

# PREMATURITY CAMPAIGN

## 2015 PROGRESS REPORT



### NEW GOALS AND A FOCUS ON HEALTH EQUITY

*"May the security and the happiness of every boy and girl in our land be our concern, our personal concern, from now on." — Franklin Delano Roosevelt*

TABLE OF CONTENTS

A LETTER FROM THE PRESIDENT.....1

I. PREMATURITY CAMPAIGN: ROADMAP TO 2020 AND 2030 GOALS .....3

II. PREMATURE BIRTH REPORT CARDS .....6

III. VICTORIES IN FEDERAL AND STATE ADVOCACY.....7

IV. PREMATURITY RESEARCH NETWORK .....8

V. PREMATURITY ON THE GLOBAL HEALTH AGENDA..... 11

VI. NICU INITIATIVES: RESOURCES FOR FAMILIES AND STAFF ..... 13

VII. CONCLUSION ..... 13

PARTNERS, ALLIANCES AND SPONSORS..... 14

Cover quote: Radio Address at the White House Conference on Children in a Democracy, Washington, D.C., January 19, 1940

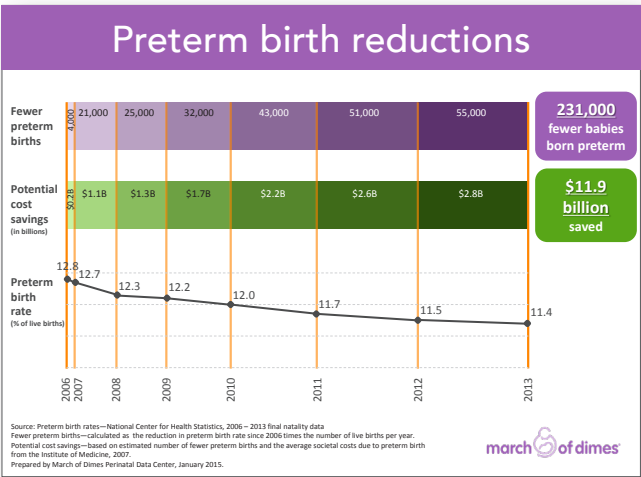
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A LETTER FROM THE PRESIDENT



The March of Dimes Prematurity Campaign, launched in 2003, completed its 12th year with an urgent new set of goals and plans for the future. The U.S. preterm birth rate declined to 9.6 percent in 2014, meeting the original March of Dimes 2020 goal of 9.6 percent. This was due to the National Center for Health Statistics (NCHS) change in measurement of gestational age, and continued progress in rate reduction. In 2015, the March of Dimes reset its preterm birth rate goals for the nation and outlined a new plan — the Prematurity Campaign Roadmap — to work towards their achievement.

The new March of Dimes preterm birth prevention goals are both challenging and urgent. The 2030 goal of a 5.5 percent preterm birth rate moves the U.S. preterm birth rate from among the worst of high-resource countries, to among the best. The shorter-term 2020 goal of 8.1 percent demands a new level of commitment and partnership from public and private stakeholders.



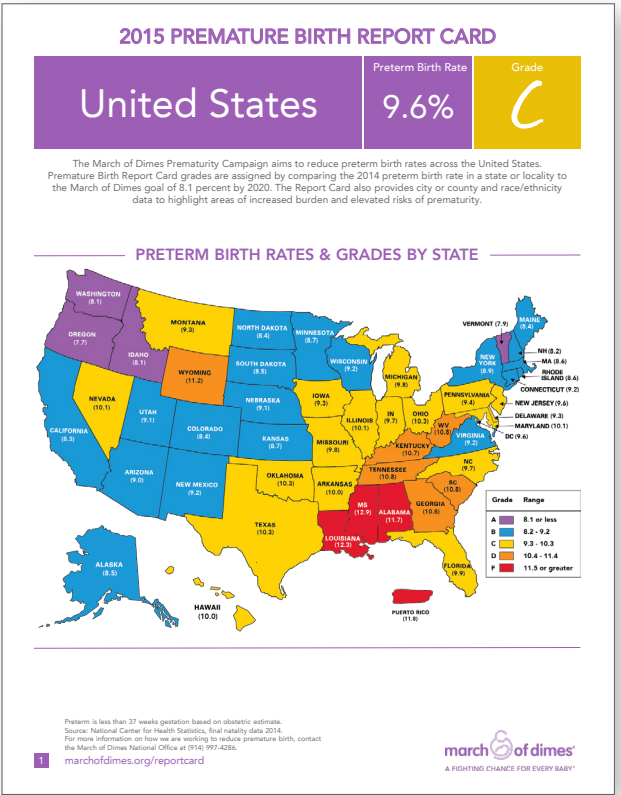
231,000 fewer babies were born preterm from 2006 through 2013, with a cost savings of \$11.9 billion

At the triennial 2015 March of Dimes National Prematurity Prevention Conference, our many partners joined us to commit to working together on the 2020 and 2030 goals. The conference was held in November to coincide with Prematurity Awareness Month and World Prematurity Day (WPD) on November 17.



Dr. Howse, Dr. Jarris, and Dr. Regina Benjamin, former U.S. Surgeon General and March of Dimes Trustee at the Prematurity Prevention Conference.

The March of Dimes released the 2015 Premature Birth Report Cards in November and grades were reset to reflect the 2020 goal of 8.1 percent. States with a preterm birth rate of 8.1 percent earned an “A”. For the first time, Report Cards included a new March of Dimes “Index of Racial/Ethnic Disparity in Preterm Birth” to highlight the importance of addressing disparities as part of prematurity prevention, and to embrace the principle of health equity for every baby in every community. The disparity index allows comparison across geographic areas and over time.

