

prematurity campaign

2014 progress report



Alfred, born at 32 weeks, weighing 2.6 lbs

march  of dimes®

© 2015 March of Dimes Foundation
Photo by Anne Geddes ©

Anne Geddes

Table of contents

A letter from the president	1
10 Campaign highlights	
I. U.S. preterm birth rate declines for 7 years	3
II. Prematurity on the global health agenda	3
III. Prematurity on the nation’s health agenda	4
IV. Multimillion-dollar research investment	6
V. Healthy Babies are Worth the Wait®	8
VI. Chapter leadership	11
VII. Victories in federal and state advocacy	13
VIII. Premature Birth Report Cards.....	14
IX. NICU Initiatives: resources for families and staff	15
X. Rallying families and raising awareness	16
2015 Priorities	17
Partners, alliances and sponsors	back cover

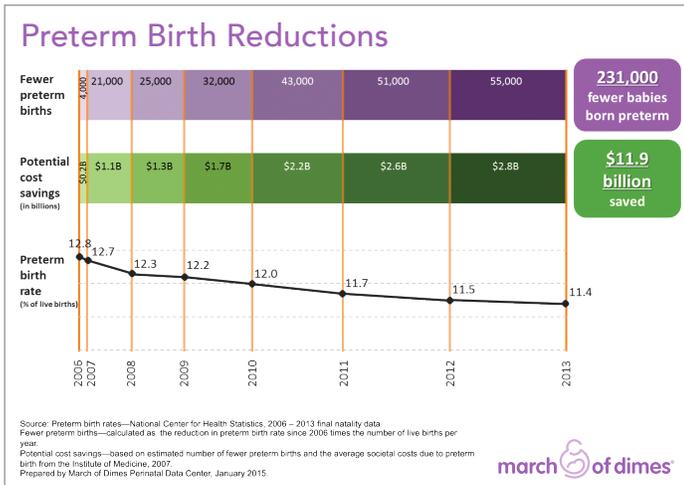
Moving forward: a letter from the president



The March of Dimes Prematurity Campaign, launched in 2003, has stimulated widespread action and attention around the problem of premature birth. The preterm birth rate in the United States has declined for the 7th year; as a result, 231,000 fewer babies have been born prematurely, saving \$11.9 billion in health and societal costs.

We were proud to open two new centers in 2014, at Washington University in St. Louis and at the University of Pennsylvania. These four centers bring together an unprecedented array of scientists from many different disciplines to examine, identify and prevent the causes of preterm birth.

Over the course of the Campaign, the March of Dimes has set forth ambitious goals for reducing the preterm birth rate, charting a course for the future and rallying others to join us to work toward those goals. In 2014, we continued that tradition, publishing "Fighting for the Next Generation: US Prematurity in 2030"¹ in *Pediatrics*, setting forth an aspirational goal of 5.5 percent for the 2030 U.S. preterm birth rate, which would put the United States in the top 10 percent of Very High Human Development Index (VHDI) countries. We can achieve this ambitious goal only through the optimal use of known interventions, by learning from countries that are achieving better outcomes than our own, and by investing in research and its rapid translation.



Despite this progress, premature birth remains a serious health threat to mothers and babies everywhere. Premature birth is now the number one cause of death of children under 5 years old worldwide, and the U.S. preterm birth rate of 11.4 percent remains one of the highest among industrialized countries.

Since the launch of the campaign in 2003, the March of Dimes has dedicated research funding to understand the causes of premature birth and develop future prevention strategies. Our research commitment was expanded in 2011 and again in 2013, with the establishment of Prematurity Research Centers at Stanford University School of Medicine in California (2011) and the Ohio Collaborative, a partnership of the leading research centers in Cincinnati, Columbus and Cleveland (2013).

PEDIATRICS[®]

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Home | About | Current Issue | AAP Policy | eArchives | Supplements | Collections | eLetters | Early Releases | Contact Us

Special Article

Fighting for the Next Generation: US Prematurity in 2030

Edward R.B. McCabe, MD, PhD, Gerard E. Carrino, PhD, MPH, Rebecca B. Russell, MSPH, and Jennifer L. Howse, PhD

ABSTRACT

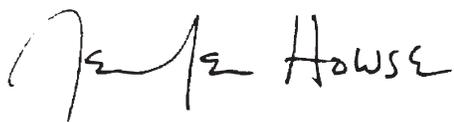
Preterm birth (PTB) is a serious problem, with >450,000 neonates born prematurely in the United States every year. Beginning in 1980, the United States experienced a nearly 3-decade rise in the PTB rate, peaking in 2006 at 12.8%. PTB has declined for 7 consecutive years to 11.4% in 2013, but it still accounts for 1 in 9 neonates born every year. In addition to elevated neonatal and infant mortality among those born preterm, many who survive will have lifelong morbidities and disabilities. Because of the burden of morbidity, disability, and mortality for PTB, as well as its impact more broadly on society, including excess annual costs estimated to be at least \$26.2 billion by a committee for the Institute of Medicine,

Since 2003, the Prematurity Campaign has played a central role in developing, piloting and promoting evidence-based interventions to prevent preterm birth, including our chapters' Healthy Babies are Worth the Wait[®] (HBWW) community program, now

1. McCabe, E.R., Carrino, G.E., Russell, R.B. & Howse, J.L. (2014) Fighting for the next generation: US Prematurity in 2030. *Pediatrics*, 134(6), 1193-9.

in 25 sites, our resources and programs to reduce early elective deliveries, and our work to expand preconception and interconception care as well as innovative models of prenatal care. We have joined with the International Federation of Gynecology and Obstetrics (FIGO) to systematically assess practices that are used in other countries with lower preterm birth rates than our own. And we urge others to join with us to drive toward full use of proven interventions, including the use of progesterone by all women who are eligible, and to rapidly assess and expand access to other emerging interventions.

At the beginning of our Campaign, we recruited a handful of partners and alliances who have remained with us to this day. In 2003, our small group banded together to “call the question” and urge elected officials and stakeholders to join us in confronting the most serious perinatal health problem in our nation. Now, 12 years later, we celebrate the wide array of organizations, global coalitions, sponsors, parent groups, elected and appointed officials, social media and country-based activists worldwide who have joined with us to spare families from the death and disability too often caused by premature birth. On behalf of mothers and babies in the United States and worldwide, thank you.

