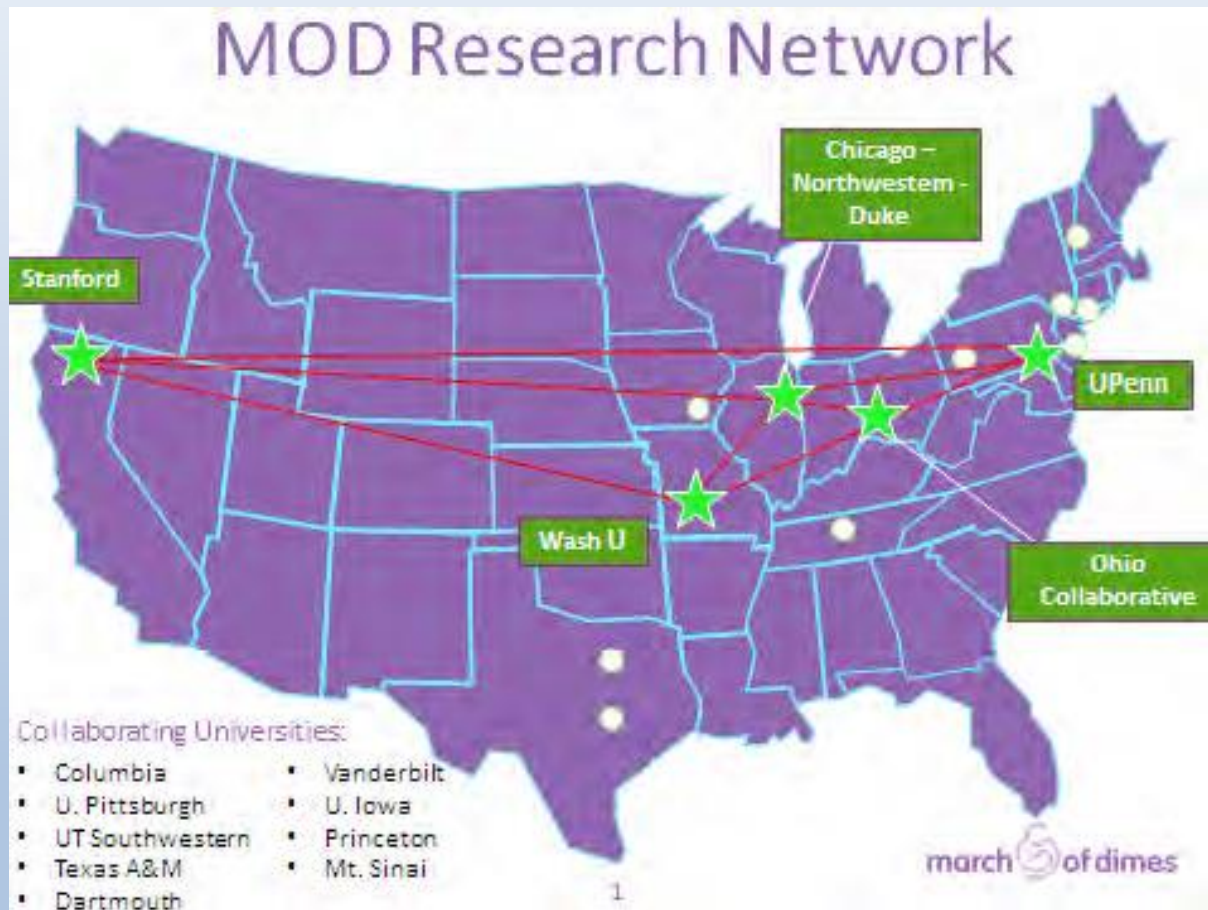
Prepared by March of Dimes Perinatal Data Center, 2015.

The “Roadmap”

Interventions to Reduce Modifiable Risk Factors

- ❖ Smoking Cessation
- ❖ Group Prenatal Care - CenteringPregnancy®
- ❖ Interconception Care (birth spacing)
- ❖ Reduce multiple births conceived through ART
- ❖ Elimination of non-medically indicated early elective deliveries
- ❖ Access to progesterone (previous PT delivery) (with cerclage for short cervix)
- ❖ Low-dose aspirin to prevent preeclampsia
- ❖ Bundle interventions
- ❖ Quality Improvement
- ❖ Discovery Research

Discovery Research



Goal: Identify new treatments for preterm birth.