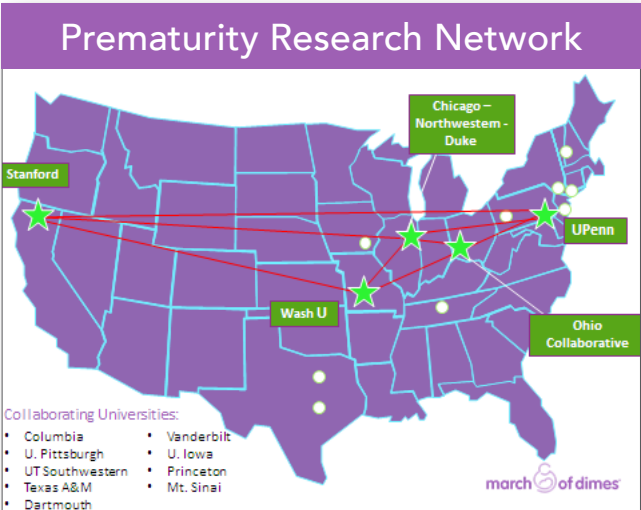


The U.S. 2015 Premature Birth Report Card includes a map of rates and grades by state.



In coming years, the Prematurity Campaign Roadmap, described in more detail on the next pages, will focus on implementation of a set of emerging and established interventions that were selected due to the available evidence about their potential contribution to reducing the preterm birth rate. The March of Dimes is committed to improving health equity in preterm birth and driving towards optimal implementation of these known interventions. At the same time, we must also continue to invest in discovery research and its translation into new opportunities for prevention. Both strategies are essential to meeting the March of Dimes 2020 and 2030 rate-reduction goals.

A major 2015 research milestone was the June announcement of the fifth March of Dimes Prematurity Research Center, a collaboration between the University of Chicago, Northwestern and Duke. The March of Dimes has completed a national transdisciplinary network of researchers who are collaborating to discover the causes of preterm birth.



I am proud of the partnerships that have been developed and sustained from the very first days of the Prematurity Campaign. Collaborations with federal agencies, state health officials and policymakers, sponsors, donors, and hundreds of national and local alliances, volunteers, clubs and organizations have been essential to Campaign initiatives. I am especially indebted to our Prematurity Campaign partner organizations: the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, the Association of Maternal and Child Health Programs, the Association of State and Territorial Health Officials, the Association of Women’s Health, Obstetric & Neonatal Nurses and the National Association of County and City Health Officials.

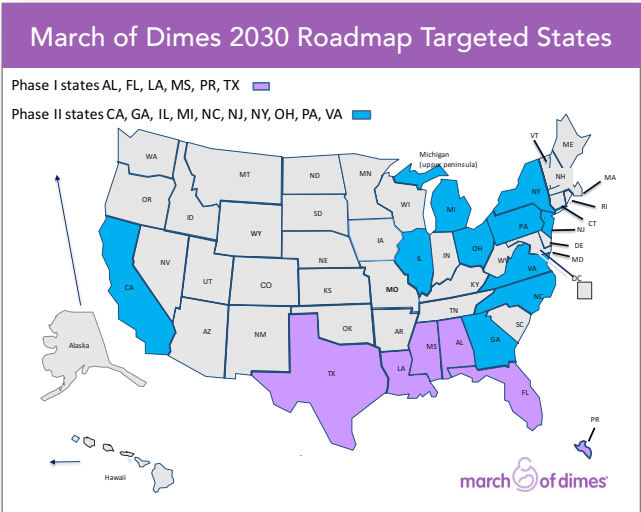
I am confident the ongoing collaborative nature of our work to prevent premature birth, engage in discovery research and improve health equity will continue to benefit this and future generations.

Dr. Jennifer L. Howse  
President

## I. PREMATUREITY CAMPAIGN: ROADMAP TO 2020 AND 2030 GOALS

To work towards achievement of the March of Dimes 2020 and 2030 rate-reduction goals, the March of Dimes Prematurity Campaign Roadmap will focus on selected evidence-based interventions, and on states with high preterm birth rates and high numbers of births. A preterm birth is a birth that takes place before 37 completed weeks of pregnancy.

The first implementation phase will focus on the four states and territories with the highest preterm birth rates (Alabama, Louisiana, Mississippi and Puerto Rico), as well as the two most populous high-rate states (Texas and Florida). The second phase will target an additional 10 states with the highest volume of births (California, Georgia, Illinois, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania and Virginia). In each state, the March of Dimes and its partners will analyze the latest information on the factors that contribute to preterm birth and strengthen available interventions. The March of Dimes will continue its ongoing efforts to prevent preterm birth in all states.



## INTERVENTIONS

Eight emerging and established interventions have been selected for emphasis in the next phases of the Campaign, based on the available evidence about their potential contribution to reducing the preterm birth rate. Others will be added as research is conducted and evidence of effectiveness emerges. Work on many of these interventions was ongoing in 2015.

**1 Reduce non-medically indicated (elective) deliveries.** Inductions and caesarean sections scheduled before 39 weeks gestation without a medical reason increase the risk of early-term and late preterm birth and their health consequences. In 2015, the March of Dimes was active in 29 states with activities related to reducing early elective deliveries.

**EDUCATION AND AWARENESS:  
EARLY ELECTIVE DELIVERIES**

The March of Dimes Healthy Babies are Worth the Wait national awareness and education campaign continued in 2015, aiming to change norms and reverse a trend toward earlier, non-medically indicated labor inductions and c-sections. The Campaign reached millions of women through educational materials, web content, videos, public service advertising and a mobile phone app called CineMama®. CineMama delivers March of Dimes early elective delivery and other health messages and enables women to make videos of the progress of their pregnancies. With funding from the Institute of Medicine, CineMama was updated with enhanced nutrition and weight-gain information, including a weight tracker. The Campaign’s advertising alone created 550 million impressions with a media value of more than \$9 million in 2015.

**2 Increase access to progesterone for women with a history of prior preterm birth:** Weekly progesterone injections for at-risk women are proven to reduce preterm birth for those with a prior spontaneous singleton preterm birth, but this therapy is under-utilized. In 21 states, the March of Dimes is working on quality improvement and other initiatives to increase access to progesterone.