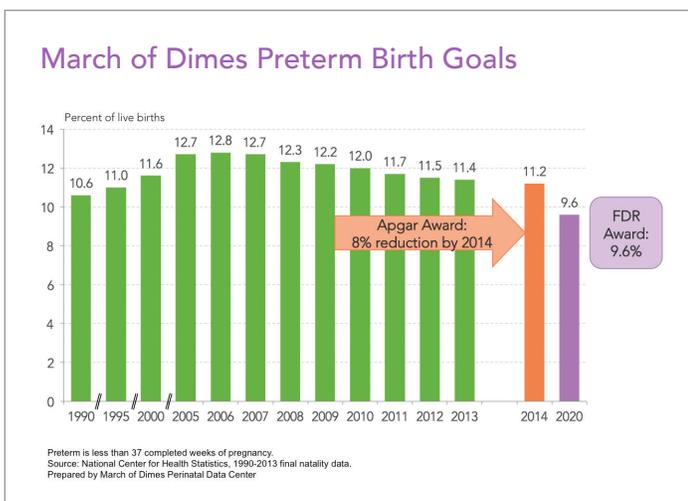


Dr. Jennifer L. Howse
President



I. U.S. preterm birth rate declines for 7 years

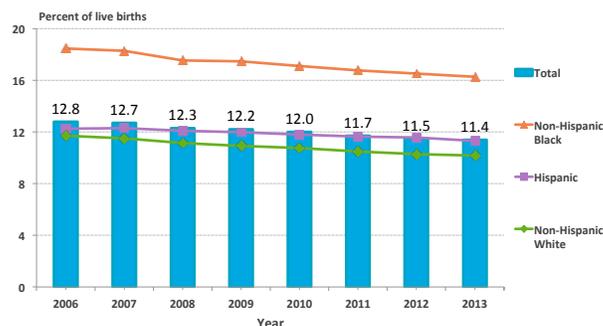
In 2003, the March of Dimes launched the national Prematurity Campaign. After rising steadily for 3 decades, the preterm birth rate began to decline in 2007. This year's data represents a 7-year decline in the preterm birth rate to 11.4 percent, meeting the federal Healthy People 2020 goal 7 years early. However, the nation fell short of the more challenging 9.6 percent goal set by the March of Dimes, indicated in purple in the chart below.



In partnership with the Association of State and Territorial Health Officials (ASTHO), the March of Dimes also has an interim goal of an 8 percent reduction in every state by the end of 2014 (measured by 2014 data, available in 2015), indicated in the orange bar above. Many states made impressive progress in reducing their rates of preterm birth: 27 states and Puerto Rico saw year-over-year improvements in their 2013 preliminary preterm birth rates announced this year.

We were pleased and proud to announce new award recipients, to mark state progress in reducing rates. The Virginia Apgar Prematurity Campaign Leadership award was given to four states for achieving their 8 percent reduction: California, Nevada, New Hampshire and Puerto Rico.

Preterm Birth Rates by Maternal Race/Ethnicity United States, 2006-2013



In the nation as a whole, premature births declined 1 to 2 percent among each of the largest racial and ethnic groups in the 2013 data released this year. For example, the preterm birth rate for African-Americans was 16.3 percent — the lowest level in more than 30 years. Hispanics, who have the fastest-growing population in the United States, saw the preterm birth rate decline 8 percent since 2006, to 11.3 percent in 2013. However, despite a narrowing in the disparity, the preterm birth rate among African-American women remains more than 1.5 times the rate of non-Hispanic white women. The March of Dimes continues to draw attention to persistent inequities in birth outcomes, including through the Premature Birth Report Cards described later in this report.

II. Prematurity on the global health agenda

For the first time, the complications of preterm birth outranked all other causes as the world's number one killer of young children. Of the estimated 6.3 million deaths of children under the age of 5 in 2013, complications from preterm births accounted for nearly 1.1 million deaths.² These new findings, published in the *Lancet* and then publicized worldwide on World Prematurity Day on November 17, brought more attention and urgency to global initiatives to address preterm birth.

2. 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*.

Direct complications from preterm births accounted for 965,000 deaths during the first 28 days of life and 125,000 deaths between the ages of 1 month and 5 years. Other main causes of death included pneumonia, which killed 935,000 children under 5, and intrapartum-related complications or childbirth complications, which caused 720,000 deaths.

These findings accelerated the momentum established by the 2012 publication of *Born Too Soon: The Global Action Report on Premature Birth*,³ which highlighted the urgency of preterm birth as the leading cause of newborn death worldwide, and placed the March of Dimes and its Prematurity Campaign squarely within a coalition of international organizations working toward action on these issues.

The three countries with the highest numbers of children dying from preterm birth complications each year are India (361,700), Nigeria (98,300) and Pakistan (75,000). The March of Dimes joined with the MDG Health Alliance in 2014 to propose a public-private partnership to prevent preterm birth in these countries.⁴

Another key global initiative, the Global Coalition to Advance Preterm Birth Research (G-CAPR), initiated by the National Institute of Child Health and Human Development (NICHD), the March of Dimes, the Bill & Melinda Gates Foundation, and the Global Alliance to Prevent Prematurity and Stillbirth (GAPPS), now has 16 member institutions committed to advancing needed research into the field of preterm birth.

In addition, the March of Dimes continued its collaboration with the International Federation of Gynecology and Obstetrics (FIGO), comprised of obstetric leaders from 125 countries, conducting a study to systematically assess practices that are used in other countries and regions with low and/or declining preterm birth rates. Joint efforts also are underway to develop and share best practices in prematurity prevention and maternal-fetal medicine with members worldwide, and to advance research into the causes of premature birth.

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



The World Prematurity Network®, established by the March of Dimes in 2011 to formalize its alliances with consumer and parent groups, added a new group from Canada in 2014 and continued to advance advocacy initiatives, events and family support in their countries and worldwide.

Milestones

- 2012** Publication of *Born Too Soon: the Global Action Report on Preterm Birth* provides the first-ever country-level estimates of preterm birth rates for 184 countries.
- 2011** First annual World Prematurity Day involves activities in more than 24 countries; March of Dimes establishes the World Prematurity Network.
- 2009** Publication of *The March of Dimes White Paper on Preterm Birth: The Global and Regional Toll*.
- 2008** March of Dimes Board of Trustees declared prematurity a global campaign.

III. Prematurity on the nation's health agenda

In 2014, the March of Dimes continued to call attention to the financial cost of prematurity to individuals, businesses and the health care system, highlighting the \$12.7 billion annual cost of prematurity to employers and the importance of investing in prevention. March of Dimes chapters

3. March of Dimes, PMNCH, Save the Children, WHO. (2012). *Born Too Soon: The global action report on preterm birth*. Geneva: World Health Organization and 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*.

4. Greenslade, L. (November 17, 2014). What the world needs is...A public-private partnership to prevent preterm birth. Retrieved from <http://www.healthynewbornnetwork.org/blog/what-world-needs-isa-public-private-partnership-prevent-preterm-birth>

educated local chambers and business groups, promoting ten Workplace Standards for Healthier Moms and Babies and the March of Dimes Healthy Babies Healthy Business® worksite wellness program.



