



**Global Network**  
*for Women's & Children's Health Research*

# The Global Network for Women's and Children's Health Research

*Improving the health of mothers  
and children through research  
partnerships*

## STRENGTHENING HEALTH KNOWLEDGE AND CAPACITY

Since 2001, through the support of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), in collaboration with the Bill & Melinda Gates Foundation (BMGF) - the Global Network for Women's and Children's Health Research (Global Network) has worked to improve the health and survival of pregnant women, fetuses, and infants in low and middle income countries through research partnerships. Scientists from low and middle income countries partner with their peers from the United States to conduct research that addresses major causes of maternal and newborn mortality and morbidities. These teams have created in-country research infrastructure with the capacity to quickly launch clinical trials and studies. This diverse and nimble research network is built to answer critical maternal and newborn health questions.



## OUR SITES ARE

- **Led** by highly experienced, multidisciplinary teams of experts from U.S. universities and their peers in countries of study;
- **Funded** by the NICHD through grants, while the BMGF and other organizations have supported specific trials;
- **Supported** by RTI International, which acts as the Global Network's Data Coordinating Center and provides overall technical assistance and scientific leadership; and,
- **Guided** by a Steering Committee, which includes representatives from each site and from NICHD and RTI, with input from an External Advisory group.

## OUR RESEARCH



**Focus on high-need areas**, such as obstetric emergencies, the enhancement of birthing practices, and survival for preterm babies.



**Build health research capacity and infrastructure** in low and middle income countries



**Test cost-effective and sustainable interventions**



**Have real-world impact**, providing guidance for national policy and the practice of evidence-based medicine



## FINDINGS & IMPACT

Knowledge gained from the Global Network's research has provided insight to prevent maternal and neonatal deaths in low and middle income countries. Our findings influence health policies and programs, as well as the global research agenda. Below are examples from our research:



### FINDING

ASPIRIN (2016-2019): A 6-country trial found that first-time mothers who take a daily low dose of aspirin during pregnancy may be at lower risk for preterm birth. Hoffman MK, et al. *Lancet*. 2020 Jan 25;395(10220):285-293.



### IMPACT

This study provides evidence to support the widescale use of aspirin among women in low and middle income countries during early pregnancy — a low cost intervention that could save many lives given preterm birth is the most common cause of infant death.



### FINDING

Women First (2014-2019): A 4-country trial found that maternal nutrition supplementation before conception or in the first trimester may improve fetal growth. Hambidge KM, et al. *Am J Clin Nutr*. 2019 Feb 1;109(2):457-469.



### IMPACT

These results strongly support strategies that improve nutrition among women beginning before conception or very early in pregnancy.



### FINDING

First Look (2014-2016): A 5-country trial found that the routine use of ultrasound during antenatal care did not increase women's use of care nor did it improve adverse outcomes for mothers, fetuses, or newborns. Goldenberg RL et al. *BJOG*. 2018 Nov; 125(12): 1591-1599.



### IMPACT

These results confirm that simply introducing ultrasound is not enough to improve the health of mothers and babies without overall improvement in the quality of care provided.



### FINDING

ACT (2011-2014): A 6-country trial found that the use of antenatal corticosteroids in preterm infants did not decrease, but slightly increased, neonatal death rates. Althabe F, et al. *Lancet*. 2015;385(9968):629-39.



### IMPACT

Since results were published in *The Lancet*, they have generated extensive interest regarding practice and guidelines for using ACS in low-resource community settings.



### FINDING

First Breath (2005-2007): A 7-country study found that community-based training in neonatal resuscitation significantly reduced perinatal death. Carlo WA, et al. *N Engl J Med*. 2010 Feb 18; 362(7):614-23.



### IMPACT

Based on learnings, the American Academy of Pediatrics, USAID, and other partners developed the 'Helping Babies Breathe' initiative to teach neonatal resuscitation and essential newborn care in resource-limited areas.

## ESTABLISHING A RESEARCH PLATFORM

In 2008, The Global Network established a Maternal Newborn Health Registry (MNHR) across all research sites to support the accurate reporting of pregnancy outcomes and to enable the analysis of trends. All sites enroll pregnant women and collect data through 6 weeks post-delivery.

To date, more than one million pregnant women have been enrolled in the registry. Findings from the registry inform future Global Network studies and data help inform progress on the U.N. Sustainable Development Goals for maternal and newborn health. The MNHR continues to be the only database of pregnancy and pregnancy-related outcomes of its magnitude in low-resource settings.

As the MNHR study infrastructure is well-established yet flexible it is able to quickly address pressing issues. For example, in response to the current COVID-19 pandemic, the MNHR has added data collection to evaluate both the direct and indirect impacts of COVID-19 on maternal, fetal and newborn health.



## PROJECT SPOTLIGHT:

### Azithromycin-Prevention in Labor Use Study (A-PLUS)

The A-PLUS Trial will assess the effect of a single oral 2 g dose of azithromycin given to women in labor on the prevention of maternal and neonatal deaths and infection. The trial will enroll 34,000 pregnant women at eight research sites in Latin America, South Asia, and sub-Saharan Africa. The trial includes two primary hypotheses: (1) a single, oral dose of 2 g azithromycin given to women in labor will reduce maternal death or sepsis; (2) a single, oral dose of 2 g azithromycin given to women in labor will reduce intrapartum/neonatal death or sepsis.

### GLOBAL NETWORK 'BY THE NUMBERS'\*

Since 2001:

\*all data as of January 2022

 Nearly **1 million pregnant women** have been registered in the **maternal and newborn health registry**.

 More than **50** multi- and single-site **studies completed**

 More than **300 scientific publications generated**, including *The Lancet* and *New England Journal of Medicine*



For more information about the Global Network, please visit <http://gn.rti.org/> or e-mail [gn-info@rtiresearch.org](mailto:gn-info@rtiresearch.org)



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*" The Global Network's ongoing Registry, with its now more than a decade of historic data, allows us to better understand the impact of new global outbreaks, such as the COVID-19 pandemic, on antenatal and obstetric care as well as maternal and newborn morbidity and mortality. Ultimately, the Global Network's research provides insights into risk factors and for developing strategies to improve pregnancy outcomes in LMIC."*

*~ Elizabeth McClure, PhD  
Global Network Data Coordinating  
Center, Principal Investigator  
RTI International*



RESEARCH PARTNERS



## RESEARCH PARTNERS

- 1 Democratic Republic of Congo:** Antoinette Tshefu, Kinshasa School of Public Health; Carl Bose, University of North Carolina at Chapel Hill
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