**3 Expand group prenatal care.** Group prenatal care programs have been shown to reduce rates of premature birth by combining prenatal care with group education and social support. In 2015, the March of Dimes invested in group prenatal care programs in 38 states, providing nearly \$1.4 million in funding to more than 80 grantee organizations.

**4 Reduce tobacco use among pregnant women:** Tobacco use is a well-documented risk factor for preterm birth and other adverse birth outcomes, but 1 in 10 women smoke during pregnancy. In 2015, March of Dimes funded smoking-cessation programs in 28 states, using evidence-based models including the Smoking Cessation and Reduction in Pregnancy Treatment (SCRIPT®) program and BABY & ME Tobacco Free™.

**5 Encourage birth spacing of at least 18 months and interconception care.** One-third of all pregnancies in the United States occur less than 18 months after the birth of a child, which is a known risk factor for preterm birth. The March of Dimes has been working with the IMPLICIT (“Interventions to Minimize Preterm and Low birth weight Infants through Continuous Improvement Techniques”)

Network to pilot an Interconception Care model program that incorporates maternal assessments into well-child visits with pediatric and family medicine providers, focusing on birth spacing and contraception, depression screening, smoking cessation, and folic acid intake. The March of Dimes is cobranding a toolkit with the Implicit Network to expand use of the model. In addition, the March of Dimes is working on other interconception care initiatives in 25 states.

**6 Expand use of low-dose aspirin to prevent preeclampsia.** Preeclampsia involves high blood pressure and other factors during pregnancy that can ultimately threaten the life or health of both mother and baby and can only be cured by delivering the infant, regardless of its gestational age. The U.S. Preventive Services Task Force and the American College of Obstetricians and Gynecologists recently recommended that women at high risk take a daily

low-dose aspirin to help prevent preeclampsia, but use of this therapy is not widespread.

**7 Advance interventions for women diagnosed with a short cervix.** Universal screening for short cervix can help identify women at risk for preterm birth and allow them to take advantage of interventions like progesterone therapy and cerclage.

**8 Reduce multiple births conceived through assisted reproductive technology (ART).** Women pregnant with twins or higher-order multiples are at high risk of preterm birth. The use of single embryo transfer (SET) can dramatically reduce the incidence of multiples conceived through ART.

## BUNDLING INTERVENTIONS IN COMMUNITIES

The **Healthy Babies are Worth the Wait® (HBWW) Community Program** provides the opportunity to bundle interventions and address social determinants of health in geographic areas and in populations that have high rates of preterm birth.



The HBWW Community Program began in 2007 in Kentucky. By the end of 2015, it had expanded to eight states in more than 30 sites. In each site, partnerships among March of Dimes chapters, state and local health departments, hospitals and community organizations identify needs specific to their communities, draw attention to the associated risk factors for pregnant women and deploy professional education and interventions shown to reduce these maternal risk factors and improve birth outcomes. Many of the Roadmap interventions are already used in HBWW

sites, and work will continue to expand sites and address risk factors for preterm birth in communities with high rates.

In 2015, the work of the HBWW Implementation Network continued, promoting cross-site sharing of solutions and best practices in implementing the program. An online community was launched in late 2015 on [prematurityprevention.org](http://prematurityprevention.org).



## COLLABORATIONS

March of Dimes participation in the **Infant Mortality Collaborative Improvement and Innovation Network (IM CoIIN)** has provided opportunities to expand interventions to address preterm and early term birth, preconception and interconception care, smoking cessation and social determinants of health. Forty March of Dimes state program staff were actively involved on their state CoIIN teams, and the March of Dimes served as partner and technical assistance leader for two learning networks, Smoking Cessation and Prevention of Pre/Early Term Birth.

Through a generous grant from the **Anthem Foundation** in 2015, the March of Dimes supported group prenatal care in nine states, HBWW Community Program activities in three states and smoking cessation in two states. By the end of 2015, more than 2,000 women received direct services in these 14 states, and more than 30,000 individuals and providers received educational messaging.

## HEALTH EQUITY

March of Dimes chapters continue to focus efforts on addressing health equity in premature birth



in their communities, including African-American, Hispanic, Asian-Pacific Islander and Native American communities. In 2015, the March of Dimes invested close to \$3 million in 250 specific projects in 39 states focused on improving health equity.

Stork’s Nest® is a collaboration between the March of Dimes and Zeta Phi Beta Sorority, Inc. to bring prenatal education and group support to low-income pregnant women. Many Stork’s Nest groups are conducted in African-American communities with support and participation of local volunteers, churches and community-based organizations. *Becoming a Mom®/Comenzando Bien®* is a March of Dimes prenatal education curriculum used with pregnant women in supportive group settings. The curriculum, available in English and Spanish, is easily adapted to meet cultural and educational needs of various audiences. The Coming of the Blessing® is a March of Dimes initiative reaching American Indian and Alaska Native families and is conducted in partnership with a variety of agencies that serve these populations.

## NATIONAL PREMATURITY PREVENTION CONFERENCE

Former U.S. Surgeon General and March of Dimes Trustee Regina M. Benjamin, MD, MBA announced the new 2020 and 2030 March of Dimes preterm birth prevention goals at the March of Dimes Prematurity Prevention Conference, held November in Arlington, Virginia. The announcement coincided with the 5th annual World Prematurity Day on November 17, a day when advocates worldwide call for action to address preterm birth.

The conference focused on evidence-based interventions for preterm birth. More than 400 health care clinicians, public health practitioners, policymakers and advocates shared information about the design, implementation and evaluation of programs and policies as well as efforts to improve health equity. The conference exceeded expectations for attendance, and follow-up registration on [prematurityprevention.org](http://prematurityprevention.org), the March of Dimes online resource for health care professionals. Conference participants expressed a continued need for and interest in the issue of preterm birth prevention across disciplines.



## II. PREMATURE BIRTH REPORT CARDS

In November 2015, Premature Birth Report Cards were reset to the new 8.1 percent 2020 goal, with a rate of 8.1 percent or better earning an “A” grade. Four states met this goal: Idaho, Oregon, Vermont and Washington. The United States overall earned a “C” with its rate of 9.6 percent.