States have played a critical role in calling attention to premature birth and working to reduce rates. The March of Dimes partnered with ASTHO in 2012 to issue a challenge to state health departments to reduce preterm birth by 8 percent by 2014 (using 2014 data that will be available in 2015). Every state, the District of Columbia and Puerto Rico signed the pledge. So far, 14 states (AK, AZ, CA, CO, DE, IN, MA, NH, NV, NY, RI, UT, VT, WY), the District of Columbia and Puerto Rico have met the pledge by achieving an 8 percent reduction.

In 2014, pledge-related interventions and education activities continued, particularly in HHS Regions IV and VI (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee and Texas), in the areas of smoking cessation, access to progesterone for recurrence prevention, early elective deliveries and other initiatives.

The March of Dimes placed renewed emphasis on premature birth in the Hispanic community in 2014, announcing new resources devoted to reaching Spanish-speaking women and releasing the March of Dimes Special Report: *Maternal and Infant Health in U.S. Hispanic Populations: Prematurity and Related Health Indicators*. March of Dimes global ambassador Thalia continued to reach millions of moms and moms-to-be through television, radio and social media.

Some of the major points in the March of Dimes Special Report were as follows:

- Hispanic women have babies at a greater rate each year than any other racial or ethnic group in the United States.
- Nearly a quarter of all preterm births in the United States are Hispanic.

- Although the preterm birth rate for all ethnicities in the United States is declining, the Hispanic preterm birth rate is improving at a slower pace — meaning the gap between Hispanic and white preterm birth rates is growing.

Nacersano.org, the March of Dimes culturally and linguistically relevant source of maternal and baby health information for Spanish-speaking women and families, was relaunched in 2014, featuring hundreds of health articles, interactive tools, educational videos and other resources. The site reached more than 2.4 million users in 2014 and had more than 4 million page views. In addition, the nacersano blog had 3,300 average page views per day, a 42 percent increase over 2013 and the highest since its implementation in 2007.

Finally, in 2014, the March of Dimes continued to encourage the spread of successful prematurity prevention programs, sharing tools and resources for professionals on the expanded **prematurityprevention.org** site, updated to include new features for the sharing of information between members.

Milestones

- 2013** Passage of the PREEMIE Reauthorization Act updates and renews the federal government's commitment to prematurity research, education and prevention.
- 2012** ✓ ASTHO joins the March of Dimes to ask state health officers to pledge to reduce preterm birth rates by 8 percent by 2014.
 - ✓ U.S. Department of Health and Human Services (HHS) launches a new federal initiative to reduce premature births, partnering with the March of Dimes.
 - ✓ March of Dimes Prematurity Prevention Symposium held in Washington, D.C.
- 2011** March of Dimes launches prematurityprevention.org.
- 2008** Surgeon General's conference on the Prevention of Preterm Birth held in Washington, D.C, as called for in the PREEMIE Act.
- 2007** The Institute of Medicine (IOM) publishes its report *Preterm Birth: Causes, Consequences, and Prevention*, funded in part by the March of Dimes.
- 2005** Through March of Dimes advocacy efforts, the Prematurity Research Expansion and Education for Mothers who deliver Infants Early (PREEMIE) Act became law.

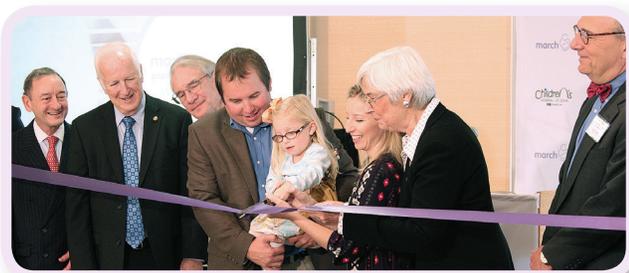
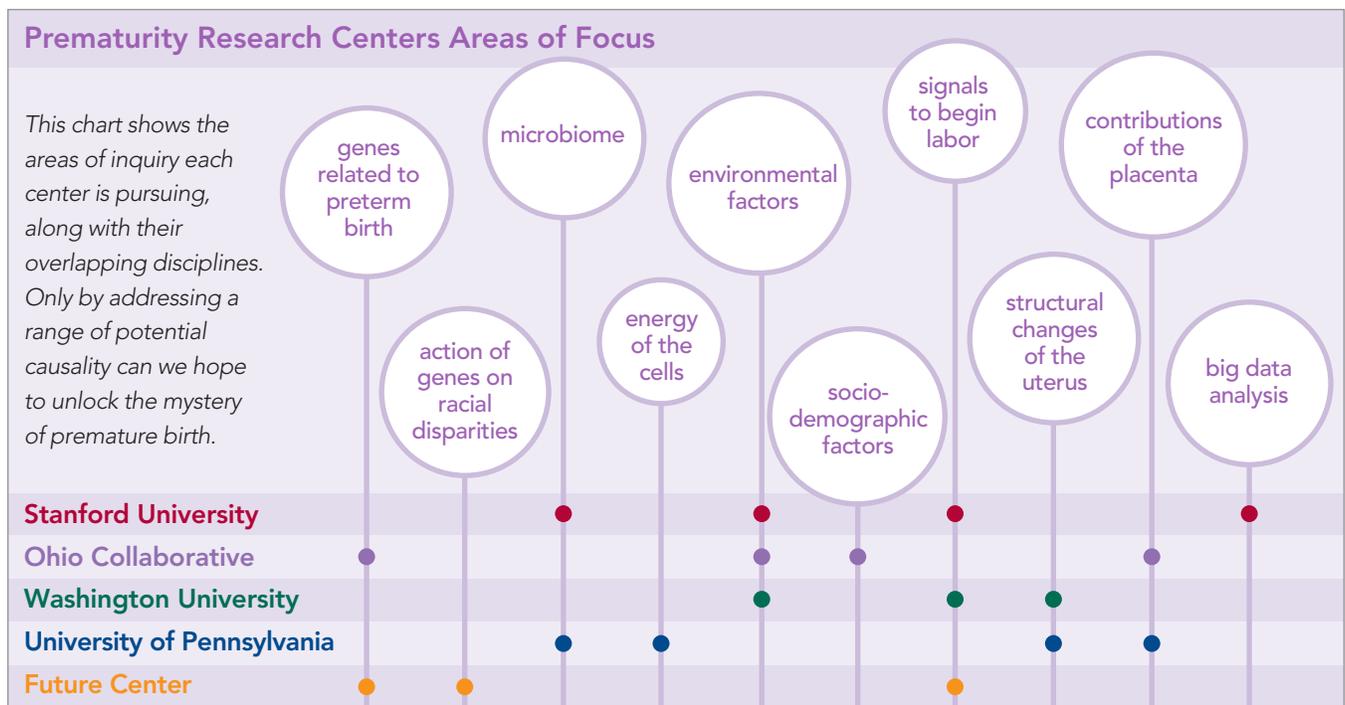
IV. Multimillion-dollar research investment

Prematurity Research Centers

To study the many factors contributing to preterm births, the March of Dimes has established Prematurity Research Centers. These Centers integrate scientists from individual disciplines to form innovative collaborations that can accelerate research discoveries. Four of the five planned Centers have now been created across the country at leading academic institutions. The March of Dimes is raising a total of \$75 million over 10 years for its Prematurity Research Centers. 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.

