

GAPPS strives to reduce the burden of preterm birth and stillbirth by advancing collaborative research to identify, develop and implement evidence-based solutions.

OVER THE NEXT FIVE YEARS, WE ASPIRE TO

- Advance preterm birth research
- Advance stillbirth as a global health issue
- Accelerate evidence into action



GAPPS Accomplishments 2007 - 2014

International Conference on Prematurity and Stillbirth

In 2009, GAPPS, with the Bill & Melinda Gates Foundation, the March of Dimes, PATH, Save the Children, UNICEF and the World Health Organization, convened the first International Conference on Prematurity and Stillbirth. More than 200 stakeholders attended the conference at which a Global Action Agenda was developed. Many of the recommendations in the Agenda have been implemented by GAPPS and others.

Preventing Preterm Birth (PPB) initiative

In 2011, the Bill & Melinda Gates Foundation selected GAPPS to steward a \$20 million grant to discover and develop novel interventions to prevent preterm birth. The PPB initiative has awarded nine research grants that collectively form a global consortium bridging innovative basic science investigators with study sites in low-income countries.

GAPPS Repository

Pregnancy research can be accelerated through broad access to well-characterized data and specimens from prospective cohorts of pregnant women and newborns. The GAPPS Repository is a biobank that was created to improve access to maternal and newborn specimens and data. Its extensive database is linked to specimens from mothers and infants to support research on causes of preterm birth, stillbirth and other adverse pregnancy outcomes. Our Repository expertise has been used in a global effort to improve the quality of, and researcher access to, well-defined pregnant and newborn populations and to improve other collections.

Advanced global research on preterm birth and stillbirth

In 2010, GAPPS published a seven-part Global Report on Preterm Birth and Stillbirth: The Foundation for Innovative Solutions and Improved Outcomes in BMC Pregnancy



and Childbirth. This report includes a landscape analysis supported by the Bill & Melinda Gates Foundation and the results of the 2009 International Conference on Prematurity and Stillbirth. Other GAPPS research projects and publications include a Landscape Analysis of Clinical Study Sites in India, a Landscape Analysis of Maternal and Perinatal Infections with PATH and a study of Neonatal Infections for the University of Edinburgh that identified early diagnostic biomarkers for neonatal infections. GAPPS is working with the University of Washington to develop appropriate animal models that mimic human pregnancy to determine how infections affect preterm labor. Several basic/translation papers on preterm birth and neonatal outcomes have been published as well as a landscape review of systems biology in pregnancy. GAPPS has defined and published classification systems for preterm births and stillbirths, collected data on intrapartum stillbirths in high-impact countries, completed the Intergrowth-21st study to classify fetal growth and completed papers on ultrasound.

Global Coalition to Advance Preterm birth Research (GCAPR)

GAPPS, in partnership with the Bill & Melinda Gates Foundation, the Eunice Kennedy Shriver National Institute of Child Health and Human Development and the March of Dimes Foundation, founded a new coalition of organizations that fund research into preterm birth and pregnancy health. GCAPR's goals are to build visibility, investment, collaboration and accelerate resources devoted to preterm birth research. GAPPS coordinated the development of a roadmap of preterm birth research that was adopted by the Coalition and published in *The Lancet Global Health* in December 2013. GAPPS was selected to serve as the GCAPR Secretariat.

Every Premie—SCALE (Scaling, Catalyzing, Advocating, Learning, Evidence-Driven)

In 2014, GAPPS, in partnership with Project Concern International and the American College of Nurse Midwives, received a five-year \$9 million United States Agency for International Development (USAID) Cooperative Agreement designed to provide practical, catalytic and scalable approaches for expanding uptake of preterm birth and low birth weight interventions in 24 USAID priority countries in Africa and Asia.