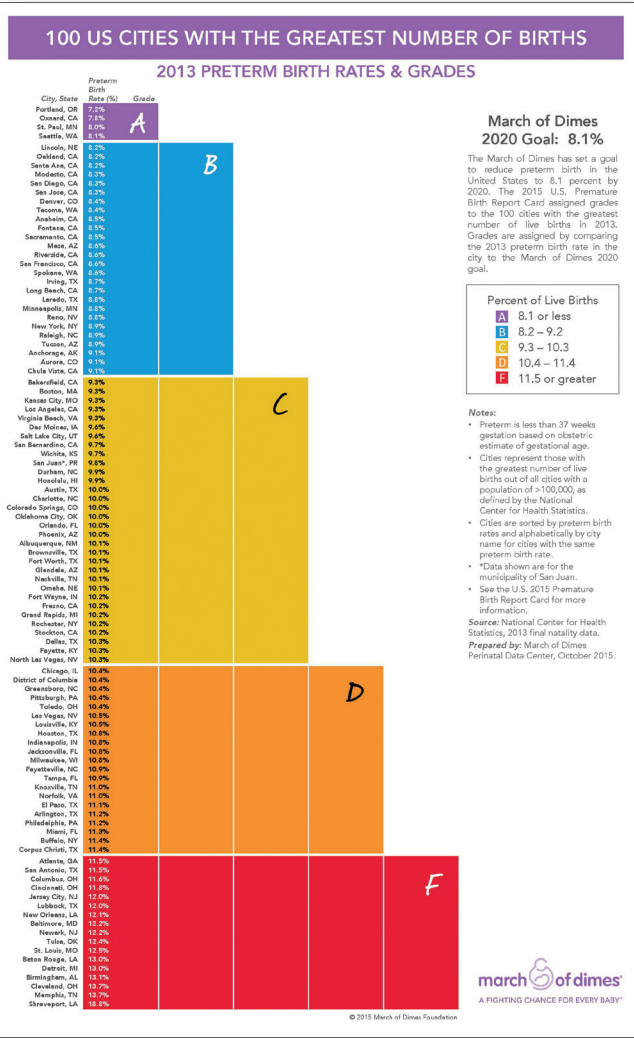
The March of Dimes added two new elements to 2015 Report Cards: a new “Index of Racial/Ethnic Disparities in Preterm Birth,” and grades for cities and counties with the highest birth volume in each state.

The “Disparity Index,” created by the March of Dimes Perinatal Data Center, quantifies racial/ethnic disparities, allows for states to be ranked compared to one another and provides a reliable measure to track progress in reducing disparities in preterm birth over time. A rank of 1 indicates the state with the least disparity among racial/ethnic groups, and a rank of 50 indicates the state with the largest disparity among racial ethnic groups. One example of the importance of the disparity index is evidenced in the Washington State Report Card. Despite the overall grade of “A,” the “Disparity Index” ranking of 28 out of 50 states

calls attention to the degree of disparity or difference among racial and ethnic groups.

For the first time, 2015 state Report Cards included grades for the largest cities or counties. In addition, the March of Dimes issued grades for the 100 U.S. cities with the greatest number of live births.

Report Cards garnered extensive media attention, with particular focus on the new city and county grades and the need for attention to health equity. Media impressions totalled 205 million, up from 182 million in 2013.



To see this chart go to [marchofdimes.org/reportcard](http://marchofdimes.org/reportcard) and click on Top 100 U.S. Cities.

States also received March of Dimes awards that marked their progress in reducing rates. Using revised award criteria to accommodate the switch to Obstetric Estimate to measure gestational age, the Virginia Apgar Prematurity Campaign Leadership Award was awarded to Arkansas, Connecticut, Georgia, Hawaii, Idaho, Maine, Mississippi, North Dakota, and Virginia for an 8 percent reduction in the preterm birth rate. The Franklin Delano Roosevelt Prematurity Campaign Leadership Award was awarded to Connecticut, Idaho, and Washington for meeting the 2020 goal.

## III. VICTORIES IN FEDERAL AND STATE ADVOCACY

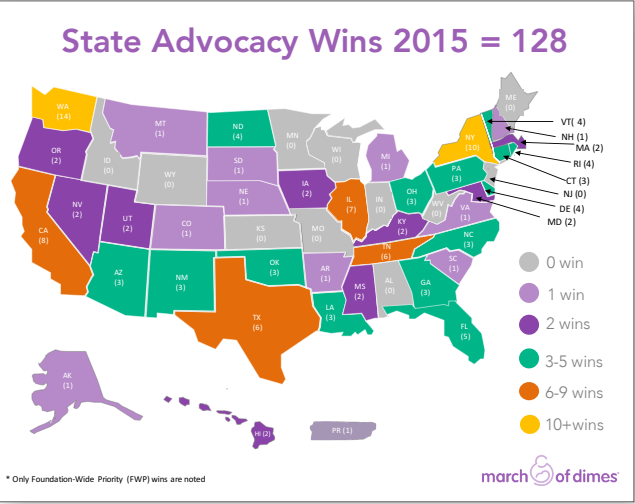
The March of Dimes continues to be a powerful voice for maternal and child health in Washington, D.C., every state capital and Puerto Rico. By promoting access to quality health care, expanded biomedical research, effective preventive care and educational efforts, the March of Dimes uses advocacy to advance its mission.

On the national level, the March of Dimes continued to champion maternal and child health priorities with the successful renewal of funding for the Children’s Health Insurance Program (CHIP), which covers more than 5 million children and more than 370,000 pregnant women each year. CHIP funding was extended for an additional 2 years, protecting coverage for women and children just above Medicaid eligibility levels. In addition, the March of Dimes was proud to lead a coalition in championing passage of the Protecting Our Infants Act, which was signed into law by President Obama in December. This legislation will bring additional federal focus and resources to the alarming number of newborns who are exposed to opioids in the womb and suffer withdrawal after birth.