In 2014, two more centers were launched. On November 10, the March of Dimes Prematurity Research Center at Washington University was established in St. Louis, Mo. On November 17, highlighting World Prematurity Day, the March of Dimes Prematurity Research Center at the University of Pennsylvania was opened in Philadelphia, Pa.



Ribbon cutting of the March of Dimes Prematurity Research Center at Washington University in St. Louis.



Ribbon cutting of the March of Dimes Prematurity Research Center at University of Pennsylvania.



Dr. F. Sessions Cole and Dr. Jennifer L. Howse at the March of Dimes Prematurity Research Center at Washington University in St. Louis.

At Washington University in St. Louis, new technology is being developed to help doctors predict which births may occur early. Their three research themes include:

- **High-speed functional photoacoustic endoscopy for assessment of cervical remodeling:** The cervix remodels itself continuously throughout pregnancy, strengthening to maintain the growing fetus but relaxing to allow delivery. Current methods to gauge cervix progression are rudimentary, largely subjective and able only to detect late events. Engineers have teamed up with obstetricians to develop a new imaging device that can provide a window on the details of cervical remodeling that include blood vessels and supporting structures like collagen. This technology uses light and sound synergistically; measurements can be taken throughout pregnancy.
- **3-D electrophysiology of the uterus:** Contractions of the uterus are one of the early signs of labor, but how they begin remains a mystery. The idea behind this theme is that the tools now routinely used to measure the contractions of the heart can be applied to the contractions of the uterus. Obstetricians enlisted cardiologists and engineers to work toward creating images of uterine contractions with the richness and detail that is now possible in cardiac imaging.
- **The influence of chronodisruption on risk of preterm birth:** Most women go into spontaneous labor between late-night and early-morning hours. This is a result of circadian rhythms, the biological sensing of a roughly 24-hour period based on intervals of light and dark and other cues. In this theme, scientists from the Departments of Genetics, Biology, and Obstetrics and Gynecology are studying whether disrupting maternal circadian rhythms, known as chronodisruption, has an effect on gestational length.

At the University of Pennsylvania, researchers from across the campus are collaborating to study the causes of preterm birth. The research themes are:

- **Bioenergetics, genetics, and epigenetics:** Energy demands are very high during pregnancy because fetal development involves rapid growth and cell specialization to form the body's organs and systems. The mother's body undergoes significant changes as well. Converting food into a form of energy that can be used by the cells is the job of mitochondria, the powerhouses of the cell. Mitochondria are responsible for metabolism and growth — processes fundamental to a healthy pregnancy. This investigative team will determine whether problems with the mitochondria impact preterm birth.
- **Premature cervical remodeling:** The cervix has the pivotal task of remaining closed during pregnancy yet opening during birth, changing from a firm structure to a soft structure. Abnormal changes in the cervix during pregnancy may contribute to preterm birth. Researchers from the Department of Obstetrics and Gynecology and from the Departments of Orthopedic Surgery and Bioengineering are teaming up to measure the biomechanics of the cervix and its responses to the increasing weight of the growing fetus. This research group will determine if the process goes awry in preterm birth.
- **Placental dysfunction:** The placenta is the lifeline of the fetus, supplying nutrients and oxygen and removing waste. Beginning its development when an embryo implants into the uterine lining, the placenta soon achieves complete functionality by the end of the first trimester. Problems with this process can result in multiple pregnancy complications. Researchers will take tissues and cells from placentas of women who deliver at term and preterm to study the metabolic functions of the placental tissue to determine why some women deliver early.

L to R: Michael A. Posenche, MD, Dr. Howse, Dr. Deborah Driscoll and Dr. Samuel Parry at the University of Pennsylvania



Prematurity Research Initiative

Even before establishment of the Prematurity Research Centers, the March of Dimes funded grants to learn the causes of premature birth. Since its inception in 2004, the Prematurity Research Initiative has granted a total of \$27.8 million. Funded research involved studies into the role immune cells play in inducing preterm birth, regulation of uterine muscle contractions, and the role of coding and non-coding regions of the genome associated with preterm birth.

Networking for research

In 2005, the March of Dimes first convened a special symposium with the goal of bringing fresh perspectives to research on preventing prematurity. This successful symposium — co-sponsored by the Burroughs Wellcome Fund and the March of Dimes — has since become a biennial event. This year, the fifth meeting — *Preventing Prematurity: Establishing a Network for Innovation and Discovery* — brought scientists together from many disciplines. The 2014 program covered a wider breadth of topics than ever before, ranging from systems biology to evolutionary perspectives. All are designed to advance our understanding of preterm birth. While participants had healthy intellectual disagreements, all agreed truly significant progress has been achieved since the 2005 meeting. This provides tangible evidence for the traction the field has gained in less than 10 years of March of Dimes support. Scientists from multiple disciplines working together and sharing information — databases, biological samples and new perspectives — will reach the final stage of preventing preterm birth and the serious consequences.

V. Healthy Babies are Worth the Wait®

Healthy Babies are Worth the Wait is a comprehensive initiative of the Foundation's Prematurity Campaign that includes:

- Community programs in five states that integrate clinical and public health and focus on reducing preventable preterm birth
- Education and awareness campaign that aims to reduce early, non-medically indicated labor inductions and cesarean sections
- Hospital Quality Improvement programs that support best practices related to the reduction of early elective deliveries

Healthy Babies are Worth the Wait community program: expansion and impact

Having demonstrated success in Kentucky (2007 to 2009), the March of Dimes, in partnership with Johnson & Johnson, expanded Healthy Babies are Worth the Wait in 2012 to new sites in Kentucky and to New Jersey and Texas, and further in 2014, to Kansas and western New York. 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. With the program operating in 25 sites, the March of Dimes developed a national collaborative, Healthy Babies WWIN (Healthy Babies are Worth the Wait Implementation Network), to promote cross-site sharing of solutions and best practices in implementing the program.