5 Prematurity Research Centers Established

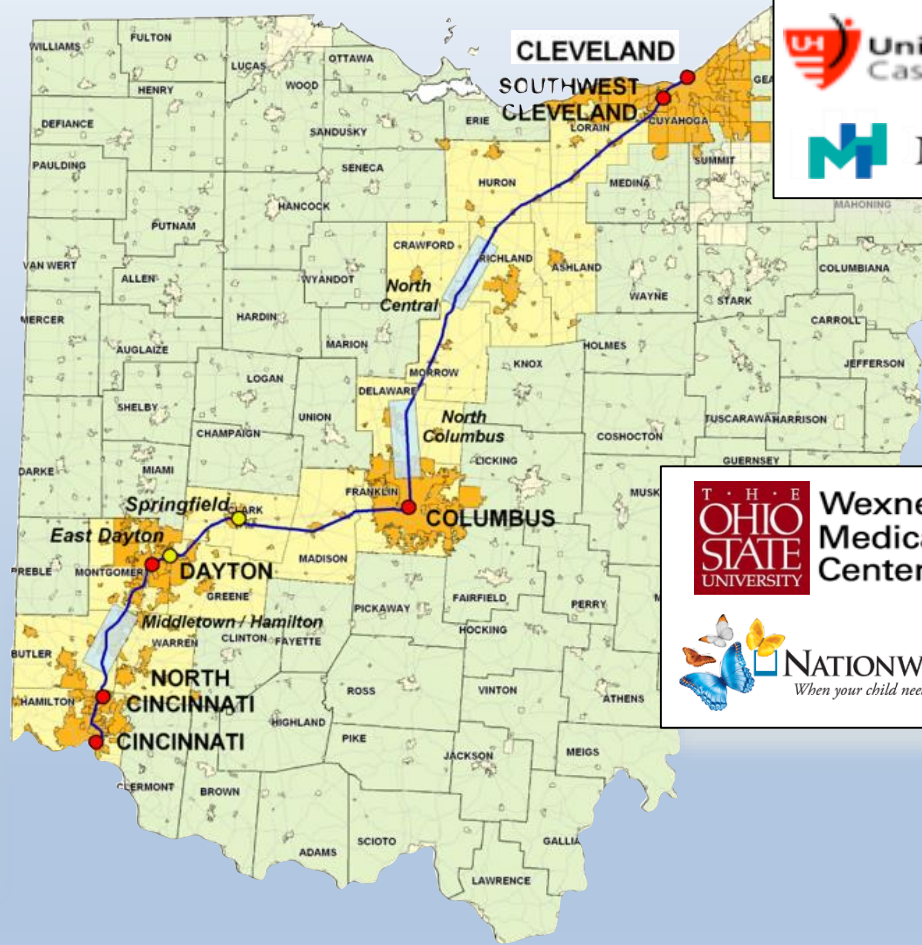
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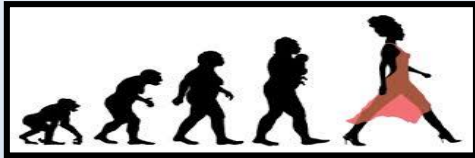
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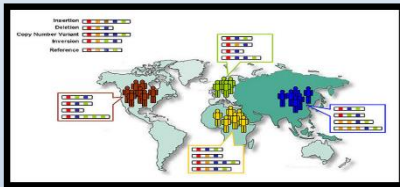
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Five (5) Thematic Areas of Discovery and Innovation



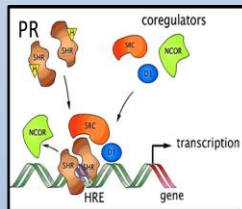
Theme 1: Evolutionary Synthesis of Human Pregnancy



Theme 2: Genetics of Unique Human Populations



Theme 3: Molecular Developmental Biology of Pregnancy



Theme 4: Progesterone Signaling in Pregnancy Maintenance and Preterm Birth



Theme 5: Sociobiology of Racial Disparities in Preterm Birth



Thank You