March of Dimes chapters across the nation accumulated a record-shattering 128 legislative or regulatory victories in 2015! Chapters pursued a broad range of initiatives to prevent preterm birth, ranging from access to health care to tobacco cessation to substance abuse prevention. March of Dimes advocacy victories related to prematurity include:

- Laws and regulations to preserve and expand health coverage programs such as Medicaid, CHIP, Title V and Maternal, Infant and Early Childhood Home Visitation
- Policies to improve the quality and availability of maternal and child health benefits in private health insurance, including the newly established Health Insurance Marketplaces

- Programs to expand preconception and interconception care and education to prevent preterm birth
- Initiatives to prevent tobacco initiation and promote smoking cessation



The March of Dimes is widely respected by policymakers for our commitment to science- and evidence-based approaches to maternal and child health and our long history of working on a bipartisan basis. We look forward to continuing our record of success to advance the Prematurity Campaign.

## 2015 CHAPTER LEGISLATIVE OR REGULATORY VICTORIES

**Access to health coverage — more than 20 advocacy wins including:**

- The New York chapter championed passage of a first-in-the-nation law to establish a Special Enrollment Period for pregnant women. This law will allow an uninsured woman to enroll in Marketplace coverage if she discovers she is pregnant, helping to ensure access to vital prenatal care and maternity services.
- The Alaska and Iowa chapters advocated successfully for expansion of their Medicaid programs, which will allow women to receive regular health care to help them get healthy before they get pregnant.

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- The **Connecticut** and **Ohio** chapters successfully opposed efforts to roll back Medicaid eligibility levels for pregnant women.
- The **Washington State** chapter secured a change to Medicaid regulations to clarify that pregnant women can receive folic acid supplements covered by the program.

#### **Tobacco-related or substance abuse issues — 24 advocacy wins, including:**

- The **Louisiana, Nevada, Ohio, Rhode Island,** and **Vermont** chapters secured increases in their state tobacco taxes, a proven strategy for reducing tobacco use and deterring people from taking up smoking.
- The **Montana, North Dakota, Tennessee, Texas** and **Utah** chapters worked to limit use of e-cigarettes by including them under anti-tobacco laws and restrictions.
- The **Louisiana** chapter worked collaboratively to pass a city ordinance making bars and casinos in New Orleans smoke-free.
- The **Kentucky** chapter advocated for protection for mothers struggling with substance abuse during pregnancy and increased funding for community programs specifically targeted towards substance use in pregnant women.
- The **Massachusetts** chapter successfully advocated for funding to address neonatal abstinence syndrome (NAS). The **North Dakota** and **Illinois** chapters secured passage of legislation to create statewide task forces to study NAS.

## IV. PREMATURITY RESEARCH NETWORK

To study the many factors contributing to preterm birth, the March of Dimes has established a network of transdisciplinary Prematurity Research Centers (PRCs). These Centers integrate scientists from individual disciplines to form innovative collaborations that can accelerate research discoveries. The March of Dimes has already invested more than \$20 million in Centers across the country at leading academic institutions and continues its commitment.

The first Center was launched in 2011 at Stanford University School of Medicine, followed by the March of Dimes Prematurity Research Center Ohio Collaborative in 2013, Washington University in St. Louis in 2014, and the University of Pennsylvania in 2014.

On June 2, 2015, the fifth Prematurity Research Center was launched as a collaboration between the University of Chicago, Northwestern and Duke with Dr. Carole Ober as the new Center's principal investigator. With the Prematurity Research Network now completed, Dr. Ober, together with the Principal Investigators from the other four Centers, will continue to collaborate in their investigations going forward.



*Principal Investigators of the five Prematurity Research Centers: Dr. Louis Muglia (Ohio), Dr. David Stevenson (Stanford), Dr. Carole Ober (University of Chicago/Northwestern/Duke), Dr. George Macones (Washington University in St. Louis), Dr. Deborah Driscoll (University of Pennsylvania).*



*Greg Crawford, PhD, Assistant Professor at Duke University, at the June launch of the fifth Prematurity Research Center.*

*Dr. Howse and Dr. Michael Schreiber, Chief of Neonatology at Comer Children's Hospital, in the NICU at the June launch.*

For the new Center, the March of Dimes will invest \$10 million over 5 years to support researchers from various disciplines who are collaborating to study the causes of preterm birth. The research themes are:

- **Gene regulation in pregnancy and preterm birth**  
Genes are the units of heredity passed from parent to child. The genetic code provides the information for protein production. Most cells in the body carry identical DNA to other cells in the body, but they carry a different set of proteins. This means not all genes are “turned on” in every cell. There are many mechanisms of regulation that promote or inhibit the expression of a gene into a protein. Cumulatively, these mechanisms regulate gene expression like a thermostat, rather than an on/off switch. Therefore, in preterm birth and disease in general, the genes directly involved in a particular process may not be completely turned off, but the regulatory elements controlling that gene could make the gene partially dysfunctional. These processes are extremely complex and still being sorted out. A major focus for researchers is determining which genes are involved in maintaining human pregnancy to 39 weeks, how these genes are regulated, and what changes in this regulation could result in a preterm birth.

- **Biological responses to maternal stress**  
Significant racial and socioeconomic disparities in preterm birth are well recognized. The rate of preterm birth among African-American women is 1.5 times the rate among white women in the United States. Yet no biological explanation has been found. A puzzle is that these deleterious effects appear to persist from generation to generation. With no single gene candidate to explain the hereditary (familial) component, it may be that altered regulatory elements are responsible for this persistence. Learning how this occurs biologically raises the possibility of reversing the dysregulation. Investigators aim to determine how responses to stress, such as lifelong exposure to discrimination or poverty, may alter gene regulation. Findings may lead scientists to ways to alter regulatory processes, resulting in better health outcomes and lowering the preterm birth rate.
- **New models for studying maternal-fetal signals**  
There are limitations to studying pregnant patients when determining the signals between a mother's uterus and the fetus that initiate labor. Scientists must rely on cells, but relevant human cells are not readily available because they are difficult to grow in the laboratory. One way to overcome this hurdle is with inducible pluripotent cells (iPSCs). iPSCs have the potential to become many different cell types. They are inducible because they are reprogrammed from a different type of adult cell. For example, scientists may take a blood cell or skin cell from a mother and generate uterine muscle cells or possibly even placental cells. Ability to generate iPSCs from patients with disorders of any organ system has provided revolutionary approaches for modeling human disease in a culture dish. However, at the present time endometrial, myometrial and placental cell types cannot be studied with this approach because techniques have not yet been developed for their differentiation from iPSCs. A primary goal of this research is to develop such techniques. Studying how these cells interact may provide invaluable clues as to how labor is initiated.