Program results in Kentucky showed a strong influence on consumer knowledge for services and behaviors that could reduce preterm birth and the importance and impact of professional education

in increasing provider messages and information to patients. Throughout 2014, the Kentucky community program brought all birthing hospitals together with its Healthy Babies are Worth the Wait sites to ensure that every hospital in Kentucky was decreasing early elective deliveries. Results from the Houston sites indicated a decrease in elective deliveries at less than 39 weeks, increased prenatal education for patients, improved outreach by participating clinics for early entry into prenatal care, and increased collaboration among managed care organizations to streamline presumptive eligibility procedures. In Newark, New Jersey, the program increased access to prenatal care services through patient navigation, trained health care providers, expanded group prenatal care programs to high-risk and language-specific populations (diabetes, smoking, teens and Creole) and brought about significant systems change that shortened the wait time for prenatal appointments and improved processes around Medicaid enrollment and coverage. The program met intermediary objectives toward decreasing preterm birth among Newark's African-American women.

Milestones

- 2013** Kentucky program results indicate a statistically significant 12 percent decline in preterm birth rate in the intervention sites
- 2012** Expanded to three sites in Houston and two in Newark, N.J.
- 2010-2011** Expanded program from three to eight sites in Kentucky
- 2007-2009** Conducted the Kentucky demonstration project

Quality Improvement and hospital recognition

In 2014, the March of Dimes supported 100 hospitals across 28 states to implement the March of Dimes 39+ Weeks Quality Improvement (QI) Service Package. The Service Package complemented the information in the *Elimination of Non-medically Indicated (Elective) Deliveries Before 39 Weeks Gestational Age* toolkit and included action-oriented guidance, data collection tools and other support services to assist hospitals in implementing a successful perinatal quality improvement initiative to eliminate non-medically indicated deliveries prior to 39 weeks.

The 100 hospital teams had access to a secure March of Dimes data portal, which included webinars focused on implementation guidance, a project blog and data-reporting tools. Hospitals also had access to perinatal and QI experts via a monthly call and an in-person Grand Rounds. Eighty-five percent of the hospitals were recognized for successfully completing all implementation points.

During the year, the March of Dimes also recognized 272 hospitals in 12 states for their own work to reduce early elective deliveries (EEDs). All hospitals have a written policy regarding EEDs, which clearly defines medical indications for deliveries at less than 39 weeks and report EED rates less than 5 percent. One hundred and three hospitals out of the 272 were recognized by the March of Dimes in two states. In Indiana, the March of Dimes partnered with the Indiana Hospital Association, while in Florida the March of Dimes partnered with District XII of the American Congress of Obstetricians and Gynecologists (ACOG), the Florida Perinatal Quality Collaborative, the Florida Hospital Association, and the Florida Department of Health.



North Okaloosa Medical Center (FL) — is recognized for its work in reducing early elective deliveries.

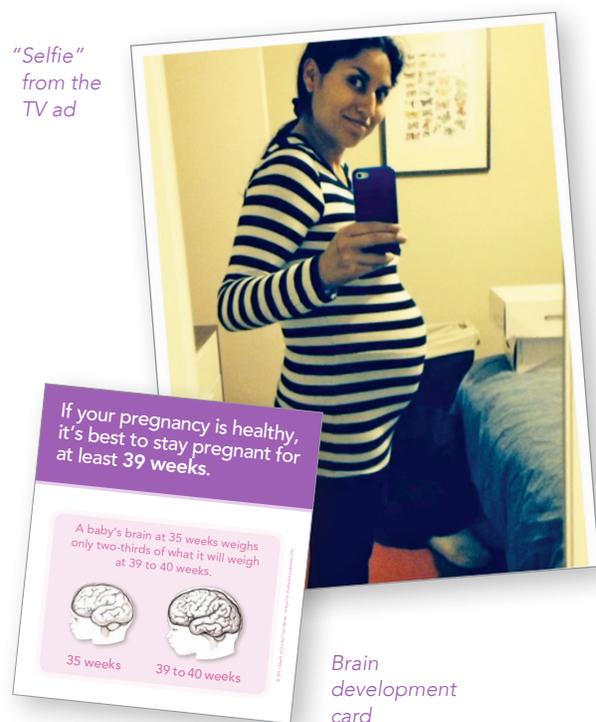
Milestones

- 2013** 100 hospitals received March of Dimes support to implement the 39+ Weeks Quality Improvement Service Package with 85 percent successfully completing the implementation points. In April 2013, *A Multistate Quality Improvement Program to Decrease Elective Deliveries Before 39 Weeks of Gestation* was published online in the journal *Obstetrics & Gynecology* and summarized results of the 2011 implementation of the *Elimination of Non-medically Indicated (Elective) Deliveries Before 39 Weeks Gestational Age* toolkit in California, Florida, Illinois, New York and Texas.
- 2012** Began accepting applications and selecting hospitals to participate in the 39+ Weeks Quality Improvement Service Package
- 2011** Implemented the *Elimination of Non-medically Indicated (Elective) Deliveries Before 39 Weeks Gestational Age* toolkit in 26 hospitals.
- 2010** The March of Dimes California Chapter, the California Maternal Quality Care Collaborative and the California Maternal Child and Adolescent Division within the California Department of Public Health developed the toolkit: *Elimination of Non-medically Indicated (Elective) Deliveries Before 39 Weeks Gestational Age*, to help hospitals and providers translate evidence into action.
- 2008** March of Dimes Premature Birth Report Cards called on hospitals and health care providers to address early elective deliveries, beginning in 2008.
- 2007** The March of Dimes began to call attention to early elective deliveries and their role in the increase in U.S. singleton preterm births, through the publication of epidemiological studies, professional and consumer education, and pilot quality improvement efforts in Kentucky.

Healthy Babies are Worth the Wait education and awareness campaign

The campaign tells women, "If your pregnancy is healthy, it's best to stay pregnant for at least 39 weeks. If you choose to induce labor in a healthy pregnancy, talk to your health care provider about waiting until you're full term at 39 weeks." The campaign also reinforces that "if your pregnancy is healthy, wait for labor to begin on its own."

Campaign components explain the importance of the last weeks of pregnancy, using "selfie" images of women in a new television ad launched this year, and brain comparison images in print materials.



The campaign reached millions of women in 2014, through our extensive educational materials, web content, videos, social media outreach, public service advertising (television, print, online, outdoor and transit) and a mobile phone app called CineMama®, which delivers March of Dimes early elective delivery and other health messages, and enables women to make videos of the progress of their pregnancies. CineMama's reach grew to 115,000 women in 2014, and the March of Dimes received funding from the Institute of Medicine to update CineMama with enhanced nutrition and weight gain information, including a weight tracker.