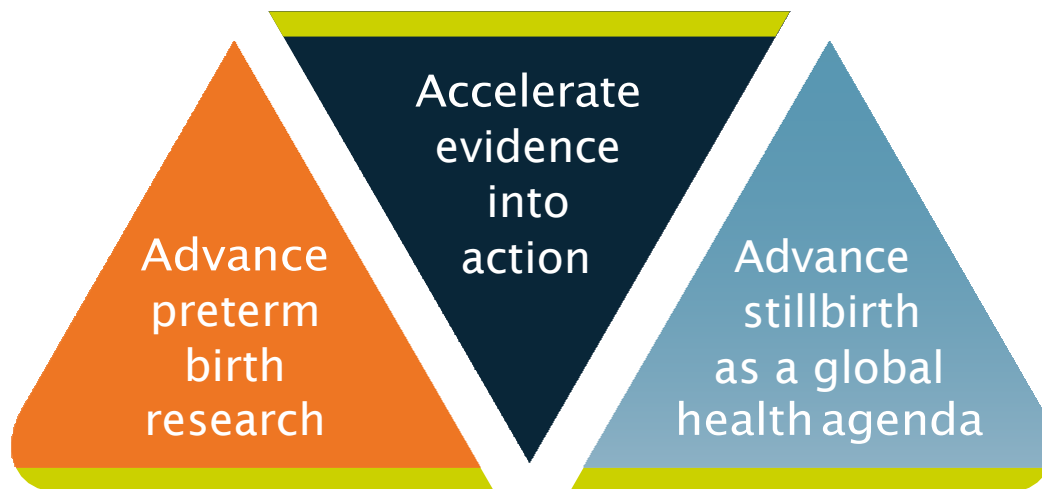


Strategic Overview 2015 to 2020

The new strategic plan is informed by our core values:

- We believe that understanding pregnancy and ending preterm birth and stillbirth are complex issues that require research from a variety of disciplines and support from a variety of sources.
- We believe that collaboration is the key to success.
- We believe that scientific rigor will bring knowledge that can be translated into evidence-based interventions to reduce preterm birth and stillbirth.
- We believe in equity—improving pregnancy outcomes and newborn health is important for everyone and for all communities.

GAPPS will focus on three key objectives in the 2015-2020 period.



Advance preterm birth research

Develop and implement the Preventing Preterm Birth (PPB) initiative

- Implement and manage a comprehensive prevention research agenda through a consortium of projects that investigate mechanisms leading to preterm birth and novel strategies for prevention linked to rigorous prospective studies of pregnant women in low-income countries.
- Implement a collaborative research initiative using a high-throughput systems biology approach to understand the biological mechanisms leading to preterm birth and other adverse pregnancy outcomes.
- Harmonize current and new global repositories and field sites to improve researcher access and accelerate discovery.

Refine a global action agenda for preterm birth research

Update the Global Action Plan and prioritize prematurity research needs in collaboration with other maternal and newborn health researchers.

Understand and address racial, ethnic and economic disparities in U.S. preterm birth rates

Initiate a research agenda to understand and address racial, ethnic and economic disparities in preterm birth rates in the United States.

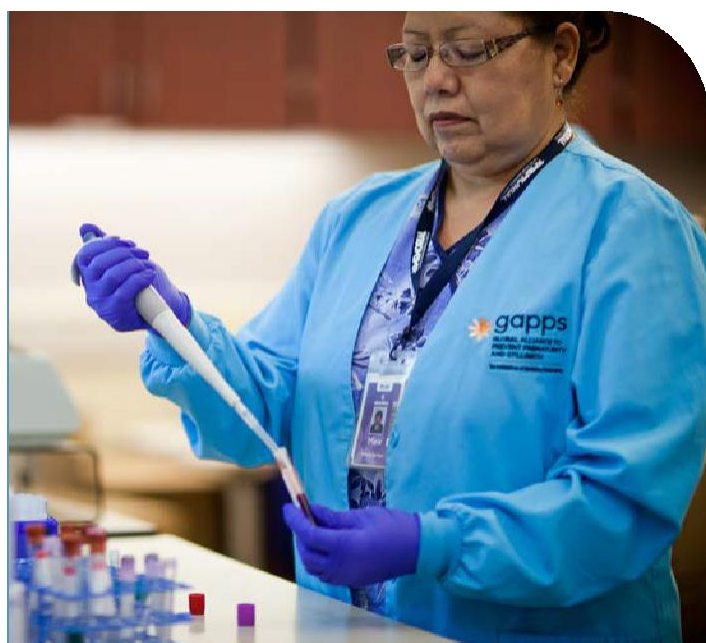
Increase investments in prematurity research

Serve as the Secretariat of the Global Coalition to Advance Preterm Birth Research—a funders' partnership, coordinating leadership and guiding policies and priority-setting processes.

Preterm birth is the leading cause of newborn deaths worldwide. Annually, an estimated 15 million babies are born too early, and more than one million do not survive beyond their first month of life. Babies born before 37 completed weeks of pregnancy have increased risks for serious infections, cerebral palsy, and respiratory, vision, hearing and developmental problems.