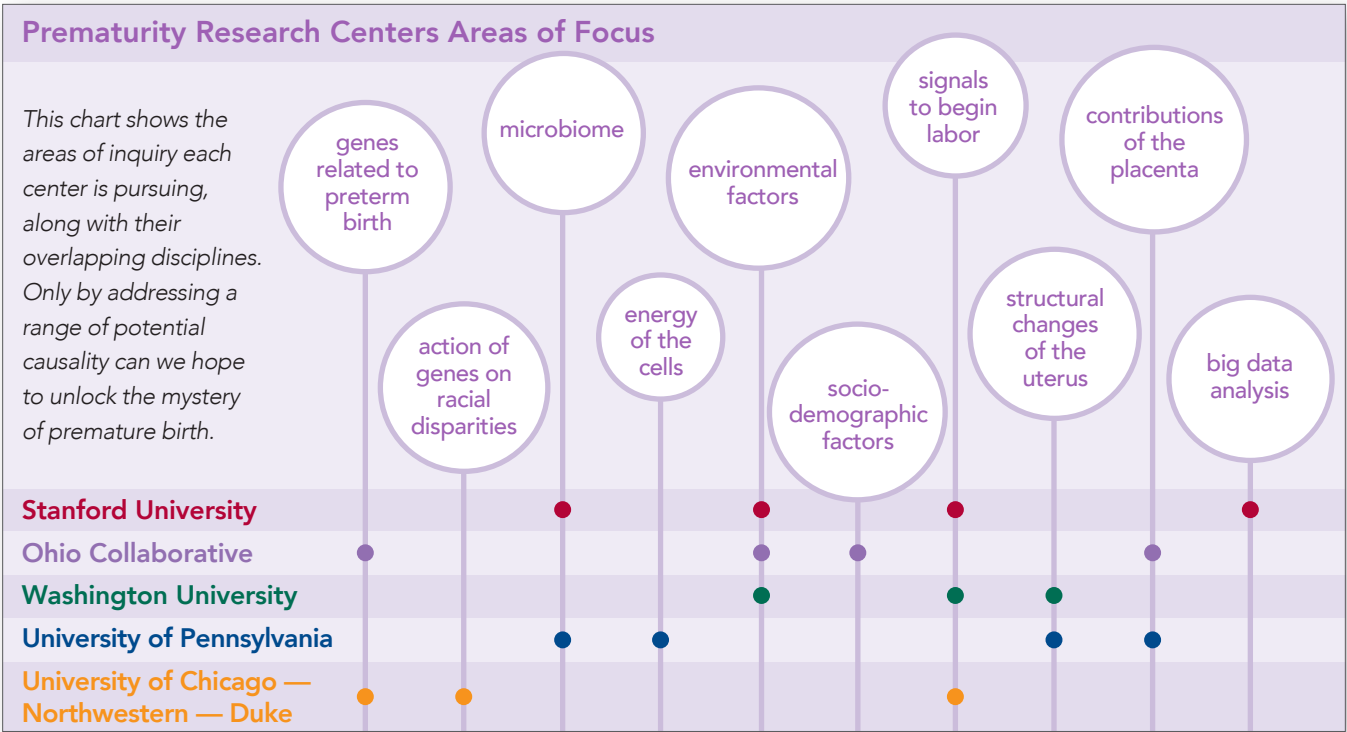
NEW FINDINGS

The year 2015 was especially exciting for two of our Centers, each of which had research on preterm birth published in top scientific journals. Articles from the Stanford and the Ohio Collaborative Centers received substantial media attention. The PRC at Stanford published “Temporal and spatial variation of the human microbiota during pregnancy” in *Proceedings of the National Academy of Sciences*.<sup>1</sup> The authors found that the microbiomes (community of bacteria inhabiting the human body) in the reproductive tracts of pregnant women who later have a premature baby are significantly different from those of women who deliver full term. “These findings may help us screen women and identify and predict those who are more likely to have a baby born too soon,” said David Relman, MD, a professor of Medicine, Microbiology and Immunology at the Stanford University School of Medicine and the Theme Leader on this project. Dr. Joe Leigh Simpson, Senior Vice President of Research and Global Programs at the March of Dimes was interviewed by multiple media outlets, including the Daily Mail (London) which quoted him as saying that having too few friendly bacteria may leave a woman’s womb open to attack by other bacteria and toxins, triggering early birth.”<sup>2</sup>

BREAKING NEWS

- New study links preterm birth with microbes in mom’s body (*The New York Times*, August 17, 2015)
- Shorter women have shorter pregnancies — and that can be a big problem (*The Washington Post*, August 18, 2015)

The research team at the Ohio Collaborative demonstrated that shorter women are more likely to have preterm babies. It was also found that a woman’s height influences gestational length, independent of the genes she passes on that determine fetal length. “Our finding shows that a mother’s height has a direct impact on how long her pregnancy lasts,” said Louis Muglia, MD, PhD, the principle investigator of the Ohio Collaborative, Professor of Pediatrics at the University of Cincinnati and co-director of the Perinatal Institute at Cincinnati Children’s Hospital Medical Center. “The explanation for why this happens is unclear but could depend not only on unknown genes but also on women’s lifetime of nutrition and her environment.” The research paper, “Assessing the causal relationship of maternal height on birth size and gestational age at birth: A mendelian randomization analysis,” was published online by *PLoS Medicine*.<sup>3</sup>



For more information go to [prematurityresearch.org](http://prematurityresearch.org)

1. DiGiulio DB, Callahan BJ, McMurdie PJ, Costello EK, Lyell DJ, Robaczewska A, Sun CL, Goltsman DS, Wong RJ, Shaw G, Stevenson DK, Holmes SP, Relman DA., 2015. Temporal and spatial variation of the human microbiota during pregnancy. *Proc Natl Acad Sci* Sep 1;112(35):11060-5.