VI. Chapter leadership

Implementing evidence-based program interventions

Since the start of the Prematurity Campaign, March of Dimes chapters have focused their attention on improving women's access to preconception, prenatal and interconception education and care services.

Preconception education and care services focus on educating women and ensuring they have access to services to reduce health risks that may affect a future pregnancy. Chapters support a variety of these services, such as smoking cessation counseling, programs to address hypertension, diabetes and weight management, and education around male partner involvement in supporting a healthy pregnancy.

Group prenatal care programs have been shown to reduce rates of premature birth by combining prenatal care with group education and social-support services to empower women to choose healthy lifestyle behaviors. In 2014, 28 of the 48 March of Dimes chapters have invested in group prenatal care programs, providing more than \$1 million in grant funding to nearly 70 grantee organizations.

Interconception education involves teaching a woman about the importance of being as healthy as she can be between pregnancies, including appropriate birth spacing. Examples include increasing participation in the postpartum visit, and using the postpartum visit and well-baby visits to identify and address risks to future pregnancies, such as depression, and the use of alcohol, tobacco and other drugs. Other programs focus on teaching women how to manage chronic conditions, such as diabetes and hypertension, and the importance of taking a multivitamin containing folic acid.

March of Dimes chapters continue to focus efforts on addressing disparities in premature birth in their communities, including African-American, Hispanic, Asian Pacific Islander and Native American



CineMama mobile app

CineMama weight tracker

The campaign's advertising alone created more than 780 million impressions in 2014 with a media value of more than \$11 million, through ads placed on monitors in doctors' offices, national and local cable outlets, broadcast television, magazines and newspapers, and outdoor advertising.

Milestones

- 2013** CineMama formally launches
- 2012** HHS pays for placement of March of Dimes ads
- 2011** Expansion to a broad awareness campaign, including advertising; launch of first television ad
- 2006** Qualitative and quantitative research with consumers and providers leads to development of brain comparison and other professional and consumer education materials

communities. 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 of these 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 materials, available in both English and Spanish, are easily adapted to meet the cultural and educational needs of various audiences. The Coming of the Blessing® is a March of Dimes initiative reaching American Indian families and is conducted in partnership with a variety of agencies that serve Native American populations. In 2014, 37 of the 48 March of Dimes chapters have invested in programs to reduce disparities, providing more than \$2 million in grant funding to more than 170 grantee organizations.



Quitting smoking is an important change a pregnant woman can make to improve her health and the health of her baby. Smoking in pregnancy increases a woman's risk of preterm labor, low birthweight and other serious pregnancy complications. In 2014, 12 chapters funded programs focused on smoking cessation through 16 grants totaling nearly \$300,000.

Chapter leadership example: access to progesterone shots (17P)

The March of Dimes Louisiana Chapter partnered with the Louisiana Department of Health and Hospitals (DHH), Louisiana Hospital Association, Louisiana Medical Mutual Insurance Company (LAMMICO) and Alere Health in a multi-faceted initiative to improve access to progesterone shots for pregnant women who qualify. For certain women with a previous preterm birth, progesterone shots increase the chances of having a full-term baby in their next pregnancy by 33 percent. The five primary areas of action in Louisiana included 1) establishing baseline utilization data 2) advocating for policy changes to improve access 3) educating providers 4) working with health plans to improve access and 5) developing a statewide perinatal quality improvement collaborative.

The Department of Health and Hospitals determined that less than 10 percent of women on Medicaid with a previous preterm birth received progesterone shots. Of 64 parishes in Louisiana, 27 did not administer them at all. A statewide survey identified that difficulty ordering the shots posed the greatest barrier to care. In response, the state established the 17P Louisiana Resource Center website to facilitate the ordering process so that every eligible woman in the state had access to the shots. The March of Dimes advocated for a policy change to ensure coverage of 17P through Medicaid, which became effective May 2014.

Dr. Kenneth Brown, a March of Dimes chapter volunteer, worked with LAMMICO and DHH to develop a 17P web-based Continuing Medical Education (CME) monograph. This monograph has been converted to a free video for which providers can receive CME credits. The March of Dimes Louisiana Chapter advocated for quality assurance measures regarding 17P utilization to be included in the Request for Proposals for Medicaid managed care organizations in 2014. The chapter is working with DHH and several other partners to build on the success of the initiative to eliminate early elective deliveries by creating a statewide perinatal quality collaborative. The chapter will play a leading role in the initiative.

VII. 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 our mission of healthy pregnancies and healthy babies. The March of Dimes has earned the respect of policymakers for our science- and evidence-based approaches to maternal and child health and our long history of working on a bipartisan basis.

On the national level, the March of Dimes continued to champion maternal and child health priorities with the successful passage of the Newborn Screening Saves Lives Reauthorization, a law to renew critical federal programs that support state-based newborn screening efforts. Every newborn in the United States, including every preemie, is screened for at least 29 conditions that could seriously threaten their health or lives in the first weeks or months of life. The March of Dimes was proud to lead a coalition of dozens of organizations in promoting passage of this legislation, which was signed into law by President Obama in December 2014.

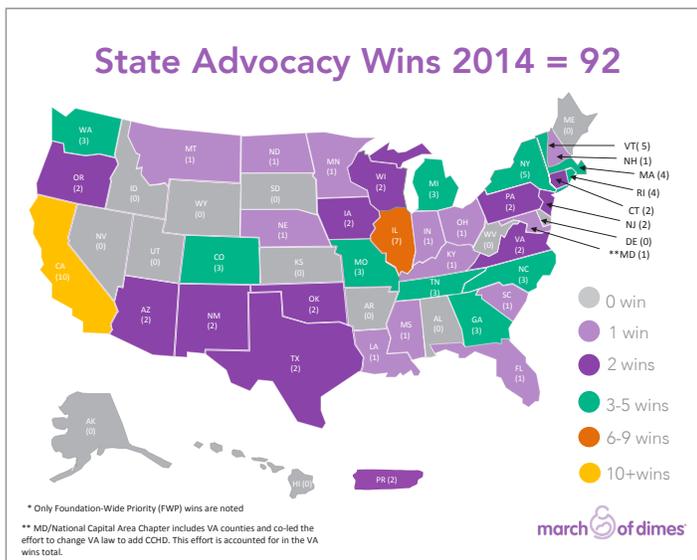
Meanwhile, March of Dimes chapters across the nation accumulated an impressive 92 legislative or regulatory victories in 2014. Chapters pursued a broad range of initiatives to prevent preterm birth, ranging from access to health care to tobacco cessation to substance abuse prevention. Many of these efforts involved using advocacy to supplement the ASTHO challenge of reducing every state's preterm birth rate by 8 percent by 2014. March of Dimes advocacy victories under the Prematurity Campaign included:

- Laws and regulations to preserve and expand health coverage programs such as Medicaid, the Children's Health Insurance Program (CHIP), Title V, Maternal, Infant and Early Childhood Home Visitation, and coverage of pregnant women under CHIP
- 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

Chapter advocacy successes in 2014

Access to health coverage — more than two dozen advocacy wins including:

- The California Chapter led a 30-member coalition to restore \$4 million in state general funds for the Black Infant Health Program. This Chapter also successfully advocated for all pregnant women to receive full Medicaid benefits, rather than a restricted set of benefits only related to pregnancy.
- The New York Chapter successfully advocated for the elimination of the 6-month waiting period for previously insured children to enroll in the New York Child Health Plus program.
- The Washington Chapter worked collaboratively on the adoption of rules ensuring network adequacy for pregnant women and women of childbearing age in Washington marketplace.



Chapter advocacy successes in 2014

Tobacco-related or substance abuse issues — at least 15 advocacy wins including:

- Chapters in Colorado, Illinois, North Dakota and Rhode Island successfully advocated for language that would include e-cigarettes in restrictions on tobacco products, such as restrictions on sales to minors.
- The Vermont Chapter successfully advocated for the passage of legislation expanding the state's smoke-free air laws to include all state lands, partially enclosed structures and lodging establishments.
- The Florida, Indiana and Massachusetts Chapters engaged in successful efforts to address neonatal abstinence syndrome (NAS), which is caused when a newborn has been exposed to drugs such as opioids in utero and then experiences withdrawal.
- The North Carolina Chapter preserved funding for You Quit 2 Quit (YQ2Q), an evidence-based program that focuses on tobacco-use cessation for pregnant women.

VIII. Premature Birth Report Cards

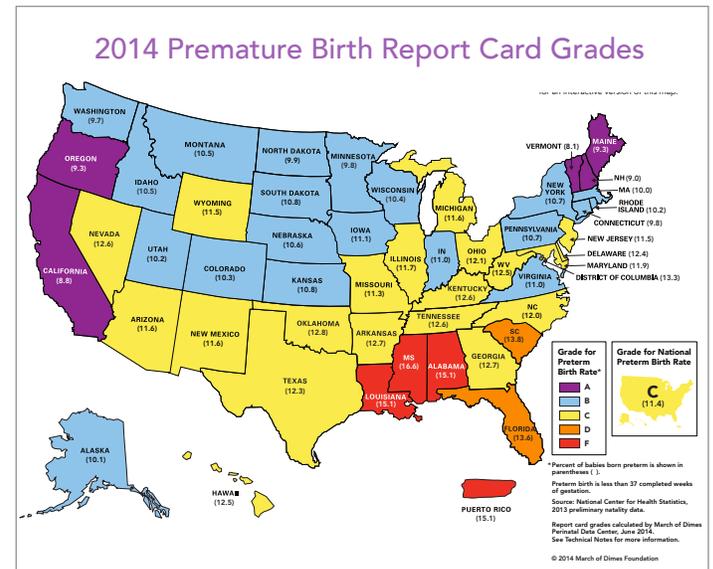
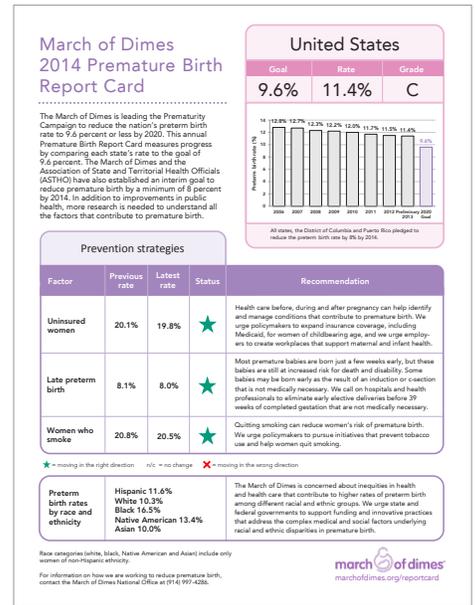
The March of Dimes released the seventh annual Premature Birth Report Cards on November 6, 2014. The Report Cards assign letter grades to states and the nation based on their preterm birth rate compared to the nation's goal of 9.6 percent. States and the nation also receive "stars" for progress on three key prevention strategies, and the report cards highlight preterm birth rates by race and ethnicity as well. The Report Cards have drawn attention from other organizations and countries as a model tool for monitoring and accountability.

Five states — Iowa, Virginia, Arkansas, Nevada and Oklahoma — earned better grades in 2014, and five states — California, Maine, New Hampshire, Oregon and Vermont — earned an "A," as their preterm birth rates met the March of Dimes 9.6 percent goal. There were 20 "B" grades, 20 "C" grades, 3 "D" and 4 "F."

The U.S. received a "C," based on an overall rate of 11.4 percent.

In releasing the Report Cards, the March of Dimes emphasized the many achievements occurring in states and chapters, as well as the work that remains to

be done to meet the March of Dimes 2020 goal. Attention by stakeholders and media outlets was impressive. Elected officials and state health officers joined March of Dimes chapters in many states to conduct events or comment on Report Card grades.



Major media outlets nationally and in every state covered the story and did so with depth, including attention to the March of Dimes new goal of a reduction of the preterm birth rate to 5.5 percent by 2030, March of Dimes-funded transdisciplinary research, and the importance of addressing health equity. For example, Dr. Edward McCabe, Senior Vice President and Chief Medical Officer at the March of Dimes, was quoted in the *Huffington Post*: "We need to be sensitive to the inequities. We need to make sure we're working to improve outcomes for everyone in the United States."

Many local stories emphasized a particular state's higher or lower rates of uninsured women compared to the nation, as increased access to insurance is one of the prevention strategies in the Report Cards. Other stories addressed the need for progress in particular areas, such as access to progesterone for women with a previous preterm birth.



IX. NICU Initiatives: resources for families and staff

The March of Dimes offered services to more than 93,000 families through its NICU Family Support® program. The program provided information and comfort to families with a baby in neonatal intensive care and was implemented in 133 hospitals nationwide. Through NICU Initiatives, the March of Dimes also provided educational content on a variety of family-centered care topics to more than 6,000 health care providers and engaged 29,000 users through Share Your Story®, its online community for NICU families.