In 2012, the Washington State preterm birth rate was 9.7% with wide disparities. The preterm rate was 15.0% for American Indians/Alaska Natives, 13.2% for blacks, 11.4% for Hispanics, 10.4% for Asians and 9.0% for whites.

The causes of prematurity are often not known. Even in high-income countries, in two-thirds of premature deliveries the cause is unknown.



Advance stillbirth as a global health issue

Develop a global stillbirth action agenda

- Identify and prioritize additional stillbirth discovery science and implementation research needs.
- Develop a unified global stillbirth action agenda with other stakeholders.

Secure increased resources for stillbirth prevention strategies

Collaborate with stakeholders to secure additional resources for stillbirth prevention.

Educate providers regarding sensitive approaches to caring for families affected by stillbirth

Expand implementation of the GAPPS healthcare provider stillbirth curriculum at medical schools to improve sensitivity of healthcare providers caring for families affected by stillbirth.



A staggering 2.6 million stillbirths occur each year, often just minutes or hours before birth. In low-income settings, many common factors place both mother and infant at risk of death around the time of delivery.

Preventing stillbirth has not received sufficient global focus. GAPPS participated in a 2011 Lancet series on stillbirth, which began the effort to elevate awareness of stillbirth as a global health issue. We must build on this foundation.

Improving maternal health and care will prevent many stillbirths. In low-resource settings, lack of access to emergency obstetric care, untreated syphilis and other maternal health issues can result in stillbirth and ongoing maternal health issues, including obstetric fistulas and maternal death.

Stillborn Still Loved, a Seattle Children's Guild, is one of a growing number of stillbirth grassroots advocacy groups. The Guild has identified improving care for parents, families and providers affected by stillbirth as a high priority. GAPPS has developed a stillbirth curriculum that has been tested at the University of Washington.

Accelerate evidence into action

Improve efficiencies and reduce costs in maternal and newborn health research

- Increase awareness and demand for data and specimens from the GAPPS Repository.
- Expand consultative capacity by leveraging Repository technologies and systems to build local and global research infrastructure.
- Develop a program that identifies new discoveries and promotes their translation into new prevention and treatment approaches for preterm birth and stillbirth.

Develop and implement Every Premie – SCALE (Scaling, Catalyzing, Advocating, Learning, Evidence-Driven) program

- Lead a global dissemination of evidence-based interventions for the prevention of preterm labor and care for preterm infants in 24 priority countries in Africa and Asia.
- Identify and prioritize critical implementation issues in low-income countries, while advancing and providing support for implementation research.
- Translate existing discoveries into new approaches and products that deliver solutions to the disproportionately high mortality rate of preterm babies in low-income countries.
- Convene an implementation research global working group that addresses challenges and barriers to effective coverage of proven interventions.

Improve care of infants born preterm

Collaborate with the Seattle Children's Research Institute Center for Developmental Therapeutics in the development and distribution of low-cost respiratory care products to improve care of newborns, especially in low-resource settings.

The GAPPs Repository provides data and specimens to researchers working to identify women and babies at risk for preterm birth and stillbirth, create screening tools and translate scientific discoveries into promising diagnostic, treatment and prevention strategies.

GAPPS Moms. Through 2014, more than 1,000 women contributed to the GAPPs Repository. The support and commitment of these Moms is vital to advancing preterm birth and stillbirth research.

There is a dramatic survival gap for premature babies depending on where they are born. Over 90 percent of extremely preterm babies (<28 weeks) born in low-income countries die within the first few days of life. Less than 10 percent of babies of this gestation die in high-income settings.

Solutions exist to address many of the main causes of death for premature babies. But these solutions do not reach the poorest and most disadvantaged where the burden is highest. A 50 percent reduction in mortality rates could be obtained with improved basic prevention and care of preterm and low birth weight babies in low- and middle-income countries.

The GAPPS Promise

This strategic plan will continue to evolve over time in response to research results, funders' engagement and a growing body of evidence of what improves maternal and newborn health.

Collaboration drives our work. We bring people from different fields together to generate innovative approaches to understanding pregnancy, preterm birth and stillbirth. We advocate for evidence-driven treatment, but know that ultimately, prevention is key. Only by preventing preterm birth and stillbirth can we make significant progress toward having every birth be a healthy birth. This requires research, investment and global collaboration.