2. Macrae, F., 2015. Probiotics can cut chances of an early birth: Findings could lead to tablet for mothers-to-be to ensure they have correct level of 'friendly bacteria' to prevent premature delivery. *DailyMail.com* August 17.

3. Zhang G, Bacelis J, Lengyel C, Teramo K, Hallman M, Helgeland Ø, Johansson S, Myhre R, Sengpiel V, Njølstad PR, Jacobsson B, Muglia L., 2015. Assessing the Causal Relationship of Maternal Height on Birth Size and Gestational Age at Birth: A Mendelian Randomization Analysis. *PLoS Med.* Aug 18;12(8):e1001865.

V. PREMATUREITY ON THE GLOBAL HEALTH AGENDA

In 2015, the March of Dimes continued to focus on prevention strategies to address the growing problem of preterm birth worldwide. Last year, a *Lancet* study revealed that the complications of preterm birth outranked all other causes as the world’s number one killer of children under age 5<sup>4</sup>, a startling fact that became a rallying point for the millions of people who participated in the fifth annual World Prematurity Day on November 17.

World Prematurity Day again served as a platform for governments, ministries of health and advocates to champion and announce new investment and policy approaches to prevent preterm birth and improve newborn health. Activities took place in more than 100 countries; selected examples are included in the box on the next page. Members of the World Prematurity Network and other parent leaders bathed major landmarks and buildings in purple lights (the color associated with the cause) in more than 190 locations worldwide, as part of educational and awareness events in their countries. Outreach materials highlighted key prevention opportunities for families and communities including birth spacing, ensuring optimal nutritional status of women before and during pregnancy, providing quality health care, and avoiding smoke and secondhand smoke. Prevention and awareness messages were shared on social media, including Twitter chats, the WPD Twitter buzz day,

**Let’s work together to improve care and find ways to prevent premature birth.**

world prematurity network

Logos of partner organizations: March of Dimes, EFCUNI (European Foundation for the Care of Newborn Infants), National Premmie Foundation (Caring, Supporting, Informing Australia), Bliss (for babies born too soon, too small, too sick), CPBF-FBPC (Canadian Premature Babies Foundation / Fondation pour les Prematurs Canadiens), and others.

Thunderclap and an annual Stories of Hope global teleconference featuring parents’ preterm birth stories from around the world. Global media impressions from advertising, social media and earned media totalled 1.4 billion in 2015.

WORLD PREMATUREITY DAY CELEBRITY INVOLVEMENT

Television public service advertising (PSA) and social media outreach featured celebrities who lent their voices to the cause:

**Thalia**, Latin Grammy-Award winning recording artist, who serves as a March of Dimes global ambassador, was featured in PSAs in both English and Spanish.

**Anne Geddes**, renowned photographer and volunteer ambassador for the March of Dimes, appeared in a television PSA and a print PSA featured her iconic image of a premature baby.

**Chef Maneet Chauhan**, mother of a son born prematurely at 26 weeks, starred in a global TV PSA.

**Celine Dion**, international singer, was featured in a global television PSA in both English and French and a print PSA.

**Hilary Duff**, actress, singer and songwriter, spoke out in a PSA that ran nationwide.

Throughout the year, progress continued on key global initiatives to advance preterm birth prevention opportunities, including the partnership between the March of Dimes and the International Federation of Gynecology and Obstetrics (FIGO), comprised of member societies from 125 countries. In collaboration with the Boston Consulting Group, the two organizations are assessing the contributions of known risk factors for both spontaneous and provider-initiated preterm birth in order to estimate the potential impact of interventions needed by research, policy, public health and clinical practice. The study is

4. Liu, L., Oza, S., Hogan, D., Perin, J., Rudan, I., Lawn, J. & Black, R. (2014). Global, regional, and national causes of child mortality in 2000-13, with projections to inform post-2015 priorities: An updated systematic analysis. *The Lancet*.

estimating how variations in preterm birth rates across select high-income countries can be explained by differences in preterm birth risk factors. The March of Dimes and FIGO also continued to develop and share best practices in prematurity prevention and maternal-fetal medicine and to advance research into the causes of preterm birth.

Preterm birth was highlighted during the 7th International Conference on Birth Defects and Disabilities in the Developing World (ICBD) in Dar es Salaam, Tanzania, in September. The conference was hosted by the Aga Khan Health Services, Tanzania and the Aga Khan University, East Africa and supported by the March of Dimes, the Centers for Disease Control and Prevention’s National Center on Birth Defects and Developmental Disabilities and the Bill & Melinda Gates Foundation. Since its inauguration in 2001, the ICBD has brought together experts and stakeholders from around the world to discuss developments and highlight successes and issues to build capacity in

lower-income countries for the prevention of birth defects and preterm birth and the care of those affected.

The 7th ICBD provided a platform for ensuring that prevention of birth defects and preterm birth and the care of children with associated disabilities remain an important part of the Adolescent, Reproductive, Maternal, Newborn and Child Health agenda as the world shifts to the broader, more inclusive Sustainable Development Goals issued by the United Nations.

The conference concluded with the drafting and presentation of a pledge to reduce the burden of congenital disorders by providing every woman an opportunity to have a healthy pregnancy, and to improve the care and quality of lives of affected individuals and their families. The pledge was signed by over 75 conference participants and will be published in JAMA Pediatrics in 2016.