The March of Dimes rolled out the NICU Family Support Core Curriculum in July, which standardizes parent education to ensure all families receive the same important messages. The Core Curriculum also includes an evaluation to determine best practices in NICU parent education and parental change in knowledge and parenting confidence. Education topics include reducing the risk of a subsequent preterm birth, kangaroo care and preparing to take baby home. The March of Dimes promotion of

kangaroo care was enhanced by the publication of "Close to me: enhancing kangaroo care practice for NICU staff and parents" in *Advances in Neonatal Care* in December 2014.⁵

In addition, the March of Dimes launched a new product — Family-Centered Care Workshops. The workshops are available for purchase by hospitals and over the course of the year, 34 workshops were conducted in 17 hospitals, representing more than 1,000 aggregate contact hours for NICU nurses.

Milestones

- 2013** Launched the new interactive Share Your Story platform. Share Your Story is the March of Dimes online community for NICU families.
- 2012** Partnered with 128 hospitals to provide NICU Family Support services to NICU staff and families, including five Bright Spaces® for NICU Siblings in partnership with Bright Horizons Foundation for Children®
- 2011** Created the March of Dimes NICU Family Support Network: comprised of 114 hospital partners that have access to evidence-based webinars, articles and discussion boards where innovations and best practices in family-centered neonatal care are shared
- 2009** Launched two NICU Family Support fee-for-service programs: more than 40 hospitals purchased and implemented Hospital-Managed or Print and Web-based programs.
- 2007** Implemented NICU Family Support in every state, the District of Columbia and Puerto Rico. Conducted national evaluation of NICU Family Support, which showed NICU Family Support had a positive impact on the stress level, comfort level and parenting confidence of NICU families. The program also enhanced the presence of and the receptivity of staff to family-centered characteristics in partnering NICUs.
- 2004** Launched Share Your Story, the March of Dimes online community where NICU families can find comfort, support and information from others who understand the challenges and uncertainties of a NICU experience. Began national implementation of NICU Family Support.
- 2001** Piloted NICU Family Support in three hospitals

5. Cooper, L., Morrill, A., Russell, R.B., Gooding, J.S., Miller, L. & Berns, S.B. (2014). Close to me: enhancing kangaroo care practice for NICU staff and parents. *Advances in Neonatal Care*, 14(6), 410-23.

X. Rallying families and raising awareness

World Prematurity Day on November 17, the highlight of Prematurity Awareness Month® in November, has grown exponentially since the first World Prematurity Day in 2011. Millions of people and more than 200 countries, non-government organizations, U.N. agencies, medical and health organizations and parent groups participated in the fourth World Prematurity Day. This year brought significant growth in country-level and national government involvement, particularly in Asia and Africa, the highest burden areas. Partners intensified joint efforts to advocate for investment and policy approaches to reduce preterm birth and improve newborn health, unified in their concern about new findings that prematurity became the leading killer of children under 5 worldwide. And international media impressions grew to 1.9 billion in 2014, a 12 percent increase over the prior year.



Photographer Anne Geddes in the NICU at Maria Fareri Children's Hospital, Westchester Medical Center, N.Y.

World Prematurity Day received a significant boost from the efforts of world-famous photographer Anne Geddes and international superstars Thalia and Hilary Duff. Anne Geddes created a signature image of a baby born too soon for the March of Dimes. Television, print, outdoor and online advertising featuring this image was used in the United States and worldwide, creating 1 billion impressions. Thalia reached millions through social media and a World Prematurity Day public service message in English and Spanish. Hilary Duff released a public service announcement featuring her new music in support of the Foundation's global awareness campaign.

Parent groups lit major buildings and landmarks purple in honor of World Prematurity Day, and hosted a Twitter relay that involved nearly 34 million people. Twitter impressions soared 21 percent year over year, to 163 million. World Prematurity Day reached another 8.3 million people via its Facebook page, created by the March of Dimes in 2011, and the Facebook collection of personal family stories about prematurity grew to 4,700.



New York City, used with permission from ESRT, LLC



Turkey, photo from El Bebek Gül Bebek



Mexico, photo from Con Amor Vencerás



Niagara Falls, photo by K.C. Kratt

Many national governments participated in World Prematurity Day. Bhutan, Ethiopia, Kenya and Tanzania conducted their first official national events attended by government officials. In Malawi and Uganda, the Ministers of Health visited the highest burden districts, and in El Salvador, legislation was passed for "National Week of Prevention and Prematurity."

Other country-based activities are listed in the box below. In all, World Prematurity Day events, advocacy activities, educational outreach, building lightings and other activities were held in 100 countries, up from 24 in 2011 when World Prematurity Day began.

Selected World Prematurity Day Country Activities

Australia: Parliament Day on November 17; across the country at 7 p.m., candles lit to honor babies born too soon

Bangladesh: engagement of media; rally at multiple medical colleges

Canada: every province participated; candlelight vigil held at various hospitals; eight landmark lightings; release of *Premature Birth in Canada*, a report that identifies gaps in health care for premature children and provides recommendations

Ghana: launch of a jaundice treatment program for preterm infants and World Prematurity Day annual awareness walk

India: book release, *Voice of the Voiceless*, about parents' journey with their premature baby

Mexico: Prematurity Symposium and press conference with 300 health professionals and parents; World Prematurity Day health education kits distributed to 10 hospitals throughout Mexico; World Prematurity Day featured on Mexico's lottery ticket

Nepal: infographics on prematurity posted in hospitals, press meeting, op-ed

Nigeria: World Prematurity Day preconception and hygiene kits distributed

Thailand: launch event for *Thailand Action Report on Prematurity*

United Kingdom: World Prematurity Day kits delivered to hospitals in Ireland, England, Scotland and Wales; London Little Lights Walk near the Tower of London Bridge

2015 Priorities

- Launch fifth Prematurity Research Center
- Conduct National Prematurity Prevention Conference
- Expand World Prematurity Day and release eighth annual Premature Birth Report Cards
- Complete survey of best practices in high resource countries with FIGO; promote evidence-based interventions
- Conduct Healthy Babies are Worth the Wait community programs in 32 sites in eight states
- Sustain and enhance NICU Family Support services in 132 hospitals
- Advance maternal and child health priorities at the state and federal levels, and achieve 85 chapter advocacy "wins"



Madelyn, born in Arkansas at 36 weeks, weighing 6 lbs., 13 oz.

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
Black Women's Health Imperative
CityMatCH
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

* Founding partner

National WIC Association
Office of Minority Health (HHS)
Partnership for Prevention
Preeclampsia Foundation
RESOLVE: The National Infertility Association
Sidelines National Support Network
Smoke-Free Families
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
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

Anthem Foundation
Cigna
First Response
Johnson & Johnson

NICU Initiatives Supporters

PerkinElmer
Chiesi USA