## VI. NICU INITIATIVES: RESOURCES FOR FAMILIES AND STAFF

The March of Dimes offered services to more than 90,000 families through its NICU (neonatal intensive care unit) Family Support® program. The program provides information and comfort to families with a baby in neonatal intensive care. In 2015, more than 130 hospitals had NICU Family Support programs. Through NICU Initiatives, the March of Dimes provided educational content on family-centered care topics to more than 8,000 health care providers and engaged 31,000 users through Share Your Story®, our online community for NICU families.

In 2015, March of Dimes continued to update and improve NICU Family Support print materials for families. All program materials for NICU families are

now in plain language at or below an 8th grade reading level, and available in both Spanish and English. Families have access to four different booklets: *Baby: A baby book for the NICU*; *The NICU: NICU staff, common health conditions, equipment and tests*; *In the NICU for a shorter stay: A guide for parents*; and the newest booklet, *The NICU Journey: Caring for your baby in the NICU and at home*.

Based on feedback and review from families, *The NICU Journey* reflects experiences families face in the NICU and provides easy-to-use guidance for caring for a baby in the NICU and at home. This booklet addresses common concerns and questions; provides photographs of families during the NICU stay and after discharge; includes quotes and stories from family members; shows babies with many different health conditions; and inspires hope for beyond the NICU.



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AAMI Stadium in Melbourne, Australia lit by the National Premmie Foundation

## WORLD PREMATURETY DAY COUNTRY ACTIVITIES

**Bangladesh:** A joint program round table was held in Dhaka with physicians, public health officials, representatives from government, United Nations agencies and non-governmental organizations.

**Bhutan:** The Ministry of Health hosted a public education symposium to share its knitting project to benefit Bhutan’s premature babies.

**Bolivia:** Secretary Oscar Urenda met with children, families and professionals at the Hospital de la Mujer to discuss a preterm birth action agenda.

**Ghana:** The Enyiresi Government Hospital hosted a declaration ceremony to raise awareness for preterm babies.

**Sri Lanka:** The Sri Lanka College of Paediatricians conducted an event at the Lady Ridgeway Hospital attended by the Honorable Deputy Minister of Health and other dignitaries.

**Tanzania:** The Doris Mollel Foundation held a community awareness event at the Muhimbili National Hospital with the Chief Secretary of the Ministry of Health.



El Moro Lotería Nacional (Mexico) lit by Con Amor Vencerás



Bosphorus Bridge (Istanbul, Turkey), photo from El Bebek Gül Bebek partner of EFCNI



First Direct Arena (Leeds, England), photo from Bliss, a special care baby charity

## VII. CONCLUSION

The Prematurity Campaign’s 2015 progress sets the stage for the March of Dimes and its many partners to work towards achievement of the 2020 preterm birth rate reduction goal. The completion of the Prematurity Research Network, the establishment of the Roadmap’s evidence-based interventions, and the development of a stronger focus on health equity are essential elements that lay the groundwork for continued work in 2016 and beyond. With a shared understanding of goals and plans, the March of Dimes will collaborate with existing and new partners to work towards rate improvements and equity in preterm birth in the United States. The March of Dimes will also continue to advance the cause of prematurity prevention worldwide with our global partners.



## PARTNERS, ALLIANCES AND SPONSORS

### National Campaign Partners

American Academy of Pediatrics\*  
American College of Obstetricians and Gynecologists\*  
Association of Maternal & Child Health Programs  
Association of State and Territorial Health Officials  
Association of Women's Health, Obstetric and Neonatal Nurses\*  
National Association of County and City Health Officials

### National Campaign Alliance Members

American Academy of Family Physicians  
American Academy of Periodontology  
American College of Nurse-Midwives  
American College of Osteopathic Obstetricians and Gynecologists  
American Dental Association  
American Dental Hygienists' Association  
American Hospital Association  
American Public Health Association  
American Society of Reproductive Medicine  
Association of Reproductive Health Professionals  
American Women's Medical Association  
Black Women's Health Imperative  
CityMatCH  
Council of International Neonatal Nurses (COINN)  
Council of Women's and Infant's Specialty Hospitals  
FirstCandle/SIDS Alliance  
International Childbirth Education Association  
League of Black Women  
National Alliance for Hispanic Health  
National Association of Children's Hospitals & Related Institutions  
National Association of Neonatal Nurses  
National Association of Nurse Practitioners in Women's Health  
National Association of Pediatric Nurse Practitioners  
National Association of Public Hospitals and Health Systems  
National Black Nurses Association  
National Coalition for Ethnic & Minority Nurses  
National Birth Defects Prevention Network  
National Healthy Mothers, Healthy Babies Coalition  
National Healthy Start Association  
National Indian Health Board  
National Medical Association

National Perinatal Association  
National Rural Health Association  
National WIC Association  
Office of Minority Health (HHS)  
Partnership for Prevention  
Preeclampsia Foundation  
RESOLVE: The National Infertility Association  
Society for Gynecologic Investigation  
Society for Maternal Fetal Medicine  
Society for Public Health Education  
Society of Pediatric Nurses  
Vermont Oxford Network

### World Prematurity Network *Accepting new members*

Bliss Baby Charity, United Kingdom  
Borngreat Foundation, Africa  
Canadian Premature Babies Foundation, Canada  
Con Amor Vencerás, Mexico  
European Foundation for the Care of Newborn Infants (EFCNI), Europe  
Home for Premature Babies, China  
LittleBigSouls International Foundation, Africa  
March of Dimes Foundation, USA  
National Premmie Foundation, Australia

### Global Alliances and Partners

Global Coalition to Advance Preterm Birth Research  
International Federation of Gynecology and Obstetrics

### Prematurity Awareness Month Service Partners

Alpha Phi Alpha Fraternity, Inc.  
Future Business Leaders of America-Phi Beta Lambda  
Jack & Jill of America  
Kiwanis International/Key Club  
Sigma Gamma Rho Sorority, Inc.  
Zeta Phi Beta Sorority, Inc.

### Prematurity Campaign Partners & Sponsors

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\* Founding partner